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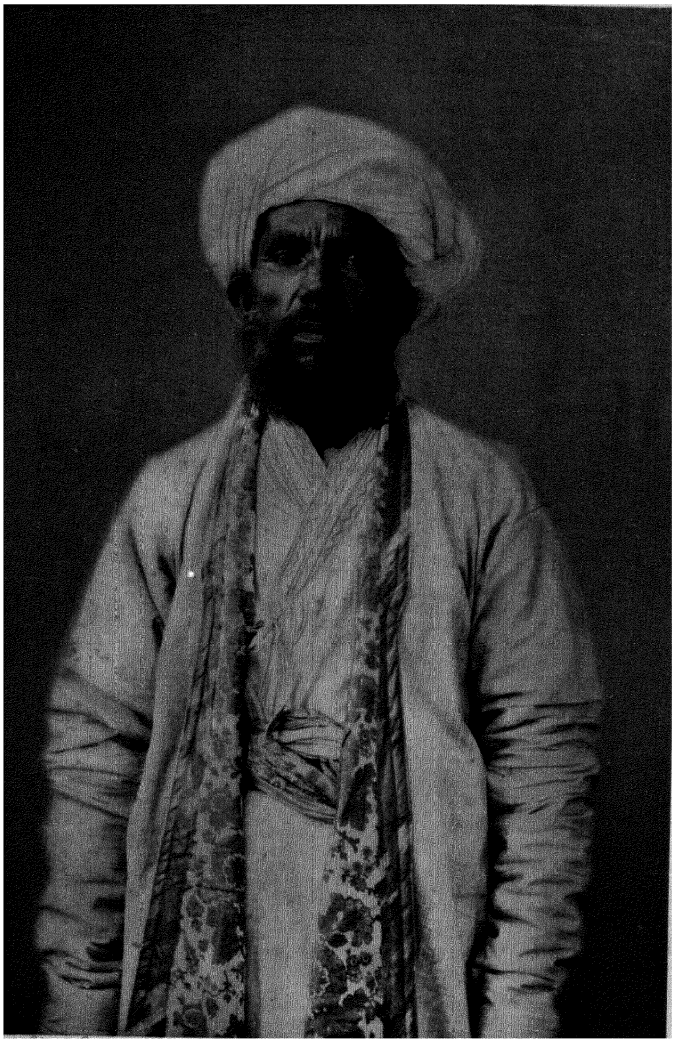

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THROUGH ASIA

BY

SVEN HEDIN

WITH NEARLY THREE HUNDRED ILLUSTRATIONS FROM SKETCHES AND PHOTOGRAPHS BY THE AUTHOR

VOL. II.

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A SUMMER TRIP TO THE SOUTHERN PAMIRS

1898

DR. SVEN HEDIN

CHAPTER LIII.

OVER THE ULLUG-ART PASS

ON July 10th, 1895, I left Kashgar with Islam Bai, two servants, and six horses, and did a short stage to the village of Tokkuz-ak (the Nine Whites). My other man, Kasim, remained behind in Kashgar as watchman of the courtyard of the consulate. One of the six horses, a little piebald stallion, was one of those I bought at the forest-hut, beside the Khotan-daria. It was a splendid animal, always full of go, and yet as tame as a lamb. For my own use I bought a big, but excellent, riding-horse, and rode him over the mountains and through the deserts of Central Asia for more than a year. Horses are cheap in Kashgar. The five I bought there cost altogether only 124 roubles, or between £12 and £13.

The next day, July 11th, we continued our journey towards the south-west, to the town of Upal (2000 houses), which is also a fortress manned by two hundred men, and the place of residence of two mandarins of inferior rank. It poured and pelted with rain the whole day long, so that the ground, which was a reddish yellow loess, was greasy and slippery. Thoroughly wet to the skin, we took up our quarters in a house near the bazaar, and made a big fire at which to dry our wet clothes. The gardens, and rice and other fields, were irrigated by water drawn from a little stream, which flowed through the town after racing down the valley of Ullug-art on the west, and which was partly maintained from fresh springs. The current has scooped out for itself a deep and tolerably broad trench through the loess deposits. But in the

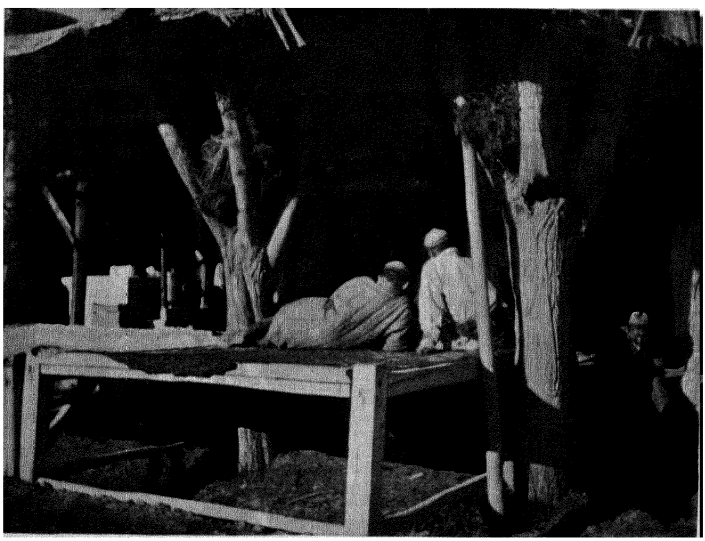
town its banks were not so precipitous; they rose gradually by a series of terraces, leaving room close down by the water's edge for the houses, which were built of sun-dried clay and covered in with flat wooden roofs. The opposite banks were connected by a wooden bridge.

A short time after we arrived at Upal, I witnessed an occurrence which I had never witnessed before, but which takes place every year in these regions. After a heavy, continuous rain the water which drains off the adjacent mountain-sides gathers into a *sil* (sudden flood or inundation), which in a few hours completely fills the river-bed, and may work very great destruction. In these sudden floods we see the agent which in the course of time has eroded the clay terraces so deeply.

About seven o'clock we heard a distant booming. It came rapidly nearer, at the same time increasing to a deafening roar. Down came the flood, a stupendous mass of water, rushing on with inconceivable violence, seething, foaming, and swiftly filling the river to the brim. The inhabitants ran down to the river-bank, uttering cries of alarm and gesticulating wildly. I and Islam Bai took our station on a protected roof. The next moment the avenues of willows and poplars, which lined both banks of the river, were covered by the flood. The ground seemed to shake under the impact of such a mass of unrestrained water. Clots of dirty foam tossed about on the tumbling waves. The spray smoked along the flood like a moving shower of mist. Tree-trunks, any amount of loose branches, haycocks, and other movable objects danced along the tossing current, drove against the banks, swung free, got caught in an eddy and plunged down out of sight, rolled up to the surface again, and once more became the sport of the irresistible flood. The bridge was broken down at the first onrush, and swept away, swaying from side to side, whilst its timbers creaked and groaned as it rolled over and over in the water.

The flood bore towards the right bank, and inundated

the principal street of the town. It poured into the lower-lying houses, and kept on rising and rising. The people who lived next the river came rushing out of their dwellings, shouting excitedly and dragging their household possessions after them, and sought safety upon the higher terraces. Some, bolder of heart, began to "cradge" or throw up temporary ridges of clay, to keep the water from entering their houses, and so washing away or destroying their property. In a couple of



A SHOP IN A BAZAAR

minutes the whole of the lower portion of the bazaar was muddy water. The air trembled with the awe-inspiring roar of the torrent. Women were wading up to the waist in water, carrying little children in their arms. Every house-roof was crowded with people. Those who had nothing to lose were able to give themselves up without qualm of conscience to the enjoyment of what was truly a magnificent spectacle. Fortunately the house in which we were lodged was a long way from the river, and never for a moment came in jeopardy.

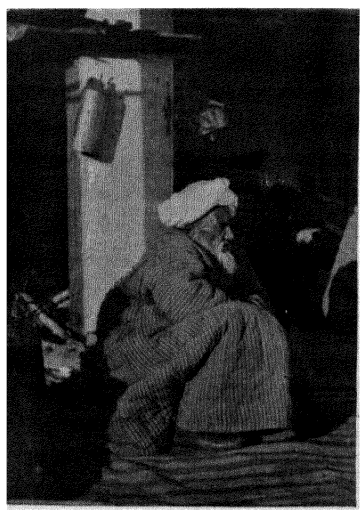
As soon as everything was carried away to places of safety that could be so carried, the general attention was directed to the melon-gardens, on the slopes going down to the river. The gardens were trenched all over, and the water ran up the trenches with great speed. All the men of the town rushed off to the melon-gardens, caught up big armfuls of melons—ripe or not was all one—and ran with them to the foot of the terraces, where they threw the melons up to other men, who piled them up in heaps. In spite of that however a large portion of the crop was washed away by the flood. Meanwhile fifteen houses had entirely disappeared.

But no doubt the inhabitants of the place would profit from the disaster? Not in the least. The same thing happens every year. For no sooner is the flood past and gone than the people set to work and build up their houses on the very same sites where they stood before. The flood had already begun to subside by nine o'clock, and it fell so rapidly that by the forenoon of the next day, July 12th, the river had dropped back to its normal condition and was little more than a rivulet trickling along the bottom of its deeply eroded channel. Communication had been re-established between the opposite banks; but the scene presented was one of havoc and desolation. As a matter of precaution we stayed in Upal the rest of the day.

In the latitude in which we then were four passes led over the Mus-tagh or Kashgar Mountains, the eastern border-range of the Pamirs, namely Ayag-art (the Foot Pass), and Kazig-art (named from a Kirghiz sept?), which we had already left on our right as we journeyed to Upal; Buru-köss-davan (Wolf's Eye Pass), which was on the left of the road we had come; and lastly, Ullug-art (the Great Pass), the pass we chose. The last two are drained through the same glen, which issues upon the plains at a place called Orugumah, where the Chinese maintain a Kirghiz karaol (post of observation). The Kirghiz in that district belong to the Tavur sept. The most difficult of the four passes is Buru-köss; it is only used

when the other three are snowed up. Ullug-art also is dangerous, and is not used unless the Ghez-daria is in flood and impassable. Under the most favourable circumstances it is only practicable during two months in the year, from the middle of June to the middle of August. And throughout the entire twelvemonth enormous masses of snow lie heaped up in the pass.

Upon leaving Upal we crossed a desolate steppe country, which rose by a slow and gradual incline towards



A MERCHANT OF EAST TURKESTAN

the entrance of the glen that gave access to the pass. But although the steppe was barren, it was trenched by several deep and wide ravines, the bottoms of which were green with fertile meadows, where sheep were grazing in large numbers. Having traversed the steppe, we rode in between the grandiose columns of black and grey clay-slate which mark the entrance to the glen. The ordinary poplar was common up to the end of our first day's journey, though we only saw one solitary willow; but after that tree vegetation ceased. The features of the glen were sharply marked; a little brook of crystal water

ran down it in a bed eroded out of thick deposits of conglomerate. A short distance up, the glen was joined on the right by a little side-glen called Yamen-sara (the Paltry House).

On the afternoon of July 14th the atmosphere suddenly darkened in the higher regions of the mountains above us. It began to thunder and lighten, and the west wind drove the big dark clouds before it like sheep down the glen; and we were soon journeying through a pelting rain, which was both raw and cold. We put on our furs, and pushed on despite the rain. The path grew steeper and steeper the nearer we approached to the aul of Ullug-art. We could see it ahead of us, crowning a lofty conglomerate terrace high up on the right-hand side, and commanding an extensive bird's-eye view of the glen. The brook, now greatly swollen after the rain, raced down the glen, tinkling a metallic song. In the afternoon it came on to snow fast, and the ground was soon covered. The big feathery flakes drifted softly, softly down, like a flock of birds hovering on wing before settling; and great sullen clouds, heavy with snow, brooded over the mountains and the glen. I could easily have imagined it was the depth of winter, not the middle of July, the warmest month of the year. It was the general opinion of the Kirghiz that after this snowfall the pass would be impassable for three days, and if the storm continued it would possibly be closed altogether for that year. For it was no unusual thing for horses to be lost on the Ullug-art pass even in fine weather.

There was nothing for it, therefore, but to wait patiently until the weather improved; and fortunately we were well situated for waiting. The aul contained two first-class uy (tents), one occupied by Kipchak Kirghiz, the other by Naiman Kirghiz. There was plenty of pasture close by for our horses; and we bought a sheep from our hosts. The people, as well as the occupiers of another aul, lying still higher up the glen, only spend the summers in these elevated regions. In the winter they go down to the plains at the entrance of the glen.

A KIRGHIZ GIRL

We had decided to abandon the idea of crossing the Ullug-art, and on July 16th were just going to start for the Ayag pass, whither the Kirghiz undertook to guide us by a short cut, for they considered that pass would be much the easier of the two, when a man came down from the upper aul, and warned us not to venture by the Ayag-art. The pass itself was practicable enough, he said, but the river Markan-su, on the other side of it, would be impassable, especially if the weather was fine, and so we should be obliged to come all the way back again. He would answer for it, that we could get over the Ullug-art, and if I would give him 150 tengeh (£1 14*s.* 4*d.*), he and ten other men would carry all our baggage over on their backs. This would have to be done in any case, because, owing to the excessive steepness of the path, it was as much as the horses could do to climb up and down free of loads. Accordingly we went up to the higher aul, consisting of six yurts of Kipchak Kirghiz. It was scarcely an hour's ride. There we spent the night.

At half-past five on the morning of July 17th the weather was clear and calm, although a few light cloud skirmishers hovered above the pass. The day before had been sunny, and the snow on the eastern versant of the pass had melted considerably. An hour later we started, accompanied by the ten Kirghiz, who on their own account took with them two horses, provisions, and an axe. The path went up a steep, narrow gorge, close beside a torrent which murmured amongst the smooth, polished fragments of gneiss and clay-slate. On both sides the gorge was shut in by perpendicular conglomerate strata, which terminated in rounded dome-shaped hills, clad with green meadows. Herds of camels and flocks of sheep dotted the pastures, which were kept moist by the melting of the snows above them. Still higher up, the sky-line was broken by fantastically shaped peaks of bare rock and snow-clad ridges. At nine o'clock the gorge and pass were enveloped in thick clouds, and again it began to snow, and snowed on all the rest of the day. In a word, the weather could not have been worse; and our Kirghiz shook their heads ominously.

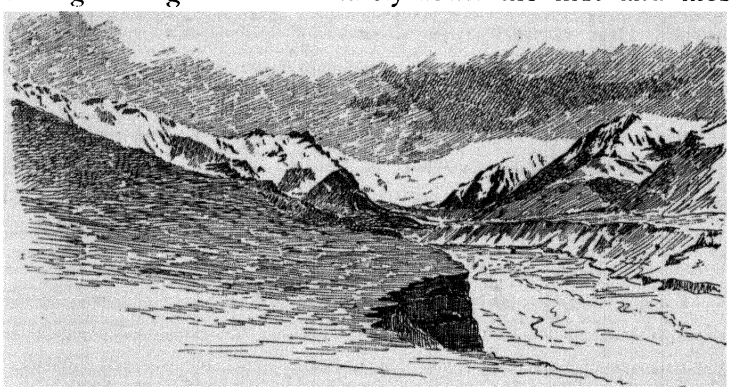
On our left I observed two small glacier tongues, with transverse terraces or shelves, and two terminal moraines. From them issued a couple of rivulets, which went to feed the brook that flowed down the glen. The summits on our right hand, which were freely exposed to the southern passages of the sun, possessed nothing more than the rudiments of glaciers. The glen grew so narrow, that we had to ride in the brook. The path was terribly steep. Every minute the horses kept stopping to catch their breath. At last we reached the foot of the actual pass. Then zig-zagging backwards and forwards, backwards and forwards, we struggled up to the top. The snow was fully a foot deep, completely hiding the loose *débris* underneath, so that the horses frequently stumbled. The last portion of the ascent was a fearfully stiff piece of work. All our baggage had to be carried by the Kirghiz, who took turn about in getting up the heavy packages. Each box required two men; one carried the box on his back, whilst the other supported it and pushed it up from behind. The horses were led up one by one.

I reached the culminating point of the pass at eleven o'clock, and found there the masar (tomb) of Hazrett Ullug-art, consisting of a little heap of stones with staves stuck in them, to which pieces of rag were tied. The Kirghiz look upon the saint in the same way that their fellows do upon the guardian saint of Kizil-art, as lord over the pass and the weather, as meting out good fortune or ill to the traveller; his name is therefore constantly upon their lips, especially in all difficult places and all critical moments.

Whilst the Kirghiz were struggling with the packing-cases, and examining the descent on the west side of the pass, which occupied them a good hour and a half, I took observations on the top of the pass. The altitude by hypsometer was 16,890 feet, and the thermometer registered 31° Fahr. (−0°6 C.).

The ascent had been a tough piece of work; but it was nothing as compared with the descent. At first there was a scarcely noticeable incline; but it terminated in a

formidable precipice, from which rocks of fantastic shape jutted out through snow. Down between these cliffy projections we had literally to slide and clamber on our hands and feet, now with our faces to the rock, now with our backs to it. The snow was two feet deep, and the Kirghiz were obliged to hew steps in it with the axe, before they could get the horses down. Then each horse was cleverly piloted down by two men, one leading the animal, the other holding on by its tail, so as to act as a sort of brake if the horse should lose its foothold. They managed to get them all safely down the first and most



THE PASS OF ULLUG-ART

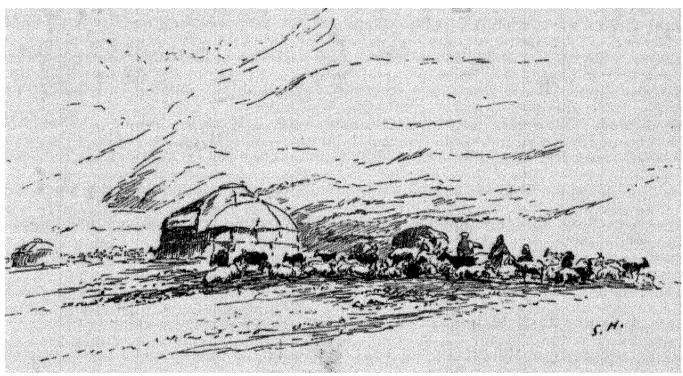
difficult part of the precipitous slope, then it was the boxes' turn. A long rope was tied round each, and, two men holding the rope, the box was let slide gently down the face of the precipice by its own weight. Then came a talus slope at an angle of thirty-five and a half degrees, littered with loose *débris*. Down this the horses were left to make their way by themselves. My piebald stallion from the Khotan-daria stumbled, rolled some thousand feet down into an abyss, broke his spine, and died on the spot. Ullug-art is a perilous pass, the worst I have ever crossed in any part of Asia.

The weather was abominable. The wind, from the south-west, drove the snow about us in blinding clouds. It was only by snatches, when the snowstorm momentarily

lifted, that I was able to get a glimpse of the magnificent panorama which lay spread out far down below our feet. On the left I got a bird's-eye view of a stupendous glacier, its surface shrouded in snow. Near its right-hand or upper edge there was a triangular moraine lake, fed by a stream which issued between two black, rugged cliffs from a secondary glacier above. The whole of the slope between the base of the secondary glacier and the moraine lake was strewn with pebbly *débris*, which, in consequence of the heavy rain and snowfall of the last few days, had become unsafe; in fact, the upper layer had already slipped, completely blotting out the track. For across that treacherous slope lay our path. Time after time whilst crossing it we slipped, and had great difficulty in avoiding a fall into the moraine lake some 160 feet below. It was a highly dangerous place, especially so if some of the large blocks of stone, which lay higher up, had started rolling down upon us. Here again therefore we unloaded the horses, and the Kirghiz carried their loads for about half a mile.

The gigantic glacier of Ullug-art overhung the upper end of the glen, presenting a slightly convex front between its enclosing cliffs. Our path ran down the slope between the ice and the right-hand side of the glen. We came to a second lake, immediately underneath the vertical glacier wall, which was reflected on its surface as on a piece of transparent glass. Several icebergs were floating on the lake, and its water kept changing from one shade of light green to another. The surface of the glacier inclined at a general angle of four degrees. Both the upper side-moraine, which we had already passed, and the terminal moraine were clearly distinguishable. A little further on we came to a third lake, the largest of the three, and some two miles wide. At that point we were again overtaken by a thick, blinding snowstorm, so that we could scarcely see where we were going to. This lasted an hour, until we were clear of the steep slopes. Then it cleared; although the snowstorm continued to rage in the higher regions of the mountains.

After that we made rapid progress down the glen on the western side of the Ullug-art; the glen growing wider at every mile, and the snow on the mountains around us diminishing at the same time in quantity. At length, after fourteen hours in the saddle, we halted between two conglomerate hills, near the junction of the glen with the broad, deep valley of Sarik-kol. Where we camped there was not a blade of grass; and we only got water by melting snow from a drift which lay in a sheltered crevice. We were now left to our own devices; for as soon as the Kirghiz had got us safely across the dangerous places, they went back over the pass.



A KIRGHIZ AUL, OR TENT-VILLAGE

The next day, July 18th, we rode as far as the yeylau (summer camp) of Muji, consisting of sixty yurts, inhabited by Naiman Kirghiz. They spend the summer there, grazing their sheep, goats, yaks, horses, and camels. On the 20th we reached the aul of Chakker-aghil, with six yurts, and there we rested beside a little lake of the same name a couple of days, a period which I utilized in making observations. The name Chakker-aghil (the Shouting Tent-Village) probably owes its derivation to the fact, that the auls thereabouts stand so closely together that you can shout from the one to the other. The water in the little lake was the same colour as the water of Kara-kul, a beautiful blue-green. It was in part bordered

by detritus and sand, in part by reeds and seaweed (algæ), and on the west by rich meadows and marshes. The lake lay, as it were, wedged in the throat of the valley of Kamelah, and gathered into itself all the drainage-water of the valley.

I pass over our itinerary of the next few days, only mentioning, that the route took us through Bulun-kul, Kara-kul, Su-bashi, and Gedyäck—all of them districts that I had already visited. It was not until the 26th that I broke new ground, in that we crossed over the river basin of Tagharma, a stream which effects a confluence with the Kara-su, the river that drains the southern versant of Mus-tagh-ata. The conjoint stream then forces its way through the mountains in a narrow gorge called Tenghi. We travelled through the defile; which was only short. Further on the united Tagharma-Kara-su, known however by the latter name, Kara-su, poured itself into the Taghdumbash-daria, a stream which with almost incredible energy has cleft its way through the massive meridional mountain-chains that form, so to speak, the projecting rim of the Pamir plateau. That transverse valley, known as Shindeh-yilga, is, as might be supposed, close, confined, and wildly picturesque. The flood occupies it entirely, so that it is only in cold winters, when the river is ice-bound, that it is possible to reach Yarkand by that route.

Previous to the confluence of the rivers, we had been going down the stream. After the confluence we left the defile of Shindeh-yilga on the left, and ascended the upper part of the Taghdumbash-daria, the track leading towards the south on the west side of the upper stream. The road was level and firm, and frequently led across rich grassy meadows. Ahead of us we could see the fortress of Tash-kurgan, the goal of that day's march. After passing through the villages of Chushman (45 houses) and Tisnab (200 houses), we entered the lower valley of the Taghdumbash. It was broad and open, and wore a prosperous look, with its cultivated fields and pasture-grounds, on which innumerable herds of sheep,

goats, and horned cattle were industriously grazing. On our right was a high platform of conglomerate formation, and on the top of it stood the town and fortress walls of Tash-kurgan (the Stone Fortress). The situation of the place put me forcibly in mind of Fort Pamir. The latter, like Tash-kurgan, stands on a conglomerate terrace, in a wide valley, and with a large river flowing past it; and it also commands an equally extensive view of its own neighbourhood.

Here an extremely joyful surprise awaited me. I fell in with my friend Mr. Macartney, who had been suddenly ordered to report himself to the head of the English Commission, appointed to act with a Russian Commission

KIRGHIZ AUL NEAR MUS-TAGH-ATA

of military officers for the delimitation of the frontier-line of the two empires on the southern Pamirs. I pitched my tent beside his, and we spent a right pleasant afternoon together.

On July 27th, along with Mr. Macartney, I paid a visit to the village of Tash-kurgan. Both village and fortress presented a melancholy appearance. The whole neighbourhood had been violently shaken by earthquakes lasting from July 5th to July 20th, and every house in the place was utterly ruined; the few which still stood had gaping cracks in the walls, reaching from roof to foundations. But then they were constructed of materials little calculated to withstand earthquake shocks, namely rubble and coggles, plastered with clay. There were also several cracks in the earth, stretching from south-south-

west to north-north-east. The inhabitants, as well as the Chinese garrison, were living partly in yurts, partly in temporary tents. During the time the seismic disturbances lasted, some eighty distinct shocks were counted.

The most violent was the first; it was the shock which destroyed the town. The last happened this morning at ten minutes past eight o'clock. I was sleeping on the ground, as I always did, and distinctly felt the impact at right angles to the longitudinal axis of the valley, in other words it moved along an east-west line. The shock awakened in the mind an unpleasant sensation of anxiety. The earth seemed to heave and undulate. A detonation like a distant peal of thunder was plainly distinguishable. But everything was over in about a couple of seconds.

After looking at the damage done by the earthquake, I paid my respects to the commandant, Mi Darin, and two or three other mandarins, all of whom received me with great politeness. They had equipped their yurt with a table, chairs, and opium couches, and offered me all sorts of nice things. I took two or three whiffs at an opium-pipe, but failed to detect wherein lies its fascination.

* * * * *

In the early part of this work I have dwelt with considerable detail upon different parts of the Pamirs. The length to which this book is growing precludes me from describing this present expedition with anything approaching the same circumstantial minuteness. Perhaps I may be permitted on another occasion to relate the results of my 1895 journey in the southern regions of the Pamirs. I have still a long distance to travel before I reach Peking. If the reader has the patience to follow me, I hope to take him over the old caravan-road to Khotan, which Marco Polo travelled over so many generations ago. We shall then once more cross the great sandy desert, and discover cities buried in the sand, and evidences of an ancient and extinct Buddhist culture. We shall pay a visit to the desolate home of the wild

camel, and discover the relic of the Lop-nor of the Chinese cartographers. Thence we shall make a forced march of some hundreds of miles back to Khotan. After that we shall cross the highlands and plateaus of Northern Tibet to the lake-basins of Tsaidam and make the acquaintance of Mongols, Tanguts, and Tibetans; then proceed through Kan-su, Ala-shan, Ordos, and Northern China; and finally, after travelling for three and a half years, reach the goal I had all along in view—namely Peking.

With all these vast vistas before me, I feel I must quicken my pace. But I cannot pass on without pausing for a little to describe one very important episode of my 1895 journey over the Pamirs. But it must have a chapter or two to itself.

CHAPTER LIV.

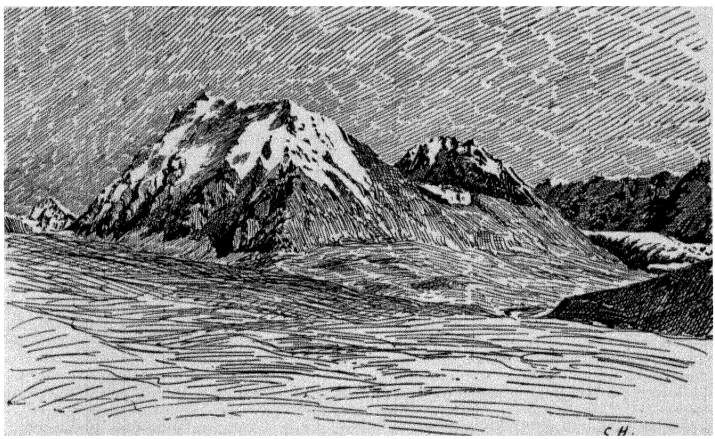
WITH THE ANGLO-RUSSIAN BOUNDARY COMMISSION

MR. MACARTNEY was on his way to Victoria Lake (Zor-kul), to join the Boundary Commission, and tried to persuade me to go with him. But as I was desirous of visiting the sources of the Yarkand-daria, I was obliged to decline his invitation. Nevertheless we travelled some days in company, separating on July 30th at Khojet-bai, as we then believed for ever; for Mr. Macartney was under orders to return to India with the Boundary Commission. Hence his road lay towards the west, up the valley of the Taghdumbash-daria; mine towards the south, up the valley of the Khunser-ab.

Two days more brought me to the northern foot of the Hindu-kush Mountains. There I stayed twelve days, making short excursions, exploring the valleys of the more important head-streams of the Khunser-ab, and climbing the pass of Khunser-ab (15,780 feet), whence I looked down upon the valley of Kanjut. From the summit of the pass to the highest village in Kanjut was only two day's-journey. There I observed that the streams from one of the glaciers on the pass flowed partly towards the Indian Ocean, and partly towards the Yarkand-daria and Lop-nor.

From the same place I endeavoured, but endeavoured in vain, to find a practicable path to the upper Yarkand-daria, over the passes of Uprang, Kara-su, and Ilik-su. The upper part of the Yarkand-daria is likewise known as the Serafshan or Raskan-daria. In every quarter I inquired, I was given the self-same answer: I could readily enough reach the river in the course of a few days, but

there was no place where it could be crossed during the summer. The deep narrow gorge of the Ilik-su had in places been so terribly convulsed by the recent violent earthquakes that it was impossible for any animal, even for yaks, to traverse it: it was only practicable to men on foot. Thus I had got myself into a sort of mountain *cul-de-sac*. The only accessible districts which I had not yet explored were towards the west. Hence I resolved to seek those portions of the Pamirs which lay around the sources of the Amu-daria.



PART OF THE HINDU-KUSH, NEAR UPRANG

Accordingly we rode up over Taghdumbash-Pamir (the Mountain's Head or Roof of the World), and on 15th August surmounted the pass of Wakjir (16,190 feet), an important hydrographical centre. For from it rivers flow in three different directions—the Pänj, also called the Wakhan-daria, a head-stream of the Amu-daria, goes towards the west; the Taghdumbash-daria flows east; and on the other side of the Hindu-kush several feeders of the Indus descend towards the south.

On August 17th we reached Chakmakden-kul (the Lake of the Fire-steel), in which the Ak-su or Murghab has its origin.

Knowing that the Anglo-Russian Boundary Commission were working at Mehman-yolli (the Guest Road), a small transverse valley situated only a day's journey towards the north-east, I could not resist the temptation to pay them a visit. But I did not like to come down suddenly and without warning upon the Commissioners whilst in the midst of their delicate labour of defining the boundary from Victoria Lake to the Chinese frontier; so I wrote to the head of each Commission, asking if they had any objection to receiving visitors. My jighit (courier) brought back a cordial and pressing invitation from both chiefs. Accordingly on the evening of the 19th I pitched my tent at Mehman-yolli, on neutral ground between the Russian camp and the English camp.

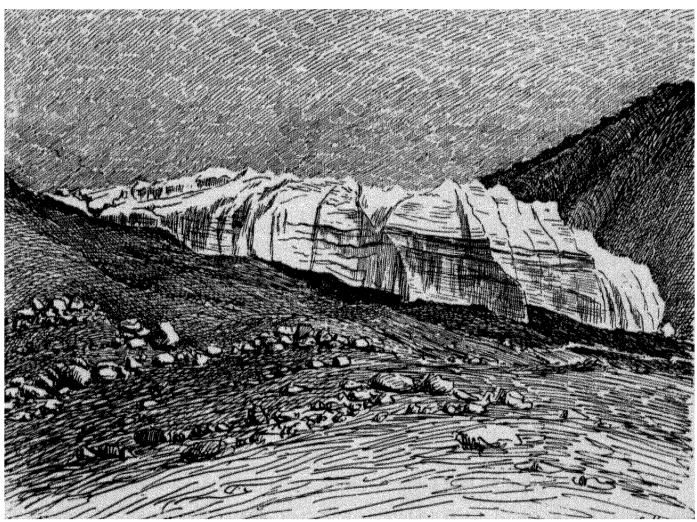
I was already acquainted with the head of the Russian Commission; it was General Pavalo-Shveikovsky, governor of Fergana, my friend and benefactor. I held myself bound therefore to pay my respects to him first. But I could not get to his quarters without passing through the English camp. Mr. Macartney caught sight of me as I was on my way, and eagerly intercepted me with an invitation to dine with General Gerard, head of the English Commission.

There I was then, in a pretty dilemma. The only way out of it, the only way to preserve my neutrality, that I could see, was to plead my old acquaintance with General Pavalo-Shveikovsky, and to emphasize the unsuitability of my attire.

General Pavalo-Shveikovsky welcomed me with open arms. We sat talking until a late hour of the night; and notwithstanding my energetic protests and my hints of wishing to keep to neutral territory, he ordered an excellent yurt to be got ready for me at once, with a bed in it, a luxury which I had almost forgotten the enjoyment of.

The following morning I paid a visit to General Gerard, and met with a similar kind and friendly reception from him. I was immediately introduced to the several members of the English Commission. The second officer

in command was Colonel Holdich, a recipient of the large gold medal of the Royal Geographical Society for his admirable trigonometrical and astronomical work in the frontier districts of India. The rest of the staff included Colonel Wahab, the topographer; Captain McSwiney, who spoke Russian fluently; Dr. Alcock, director of the Imperial Museum at Calcutta, and professor of the Calcutta University; and my friend Mr. Macartney, agent for Chinese affairs in Kashgar. In addition



END OF A GLACIER AT UPRANG

there were three pundits, or educated Hindus, for the topographical field-work.

Amongst the Russian staff I found several acquaintances from West Turkestan—Colonel Salessky, the astronomer; Captain Skersky, the new commandant of Fort Pamir; and the famous topographer Bendersky, who has travelled in every part of Western Asia, and who was one of the Russian embassy which visited Kabul in the time of Emir Shir Ali Khan. General Pavalo-Shveikovsky's principal assistants were however Mr. Panafidin, formerly

Russian consul in Bagdad, where he and I had several mutual friends and acquaintances, and Colonel Galkin, who had travelled in East Turkestan and Ili. Finally, I may mention Dr. Wellmann and four younger officers.

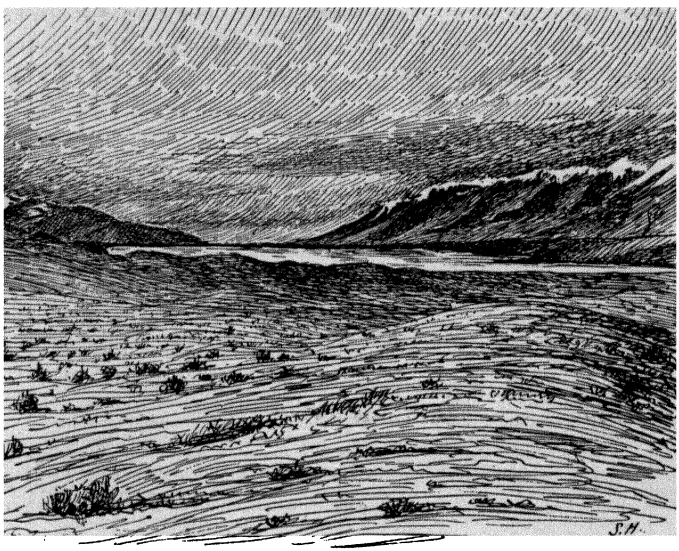
The Russian escort consisted of some forty Cossacks, with a military band of eighteen performers, besides a crowd of native jighits and caravan grooms. The English train consisted of about two hundred Indian soldiers, Hindus, Afridis, and Kanjutis.

It would manifestly be out of place for me to say a word touching the momentous labours of the Boundary Commission. Besides, they did not directly concern me. I will merely observe that, considering the opposing interests which the two camps represented, it was astonishing upon what a friendly and confidential footing they were. Both sides were animated by a frank and cheerful spirit. Englishmen and Russians were like comrades together. Had I not known the fact beforehand, I should never for one moment have dreamed that they were rivals, engaged in delimitating and fixing a common frontier-line. For of course, it was the object of the Russians to draw the line as far to the south as they could possibly force it; whereas the Englishmen wanted it as far north as it could be got.

The Russian officers' mess was located in a large, tastefully decorated yurt; the Englishmen had theirs in an immense, yet elegant, tent. Invitations to dinner from the one party or the other were an almost every-day occurrence. As for me, I spent one day in the English camp and the next in the Russian, and so on alternately; and was on very good terms with everybody in both camps. Most of the officers, Russian and English, spoke French; and if I may be permitted to say so, the gentlemen selected to serve on this important and delicate mission were a credit to the two Governments which appointed them. As for me, after my two years of lonely wandering through the desert regions of Central Asia, it was almost like a rising from the dead, to associate with such notable men, men distinguished alike for their

knowledge, their scientific attainments, their high general culture.

Shortly after my arrival amongst them, General Pavalo-Shveikovsky gave a grand evening entertainment. At nine o'clock the Englishmen came over wearing their handsome, yet serviceable, full-dress uniforms. In front of each of the Russian yurts was stationed a guard of Cossacks, holding lighted torches, which shed a wild and tremulous flood of light across the bank of the Ak-su.



CHAKMAKDEN-KUL, LOOKING WEST

The guests assembled in the large reception yurt of white felt. The interior was draped with Oriental cloth and variegated carpets from Kashgar. The table glittered with bottles and decanters of European wines and liqueurs; whilst dotted about amongst them were dishes of solid silver, heaped with grapes, apples, and duchesse pears from the governor's own garden in Margelan. We took our seats in light and comfortable tent-chairs, lined with rugs and so forth. Whilst some of the company played cards, the majority kept up an animated conversation in different

languages. Meanwhile the military band went through a long programme of Russian melodies, well-known marches, and "God Save the Queen"; and heard under such circumstances, at such a lofty altitude on the Roof of the World, the music was especially charming. After supper, the Russian general accompanied his guests by torchlight to their own quarters.

The 29th and 30th August were proclaimed holidays; and the officers got up a *tamashah* (spectacle, *i.e.* sports) for the entertainment of the men of their escorts and the Kirghiz of the neighbourhood. The first item on the programme was a shooting competition at 250 paces. In this some of the officers took part; and the first prize was carried off by Colonel Wahab, upon whom after that I bestowed the title of Champion of the Roof of the World. The scene around the firing-point was gay in the extreme, owing to the variety and magnificence of the various uniforms. The 1st Lancers, Hyderabad Contingent, made unquestionably the bravest show. Their uniform was a light brown, decorated with gold braid, yellow leather bandolier and sword-belt, tight-fitting breeches, and a tall, gold-embroidered turban, with blue points hanging loosely down. The uniform of the 20th Punjab Infantry was very similar, except that the turban was adorned with a black bushy plume, and had a gold-embroidered, upstanding centre-piece. The Afridis, natives of the districts around Peshawar, were tall handsome fellows, with a martial bearing. A vendetta of a more than usually stringent character obtains amongst their tribes. A murder is sometimes avenged, not only upon the nearest blood-relatives of the delinquent, but also upon his distant kin.

Amongst the onlookers I observed Gulam Moheddin Khan, the Afghan Boundary Commissioner, accompanied by his suite. The Emir Abdurrahman Khan's representative, whom I was nearly forgetting, wore a uniform that was resplendent with gold-lace and ornaments.

At the end of the shooting competition, the two generals distributed the prizes, consisting of a silver cup, cases

containing knife, fork, and spoon, khalats, Asiatic cloth, and money (roubles and rupees). Hereupon General Pavalo-Shveikovsky invited us all, including the Afghan Commissioner, to a splendid *déjeuner*. Champagne flowed like water, and healths were drunk to all the world, even to the Crustaceans of the Indian Ocean, the special favourites of Dr. Alcock.

After *déjeuner* we went out to witness the second half of the programme, which was of a more lively and varied

GROUP OF KIRGHIZ FROM THE EASTERN PAMIRS

character. It began with a tug-of-war, a team of Cossacks being pitted against a team of Afridis, and then a team of Kirghiz against a team of Kanjutis. In each case the first-named won; although the struggle between the Kirghiz and Kanjutis was both tough and long. The excitement amongst the onlookers grew intense; even some of the officers were infected by it, as well as myself, though I of course preserved a strict neutrality. After that came foot-races, partly on the flat, partly in sacks, in which the winners hopped or rather turned summersaults over the tape at the winning-post. There were

also three-legged races. The Kanjutis gave us a sword-dance, with mimic fights, and combats with the naked sword, a spectacle which put me in mind of similar games practised by the Chinese. At intervals the English offered various refreshments, amongst the beverages being punch.

The 30th August was Derby Day on the Pamirs. Some three hundred horsemen assembled on a piece of level ground at Kizil-rabat near by. The course was a trifle under a mile. The Cossacks, being matched against the Indian cavalrymen, easily beat them, with a good two minutes to spare. But Her Majesty's soldiers had their revenge in the next event, lemon-slicing; although potatoes perforce did duty instead of lemons. The next contest, tilting at the ring, was opened by General Gerard himself. He carried off two out of the three rings, and proved to be the victor.

Then came a comic interlude, namely, races between camels and yaks. The camels, unaccustomed to the rules of sport, burst away in a wild gallop, and screaming lustily dashed in amongst the spectators, creating a mild panic. The yaks on the contrary took matters with imperturbable placidity; the spirit of emulation could not be driven into them by any provocation. Two remained stock-still, notwithstanding that the cudgels of the Kirghiz played a lively tune upon their ribs. One turned to the rightabout and marched off in the opposite direction. Some progressed sideways at a jog-trot. Only two went straight down the course, walking with their accustomed grave philosophic calm.

The last event was not pleasant to watch, and must have been still more unpleasant to take part in. Two bands of Kirghiz horsemen, twenty in each, took up positions facing one another at 250 paces apart. At a pre-arranged signal they dashed towards each other at full gallop. Some few came through the shock unmoved; but the greater part went headlong to the ground, men and horses rolling over one another in indescribable confusion. Yet strange to say, only one horse suffered

any injury. It took all day till twilight to get through the whole of the programme; and just as the gay throng of riders started for their respective camps, the race-course was swept by an icy buran.

The combined camp of the Commissioners made a striking picture. It stood on a patch of level ground, at the foot of a conglomerate terrace, on the left bank of the Ak-su or Murghab. The Russians were quartered in a dozen large, handsome Kirghiz yurts; the Englishmen and Indian soldiers in some fifty or sixty white army tents. Round about the outskirts of the camp were the yurts of the Afghans, Kirghiz, Wakhanlik (men of Wakhan), and karakeshes (caravan attendants) of different nationalities. The camp thus presented a kind of epitome of various types of Oriental life, side by side with the highest civilization of the West. A painter would have found never-ending subjects for his brush. The pencil of a dilettante like myself was kept hard at work all day long, for unfortunately I had lost my photographic apparatus in the desert.

Both the Russian and the English generals were perfect patterns and ensamples to their officers and men. Both had gone through many a stiff brush with the enemy. General Pavalo-Shveikovsky had an inexhaustible fund of stories and anecdotes from the Russo-Turkish war of 1877–78. General Gerard was famous throughout all India as one of the most daring spirits that ever tracked a tiger. With his own hand he had accounted for no fewer than 216 of the kings of the jungle, a number which, considering the relative scarcity of tigers now in India, must be accounted worthy of the most passionate lover of the chase. To General Gerard the tracking of a tiger was what the coursing of a hare is to ordinary sportsmen, a mere harmless pastime, combining exercise with pleasure; all the same, he had had many adventures and hairbreadth escapes, which it was very interesting to listen to.

CHAPTER LV.

FESTIVITIES ON THE ROOF OF THE WORLD

EVERY evening at eight o'clock the Cossacks had religious service. Then there echoed through the thin mountain-air the moving melodies of the solemn *malitva* (chant) and the Russian national hymn. Huge fires blazed all round the camp, both close in and at a distance, for the various Asiatic races to cook their suppers at; but all fires were extinguished long before the lights were out in the officers' quarters. The moon gleamed out at intervals between the rapidly scudding clouds, and lit up the broad, open valley of the Ak-su. A chain of mountains, the Emperor Nicholas II.'s Range, the highest summit of which is Salisbury Peak, shut in the valley on the north; another range, the Mus-tagh chain, bordered it on the south. The effect was enchanting in the extreme when a cloud came between the moon and the camp, so that the tents were in the shade, whilst the eternal snowfields of the distant mountains glittered as though silvered over.

These desolate plateaus, uninhabited save by a few half-civilized nomad Kirghiz, had never witnessed such a gathering as that which I have just described, and are hardly likely to witness anything similar to it again. I imagined the shy tekkes (wild goats) and wild sheep (*Ovis Poli*) gazing in stupefied amazement from their lofty pasture-grounds beside the glaciers over the bustling scenes below, rudely violating the century-long peace and tranquillity of the Ak-su valley. Where the frontier-line between the possessions of England and the possessions of Russia should fall was to them a matter of

perfect unconcern. The jarring interests of men never invade the solitude of their sublime abodes. They are the subjects of none; they share their empire with the eternal snows alone.

Meanwhile the days flew past like hours, and I was amazed when September came, and I still found myself amongst that bright circle of officers of the two most powerful nations of the world. Several times I spoke of breaking camp for the little-known mountainous regions which tower up like fierce, snow-crowned giants around the head-waters of the Yarkand-daria. But every time I sounded that note, both of the generous generals, whose personal friend I am proud to say I gradually became, urged that I should remain a few days longer.

But finding nothing else would do, and as there were important matters calling me back to Kashgar, I determined to try a little *ruse de guerre*. One fine day I bade Islam Bai have the caravan all ready for a start, and went to General Pavalo-Shveikovsky to take my leave of him, telling him my caravan was ready and waiting for me. With a twinkle of mystery in his eye, the general answered that, if I would wait just one day longer, I should witness a remarkable event. Thus my little plot was nipped in the bud. I stayed on, not one day longer, but several.

The remarkable event, which, rightly enough, did happen on the following day, was the arrival of a telegram sent by Lord Salisbury to the telegraph-station which lay nearest the northern frontier of India, conveying the important announcement, that the British Government accepted the frontier which the Russians proposed to them.

This intelligence occasioned the greatest rejoicing in both camps. At every step I met happy, contented faces. The younger officers even danced for joy. During the following days the frontier pillars Nos. IX. to XII. were erected, thus finishing the labours of the Commission. They had defined and marked the frontier between England's and Russia's possessions on the Pamirs, and

had nothing more to do except to strike camp and return home.

Stay, I am wrong, there was still one thing to be done. The two Commissions had been at work together some three months in all. It was inconceivable that they should separate, perhaps never to meet again, without dining together in each camp in turn. To these high and solemn functions I, although strictly maintaining my neutrality, was cordially invited; and as public dinners are something of a rarity in exploration journeys in Central Asia, I did not scruple to sacrifice two more days to the pleasure of taking part in them.

The dinner in the Russian camp took place on September 11th. General Gerard and I were given the places of honour on the right and left respectively of our host. My more than plain travelling-suit, which was moreover woefully threadbare, and which had never at any time been guilty of possessing such superfluities as collar and cuffs, presented a glaring contrast to the full-dress uniforms of all the generals, colonels, captains, and diplomatic agents—laces of the general staff, scarlet facings, gold braids, orders and medals for valour from the campaign in Turkestan, the Russo-Turkish War, Burma, Chitral, Afghanistan. But then, when I left Kashgar, I had not the remotest idea that that summer excursion was to bring me into contact with such distinguished company, and therefore had brought no suitable clothes with me. However, I kept up my courage; and the warriors flattered me by saying that my journey across the desert was a stiffer piece of work than many a hard campaign.

And then the surprises that were in store for us, real paradoxes of circumstance, when you call to mind that all this happened at the foot of the Hindu-kush in the centre of Asia! The *sakuska*, or ante-table of Russian usage, consisted of caviar, preserved meats, Swiss cheese, *pâté-de-fois-gras*, and almost every conceivable delicacy, whilst for dinner we were served, amongst other courses, with crayfish soup, lobster mayonnaise, asparagus, and

so forth. The only thing which failed to make a due impression upon me was the *glacés:* I had been completely spoiled for *glacés* by the glaciers on the Roof of the World.

The wines were not from Turkestan, but from the choice vintages of France. What! Champagne on the Pamirs? Yes, even so. The first time it was handed round, our host asked for silence, and then proposed a conjoint toast to Queen Victoria and the Emperor Nicholas II. The next toast was drunk in honour of Abdurrahman Khan, Emir of Afghanistan, who was represented at the table by his general Gulam Moheddin Khan and a *mufti* (Mohammedan doctor of laws). With the third toast was coupled the name of Oscar, king of Sweden and Norway, who also had one subject present at the banquet. At midnight the official part of the proceedings came to an end, with the Englishmen chairing their host. Their arms were strong, and so it was "up to the roof on the Roof of the World." Then, whilst the spirit of festivity was still in the ascendant, we had several humorous speeches and songs, each and every one followed by a rousing cheer, and last of all, sung with tremendous dash and "go," the stirring English refrain, "For he's a jolly good fellow, which nobody can deny."

The next day General Gerard gave an equally excellent banquet, over which the same spirit of jollification reigned, and at which there was an equally long series of toasts. With a happy inspiration Captain McSwiney proposed a toast to the Ladies, and somebody suggested the extraordinary idea, that I was a fit and proper person to reply on the ladies' behalf. Being a devoted admirer of the sex, I was of course proud to speak for them. After various more or less apposite remarks, I came to my peroration, which ran to this effect: that if the ladies in the distant lands of Russia and England were as hospitable and as cultivated as their husbands and lovers, whose acquaintance I had had the pleasure of making, they must assuredly be no ordinary ladies, but angels from heaven, and their society an earthly paradise.

At the close of dinner yet another surprise awaited us. Immediately outside the bounds of the camp a huge pile of faggots and other inflammable materials had been built up; —curiously enough, the fuel had all been fetched for the purpose from Kanjut on the other side of the Hindu-kush. As soon as dinner was over, the bonfire was lighted; and its leaping flames lit up with weird effect the barren steppe and white tents which dotted it. Then representatives of the different races comprised in the English escort came forward one after the other and gave an exhibition of their several national dances. Amongst these perhaps the most striking was a sword-dance, which produced a somewhat startling effect in the red light of the bonfire. We watched the spectacle from a semicircle of camp-chairs, whilst turbaned servants handed round punch and other refreshments.

Early on the morning of September 13th we were all photographed together in one big group by the Indian pundits. After that came the hand-shaking and the "good-byes." The Englishmen went off towards the south, intending to travel to Kashmir and India *viâ* the Darkot pass; whilst the Russians turned their steps towards the north. General Gerard, who was going to England across Russia, accompanied his Russian colleague. Lieutenant Miles, who was stationed in Gilgit, was likewise given permission to go with the Russian Commissioners as far as Fort Pamir. That day we only travelled 14½ miles, as far as the Kirghiz aul of Ak-tash. Here we pitched our tents, and spent another right pleasant afternoon together.

General Pavalo-Shveikovsky pressed me to accompany him all the way to Margelan. But that I could not do; it would have taken me too far away from the scene of my labours. Not that it would not have been especially interesting to travel for a whole month across the Pamirs under such unique circumstances, as well as to witness the great reception which I knew awaited the English general in Margelan. He was to be met outside the town by a bevy of maidens, clad in white, who would scatter flowers

under his horse's hoofs, and was to be fêted, and honoured with a military concert and display of fireworks. But I withstood the temptation, steeled by the thought that I had not come to Asia for the sake of pleasure; besides, I already knew the route to be travelled over.

General Gerard also had his temptation for me. He cordially invited me to go with Colonel Holdich and the rest of the English Boundary Commissioners to India. Which drew me with the strongest fascination—that distant land of fable and mystic dream, or the society of Colonel Holdich, I cannot say; but this I can say, I have seldom met a nobler-minded, pleasanter gentleman than Colonel Holdich, and I left him with the desire strong in my heart that we might soon meet again.

But my sense of duty got the upper hand at last. My road lay towards the east. There was still much exploring work to be done in the deserts around Lop-nor and in Northern Tibet. Moreover there was another powerful attraction in Kashgar, namely the post from Sweden, which should be in again by this. I therefore on 14th September bade farewell to the two generals and other officers, and watched them trot out of sight; then, accompanied by my own attendants, I turned my face towards the silent, solitary mountains which border the Pamir plateaus on the east.

The doings of the Anglo-Russian Boundary Commission belong henceforth to history; their labours fill a permanent niche in the story of the political relations of England and Russia in Central Asia. The territories of the two great powers on the Pamirs now touch one another; there are no ownerless districts, no buffer zone, between them to afford a handle for political intrigues. Kirghiz and Afghans are not now allowed to cross the new frontier-line unless they are provided with a proper pass.

Will that be the last boundary commission appointed by England and Russia in Asia? It might well be supposed so; and yet—the destiny of Persia is not yet decided. Besides, who knows what the future shall bring

forth? Be that however as it may, it is certain that the members of the Boundary Commission of 1895 carried away home with them many a pleasant memory of their stay on the cold, inhospitable plateaus; the which plateaus no doubt, had they possessed the capability, would have been amazed at finding themselves the object of so much interest.

I am very proud of having been so fortunate as to have witnessed such a signal episode in the political history of Central Asia, and that not only because of the importance of the event itself, but also because of the real pleasure vouchsafed me in making the acquaintance of such an excellent set of officers and gentlemen.

CHAPTER LVI.

OVER THE MOUNTAINS TO THE YARKAND-DARIA

FROM Ak-tash we travelled eastwards, and the same day crossed the Sarik-kol range by the pass of Lakshak (15,240 feet high), and encamped on the other side at Keng-shevär, a place garrisoned by eight Tajiks and two Chinese. As far as a point a little beyond our camp the rocks bordering the route had been black clay-slates; but after that they consisted of a number of varieties of gneiss, some of them exceedingly beautiful in appearance. Consonant with the change in the rock formation, a marked change took place also in the landscape. The very name of the district we had just quitted, Kara-korumning-bashi (the Head of the Black, Stony Country), indicated a different region. The track we were following, which wound for the most part amongst gigantic fragments of rock which had crashed down from the mountains above, led north-eastwards through the deep transverse gorge of Shindeh, which cut through the eastern declivity of the Sarik-kol range. Beyond Yar-utteck (the Boot Terrace), a small side-glen on the left, the cliffs frowned upon each other at close quarters, there being nothing more than a narrow chasm between their perpendicular walls. The gorge was almost entirely obstructed by huge blocks of gneiss, whose sharp angles and fresh, clean-looking fractures revealed that they had been hurled down during the recent earthquake shocks. It was anything but pleasant travelling. We frequently rode under ponderous arches of overhanging rock, full of cracks and crevices, which threatened every moment to come crashing down upon our heads. Time after time

we crossed the little mountain-stream, whose blue, limpid water gurgled along between the boulders of gneiss. At length we came to the end of the gneiss. It was succeeded by granite. The gorge of Shindeh opened out like a trumpet upon the broad trough-like valley of Taghdumbash. The mountain-stream was divided into several branches, so that its water might be led off to irrigate the cultivated fields. We again pitched our tent a short distance from the fortress of Tash-kurgan.

We had now crossed the first of the great meridional mountain-ranges, which like bastions fence in the Pamir plateaus on the east. On September 16th we crossed the second by the pass of Särghak. We had considerable difficulty in procuring a guide. The Tajiks excused themselves on the plea, that they must look after their fields; but the truth was they dreaded the wrath of Mi Darin, if it should become known that they had guided a European through such a strategically important pass. At last we discovered a man who agreed to go with us on foot; but before we reached the summit of the pass he lagged behind, and we never saw anything more of him.

We crossed over the valley of Taghdumbash between the scattered fields and houses. The river possessed only one-third the volume it had when I measured it some six weeks earlier, and the water had become perfectly clear. On the east side of the valley we struck into a narrow gorge, which rose steeply, and was dry along the bottom. The predominating rock throughout the whole of that day's journey was micaceous schist. We climbed up the mountain-side along a steep, narrow ribbon of a path, which was exceedingly trying to both men and horses. In some places the rocks were so smooth we were obliged to roughen them with the pick-axe to enable the horses to get a proper foothold. Upon reaching the top of the spur—an undulating series of rounded eminences—we saw the valley of Taghdumbash, with its winding river and its green and yellow fields, far, far below our feet. Once more the landscape underwent a complete change. All

MI DARIN, THE COMMANDANT OF TASH-KURGAN

round us the predominating feature was low hills, with easy slopes, covered with hard silt, sand, and gravel *débris*, partly the results of weathering of the clay-slate, which in this part of the range cropped out but seldom. These undulating hilly uplands were intersected by several zigzag cañon-like ravines. Not a drop of water was to be seen; though there were plenty of dry watercourses, showing where the rains ran down. Our road was not difficult, but went up and down, up and down as though it never meant to end; and we crossed several secondary passes

A TAJIK TENT IN THE TAGHDUMBASH PAMIRS

before we attained the culminating point of the range (13,230 feet).

From that spot I obtained a broad general view of the surrounding regions. The range on which we stood was continued towards the south in several great snow-covered mountains, then curved round by the south-east towards Tibet, and finally became merged in the Kwen-lun mountain-system. Northwards the range we had just climbed stretched to Mus-tagh-ata, and thus formed a direct continuation of the Mus-tagh or Kashgar range. Deep down on the east lay the glen of the Utcheh, which flows into the Taghdumbash-daria.

Our road ran down into that glen, sometimes winding amongst the fantastic spurs and buttresses of the eastern slopes of the range, sometimes running steeply down an eroded ravine, and occasionally crossing a minor pass or saddle. The last part of the descent, just before we reached the glen, was inconceivably steep. We encamped

in the little village of Beldir, which consisted of a single household. Its *yuz-bashi* (chief) was however chieftain over some fifty households, scattered throughout the glen. They were Tajiks, graziers and agriculturists, and spent the summers in the upper part of the glen, but for the winter moved lower down nearer the confluence of the Utcheh, a fair-sized stream, with the Taghdumbash-daria. After the confluence the river turned sharply to the east, and flowed directly into the Yarkand-daria. Close beside the confluence stood the large village of Beldir, which gives a second name, the Beldir-daria, to the Utcheh. The transverse defile by which the Taghdumbash breaks through the range is, as I have already said, called Shindeh. It is impassable because of the perpendicular cliffs which hem it in. Thus Beldir lies, as it were, at the end of a mountain *cul-de-sac*.

September 17th. We ascended the glen towards the south-east. It was sometimes squeezed between the conglomerate cliffs, then widened out considerably, so as to make room for patches of cultivated ground, upon which wheat, barley, and clover were grown, and finally opened out into a spacious cauldron-shaped valley, with an almost level floor and shut in on all sides by mountains.

This expansion of the glen, called Täng-ab (Persian, Narrow Water), was planted with several small villages, all inhabited by Tajiks. But the great altitude of the region, and its harsh climate, compel the people to adopt a mode of life which in some respects resembles that of the Kirghiz. Most of them own large flocks of sheep, goats, and yaks, besides numerous horses and donkeys. Some dwell in yurts and tents; some—more especially those who live by agriculture — dwell in houses constructed of sun-dried clay and stones, and covered in with flat wooden roofs. As the Tajiks themselves are Aryans, and speak Persian, so their houses are very similar to the Persian houses, even possessing in some cases a *bala-khaneh* or "upper house," reached by a flight of stairs.

September 18th. We continued our road along the

broad expansion of the valley till we came to the point where it bifurcated into the two secondary valleys of Lenghер and Shuydun. A road through the former led to the large Tajik village of Marian, and thence to the Raskan-daria (*i.e.* the upper Yarkand-daria). Through the latter ran the road we took. Crossing the luxuriant pastures, we reached at length a rabat (rest-house or inn) at the foot of the Kandahar pass, and there we spent the night.

The next morning we awoke to a perfect winter scene. During the night it had snowed heavily, and the ground was covered a couple of inches deep. From the rabat the path ascended the mountain-side pretty steeply; but the snow levelled up the spaces between the stones and made it easier going. The summit or ridge of the pass (16,610 feet altitude) was as sharp as a knife; for the broken edges of the green clay-slates jutted out almost vertically. The descent on the other side was very difficult, so difficult in fact that the horses would scarcely have been able to get down loaded. But, having been warned of this beforehand, we had hired a party of Tajiks with three yaks, and with their help we got the boxes safely down. At the outset the path went straight down between nasty projecting buttresses of rock; down these we simply slid long distances over the deep snow. But lower down the descent was less precipitous. The quantity of snow on the ground was everywhere much less than on the western versant of the pass. The sky, which was clear in the morning to start with, clouded over again, and it snowed hard all the way to the little rabat of Kotchkor-Beg-Bai, in the bottom of the confined valley of Kandahar. Two or three Tajik families dwelt in the neighbourhood.

During the summer and autumn the flocks graze on both sides of the pass; but for the winter they move down to the district of Tong, whither we now directed our steps. In winter too the pass of Kandahar is generally preferred, if only it is at all practicable. As a rule, it is deeply buried in snow, and the Tajiks trample down a path by

driving yaks on before them. If the pass is absolutely impassable, there is no other way of reaching Tash-kurgan except by going right round through Yarkand and Tagharma.

The snow continued to fall in big feathery flakes all the evening, and drifted together in loose snowdrifts. The air was cold, moist, and raw, and the darkness a darkness that could almost be felt. Our Tajik neighbours made first-class wheat bread, and some of the young girls came to my tent unveiled and offered me a few pieces. I accepted it, and rewarded them with some strips of cloth from Kashgar.

September 20th. When we awoke in the morning it was still snowing, and it snowed right on till eleven o'clock in the morning. The weight of the snow pressed so heavily upon my tent that the men frequently had to sweep it off, till I became literally encompassed by walls of snow. When we started again, we were joined by two young women, riding yaks. They were going a short distance down the glen to fetch fuel. They were uncommonly pretty and merry, and, their hair being black, and their eyebrows conspicuously marked, they put me in mind of gipsy lasses. They helped us with our caravan-animals, as though it were a perfectly natural thing to do; and their silvery voices, as they cried to them and urged them on, echoed musically against the steep mountain-walls. Their clothes hung about them in scanty rags; it made me shiver to see the thickly falling snow melting on their coppery brown bare necks and bosoms.

A short distance below our camp the glen contracted into a defile, which, owing to the fallen stones and huge fragments of rock, and the torrents of clear cool water which brawled amongst them, made the road both narrow and difficult. We repeatedly crossed and re-crossed the stream, in many places not without imminent risk of a bath. But just as often the path skirted the edge of the conglomerate terraces, the clay matrix of which had become softened by the melting snow, so that the ground threatened to slip away from under our feet.

Eventually the glen widened out every now and again, making room for groups of birches. At one of these places, called Tersek, our guide said, there were no trees lower down, and if we wanted fuel for a night-fire, we must stay where we were. The tent was therefore pitched underneath some fine hanging birches, whose foliage had already turned yellow. It was a particularly nice place for a night's camping; the only drawbacks were the gloomy, frowning sky and the thick veils of mist which wreathed the summit of the mountains. The two young women and our guide gathered up their bundles of fuel, loaded it on the backs of the yaks, and returned to their lonely cabins up the glen.

September 21st. We still continued our descent, the path being excessively steep, stony, and uncomfortable. Shortly after leaving our night's quarters we came upon a gigantic fragment of granite, bearing a curious resemblance to a colossal mushroom or petrified poplar. It had tumbled down from the mountain above and stood in the middle of the glen, which was for the most part shut in by mountains that turned their transversely fractured faces towards it. Clumps of birches, wild briars, and junipers were dotted about here and there.

CHAPTER LVII.

DOWN THE YARKAND-DARIA AND TO KASHGAR

WE made our next camp in the village of Lengher, amongst fields of wheat, barley, and clover. The population were Tajiks; but curiously enough, most of the geographical names in that district were Jagatai (Turki). The pass of Arpa-tallak, which we were to cross in a day or two, serves as a religious boundary between a predominatingly Sunnite population on the east and a predominatingly Shiite population on the west of it. Both sects however live on the best of terms with one another; there is nothing of the enmity between them which keeps the (Sunnite) Turks and the (Shiite) Persians at such deadly variance. They intermarry with one another; and are in constant communication backwards and forwards. The only tribute they pay to the Chinese is certain quantities of fuel and forage; but when Yakub Beg was master of Kashgar, the fiscal imposts laid upon them were almost oppressive. Nevertheless they are said to have preferred his rule to that of the Chinese; he was a Mohammedan like themselves, and he was their own *padshah* (king).

The rainy season in this valley coincides with the summer, and the quantity of rain that falls is often so plenteous that the river cannot be forded.

The recent earthquakes had brought most of the houses to the ground. One man who lay ill in bed died of terror; another, who was riding along the glen, was crushed by a fragment of rock which crashed down the mountain-side upon him. The glen was both wild and picturesque, the mountain scenery being on an imposing

scale; consequently the people who inhabit it were frank, cheerful, and liberal-minded.

September 22nd. We rode through a string of eight villages, each consisting of several houses, with court-yards, surrounded by cultivated fields and gardens, in which walnuts, apricots, peaches, apples, melons, and other fruits were grown. After the barren mountain regions which we had left behind us, it was pleasant to catch the scent of freshly cut corn. We saw neither yaks nor camels in that district, only cattle, donkeys, horses, sheep, and goats.

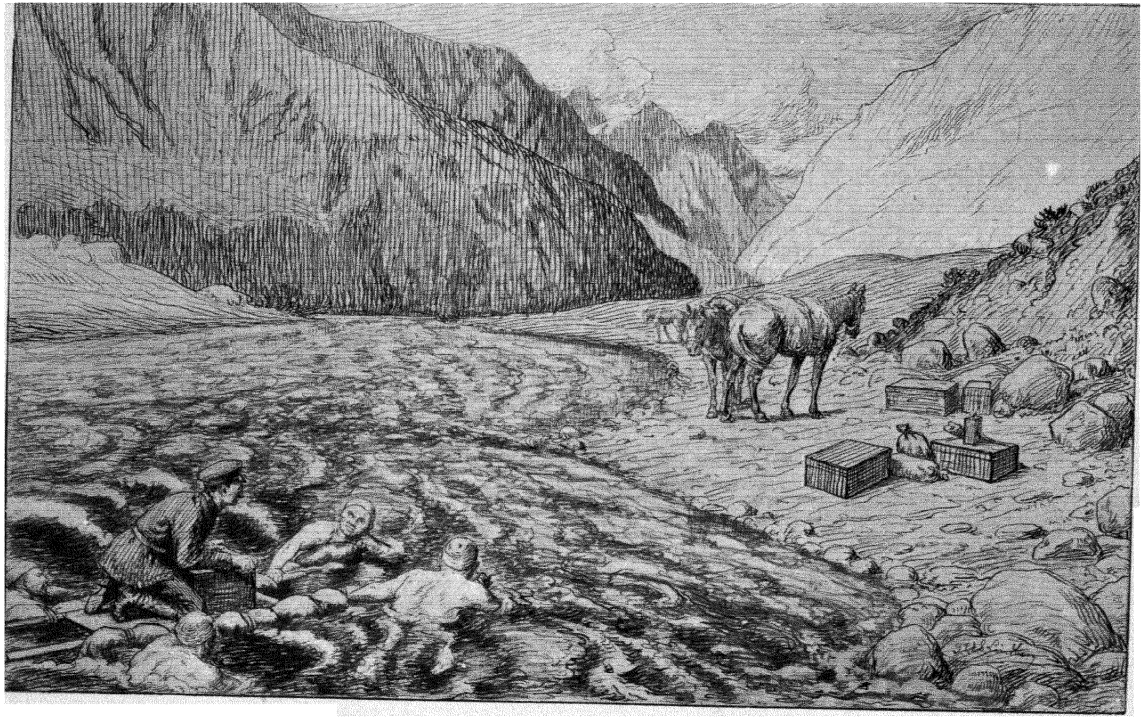
The prettiest village was Tong, its luxuriant orchards and picturesque houses contrasting agreeably with the naked mountain-walls of the background behind it. The chief of the village, Hassan Beg, was a typical old man; he reminded me of a worn-out professor, being extraordinarily absent-minded, and yet constantly talking away in half-tones to himself. At Kandalaksh, a village a short distance lower down, we put up at the *min-bashi's* (chieftain of a thousand men), and established ourselves on his balcony, where all the dignitaries of the place came to pay us their respects.

Tong lies only a mile or a little more from the Yarkand-daria. The river is known there simply as Daria (the River), or also as Tongning-dariasi (the Tong River). The names Raskan and Serafshan are only applied to the upper portion of the stream. In summer the river is so swollen that it cannot be crossed by any means whatever. Hence the inhabitants only travel to Yarkand in the autumn and winter. The journey takes a man on horseback about three days. Traders from Yarkand visit the valley with clothes, sugar, tea, and other commodities. Hassan Beg and the villagers thought we might possibly get across the river; but the old man begged me to remain with him that night, so that everything might be prepared for ferrying us across in the morning.

September 23rd. When we came down to the river, I was astonished to find that the side-valley of Tong was broader than the principal valley upon which it debouched.

The enormous volumes of water which pour off the mountains towards that quarter have cleft their way irresistibly through the massive mountain-chains, and present views of signal grandeur both up and down the defile by which they break their way through. From the marks on the cliff-side I observed that the river was at that time 11½ feet lower than its highest level during the summer. All the same, a hollow roar echoed against the mountain-walls as the flood, still of considerable volume, rolled its greenish muddy waters along its deeply eroded channel.

The river stopped our way. We must get across it somehow. On the river bank we found half-a-dozen *suchis* (water men) waiting for us, in wide swimming-drawers, each man having a *tulum* (inflated goat-skin) tied round his chest. They had lashed together a *sal* (ferry-boat), which looked anything but trustworthy, seeing that it consisted of an ordinary stretcher supported by a dozen *tulums*. The horses were unloaded. Some of the provision-boxes were placed on the "ferry-boat." One of our horses was yoked to it. Then one of the suchis led him carefully down the polished rounded stones immediately under the bank, whilst his comrades balanced the boat. The horse soon lost his foothold, and disappeared, all except his head. The suchi then threw his right arm round the animal's neck, whilst with his left arm he swam and steered. The whole party were speedily caught in the current, and went swirling down at a giddy pace, the suchis swimming with all their might. The right bank immediately opposite to us presented a face of vertical cliffs. Towards these the swimmers pressed with desperate energy, striving to make a little sheltered bay immediately below them, in which an eddy circled over a shallow sandy bottom. At that spot the ferrymen cautiously landed their charges. Half a mile below the ferry the river made a bend, and the current swept over towards the left bank, forming a series of boiling rapids. Hence the anxiety of the suchis to get across the river before they were caught in and drawn down by the suction of the cascade; for once in the rapids, it would



CROSSING THE RASKAN-DARIA

be impossible to escape being dashed to pieces amongst the rocks and crags.

After the baggage was all taken over, in four separate journeys, it came to my turn. I had waited impatiently, with something of the same feeling a youth has who wants to bathe and yet cannot swim. The raft oscillated unceasingly on its inflated skins; and every moment threatened to capsize, especially when it got amongst the tossing eddies, but that the suchis were on the alert and maintained its balance. I preferred to dispense with the horse, and bade four of the men take hold of the four corners of the "ferry-boat." The next moment we were in the grip of the torrent, and away went the raft like a mad thing. I was not accustomed to that mode of travelling, and everything seemed to be turned the contrary way on. The opposite cliffs seemed to be racing *up* the stream, and the perspective appeared to be constantly changing, like the views you get from the windows of an express train. Plying their arms and legs with well-practised skill, the swimming ferrymen forced the raft out of the sweep of the current, and at length we made the comparatively smooth water of the bay, and landed.

On the return journey, back to the left bank, the "ferry-boat" was driven some distance down the stream, and had to be dragged back to the point of embarkation by a horse. The other horses that still remained were swum across, each with a suchi to help him. Islam Bai preferred to cross in the same way; but he turned giddy and confused, lost his bearings, spun round two or three times in the middle of the river, and forgot which way he was going; and very nearly drowned his horse through forcing his head down too low in the water. He drifted down the river, and I was on tenter-hooks lest he should be swept amongst the rapids. But luckily he managed to reach the bank. I was thankful to have all the caravan, horse and man, safe and sound on the right bank of the Yarkand-daria! I paid the suchi one hundred tengeh (*22s. 6d.*), besides a present of a cap

and a knife to their leader; and they were more than satisfied.

The river usually freezes towards the end of December; and in those places in which the current is not too strong, the ice is wont to be thick. It is then possible to ride along the ice up the valley to the village of Kichick-tong and the side-valley of Chepp, which leads to the pass of Korum-art (the Stone Pass), in the mountain-chain that overlooks the river on the right. The summer flood begins in the end of May and lasts three months.

Having safely crossed the Yarkand-daria, we reloaded and continued our journey down the stream by its right bank. But we had not advanced far before the road appeared to be blocked by a projecting spur, which shot perpendicularly down to the water's edge. But the Tajiks have hewn out a ledge or sort of cornice-path round the face of the spur—a work which probably dates from a remote antiquity; but the outside edge had crumbled away, so that the path sloped towards the abyss, at the bottom of which the river foamed. The path had been mended with stakes and branches and slabs of rock; but the boxes with which the horses were laden constantly scraped against the rocky wall. Besides, in some places the path was so narrow that the horses were quite unable to get along with their loads. One of them only escaped going over by the merest shave; he stumbled in one of the narrowest parts, and would unfailingly have been precipitated into the river, had not Islam Bai flung himself upon him in the very nick of time and so preserved his balance, while the rest of us hastily freed him from his boxes. After that I had all the baggage carried over the dangerous places.

We halted at Kurruk-lengher (the Dry Rest-house), situated in the entrance of the valley of the same name. It was a charming village, being encircled on all sides by gigantic cliff-walls, whilst itself embowered in parks and groves of leafy trees, amongst which the poplar, with its tall straight stem and spreading crown of foliage,

was the most conspicuous. The gardens and fields were dependent for water upon the rainfall in the mountains around; so that the crops were not seldom a failure.

September 24th. We rode up the glen of Arpa-tallak, and in a violent hailstorm pitched our camp in a field near the village of Sughetlik (Willow Village), and on the following day crossed the pass of Arpa-tallak (12,590 feet). The path wound zigzag up the declivity, which was pretty steep and diversified by gently rounded knolls overgrown with grass. Patches of snow still lay on the slopes facing north; everywhere else the ground was sopping wet from rain and snow. The horses constantly slipped and slid on the slippery clay, so that we had anything but a pleasant ride, especially as there was a deep precipice on one side of us.

From the summit of the pass I perceived, to the west, the range which we crossed by means of the Kandahar pass. Eastwards was a panorama of mountain-crests, which died away into a yellowish haze in the far, far distance, where the desolate desert plains of East Turkestan began. On the east side of the range we were crossing there was no snow. Every village we passed after that was inhabited by Jagatai Turks; so that the Arpa-tallak pass forms a religious, as well as a climatic and ethnographic boundary. The track led east-north-east as far as the village of Unkurluk (the Ravines), where the people were engaged in thrashing their harvest. It was a very simple operation. The corn was spread out on the ground, and ten oxen, harnessed abreast, went round and round a pole in the middle, and so trod out the grain. Maize, wheat, and barley are the crops principally grown; and the fields are only sown every other year.

September 26th. We rested in the well-cultivated, well-inhabited district of Utch-beldir. The next day we emerged from the mountain labyrinth, and at the village of Kusherab once more crossed the Yarkand-daria, which was 85 yards wide, and had a maximum depth of 10¼ feet. The current did not flow at the rate of more than 1½ feet in the second, so that we had no difficulty in

crossing by a large ferry, which took the whole caravan over in a single trip, and that without our having to unload the horses. We encamped in the village of Kachung, a place of 200 households. There, in addition to the ordinary cereals, rice was grown.

The next day's journey took us through the village of Yar-arik, which is supplied with water from a large canal, fed by the river, and thence north-eastwards to the village of Lengher. On our right stretched the boundless plains and the desert; on our left were the outermost ramifications of the mountains, dimly outlined in the dust-laden atmosphere. It was a landscape which reminded me of the sea at home, as soon as you have left the outermost rocks of the Skärgård.

In our last day's march we passed through the villages of Kok-rabat, Kizil, Yanghi-hissar, and Yappchan, and on 3rd October once more reached Kashgar, where I was welcomed by Consul-General Petrovsky with the same hospitable friendship as before.

Down in the plains it was still warm and close, and the sudden change of temperature laid me low with a violent fever, from which I did not recover until the middle of November.

The losses I had sustained during that unlucky desert journey were now replaced. I found awaiting me from Fuess in Berlin a case containing a set of first-class aneroids, hypsometers, psychrometers, and thermometers, all in excellent order, thanks to the care with which they had been packed in Berlin, and afterwards looked after by the Swedish consul in Batum. Besides, three loads of supplies had arrived from Tashkend, embracing several needful things, such as clothes, tinned foods, tobacco, etc.; so that I was quite as well equipped as when I first started my series of Central Asian explorations.

ACROSS THE DESERT OF GOBI TO LOP-NOR

CHAPTER LVIII.

FROM KASHGAR TO KARGALIK

AS soon as I had recovered from the attack of fever, and could get my new caravan properly organized, I left Kashgar for the last time. My departure made some stir. The great Shang Dao Tai himself in august person came, with every circumstance of pomp and parade, followed by his train of Chinese friends and servants, to pay me a farewell visit. My caravan of nine horses and three men, under command of my trusty Islam Bai, started on the morning of December 14th, 1895. I myself, accompanied by two servants, followed them at noon on the same day. It was precisely five years before, to the very day, that I first set eyes on Kashgar, the last outpost of European civilization in the centre of Asia.

There was quite a crowd assembled in the courtyard of the consulate to see me off—Consul-General Petrovsky and his hospitable wife, the Polish missionary Adam Ignatieff, fifty mounted Cossacks and their two officers, and lastly all the native secretaries, interpreters, and servants. After a last farewell to my host and hostess, in whose hospitable house I had spent so many happy and instructive hours, I vaulted into the saddle, and we set off at a gentle trot through the bazaars, followed by the Russian officers and their Cossacks, and the old Pole. The soldiers sang as they trotted along, and their cheerful voices echoed loudly through the narrow, confined bazaars. At the Swedish mission-house we stopped a moment, whilst I said good-bye to Mrs. Högberg and her children. Her husband joined my *cortège* on horseback. When, shortly afterwards, our good friend the Russo-Chinese interpreter Yan Daloi

caught us up in his blue cart, it can be imagined what a gay, though mixed, procession it was which filed along the broad highway to Yanghi-shahr, enveloped in clouds of dust. At Yanghi-shahr farewells were said. When I cried with a loud voice, "Good-bye, Cossacks"; they all answered in unison, "God grant you a safe journey, sir!"

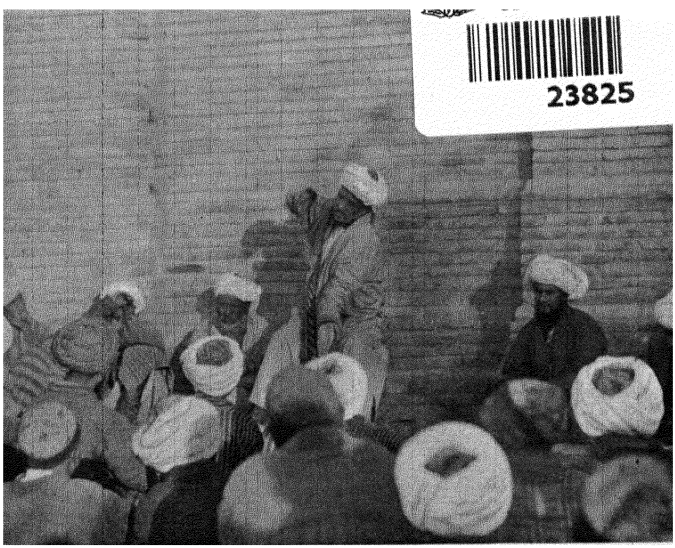
After that I was alone amongst pure Asiatics, my right-hand man being Islam Bai. And yet, as soon as the Cossacks' songs had died away in the distance, and the battlemented walls of Kashgar had disappeared below the horizon, I drew a sigh of relief at the thought that now I was on my way home. Nor was my jubilation greatly damped by the recollection that I still had to cross one-half the continent of Asia, and travel nine or ten thousand miles, before I could hope to set foot upon the quays of Stockholm.

I caught up my caravan in Kizil. Instead of keeping to the principal highway which led to that place, a road I already knew, I chose the desert road, so as to get a glimpse of the saints' tombs — Ordan-Padshah and Hazrett-Begim.

I allowed twenty-three days for the journey of 320 miles to Khotan. That gave me both time and opportunity to pick up an intimate knowledge of the road, which is not only a highly important highway, but in many respects one of the most interesting roads in Central Asia. But the length to which this book has already run prevents me from describing it in detail. Still the many fresh observations and discoveries I made, and the detailed diary I kept, will not have been wasted, for I hope to deal with the subject again on some subsequent occasion. My journeys in Central Asia have proved so rich in experiences, that a single book cannot suffice to record them all. Moreover, a large portion of my material is of such a character that it must be sifted and arranged, before being published, and some of it will involve a considerable amount of historical research; and all that is work which takes time.

The route to Khotan has been travelled over either wholly or in part by several European travellers, amongst

whom the best known have been Johnson, Schlagintweit, Shaw, Forsyth's expedition, Grombtchevsky, Pievtsoff, Dutreuil de Rhins, Littledale, though these are by no means all. But I do not think I shall be too assuming, if I claim that I have gathered a more copious stock of information about the road, and the places I passed through, as well as about the branch-roads which strike off from it. All this would require a small volume to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A DERVISH TELLING STORIES

itself, so that I must refrain from dwelling upon it, but must hasten on to describe the districts in which I had no forerunners. I will confine myself therefore to a few incidents of the journey.

On 20th December we rode through the double gates of Yanghi-shahr, the Chinese quarter of Yarkand, and shortly after that through the Altyn-därvaseh (the Golden Gate) of Kovneh-shahr (the Old Town), or the Mohammedan quarter of the same city. The two quarters lie within half a mile of one another, connected

by the great highway from Kashgar to Khotan. The space between the gates forms one long, broad bazaar, covered in with wooden roofs, and late of an evening is the scene of a lively traffic by the light of flaming oil lamps. In fact the road resembles an interminable tunnel, lined on both sides with stalls and stands; and the crowds, the shouting and noise, as well as the long strings of camels slowly piloting their way through the throng, announced that we had entered the precincts of a big city. As a matter of fact, Yarkand, with its dependent villages, possesses a population of 150,000, and is thus the largest city in East Turkestan.

To reach the house which the aksakal of the Andijanliks had prepared for us, we had to thread our way through a perfect labyrinth of crooked streets and lanes of the Mohammedan quarter.

We stayed two days in Yarkand, partly to give the horses a rest, partly that I might see something of the town and its environs. Accompanied by the aksakal, I rode over to call on the amban. His yamen or official dwelling was a much more imposing edifice than that of his colleague in Kashgar, being approached by not less than three lofty and picturesque gates, ornamented with sculpture and variegated colours. In the courtyard we found a great number of native suitors and litigants assembled, desirous of putting their cases before the amban, and getting the decisions of Chinese law upon their several complaints. There were men from the adjacent villages, complaining of a deficiency of water in their irrigation-canals; servants complaining that their masters had not paid them their wages in full; thieves awaiting a magisterial inquiry, and their consequent punishment.

The amban, Pan Darin, was a big, fat old gentleman, with a grey goatee beard. He received me with a polite and friendly smile, and graciously inquired after my plans. In the evening he sent me presents of forage, maize, and wood for burning; the next day, when he returned my visit, I presented him with a revolver. In my round

through the city I saw the principal madrasas and mosques. The largest was the Kok-madrasa (the Blue College); its *pishtak* or arched façade was decorated with blue and green tiles, which however were not to be compared to the simplest specimens of the same kind of ornamentation in Bokhara. Its courtyard contained the tombs of several saints—*e.g.* Makhtum Assam, Shah Abbas Khojam, Khoja Danyar, Khoja Khutbuddin Khojam, Khoja Aberdullah Khojam, Khoja Burhan-ed-

STREET IN A CENTRAL ASIAN TOWN

din Khojam, and several others. The remaining madrasas were still smaller, and possessed not one trace of architectural interest—the Ak (the White), Yeshil (the Green), Khalik, Kasim Akhun, and Bedawlet madrasas. The last mentioned, which was built by Yakub Beg, boasted of thirty-six columns (*sutun*) and a verandah (*ayvan*).

The Nevrus-dung (New Year's Hill) on the north-east of Yarkand offered a bird's-eye view of the city. The hill was crowned by a minaret, consisting of nothing more than a roof supported on two or three wooden pillars; from it is

caught the first glimpse of the new moon, which releases the faithful Mohammedan from the enforced fast of Ramadan. The hill stands just inside the city walls, which are thin, and crenelated, but in bad repair. They are built of sun-dried bricks, and undulate, with many bends, up and down the terraces which overlook the ancient bed of the river, but at the same time form a rough circle. Looking across the city from the top of the hill, you see an intricate mosaic of square and oblong house-roofs, with scarcely distinguishable narrow lanes winding between them. The only relief for the eye is afforded by the bazaars, gardens, and a few isolated willows. On the outside the walls are surrounded by a perfect labyrinth of cultivated fields, ravines, and irrigation-canals; whilst towards the north-east the most conspicuous feature is the Yarkand-daria, creeping its sinuous course across the desert on the way to its far distant outfall into Lop-nor.

Although the city gets its drinking-water from the river, the largest in Central Asia; yet, by reason of pernicious management, the water is actually little better than poison. It is conducted from the river by means of canals, and is stored up in reservoirs inside the city. There it stands and stagnates, and becomes gradually polluted by every sort of refuse and impurity. These reservoirs or *hauz* are in fact nothing more nor less than centres of infection, and nurseries for the propagation of bacteria. The people bathe in them; they wash their clothes in them, and abominably dirty some of them are; they wash their dishes in them; they toss into them the scraps that are left over from their meals; they leave them unfenced and unprotected against all sorts of nuisances; and yet this is the stuff they drink. To crown all, the reservoirs are only replenished when the malodorous mud at the bottom begins to be exposed.

One consequence of this gross neglect is an affliction called *boghak*, which attacks an extraordinarily large percentage of the inhabitants of Yarkand. A sort of tumour shows itself on the front of the throat, generally upon

"Adam's apple." In the most favourable cases it is as large as a man's closed fist, and in every case gives its unhappy bearer a strangely unnatural, and even repulsive, appearance. It is certainly no exaggeration to say, that 75 per cent. of the settled population of the city are afflicted in a more or less degree with this tumorous growth. In most instances it remains until death. If therefore in any other town throughout Central Asia a man is seen walking the streets with a *boghak*, he may

BAZAARS

confidently be pronounced an inhabitant of Yarkand; and contrariwise, if you observe a man in the bazaars of Yarkand, whose throat is free from the disfiguring tumour, you may fairly presume he is a stranger from Kashgar, Khotan, or some other town of East Turkestan. The people make no attempt to combat the affliction; although in some few cases, probably in consequence of change of residence, the growth is said to disappear of itself. The Hindus are reputed to be acquainted with a remedy against the disease; but as both they and the Andijanliks (people

from West Turkestan) only drink well-water, they do not suffer from the disfiguring tumour.

The following legend is current with regard to this disease. When Saleh Peygambär was travelling through Yarkand, certain thieves stole his camel, and cut its throat, and left the carcass lying on the bank of the Yarkand-daria. Then the holy man solemnly cursed the entire neighbourhood, swearing that the inhabitants should be tormented with *boghak* to the very end of time. Ever since then the river water has been polluted by the dead body of the camel.

There is a colony of some forty Andijan (West Turkestan) merchants in the city, who import cloth, caps, khalats, sugar, matches, and so forth, and export wool, felt carpets, and other native commodities. They make large profits, and dwell together in a fine serai or guest-house, which was built twenty-six years ago. But neither the people of Yarkand nor the Chinese give them a good word. It is easy to tell them on the street, by reason of their neat attire, and their dignified bearing; and their houses are distinguishable by their cleanly rooms and well-kept courtyards. The Afghans and Hindu merchants likewise have their own separate serais.

The city is divided into twenty-four *mahallähs* or quarters, each governed by a *yuz-bashi* (chief of a hundred men), who has two or three *on-bashis* (chief of ten men) under him, and sometimes more. Besides these officials, there are a great number of begs, whose duty it is to maintain order in and around Yarkand.

On December 23rd we were ferried across the Yarkand-daria. Although it was the middle of winter, the river had a volume of 3280 cubic feet in the second, or a decrease of 2120 cubic feet in the second as compared with the measurement I made at Kusherab in the end of September. The entire district as far as Posgam was watered by irrigation-canals branching off from the right bank. Beyond Posgam the fields were irrigated from the Tisnab.

Travelling through continuously well-inhabited, well-

LI DARIN, THE AMBAN (GOVERNOR) OF KARGALIK

cultivated districts, and a long string of villages (all of which I entered on my map), we reached the town of Kargalik on Christmas Eve; but there was neither snow nor fir to recall the significance of the day. The people however showed us all the good-will that we are wont to associate with the holy season. We put up at the house of a merchant from Kokand in Fergana, and in the evening he entertained me to a first-rate dastarkhan, embracing apples, pears, raisins, almonds, and divers kinds of sweetmeats, presented on a dozen dishes. It was like a Christmas table, except that everything was placed on the floor. A little later on the ten begs of the town came in Chinese holiday attire and pigtails to bid me

welcome to Kargalik; and lastly I received from the amban (Chinese governor), Li Darin, a number of useful presents, such as sheep, rice, wheat, maize meal, fuel, and forage for my horses. As soon as my guests were gone, and my journal for the day had been written up, I hurried into bed, to drown the memories of the day in the oblivion of sleep, for they crowded in upon my mind with especial importunity in that I was alone.

The amban of Yarkand was politeness itself; but he was easily outdone by his colleague of Kargalik. In fact, the attentions of the latter were tiresome. Before I had an opportunity to pay my respects to him, he called upon me, on Christmas Day morning, before I was awake; and when I returned his visit, and was riding across the yamen courtyard, I was received with a salute of three guns. The honour nearly cost me a summersault, for my horse was not accustomed to such demonstrative welcomes. The amban was an agreeable little old man of some fifty years of age, and of gentlemanly manners, with a small, grey, well-cared-for moustache, and big round spectacles. He invited me to stay to dinner with him. After dinner I sketched him; then to my astonishment in tripped his dainty young wife, on her tiny goat's-feet (scarcely two inches long), and in her turn begged me to make a sketch of her; she wanted to send her likeness to her parents in Peking. I was of course only too happy to comply with such a flattering request.

CHAPTER LIX.

ALONGSIDE THE DESERT TO KHOTAN

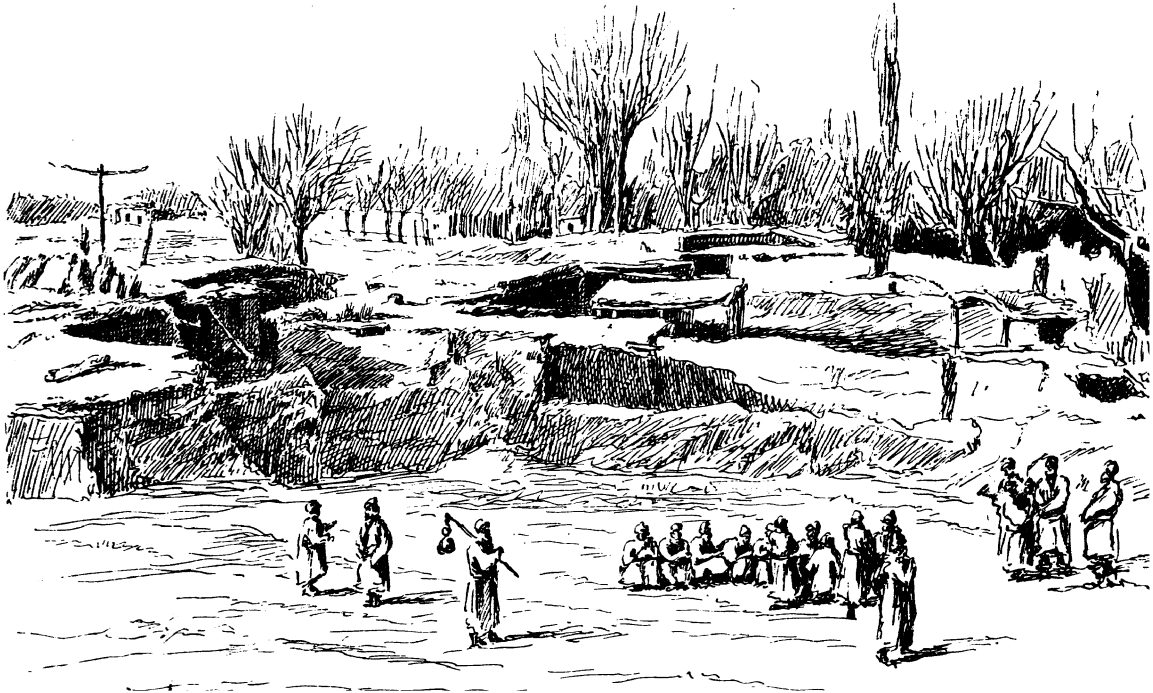
I LEFT Kargalik the next day; and the amban's courtesy went the length of sending a beg to act as my escort, and relieve me of all trouble during the journey. The town possessed five gates, the same number as Yarkand; and as we passed out of the eastern gate, the cannon again boomed forth a farewell salute. It did not take us long to get past the last village and reach the sterile plains. Hitherto the road had been plainly marked like a bright strip through the fields; henceforward there was no road. The track of each caravan is blotted out by the next storm that comes. The Chinese have therefore erected guide-posts all along that part of the route which crosses the desert. They stand at intervals of about a hundred yards, so that you can generally see six or seven at any one time. Whilst a sand-buran is blowing they are of little use; but directly the storm has ceased, they render excellent service, indeed they are then indispensable. It is said that some travellers, who have been so unfortunate as to miss their way, have never been heard of again. The custom of erecting these poles reminded me of Marco Polo's words—"And at sleeping-time a signal is put up to show the direction of the next march."

The road ran over a flat, barren plain all the way from the oasis of Besh-arik (the Five Canals) to the caravanserai of Kosh-lengher (Two Stations). The serai and willows of the latter place were visible a long way off; and in consequence of a mirage appeared to be lifted up a little above the dark line of the horizon. The serai was a first-class building, erected in the beginning

of Yakub Beg's rule, of grey-green bricks, and enclosing a square courtyard paved with large paving-tiles. The four sides contained ten guest-rooms for travellers, all of them paved with stone; whilst the daylight found admittance through an aperture in the vaulted roof. Alongside this splendidly solid brick structure—a remarkable contrast to the clay hovels in which we were accustomed to put up—were several outhouses and stables, built of ordinary clay, and covered in with timber roofs. Immediately on the south-east of the station there was a large *köll* (reservoir) surrounded by rows of fine willows. There water is collected off the mountains and stored up against the hot season, when everything is parched up.

From Kosh-lengher it is reckoned one and a half day's journey to the beginning of the desert proper, which is known under the names of Takla-makan, Jallat-kum, and Adam-öllturgan-kum, or the Sand that Slayeth Men.

This region is characterized by a strictly continental climate, that is, the winters are harsh and the summers oppressively hot. The burans begin to blow towards the end of March, and continue till the close of summer. It is estimated, that there are on an average fifteen "black burans" every year. They almost always occur in the afternoon, scarcely ever in the morning or during the night. As a rule, they only last about an hour, and are rather more frequent from the west than from the east. Their violence is almost inconceivable; they drive across the open, level plains with a force that is absolutely irresistible. Sheep grazing around the villages are sometimes swept bodily away, or get separated from the rest of the flock in the dust-haze. This has given rise to certain peculiar local enactments: for instance, if a sheep goes astray from the flock when the weather is still and fine, then the shepherd is responsible, and must make good the loss to the owner of the sheep; but if a sheep gets lost during a storm, then no man is responsible. If straying sheep do damage to a man's field or crop, and the mischief is done in fine weather, the owner of



THE VILLAGE OF GUMA

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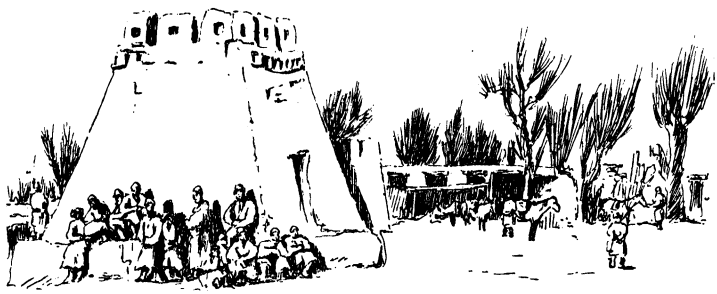
the sheep must recompense the injured party; but not if the mischief is done during a buran or under cover of the haze of a dust-storm.

The custodian of the serai told me, that ravens and other birds are often blown by unusually violent burans all the way from Kargalik to Guma, or from Guma to Kargalik, and not seldom are dashed against larger fixed objects and killed. The following legend illustrates the effect which these wind-storms produce upon the native imagination. Many hundred years ago a holy man dug a well near the station of Chullak, which is now completely filled up again with sand. When the holy man got down about eighty fathoms, the earth opened underneath him and vomited forth a terrific wind, which swept the holy man right up to heaven, and since that time all the winds and storms have come out of that well. Another apothegm is more rational, in that it is based upon actual observation. For instance, it is said, that if the last buran came from Kargalik, then the next will come from Guma; but that it is either the same buran going back again, or else one that is hurrying to find the first.

Our next day's journey took us to Chullak-lengher (the Cripple's Serai), so named from the fact, that a long time ago an old woman who had no feet used to sit by the wayside in that place begging. The caravanserai was like that at Kosh-lengher, and had a reservoir some 95 yards square, and, when full, 24 feet deep in the middle. When I saw it, there were only about nine feet of water in it, and it was protected against contamination by a glittering covering of ice. The serai was built on a hill, and commanded a sheer unbounded view towards the east. The plains stretched away like narrow ribbons one behind the other, fainter and fainter, until they melted into the horizon. Earth and sky did not meet in a sharply defined line, but blended together in a yellow haze.

The entire distance between Kashgar and Khotan has been divided by the Chinese into *potai* (2½-mile distances), like the road between Kashgar and Ak-su. Hence the

Mohammedans also measure distances by potai, not as in other districts by *tash* (stone), *yoll* (road), and *chakerem* (shout-distances). The potai are indicated by flattened pyramids of clay, eighteen or twenty feet in height, and there are on an average ten such intervals or "miles" between every two stations. But no two potai are the same length. I measured some of them, and got the following results:—4068½, 4032½, 3830 yards respectively. What method of measurement the Chinese followed when they erected these "mile-stones" I do not know; anyway it cannot have been a very accurate method. At the rate

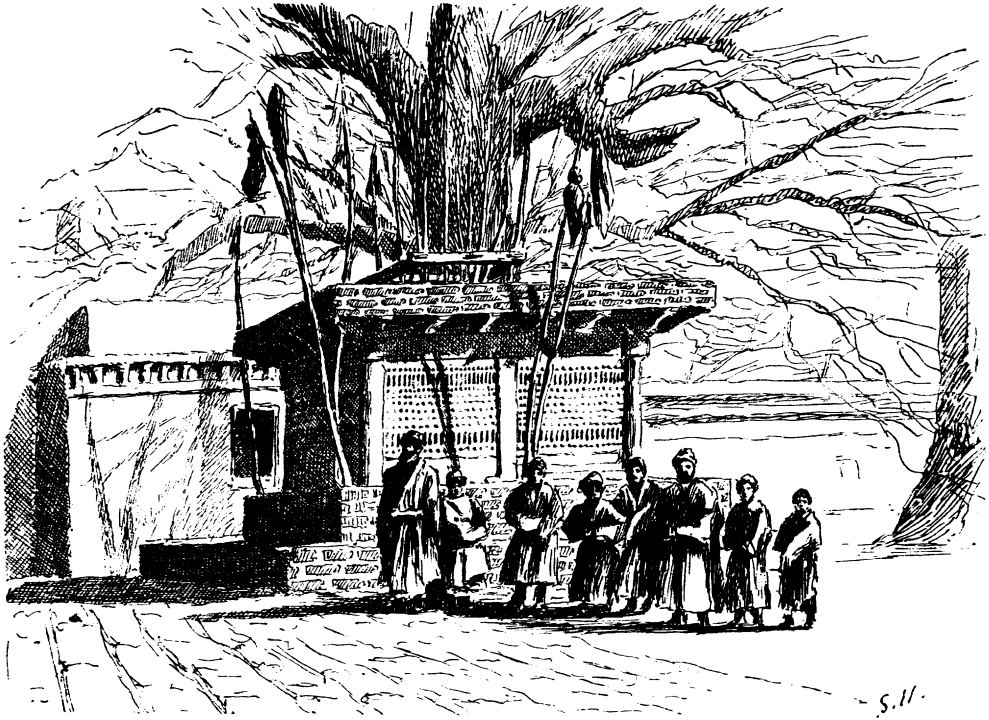


A POTAI OR "MILE-STONE" ON THE ROAD TO KHOTAN

we usually marched, it took us three-quarters of an hour to traverse a potai.

Our next station was the pleasant little town of Guma, an oasis in the desert well supplied with water. The route between Chullak-lengher and Guma ran across dreary steppes and barren plains. The 29th December we spent at Guma, and the following day went on to the village of Muji. Thence, on the last day of the year, we made a flying excursion in quest of a *kovneh-shahr* (ancient city), which I had been told was to be found in that neighbourhood.

We reached the ruins, which were scarcely a potai distant north-east of the caravanserai, across a barren steppe. They consisted principally of a number of tombs ranged along a series of clay terraces. We opened up two or three of them. They were backed on the outside



A SHRINE IN GUMA

with planks and posts; but the interior was choked with dust and sand, from amongst which we unearthed a few bleached bones and skulls. The shape of the latter, as well as the position of the tombs with respect to Mecca (their *kebleh*), proved them to have belonged to Jagatai Turks. Some of the skeletons were wrapped in rags; but they crumbled to pieces the instant they were touched. My examination of the site led me to the conclusion, that the place had been used as a burial-ground at no very distant date, probably not more than two or three hundred years back. Judging from the traces of houses and walls in the immediate vicinity, I concluded that the former inhabitants had been driven by the encroaching sand to migrate further to the south. Retreats of this sort, men flying before the persistent invasions of the desert sand, must have been going on for thousands of years; and there can be little doubt, that there are many strange things buried under the sand of the Takla-makan Desert.

That this region was once the seat of a very ancient civilization is indicated, amongst other things, by the innumerable quantity of fragments of clay-vessels and burnt bricks which lie scattered along both sides of the great caravan-route, and which the native inhabitants allege have come from an ancient city to which they give the name of Nasar. Occasionally too old coins are found, and rings, and articles in bronze, and a multitude of fragments of glass. Some of these last, of a light blue and green colour, I brought away with me.

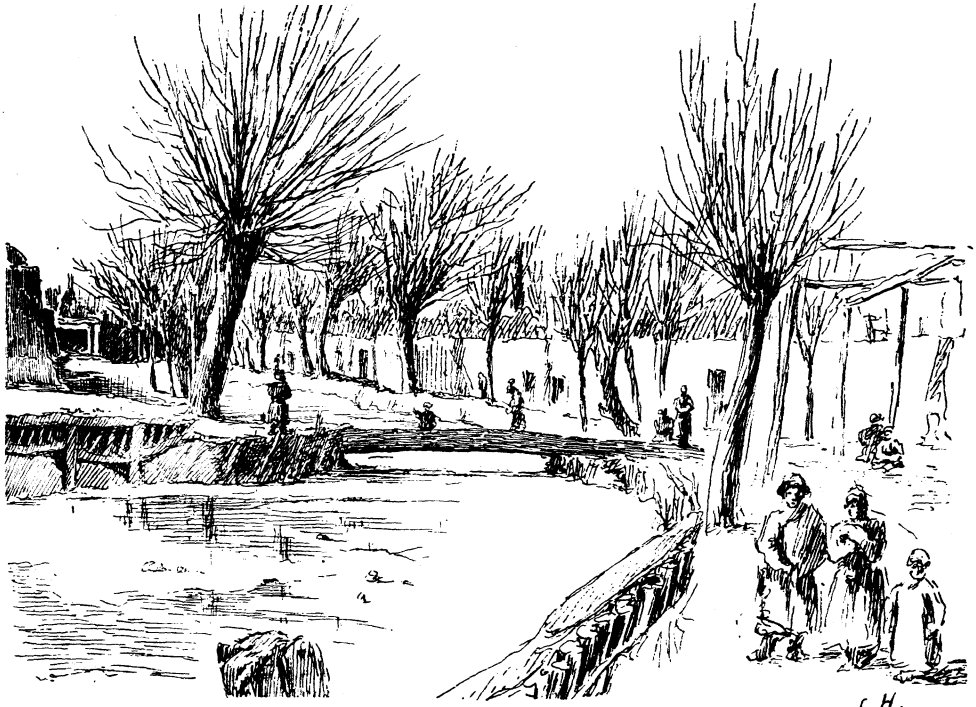
The sight of these innumerable shards and fragments of glass lying scattered about the surface of the ground produced at first a curious effect upon my mind; for, when we dug down underneath them, we found nothing but sand and dust. No doubt their presence is to be accounted for by the action of the wind, which blows away the sand and dust, but leaves these objects behind, partly because of their shape, partly because they have a greater specific weight. For thousands of years the wind has gone on scouring away the superficial layers of the desert, and all

the time these fragments of glass and earthenware have no doubt kept gradually sinking lower and lower, until finally they have come down to their present level. Unresting, slowly but ever surely, the implacable wind excavates and levels up the dreary expanses. The aboriginal inhabitants themselves have observed, that the erosive action of the wind is incomparably greater than that of water.

The different varieties of shards or crocks pointed to the following types of vessel—spherical bowls with two handles, some placed horizontally, some vertically; round pitchers with a somewhat enlarged neck; egg-shaped jars with a long, narrow neck; thick cups of blue burnt clay, as hard as a stone. Some of the fragments of bricks were enamelled in light green. The pieces of glass appeared to have belonged to small bottles and dishes, and to lotus leaves used for decorative purposes.

On 1st January 1896 we rode as far as Sang-uya, a little village of 150 houses. Steppe and desert alternated all the way, and the villages were in reality so many oases. In some places the road ran so close to the desert that it was easy to make out the sand-dunes. The mighty mountain masses of the Kwen-lun on the south could only be seen when the atmosphere was clear. At Muji, where they were known as the Dua-tagh, we were able to distinguish them, looming up in the far, far distance like a faint blue wall; but at Sang-uya we were unable to perceive them at all. During the hot season, when the burans rage, and the atmosphere is thickly impregnated with dust, the traveller may journey from one end of the road to the other, without the least inkling that one of the greatest mountain ranges on the face of the earth rears itself up immediately to the south of him. That Marco Polo never mentions a syllable about the range need therefore occasion no surprise.

The oasis of Sang-uya is very fertile, and produces wheat, maize, barley, melons and water-melons, grapes, apricots, peaches, apples, mulberries, cotton, onions, and other vegetables. The yield is amply sufficient for the needs of the place; indeed there is not seldom a surplus for export to the other villages in the neighbourhood.



STREET AND IRRIGATION CANAL IN GUMA

January 2nd. There was a tolerably fresh breeze all day from the east-north-east, and the dust trailed off in a thick cloud behind the caravan. Nevertheless the atmosphere remained very clear, and the Dua-tagh or Kwen-lun Mountains were plainly visible capped with snow. Immediately on the other side of Sang-uya we again entered upon a desolate waste—a level steppe, with a few scattered tamarisks, poplars, and reed-beds.

Half-way to Pialma, where we intended to stop the night, we passed a little lengher (rest-house), where in

CROWD IN MUJI

return for a small gratuity an old man furnishes wayfarers with water, drawn up in a bucket from a well 150 feet deep. Pialma was said to have 200 houses and about one thousand inhabitants.

On the following day we travelled through the same sort of dreary country as far as the solitary Ak-lengher (the White Rest-House or Serai), situated five or six miles (2½ potais) from the edge of the desert. It was only very seldom that we met other travellers; and those we did meet were generally either small parties of merchants from Khotan, encumbered with no more baggage than

they could conveniently carry on their riding-horses, or peasants travelling from one oasis to another, sometimes driving in front of them a few donkeys laden with seed or vegetables.

Like all the oases along this route, Ak-lengher was situated by the side of a watercourse going from the south to the north; but it very seldom contains water, only in fact after heavy and continuous rains in the mountains. The oasis depends for its supply upon a well sunk 126 feet down through the clay. This formation, yellowish-brown in colour, contains sprinklings of rounded, polished stones, not exceeding two inches in diameter, and consisting partly of hard, fine-grained, blue-black slate crossed by delicate white veins, and partly of red and greenish-grey granite. The well is cleaned out two or three times a year; for lumps of clay fall in from the sides and stop the inflow of the water. A man is let down with a rope tied round his body, the other end of which is drawn across a horizontal roller resting on two short posts at the top. The mud and sludge are sent up in a wooden bucket, and emptied out all round the well mouth. The top of the well is protected against the sandstorms by a wooden roof, provided with a hatch or flap. At half-past three in the afternoon the temperature of the water at the bottom of the well was 55° Fahr. (12°79° C.), whilst the temperature of the air was 37°2 Fahr. (2°9 C.) at 4.30 p.m. The water was saline, with a bitter flavour, and undrinkable except with tea and sugar. In this connection I may mention that the well at Kizil (between Yanghi-hissar and Yarkand) was 119 feet deep, and that its water was sweet, with a constant temperature of 59°9 Fahr. (15°5 C.). The inhabitants however, misled by the alternations of the temperature of the air, asserted that in summer the water is cold, but in winter warm.

January 6th. After riding about 4½ miles (nearly two potais) we came to a belt of sand-dunes, high and continuous, in the middle of which there was a ridge of clay, with some poplars growing on it, and poles with

tughs (offerings of rags) set up to indicate that there was a masar (saint's tomb) close by.

At the eastern end of the ridge were some wooden houses, the largest of them having a projecting roof supported on pillars. The masar, one of the most attractive I have seen anywhere, was called Imam Khakir, after the saint who lies buried within it; though the name Kum-rabat-pashahim (My King's Serai in the Sand), or simply Käptär-masar (the Pigeon Masar) is more commonly employed. For the peculiar feature about this holy tomb was that it afforded shelter and food to several thousand beautiful pigeons, of every possible variety of colour—yellow, white, brown, green, speckled, and so on. The rooms inside the serai were provided with an earthen floor, raised benches, and enclosures and perches in the walls; and these apartments the traveller shares with the pigeons, some of which are, maybe, sitting on their eggs or brooding their young, whilst others fly in and out of the narrow door-openings or window apertures. Outside, on the ridge of the roof, on the rafters, on the eaves, everywhere, they sit in close, serried rows, like beads on a rosary. In every direction you hear their cheerful cooings. The gentle birds betray not the slightest alarm at the presence of the strangers who share the house-room with them.

Fragments of skin were hung from poles fixed to the gables of some of the houses, to scare away the birds of prey. The *lengherchi* or "custodian of the serai" assured me, that if a hawk or other bird of prey dared to molest one of these sacred pigeons, it would instantly fall down dead. He had recently seen an instance of it himself. A hawk seized a pigeon; but was forced by some unseen power to drop its prey, and then the next instant the marauder fell dead.

It is an ancient custom, that travellers who journey past the tomb, bring with them a supply of maize, however little, to give to the pigeons; a gift which is likewise regarded as an offering made to the shrine of the saint.

The corn is stored up, so that the pigeons are always fed regularly; for the tomb stands in the midst of a perfectly sterile region, where not a blade of anything grows, nor do the pigeons ever fly away from the place. We brought a bag of maize for them from Pialma. The men put the bag down in the courtyard. I took a porcelain bowl and scattered the corn all over the ground, as far as I could fling it. What a flapping of wings, what a whistling of the air, what joyful cooings! The courtyard seemed to be alive with pigeons; they settled down like a veritable cloud. Some of them even came and perched on my shoulder and on my head; others went and helped themselves at the bag and out of the bowl. I was obliged to stand perfectly still, lest I should trample on them. They did not betray the smallest trace of fear.

I stayed there an hour enjoying the unusual and charming spectacle. Then, having drunk from the adjacent well, which came to within 6½ feet of the surface, whilst its water had a temperature of 35°9 Fahr. (2°2 C.), we continued our journey towards the well-cultivated and thickly inhabited tract of Sävvah; a place that with its dependent villages is administered by a min-bashi (chief of a thousand men) and eleven yuz-bashis (chiefs of one hundred men). That night we slept in the village of Milleh, the yuz-bashi of which exercised authority over 260 families.

On January 5th there only remained one day's journey to Khotan. The road improved as we drew nearer to the town. We travelled along a magnificent avenue of poplars, fifty feet broad, which ran through a bright and varied landscape of villages, cultivated fields, and irrigation canals. We passed through numerous large villages, *e.g.* Kum-arik, Sheidan, Gulbagh, Ak-serai, Chinakla (which possessed a masar shaded by a poplar 280 years old), Supa, Shuma, Borasan, Besin, and Tosanla. Then we came to the gate of Yanghi-shahr (the New Town), and immediately afterwards entered the principal bazaar of Khotan. Early in the morning of the same day the amban sent his interpreter, together with the aksakal of

the West Turkestan merchants, to meet me. These officials conducted us to a large good-looking house, situated in a quiet and peaceful part of the city. It was the most comfortable house I had yet seen in East Turkestan; its walls were of wood, and were perforated with picturesque openings, and had a tastefully decorated roof.

CHAPTER LX.

CITY AND OASIS OF KHOTAN

KHOTAN is a city of extreme antiquity. The beginnings of its history are lost amid the dim obscurities of a remote and legendary past. Some of the principal notices of a more strictly historical character are cited in Chapter Sixty-two. Hence, after merely mentioning that the name was first made known in Europe through the travels of Marco Polo, the Venetian, I pass on to say a few words about its condition and products in modern times, *i.e.* at the epoch of my visit.

For generations, nay, I might say for many centuries, Khotan was especially famous as the place whence nephrite or jade was obtained. It occurred partly in the solid rock in the valleys of the rivers Kara-kash and Yurun-kash, partly in polished pieces out of the bed of the Yurun-kash. Jade (in Chinese *yü-tien*, in Jagatai Turki *kash-tash*) is in China esteemed amongst the greatest of rarities, and is used in the manufacture of small fancy boxes, bottles, cups, mouthpieces for pipes, bracelets, etc. One of the gates of Peking was called the Jade gate, because this precious mineral was brought into the city through it.

At the present time Khotan is an insignificant town, containing within its walls scarcely more than 5000 Mohammedans and 500 Chinese. Apart from jade, its most important products are silks, white felt carpets, hides, grapes, rice and other cereals, vegetables, apples, melons, cotton, etc.; its silk carpets are remarkable for their beauty and fineness. The Chinese place them on the

table on occasions of ceremony; in West Turkestan they are hung on the wall.

Khotan is really the name of the entire oasis, embracing some three hundred villages. The town itself is however generally called Ilchi; the oasis contains also two other towns, namely Kara-kash and Yurun-kash. The trade with China is carried on partly along the Khotan-daria, through Ak-su and Turfan, partly by way of Yarkand and Maral-bashi; on the other hand, scarcely any of it passes Lop-nor. Trade with Russia goes by way of Kashgar; the Anglo-Indian trade by way of Leh in Ladak. In the bazaar of Khotan there are merchants from all parts of Asia—Chinese, Afghans, Hindus, West Turkestanis, and even Nogai Tatars from Orenburg.

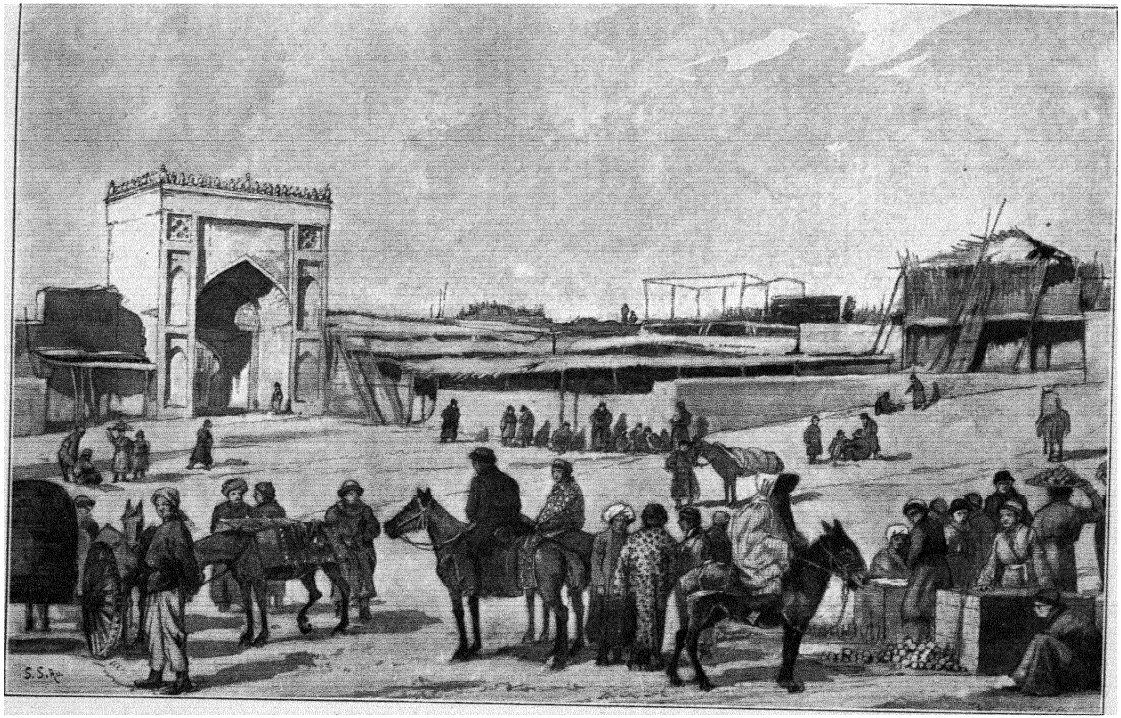
I stayed nine days in Khotan. The amban, Liu Darin, showed me genuine hospitality; and every time I rode in or out of his yamen (official residence) honoured me with a salute of three guns. The very day of my arrival we exchanged the usual visits of ceremony and gave one another presents. I went to see him many times afterwards, and soon discovered, that even according to European ideas he was a man of honour, generous, upright, and just; and a real tie of friendship grew up between us. He was a man of seventy or so, tall, with strongly marked features, small intelligent eyes, and thin white moustache, and a very meagre pigtail. Of all the Asiatics with whom I came in contact on this present journey, Liu Darin is the one I like best to remember, and whom it would give me greatest pleasure to see again.

On this occasion, as well as when I got back to Khotan the second time, Liu Darin often invited me to his house. There, in company with the chief mandarins of the town, I dined on delicacies which would have delighted even a European gourmand. Among the dishes which were never absent at his big dinners was soup made of the edible swallows' nests, which is remarkable for its aromatic flavour. I always looked forward to Liu Darin's good dinners as a change in my homely and monotonous bill

of fare—rice, mutton, and bread. They were something very different from the appallingly high ducks and ham steeped in molasses, to which our friend the Dao Tai of Kashgar treated us, no doubt with the very thrifty idea that, "as they never eat anything, it doesn't much matter what we put before them." But at Liu Darin's I ate like a Chinaman, and felt well after it; which is more than I can say of the Dao Tai's dinners.

Of the present Ilchi there is not much to be said. It is a place of no interest, a mere labyrinth of poor, insignificant houses, with narrow streets and alleys between them, such as I had seen in Yarkand. There were seven madrasas (theological colleges), twenty mosques, and a number of masars (saints' tombs) belonging to the orthodox Mohammedans. Of the masars, the chief was the Altyn Busrugvar masar. There are saints' tombs of the same name in Yarkand, Ak-su, and Turfan. All are said to have been erected to the memory of the sons of Khoja Isaki Väli, whose own tomb is at Chira, and one of the most venerated in the country. Pilgrims always go there before visiting Imam Jafer Sadik's tomb, in the sandy desert near where the Niya-daria loses itself in the sand. The Mesjid-i-Jami or principal mosque had a really beautiful colonnade, and the Hazrett-i-Sultan, like most of the religious monuments thereabouts, was built by the great Yakub Beg.

As in all Mohammedan towns, the bazaar was the centre and main artery of the life of the place. Off its streets branched a number of incredibly narrow, crooked, dirty lanes; but at intervals there were open squares, with tanks or ponds shaded by trees. In the middle of the town, close by the bazaar, there was a so-called *kovneh-sefit-potai* (old clay pyramid), with ruined tower and walls, a surviving relic of Haji Padshah's *ordu* or castle. This point overlooked the town, giving a good bird's-eye view of its square roofs and courtyards, as well as of the fields outside the walls. As they were at that season under water, and were separated from one another by ramparts of earth, they looked like the brightly polished squares of a chess-board.



THE RIGHISTAN, OR MARKET-PLACE, OF KHOTAN

The distant horizon was closed by a dark line of avenues and gardens belonging to the neighbouring villages.

There were two bazaar-days a week, when the country-folk came in with their produce for sale. The women also took part in the trafficking, and even when sitting in the bazaars were always unveiled. But they might just as well have kept their veils before their faces; for they were indescribably ugly and dirty, and covered with vermin, after which I often saw them unblushingly making chase. As a rule veiled women were an exception. The moral standard of the place was deplorably low, and infectious diseases very common.

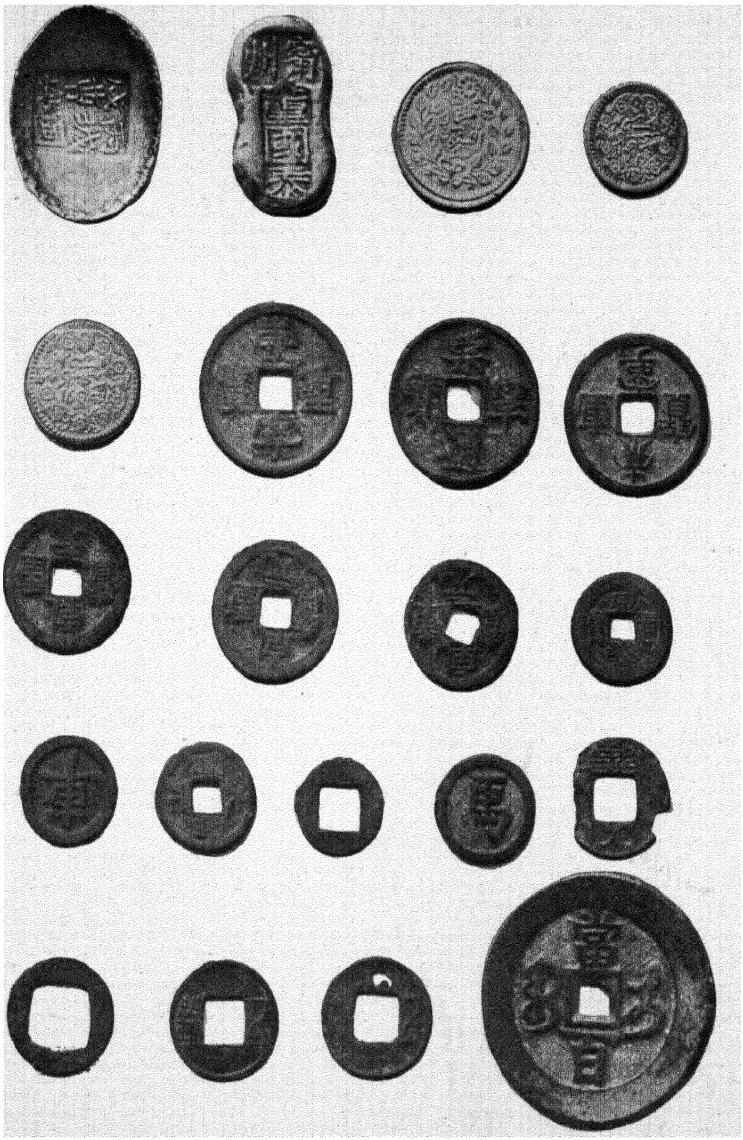
Some forty odd West Turkestan merchants lived in Khotan and exported wool, carpets, felts, etc., and imported, as also did the Afghans, woven materials and a variety of colonial produce. Tobacco and opium are cultivated in pretty large quantities. The cultivation of silk too has reached a high level. The produce is sent partly to India and West Turkestan, and is partly worked up on the spot for further manufacture into carpets. Hides and sheep's wool are also important articles of export, and are for the most part sent to West Turkestan, by way of Kashgar and Narinsk.

An old Tatar, Mohammed Rafikoff, from Orenburg, who had lived ten years in Khotan, having built himself a comfortable house close beside the bazaar, owned a factory for tanning and for cleansing wool. It consisted of an enormous magazine tent and a small temporary house built in the Russian style, both standing beside the Yurun-kash. The old man told me, that he pulled the whole thing down every February, to make the people of Khotan believe that he was about to give up business and return home; with the result that they hastened to sell their skins as quickly as possible and at low prices. But when May came, he built the factory up again; and he had gone on doing this for ten years. When I expressed my astonishment, that the people of Khotan had not yet discovered the trick, he answered, that they were too stupid and too indifferent.

On January 11th I made an excursion to the village of Kalta-kumat (Short Sand), situated 2½ potais (6¼ miles) north-east of the town. To reach it I had to ford the river Yurun-kash and pass through the town of the same name, which is only a quarter of an hour from Ilchi. On the other side of Tam-aghil (the Stone Village) the desert began, with occasional sand-dunes and ravines left behind by the stream. After that the ground became excessively stony, and I soon perceived we were riding along an old river-bed. It could not have been made by any other stream than the Yurun-kash, which some time or other must have flowed there, and in opposition to the general tendency of the rivers in those regions, has since shifted its course to the west.

This disused river-bed is one of the places that yield the largest supplies of jade. Everywhere the ground was cut up by trenches six or seven feet deep, a few feet broad, and at most thirty feet long, although varying somewhat as regards size according to the amount of work done in them. The material which is thrown up out of the trenches consists of round polished stones, sand, and clay. It is among these stones that the jade is found. Very often a couple of months or more will pass without anything being discovered; then all of a sudden, in the course of a few days, the digger becomes relatively rich, or at any rate does a very good stroke of business. The prices of jade vary very much, according to the colour of the stone, and its purity and freedom from flaws. Yellow or white pieces, with reddish-brown marks, are considered rare; also a roughness on the surface called *gush* (flesh) increases the value. The plain green jade, on the other hand, does not fetch much. Two beautiful pieces were offered me for 100 and 140 *sähr* (£9 and £12 10*s*.) respectively; but the low state of my funds did not permit me to purchase them.

A little village of wooden and clay huts has grown up on the spot, and is supplied with water by a special arik. The ground is divided into clearly marked lots, so that each mining claim has its owner; thus obviating disputes



CHINESE SILVER AND BRONZE COINS, NEW AND OLD

Two-thirds of natural size

when a good find is made. Most of the miners are Chinese; though the Mohammedans also try their luck occasionally. Order is maintained by a beg.

My stay in Khotan was pleasant in every way. That I obtained no news of the camel that was lost in the desert did not disturb me much, as I had everything I needed in the way of equipment. My boxes were packed, and kept in a large room, in which a bright fire burned continually; and my men were lodged in rooms just outside. I brought with me from Kashgar a certain Mirza Iskender in the capacity of secretary. With his help I collected, translated, and noted down during the journey the names of every place and every geographical feature, not only along our immediate route, but also as far away from it as my various informants' knowledge extended, or I myself could glean *data*. Between Kashgar and Khotan I thus marked on my map over five hundred names, of which only a few of the most important were known to previous travellers. At Khotan we drew up a systematic map of the three hundred villages of the oasis, and of their situation with regard to the innumerable irrigation-canals, which are led from the Kara-kash and the Yurun-kash, and point northwards like fingers.

This is a matter which is wont to be neglected by travellers pushing on in forced marches, but is a study destitute neither of interest nor of importance. In the first place, it affords excellent linguistic practice. Eight hundred names, each consisting as a rule of a noun with its qualifying word, for instance, Kara-kash (Black Jade), furnishes a very extensive vocabulary; furthermore, the place-names are always characteristic, in that they give some idea of the products or the position of the place; finally, among eight hundred such names there are not improbably a few which by their mere sound involuntarily carry the mind back to a long-forgotten epoch, and thus point the way to important historical discoveries or questions.

In connection with this I must just say a word or two about the importance of asking questions. Personal

observation must of course always rank first. But if a traveller passes through a place in the summer, he can have no idea as to its snowfall in the winter, and if he happens to be there on a clear day, he cannot know without asking whether rain is frequent. I always asked the same questions in the same order, namely — the population of the place, its products, saints' tombs, mosques, legends, whether spring or autumn sowing was customary, or both, whether the same ground was used twice in the same year for different kinds of cereals, or whether the ground produced only one crop in the season, or even in every second year; about trade and intercommunication, roads, the distances to the desert and to the mountains, the origin and volume of the water in the rivers, the time when they usually froze and when the ice began to melt, the system of irrigation and the local regulations connected with it, the wells, prevailing winds, frequency of burans, rainfall, snowfall, etc.

One question paved the way for another, and the whole thing took me from two to three hours; after that everything was carefully written down. Wherever there were human beings to question, I never turned in before midnight, hours after my men were snoring soundly. The answer I got to a particular question was sometimes the cause of my entirely abandoning an already conceived plan. For instance, I should never have risked crossing the desert a second time, had I not received information which made a successful issue of the enterprise almost a dead certainty. But as I have already observed, space forbids my recapitulating more of the great mass of material I collected in this way.

The nine days we spent in Khotan passed rapidly in work of this kind, and in preparations for my impending journey through the desert.

CHAPTER LXI.

BORASAN AND ITS ARCHÆOLOGICAL REMAINS

ON January 9th, 1896, I made an excursion to the village of Borasan, about three miles west of Khotan, one of the most important sites in Central Asia for the discovery of remarkable antiquities. The surface of the earth consists there of yellow loess-clay, as geologists call the loose soil which the wind has drifted up, in layers twenty-five feet thick, on the top of the hard stony conglomerate strata which form its basis. Through this soft upper material a stream, partly fed by springs, has cut its way down to the underlying conglomerate, having carved out a deep trench or cañon, with vertical, broken walls. In spring and summer, when the snows melt on the northern versant of the Kwen-lun Mountains, the stream swells to the dimensions of a river, and undermining the loess terraces, washes them away. In the autumn, after the summer floods are over, numerous relics of ancient industry, witnessing to a high degree of artistic skill, are found in those places where the torrent has swept away the crumbling loess. Small articles in terra-cotta, bronze images of Buddha, engraved gems, coins, and so forth—these are the objects which come to light. To the inhabitants of Khotan these things, unless they are made of gold or silver, are valueless, and they give them to their children to play with. But to the archæologist they possess an extraordinarily high value; for they exhibit proofs that the ancient arts of India, as refined by the influence of Greece, penetrated even to the very heart of Asia.

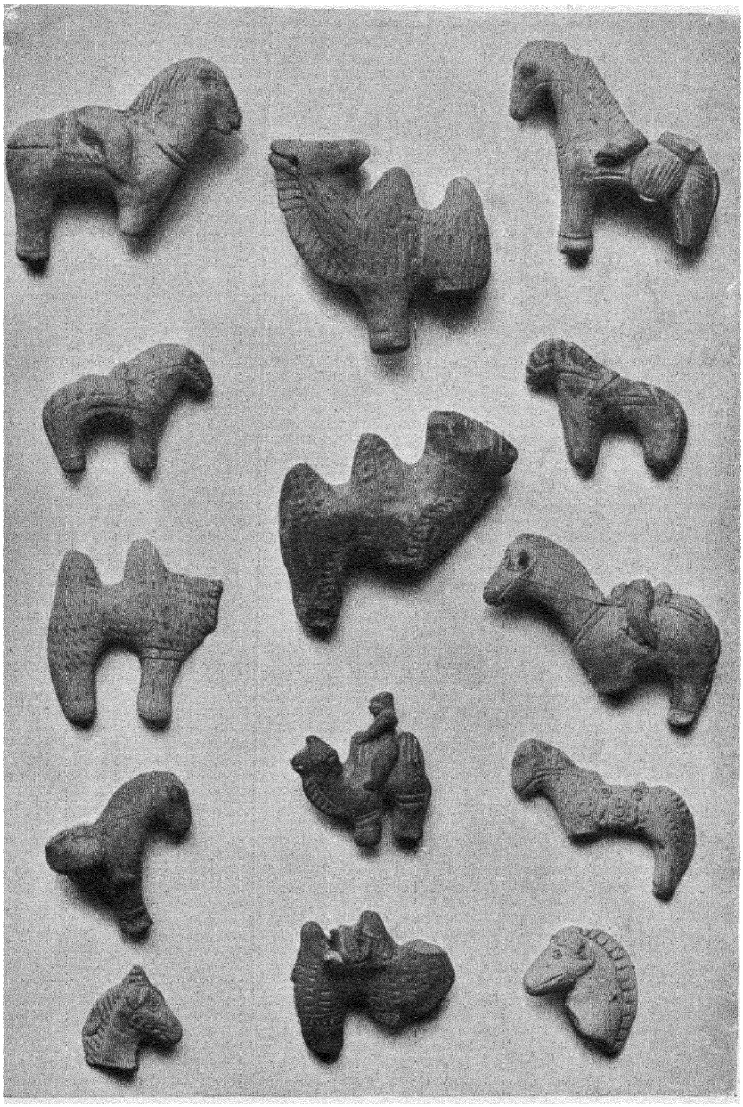
As I have just said, it was in the beginning of January when I visited Borasan. The stream was at that time

nothing more than a paltry rivulet, the springs by which it is fed being then congealed by the winter frost. That season's harvest of antiquities had been already gathered in by the inhabitants of Khotan; for they never fail to make their annual search for gold and other treasures. Thus I found but few terra-cotta objects myself. The collection which I brought home with me, numbering 523 items, exclusive of coins and old MSS., was acquired partly by purchase in Khotan, partly through employing natives to search for me during the time I was making my expedition to Lop-nor. My attention was first drawn to these antiquities through seeing them in the house of Mr. Petrovsky in Kashgar. He had obtained a good many of them from West Turkestan merchants who were travelling through the city. But he too had also employed intelligent natives to collect for him; and in this way was become the owner of a very valuable collection of Borasan antiquities, which has been shortly described by Mr. Kiseritsky in the *Journal* of the Imperial Russian Archæological Society.* The terra-cotta objects are executed with a high degree of artistic skill in fine plastic clay, and have been burnt under an intense heat, a fact evidenced by their being frequently of a brick-red colour and by their extraordinary hardness.

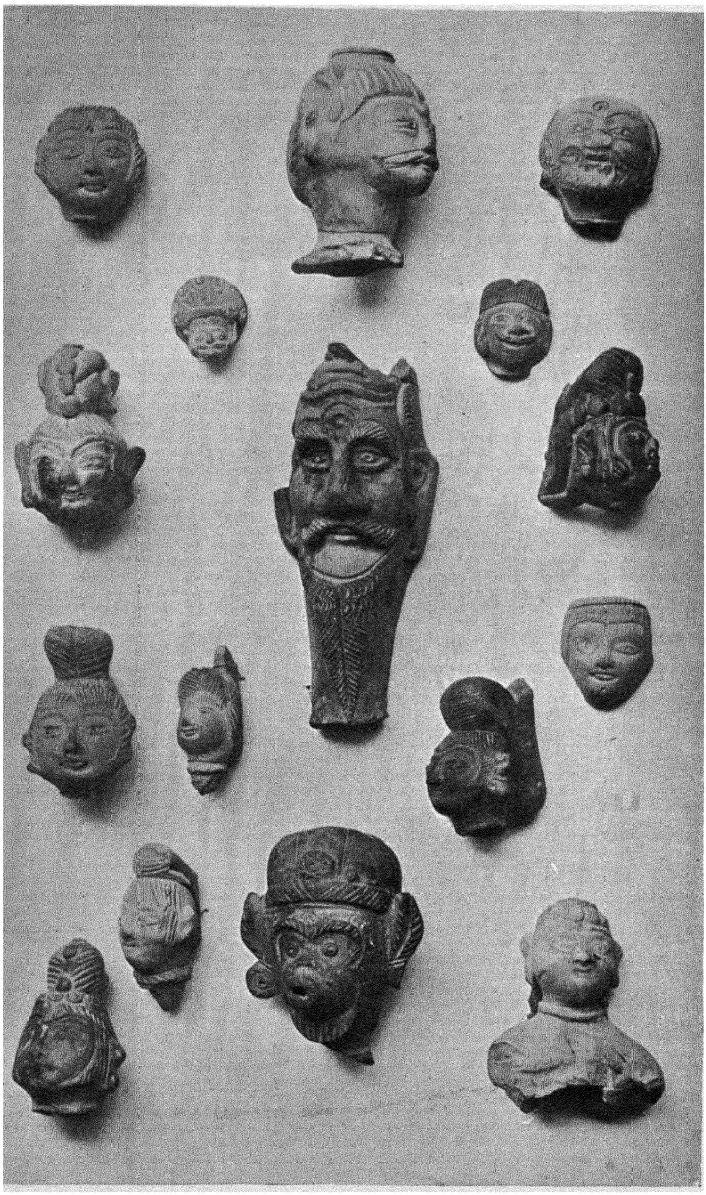
Broadly speaking, they may be divided into two groups —(i.) those which have been fashioned under a naturalistic or purely imitative impulse; and (ii.) such as are the products of a more highly developed or inventive artistic sense.

The first class, of which a specimen is depicted on p. 761, seldom tell us much, nor do they throw any real light upon the period at which they were made. We

* The observations which I here venture to offer upon this subject must be regarded as being of a preliminary and tentative character. I propose to leave the detailed description of my collection to a competent specialist. This present chapter is based upon Mr. Kiseritsky's paper, which deals with precisely similar objects, derived from precisely the same site, and upon the lucid and able work of Grünwedel, entitled *Buddhistische Kunst in Indien*. In the next few pages I draw so frequently upon both these sources, that I mention them here once for all, and with full acknowledgments.



TERRA-COTTA OBJECTS FROM BORASAN (CAMELS AND HORSES)
30/77 of natural size



TERRA-COTTA HEADS FROM BORASAN

11/27 of natural size

do learn from them however, that the people who anciently dwelt in Borasan, like their successors the modern inhabitants of Khotan, used the Bactrian or two-humped camel, as well as the horse, both for riding and as a beast of burden. The dromedary was equally unknown to them as to the present population of Khotan. The proper home of the latter is Persia: it is there that its geographical range touches the geographical range of the Bactrian camel. The camels in the illustration which carry neither rider nor burden, and are unprovided with reins, can hardly be meant to represent wild camels; for I have reason to believe that the wild camel, which now exists in the deserts to the north of Khotan, is the descendant of tame camels which lapsed into the wild state at a date subsequent to the flourishing period of Borasan art. On the other hand, a Chinese chronicle states, that in the year 746 A.D., *i.e.* in the time of the Thang dynasty, ambassadors came from Khotan to the Emperor of China, bringing amongst other gifts "a wild camel, which was as fleet of foot as the wind."

Nevertheless the naturalistic group is not altogether without importance. Certain of its characteristic objects tell us whence the men came who made them. This applies more particularly to the representations of human beings and apes. At the foot of the illustration on p. 764 we see the head of an ape, which has plainly served as the neck of a pitcher or jar, and resembles the ape *Macacus rhesus*, which ranges over India up to the southern base of the Himalayas. My collection contains about forty images of apes, many of them represented as playing the guitar. But these are exceeded in interest by the heads of human beings, which from certain indications (which it would take too long to particularize here) are easily distinguishable from the heads of Buddha. The greater portion of them, which are about two inches high, have belonged to statuettes, and exhibit the characteristic features of women, the manner of wearing the hair being displayed with extreme minuteness of detail. A single glance is enough to show that the type of feature

is Indian. Here are the same almond-shaped eyes, the same dignified curve of the eyebrow, the same full cheeks, slightly arched nose, barely perceptible projecting chin, and frequently too the same manner of doing up the hair, as are exhibited in the representations of women on the reliefs of Barahat and Sanchi (Bhopal), and on the cliffs of Amaravati, in India. The last-named are assigned to the period of Asoka, king of Behar, or the period when in matters of art India stood under the influence of Persian models, that is to say the beginning of the third century B.C.

The characteristic head of a man, about $4\frac{1}{2}$ inches high, in the middle of the picture, with its long, narrow, well-ordered beard, the straight eyes, both in one line, and the big Roman nose, points to a very different type from the Indian; in fact, it bears a striking likeness to the portraits of the great kings of the Achæmenian dynasty of Persia depicted on the ruins of Persepolis. But the long ears and the stigma or mark on the forehead have nothing in common with these unambiguous Persian traits, but are peculiar to Indian artistic ideals. The so-called *ûrna*, represented in so many images of Buddha by a gem between the eyes, owes its origin, according to Grünwedel, to the erroneous idea, that people whose eyebrows meet so as to form a single straight line are exceptionally talented. It is reasonable to suppose that the figure in the picture was intended to represent a Persian king or hero, and was painted by an Indian artist; or else that it was intended to represent a great personage of Borasan, and was executed by an artist who worked under the dominance of Persian ideas.

It is a fact, that during the Achæmenian period Persian artistic ideals did exercise a great influence upon Indian architecture and sculpture; although it is equally the fact, that the Indian artists preferred to adapt their Persian models to their own iconographic ideas, or in other words localized them and acclimatized them. At what date the political connection between Persia and India began, we do not know with any degree of certainty, any more than

we know at what date it terminated. But what we do know with absolute certainty, seeing that we are told it by the cuneiform inscriptions of Bisutun (or Behistun) in Western Persia—inscriptions written in three languages, Persian, Medo-Scythian, and Babylonian, and interpreted by Brugsch—from these we know that Darius, son of Hystaspes the Achæmenian, who reigned from 521 to 485 B.C., counted amongst the thirty-two satrapies of his empire the two tributary peoples of the Hindhu, who dwelt along the river Indus, and the Gandhara, an Aryan tribe located south of the Cabul river. In the beginning of his reign the great king (Darius) was mainly occupied with the suppression of numerous rebellious vassals; but, that task accomplished, he set himself, according to Herodotus, "to explore vast regions in Asia." One of the exploring parties sent out by him, under command of Skylax of Karyanda, a town of Caria, sailed from Peukelaotis in the land of the Pactyans (Pakhtu, Afghans) down the Indus, then round Arabia and up the Red Sea to the Gulf of Suez.

Herodotus tells us, that the Sacæ or Scythians, as well as the Caspii, paid a yearly tribute of 250 silver talents to the Great King. The Sacæ (Saki) dwelt in the region now known as Kashgaria; in that region there are numerous geographical names still extant witnessing to their presence there in ancient times, such as Saki, Soku-tash, Tokkusak, and others. By what route the taste for Persian standards of art reached Borasan it is difficult to say; nor is that a matter of vital importance. There can in any case be little doubt, that that part of Central Asia was in direct communication with Gandhara (Gandara), as also that from the remotest antiquity there was a trade-route connecting Merv *viâ* Kara-teghin with Khotan, the capital of the Seres.

My collection contains also numerous representations of lions' heads; and they, like several of the ape pictures, exhibit a strong tendency towards anthropomorphism. Their shapes seem to indicate that they were employed to decorate jars; hence they occupy an intermediate

position between the purely naturalistic or imitative group and the higher inventive groups. The two large heads (p. 769) belong distinctly to the latter group. In this type of figure Kiseritsky recognizes reproductions of the mythical national hero of Babylon, Izdubar (or Gizdhubar); on the other hand, it is difficult to shut one's eyes to the striking resemblance they bear to the ancient Greek satyrs.

Among the products of the higher inventive art the griffins (see p. 772) occupy a position of especial interest. They may be regarded as the successors, or developments, of the ancient *motif* of Garuda, or the fantastic winged bird which is so familiar in the ancient native art of India; it is the creature upon which the Indian deity Vishnu loves to ride. But they likewise possess unmistakeable kinship with the eagle-clawed griffin of Greek mythology, as it was depicted about the third century B.C.

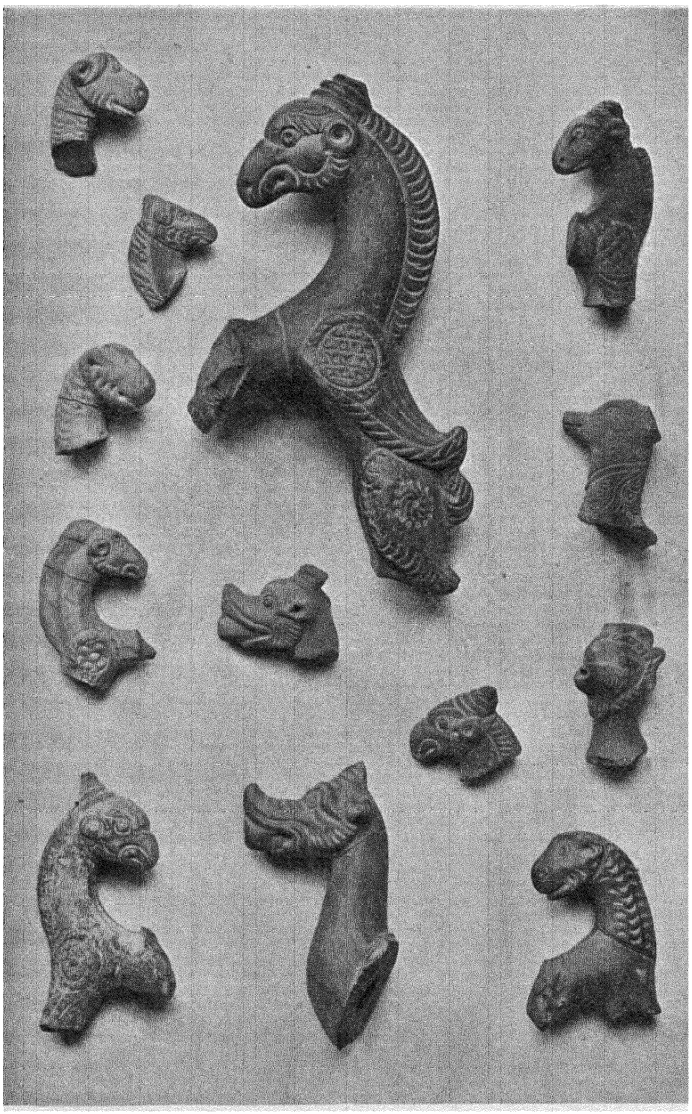
Twenty-two years ago the German scholar Curtius, after careful study of such materials as were then available, arrived at the conclusion, that Greek art made its influence felt in India in the third century B.C.; and, in his opinion, the occasion which led to its introduction across the Indus was the victorious campaign of Alexander the Great, followed by the founding of the Hellenic kingdoms on both sides of the Indus after the death of Alexander, *i.e.* in the period of the Hellenic Diadochi.

Grünwedel distinguishes two periods of Indian art in antiquity—(1) The older, which shows the predominance of Persian ideals, dates from the time of Asoka, or the third century B.C.; to this period belong the artistic finds of the famous sites of Barahat, Sanchi, and Amaravati, together with several others. (2) The second period is that which he calls the period of the Gandhara monasteries, or the Græco-Buddhistic period. Between these two Vincent Smith interpolates the Indo-Hellenic school.

It is very probable that the terra-cotta objects which are found at Borasan date from the time when Alexander's successors were founding their kingdoms on the northern frontiers of India. The neighbourhood of Peshawar seems to have been the centre from which the ideas of

TERRA-COTTA LIONS' HEADS FROM BORASAN

23/57 of natural size



GRIFFINS FROM BORASAN
6/15 of natural size

Greek art became widely disseminated, even reaching, as we have seen, as far as Khotan.

In Khotan I had the good fortune to procure a number of images of Buddha, cast in bronze and copper, and likewise unearthed at Borasan. These, there can be no doubt, belong to a later age, after the influence of Greek artistic standards was completely swamped by purely native ideals. I am inclined to assign these bronzes to

BRONZE BODHISATVAS FROM BORASAN
One-half of natural size

the fourth or fifth century of our present era. They exhibit the same characteristic attributes as quite modern representations of the god.

The illustration on this page depicts a bronze image of Buddha of a different type, but likewise brought to light at Borasan. It is a product of pure Indian art of an antique period. An especial interest attaches to this shield-shaped object. At the first glance the bronze would seem to consist of seven distinct images of Buddha, one at the top and three at each side. In the ancient

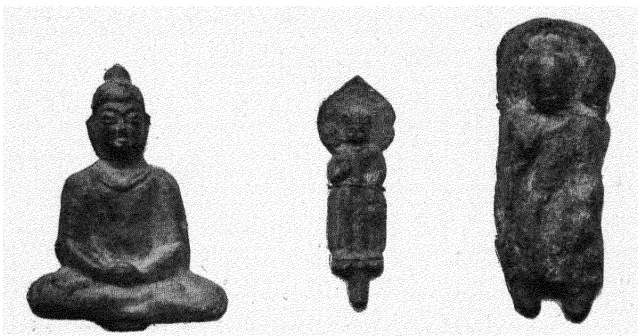
as well as in the modern religious art of India it is a quite common design to represent Gautama Buddha surrounded by seven *bodhisatvas*. The bronze we are now considering might be interpreted as such a design, the figure at the top being Buddha, with six, not seven, bodhisatvas at his side. But Gautama is always represented on a larger scale than his attendant incarnations, and in the bronze all six figures are the same size, and larger than the seventh. Hence the subject of the bronze must belong to another category.

"A being," writes Grünwedel, "whose special *satva*, or attribute, is *bodhi*, or the gift of recognition, gives utterance, in the presence of a Buddha, and whilst in the act of doing some pious deed, to the desire that in a later re-incarnation he may be a Buddha. According to the teaching of Buddhism, Gautama Siddhartha (the Buddha) himself gave utterance to a desire of this nature in the presence of a former Buddha, and was preceded by six such Buddhas, each of whom in his own time was the Light of the World and the all-embracing Predicate of Perfect Truth (Dharma). The good deeds which Buddha performs cause him at each fresh re-incarnation to make a continual higher advance, through successive grades, towards absolute perfection, until finally in the heaven at Tusita he resolves to assume a fresh incarnation in human shape, so as to show sinners the way of salvation, and at last enter himself into the bliss of Nirvana."

The bodhisatva of the present generations is Maitrêya, or Maidari, to give him the name by which he is known to the Mongols; I visited his great temple at Urga on my way home in the year 1897.

Thus we see that Gautama had six predecessors or bodhisatvas, and will be succeeded by yet another, who will be the last this present world will have. Now the seven figures on the bronze shield represent the six bodhisatvas who preceded Gautama, and the one that is still to come, namely Maidari; but Gautama Siddhartha himself is wanting. That however is easily accounted for. Though Gautama himself is absent, the aureole or

rayed circle, which like a nimbus or cloud of glory surrounds his head, is clearly visible. The figure of Buddha himself, which was cast in a separate piece, has simply been broken off (p. 773). When complete it almost certainly had the same appearance and shape as the image of Buddha depicted on the left in the illustration below. The aureole, or wheel with spokes, "of which none is the last," played an important part in the religious symbolism of the Aryas of the *Veda;* indeed it was regarded by the Buddhists as a typical symbol of the Vedic religion in general. In the *Rig-Veda* the



BRONZE BUDDHAS FROM BORASAN
One-half of natural size

wheel is frequently employed as a metaphor for poetic similes. For instance, "Sakra, the God of Thunder, with the lightning in his hand, rules all men, even as the rim of the wheel holds the ends of the spokes in its grasp" (Grünwedel).

Of the three illustrations shown above, the middle one represents a Buddha with a lotus leaf for a background and the stalk of the lotus flower under his feet. In all probability the picture exhibited several similar leaves and stalks. If that were so, we should have a representation of a bodhisatva, a variation of the subject depicted on the shield.

CHAPTER LXII.

HISTORY OF KHOTAN

KHOTAN, close to which these antiquities were discovered, is, as I have already said, a very ancient town. The Sanscrit name for it is Kustana; the word is not identical, as many believe, with the Mongol *khoten* = "a town." In the second century B.C. the Chinese called it Yü-thien. In his *Histoire de la Ville de Khotan*, Abel Rémusat published translations of several important passages relating to the place from the Chinese chronicle *Tai-thsing-i-tung-tshi*. From these passages we learn that the Emperor Wu-ti of the Han dynasty, who reigned from 140 to 87 B.C., was the first Chinese monarch who sent emissaries to Khotan. Under the Emperor Ming-ti, in the year 73 A.D., the town was conquered by the Chinese; and since then, except for longer or shorter periods, it has been more or less closely dependent upon the Chinese empire, perhaps at no time more closely than at the present day.

The chronicle already quoted contains, under the dynasties Tsin, Liang, Wei, Chow, Suy, and Thang, *i.e.* for about two centuries onward from the year 397, several interesting notices of Khotan and its inhabitants.

"It is a rich, populous, and flourishing kingdom." "They are greatly devoted to the religion of Buddha." "The women share in the feasts and gatherings at which strangers are present. They wear their hair in plaits, and ride camels and horses in the same fashion as men." "All the inhabitants of that region have deep-sunk eyes and big noses." "By character the people are gentle and considerate of others; but they are also crafty,

flattering, and merry, as well as ceremonious in their manners. When they meet they greet one another by touching the ground with one knee. They use seals of jade (nephrite); and when any of them receives a letter, he touches his brow with it before opening it. They divert themselves, dance, and sing; "but are also well skilled in the laws and in justice, and in the observances of their creed." "They burn their dead, and afterwards gather the bones together, bury them, and above the grave build a 'chapel' to Feo-tho (*i.e.* Buddha)." Very probably these "chapels" contained bronze images of Buddha like those shown on pp. 773 and 775.

What is of special interest to us is the undoubted fact, that their industrial arts had reached a high degree of development. One of the numerous embassies which were sent from Khotan to the Emperor of China carried with it, amongst other gifts, a number of glass vases. In several parts of East Turkestan, and not at Khotan only, I discovered numerous fragments of glass, which plainly belonged to small plates, mugs, cups, and ornaments of lotus flowers. But at the present time the art of making glass is entirely unknown in East Turkestan. The chronicler further tells us, that the Khotanese were skilful fabricators of copper tankards, and of textiles. Moreover they all used seals; of such I found about a score at Khotan.

According to the Chinese chronicle already quoted, about the year 400 A.D. Shi Fa Hian went to Khotan in order "to seek after the prescriptions of the law," and described a religious festival, which he calls, "the carrying round of the gods." "On the first day of the fourth month," thus runs the Chinese traveller's account, "the town was put through a great cleansing. The streets, market, and driving-ways were sprinkled with water. The gate of the town was hung with carpets and perfumed draperies, and a great number of ornaments. The king and queen, and the ladies of the court, came and took their seats under the awning (or baldachin) outside the gate. Kiu Ma Ti, the chief lama of the temple,

walked in front of the image of Buddha; but when it arrived within three or four *li* (about one mile) of the town, they got ready a four-wheeled carriage, thirty feet high, and fashioned like the ordinary travelling carriages. This was decorated with divers kinds of valuable ornaments, ribbons, and banners, and upon it the image of Buddha was placed, between two images of Pho-sa, and surrounded by other images of the gods, all hung round about with a quantity of ornaments of gold, and silver, and marble. When the image came within a hundred paces of the gate of the town, the king took off his tiara, and put on a fresh robe, and walked out of the gate and went barefoot to the image of Buddha, bearing perfumes and flowers in his hands. As soon as he came near to the carriage, he cast himself down on the ground, and laid the perfumes and flowers at the feet of the god. As the carriage containing the image of Buddha passed in through the gate of the town, the queen and her ladies, who were waiting in the pavilion outside the gate, flung flowers over the god and over the carriage. There were as many carriages as there were temples, one for each, and fourteen in all. One day was set apart for each procession, in such wise that the first procession took place on the first day of the fourth month, and the last on the fourteenth day of the same month. When the carrying round of the images of the gods was finished, the king and the queen returned to their palace.

"At the distance of seven or eight *li* (about two miles) west of the town, there was a monastery called the new royal temple. They had been at work upon it for the space of eighty years, and three kings had taken care for the building of it. Its height was maybe about 250 feet. It was adorned with paintings and inscriptions engraved upon metal, and covered with gold and silver, and embellished with divers kinds of precious ornaments. Its highest part went up into a tower. They have likewise built a temple to Buddha, the beams of which were ornamented with the most precious carvings in wood. The columns, the gates, the windows and their openings,

GEMS FROM BORASAN
A little larger than natural size

were all covered with plates of gold. Separate rooms have been built for the priests, and they were extraordinarily beautiful and well decorated."

Thus we learn from the Chinese chronicle that about the year 400 Khotan was a city of some magnificence, and the seat of a vigorous and flourishing cult of Buddha.

In another place the same chronicler tells us that there were many temples and towers round about the town, and a large crowd of temple servants of both sexes. The great quantity of images of Buddha which have been unearthed from the loess terraces of Borasan, some of which I discovered myself, bear witness to the credibility of the Chinese traveller. Even at the time of his visit Borasan, the Birasana of Indian writers, had beyond question been for centuries a focus of Buddhism, and a centre of pilgrimage in great favour with the faithful. And the same deductions may be drawn from the terra-cotta images, which are at least seven hundred years older; in fact they date back to a time before there was any connection between China and Khotan.

But since the fifth century the town seems to have gradually declined in importance. The chronicles speak indeed of the embassies which the kings of Khotan sent to the Emperors of China; but nothing more is said about magnificent festivals.

We also possess a legend about an image of Buddha, dating from the year 632, and which at that time existed in the town of Pi-ma, west of Khotan (possibly to be identified with the existing Pialma). The image in question was twenty feet high, and was carved out of sandal-wood. It possessed certain wonderful properties, amongst others that of continuously emitting a bright light. In former times it was taken to the town of Ho-lao-lo-kia, whose wealthy inhabitants gave themselves up to luxurious living, and neglected their gods. Then there came a *rahan* or learned man, seeking to worship the image. But the inhabitants of the place grew wroth with the rahan, and buried him up to the

lips in sand. But a pious man, who venerated the image of Buddha, conveyed food to him in secret. When the rahan went his ways, he said to the pious man who had saved his life, "Within seven days there shall come a rain of sand and earth, and it shall wholly bury this city, so that every man within it shall die, save thou only." Thereupon the rahan disappeared, and the pious man went and warned his kinsmen; but they all laughed him to scorn. Then he went and hid himself in a cave; and on the seventh day after midnight there fell a rain of sand, which buried the whole city. After that the pious man crept out of the cave, and went to Pi-ma; but he was hardly come there, when the image of Buddha transported itself thither after him.

As an instructive parallel to the legends which are in circulation at the present day about the buried cities of the Takla-makan Desert, I will cite a passage descriptive of the unhappy city of Ho-lao-lo-kia. "It is now nothing more than an extensive mound of sand. Several princes from other lands have often desired to dig out the site, and carry off the precious treasures and other objects which lie buried there. But every time they try to dig the sand away, a violent wind arises, setting up whirlwinds of smoke and a thick mist, which sweep away the path, and lead the workmen astray into the desert."

A man in Khotan told me that once he found a buried city in the desert, and in the houses there were dead bodies of people in positions which seemed to prove that they had been overtaken by death suddenly, being embedded in the sand in the same manner as the inhabitants of Pompeii were smothered in ashes. Strangely enough, the belief is generally current in all that region, that the city was sanded up by a single sudden catastrophe—a sort of revolutionary natural occurrence.

Now these legends and chronicle stories are not mere dreams or creations of fancy. They rest upon an actual substratum of truth; for in the Takla-makan Desert (as I shall presently relate) I shortly afterwards discovered

two ancient Buddhist cities buried in the sand. But in their case the process of sanding up must have gone on for thousands of years.

Further, there exist also, from the same year 632, accounts which state that the inhabitants of Khotan possessed chronicles, and that their writing, laws, and literature were derived from India. This statement is interesting in the light of the MSS. which I discovered, and which are probably not of Indian origin.

The same Chinese traveller whom I have just quoted, Shi Fa Hian, also journeyed, in the seventh year of the

COPPER VASE FOUND AT WASH-SHAHRI
53/135 of natural size

reign of the Emperor Thaï Tsung of the Thang dynasty, from Khotan to Lop-nor. Speaking of this journey, he states that travellers going that way pass through the town of Ni-yang (*i.e.* Niya), so as to avoid going astray in the marsh; Ni-yang marking in that direction the limits of the country of Kiu-sa-tan-na, Khio-tan, or Kho-tan. This is the first time the name Khotan occurs in the Chinese chronicle. But the remarkable fact is, that the Chinese traveller knew Niya, a town which is not even mentioned by Marco Polo six hundred years later. And yet at the present day, six hundred years after Marco Polo, the Chinese traveller's description of Niya and its

situation agrees in all particulars with the actual state of things, as I myself was able to verify. On the other hand, Marco Polo's Pein, which ought to be in the same region, cannot be identified.

Further on the Chinese traveller writes, "If you go east therefrom (*i.e.* from Niya), you enter the vast expanse of flying sand, so called because the sand is constantly moving, and because, when it is driven by the wind, it forms waves and hills. In that sand the traveller's track becomes blotted out, so that many go astray, and, lost amid those boundless expanses, where nothing meets the eye that can guide them, they perish of weariness; and this we know from the heaps of bones which you see in several places. In that sand there is neither water nor green growing thing; but a hot wind often rises, which takes away the breath of both man and beast, and not seldom is the cause of sickness. You hear almost always shrill whistlings or loud shouts; and when you try to discover whence they come, you are terrified to find there is nothing that has occasioned them. It often happens that men then get lost, for that place is the abode of evil spirits. After a thousand *li* you come to the ancient kingdom of Tu-ho-lo. It is a long time since that country was changed into the desert. All its towns lie in ruins and are overgrown with wild plants."

Marco Polo's description of the desert of Lop is so like that of the Chinese traveller, that one is almost tempted to think that he borrowed from it certain of his impressions. It is however extremely interesting to learn that, so far back as 1250 years ago, the country to the east of Niya was quite as much of a desert as it is now. As for the ancient kingdom of Tu-ho-lo, and its buried cities, I will merely state that, according to the Chinese rules of transliteration, Tu-ho-lo is the same word as Tukhari (or Tokhari), and that Tukhari was used to indicate the people who in the year 157 B.C. dwelt at Bulunghir-gol, but subsequently migrated to West Turkestan, where the existing name of Tokharistan perpetuates their memory. Further, the word Tu-

ho-lo is the same word as Takla; and there can be hardly a doubt, that the towns which I discovered, and which the indigenous inhabitants call, as indeed they call the entire desert, Takla-makan, were inhabited by this people. Finally, the little village of Tokhla near Khotan, the place in which the inhabitants of the buried cities found refuge from the invading sand, also keeps alive the name, if not the memory, of that once powerful people, a race who, according to Klaproth and Vivien de S. Martin, were of Tibetan origin.

To return to the Chinese chronicle *Taï-thsing-i-tung-tshi*. After the year 632 it makes no further mention of the worship of Buddha at Khotan. It does however contain other notices of Khotan. For instance, in the year 964 it is said that the people of Khotan venerated the spirits; and in the years 1094–97 that the inhabitants of Khotan, Arabians, Romans, and other people, regularly sent tribute to the Emperor of China. The Arabians had conquered the town many years before that. The Arab chieftain Kuteybeh Ibn Muslim took Kokand in West Turkestan in the year 712; and then passed on and conquered the whole of East Turkestan, and thence spread abroad the faith of Islam. Chronicles, called *teskereh*, which narrate these events, are preserved at the tombs of the holy *imams*. I was fortunate enough to acquire one of these teskereh from the tomb of Imam Jafer Sadik, north of Niya. But it cost the Arabs a contest of twenty-five years' duration to overcome the people of the oasis of Khotan and force them to embrace the new faith. Possibly the magnificent temple, described by the Chinese traveller in the year 400, was then levelled with the ground, for the Mohammedans abhor the temples of idols. And anything they spared would most certainly have perished when the oasis was devastated, and the city captured, by the Mongol hordes under Jenghiz Khan in the year 1220.

However that may have been, it is incontestable that at the present day Khotan does not possess a single relic of ancient architecture, nor does it appear that any survived even in the time of Marco Polo. He passed through the

town in the year 1274, and merely states that, "the people are subject to the Great Kaan (*i.e.* Kublai Khan, the first Mongol Emperor of China), and are all worshippers of Mahommet. There are numerous towns and villages in the country; but Cotan the capital is the most noble of all, and gives its name to the kingdom. Everything is to be had there in plenty, including abundance of cotton (with flax, hemp, wheat, wine, and the like). The people have vineyards and gardens and estates. They live by commerce and manufactures, and are no soldiers."*

This brief account of the famous merchant of Venice holds good even at the present day, with the one ex-

MEDALS FOUND AT KHOTAN
29/23 of natural size

ception that the present lord over Khotan is the Chinese (Manchu) Emperor Kwang Tsü.

Marco Polo tells us, that in Kashgar and Yarkand he encountered Christians of the Nestorian and Jacobite sects, "both of whom had their own churches"; but he is silent as to the existence of such Christians in Khotan. Now amongst the objects which I found at Khotan was the extremely interesting ancient medal depicted above; it proves that in former times Christian missionaries did find their way as far as Khotan. In all probability it was the badge of some Roman Catholic monastic order. On the obverse there is a figure of a monk crowned

* YULE, *The Book of Ser Marco Polo, the Venetian*, Book first, chap. xxxvi.

by the nimbus, worshipping a crucifix, and surrounded by the words **S. ANDREA AVELIN.**; on the reverse is the figure of a woman, St. Irene, also crowned by the nimbus and holding a palm or laurel leaf in her hand. With the saints' names to help us, it ought not to be difficult to determine the age of the medal. Nor is this the only Christian emblem I discovered in Khotan. I also brought home a miniature seraph or angel in gold, a copper cross, and several Byzantine gold coins.

God grant that the time may come when within those very ancient walls, which have witnessed the successive supremacy of the three predominant religions of the world, the Cross shall supplant the Crescent, even as Gautama's temple was formerly levelled with the ground before the green banner of the Prophet!

CHAPTER LXIII.

THE BURIED CITY OF TAKLA-MAKAN

ON January 14th, 1896, I left Khotan with a small picked caravan, consisting of four men and three splendid male camels; I also took with me two donkeys, to try what their staying powers would be like in a forced desert march. The men were Islam Bai and Kerim Jan from Osh, and the two hunters, Ahmed Merghen and Kasim Akhun, who helped us last year after our shipwreck in the desert of Takla-makan. Bitter experience had taught me, that for a journey through the great desert we ought to be as lightly equipped as possible, and therefore on this occasion I only took such things as were absolutely and indispensably necessary, the result being light burdens for the three magnificent camels. If this time we should be compelled to abandon the caravan, the loss would be the less serious.

I left my heavy baggage, and the greater part of my Chinese silver, at the aksakal's house in Khotan; hence sooner or later I should be obliged to return thither. We took provisions for fifty days; but we were absent four and a half months, and consequently during the greater part of the time had to make the best of what the country afforded. My first plan was to explore Przhevalsky's Masar-tagh, and afterwards proceed eastwards through the desert to the Keriya-daria, with the object of visiting on the way the ruins of an ancient town which I had heard spoken of in Khotan. The return journey was to be made southwards, up the bed of the Keriya-daria, and through the town of Keriya, back to Khotan. How this modest plan grew and developed into a formidable enter-

prise, resulting in extremely important and unexpected discoveries, the reader will learn in the following chapters.

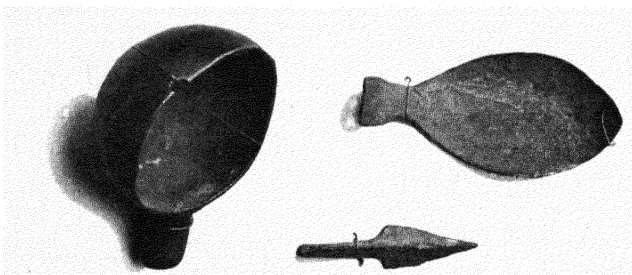
Unfortunately I omitted to take my Chinese passport with me, and in consequence came pretty near finding myself in a fix; but this also ended well. According to my original plan I never dreamed of coming into contact with Chinese mandarins.

My instruments and other things required one box, the kitchen appurtenances another; and to these must be added several *kurchins* (double wallets of canvas), containing flour, bread, rice, dried vegetables, macaroni, sugar, tea, candles, lanterns, a kettle and saucepan, and divers other articles and provisions. Lastly we took furs and a large goat-skin sleeping-bag for my own use, some felt carpets, two hatchets, two spades, one *ketmen* (a Sart spade or hoe), and arms and ammunition. Tents and beds came under the head of luxuries. Throughout the whole of this journey I slept, like my men, on the bare ground, wrapped in furs, notwithstanding that it was the depth of winter and the temperature went down as low as -7°6 Fahr. (-22° C.). But then we were able to procure an abundance of fuel, and spring was coming on.

My new friend Liu Darin thought three camels were too few, and at his own expense desired to strengthen the caravan with two more, and two or three additional men. There was nothing I dreaded more than a cumbrous and heavy equipment; but I had the greatest possible difficulty to persuade him to abandon his purpose. When we rode out of the town through the Ak-su-därvaseh (the Ak-su gate), nothing would do but he must hasten on in advance as far as the village of Hazrett-i-Sultan, where he ordered a large red tent to be pitched, quite open on the side next the road, but provided with an awning upheld by poles; while its interior was furnished, in the Chinese manner, with chairs and a table upholstered in red cloth. Here, under the gaze of an enormous crowd of people, we conversed for a while, and smoked and drank tea, before parting. Then I mounted my splendid riding-camel, and to the jangling of the animals' bells, set off towards the

north, following the left bank of the Yurun-kash. For four days we travelled through a barren region and scattered woods as far as Islamabad, the last inhabited village; there we crossed the river on the strong ice.

In the neighbouring village of Tavek-kel, on the right bank of the river, we gave the camels a day's rest, and made our final preparations before striking into the desert. To the east stretched the barren sand in a belt half as broad as the portion we crossed the previous year between the last lake at the foot of the Masar-tagh and the Khotan-daria. It was a much less dangerous journey; for we knew that the sand was not so deep, that we could always get water by digging down to it, and that we



OLD COPPER SPOONS AND IRON ARROW-HEAD FROM TAVEK-KEL
Two-thirds of natural size

should find plenty of tamarisks and poplars. We engaged two guides in the village, who had several times visited the buried city in search of gold and other valuables, and who for fair remuneration promised to conduct us thither.

On January 19th we left the river and steered due east between the sand-dunes; which for the first few days were comparatively low—not more than six feet or so in height—and there was still a scanty herbage. On the third day the dunes increased to fifteen and thirty feet high, and formed a network running east and west, north and south, with their steep sides to the west, south, and south-west, and with pyramidal dunes piled up at the points of intersection.

As a rule our marches only lasted five or six hours a

day, as we were anxious not to overwork the animals. Every time we encamped, the same routine had to be gone through. Two of the men set to work without loss of time to dig a well; two of the others dug up tamarisk roots for the fire; whilst Islam prepared my dinner, and Kerim Jan busied himself with the camels and their pack-saddles. My work was to sit down on my carpet, with my furs and felt boots on, and write down my notes, sketch and measure the sand-dunes, their angles of inclination, their height, their direction, and the like. That done, I went to the well, which by that time was generally nearly ready. The first few days we found drinkable water at depths of 7 ft. 10 in., 6 ft., and 5 ft. 6 in., with a temperature varying between 48°2 and 53°6 Fahr. (9° and 12° C.). The ground was frozen to a depth of 8½ inches. In the third well the water was as fresh as river water. Strange to say, we found both here and near the Yarkand-daria and the Ughen-daria that the nearer the well was to the river, the salter its water.

We soon learned to know whether it was worth while digging or not. Wherever a live tamarisk (*yulgun*) or poplar (*tograk*) grew, or the ground consisted of sand moist near the surface, there was pretty certain to be fresh water at a depth of about six or seven feet. It was only at such places that we encamped. Each day, when our march was drawing to a close, I sent a man on in advance to choose out the most suitable spot to encamp in.

Meanwhile as we advanced the sand-dunes grew higher, and also became more barren. On January 22nd the dunes were forty feet in height. Here again we encountered the same curious accumulations of sand that we found in the western part of the Takla-makan Desert, that is to say huge massings of the sand-dunes in a north-south direction, parallel to the two rivers, Khotan-daria and Keriya-daria. In the depressions between them we generally found tamarisks, likewise stretching in narrow belts from north to south, and indicating the places

where the water came nearest to the surface. These so-called *davans*, or "passes," can hardly be distinguished, except by changes in the perspective. As we mounted the imperceptible incline on the west side of a davan or accumulation of sand-dunes, the eastern horizon appeared to be quite near, and we could only count about a score or so of sand-dunes ahead of us. But when we reached the top of the pass, we were able to see over a vast expanse of the desert ocean, and could count the sand-dunes by the hundred. At the top of every pass therefore we made a short halt, to see which direction offered the best chance of easy progress. If from that position we were able to observe a tamarisk, we steered straight for it. Again and again it would be lost to sight behind the sand-dunes; but just as often would re-appear. Even when it seemed to be quite close to us, we invariably had a long tramp before we reached it.

On January 23rd the dunes rose up to nearly fifty feet. In a depression we nevertheless found two poplars with parched and cracked trunks, but the branches still alive and ready to burst into leaf. But that consummation was not vouchsafed to them; the camels and donkeys ate them up greedily. For the animals this journey was a regular banting cure; for, as it happened, it was the camels' rutting season, when they have less appetite, but are all the more inclined to fight. After the first few days, however they, became tame and docile.

By noon we reached a depression running from north to south and abounding in *köttek*, *i.e.* dead forest. Short tree stems and stumps, grey and brittle as glass, branches twisted like corkscrews from the drought, and sun-bleached roots were all that remained of the former forest. Beyond doubt a river ran there some time or other, and it could be none other than the Keriya-daria; for, as we have already seen, the East Turkestan rivers invariably incline to shift their channels towards the east. A few of the poplars were still alive, the last survivors of a dying race, the last outposts on the edge of the murderous sands, left behind and forgotten, as it were, when the forests which accom-

pany the rivers followed the Keriya-daria in its movement towards the east.

For us however this strip of dead forest possessed great significance. My guides knew that the ancient city in the sand, which they called Takla-makan, was situated near its eastern border. As they said, judging from the features of the country thereabouts, that we ought to be near it, and as we had already come across some fragments of pottery, we decided to halt and dig for water; and came upon it at a depth of 6 ft. 7 in. I then sent the two guides to try and find the ruins. Meanwhile the other men took one of the camels, and fetched a big load of wood from the dead forest; and that evening and that night we made two glorious fires. And we had much need of them, for the temperature generally fell at night to somewhere between 5° above and 4° below zero Fahr. (− 15° and − 20° C.).

On January 24th we left the camp to take care of itself, while, with the men travelling as usual on foot, and carrying spades and hatchets in their hands, I rode my camel bareback to the ruins, which were now in our immediate vicinity.

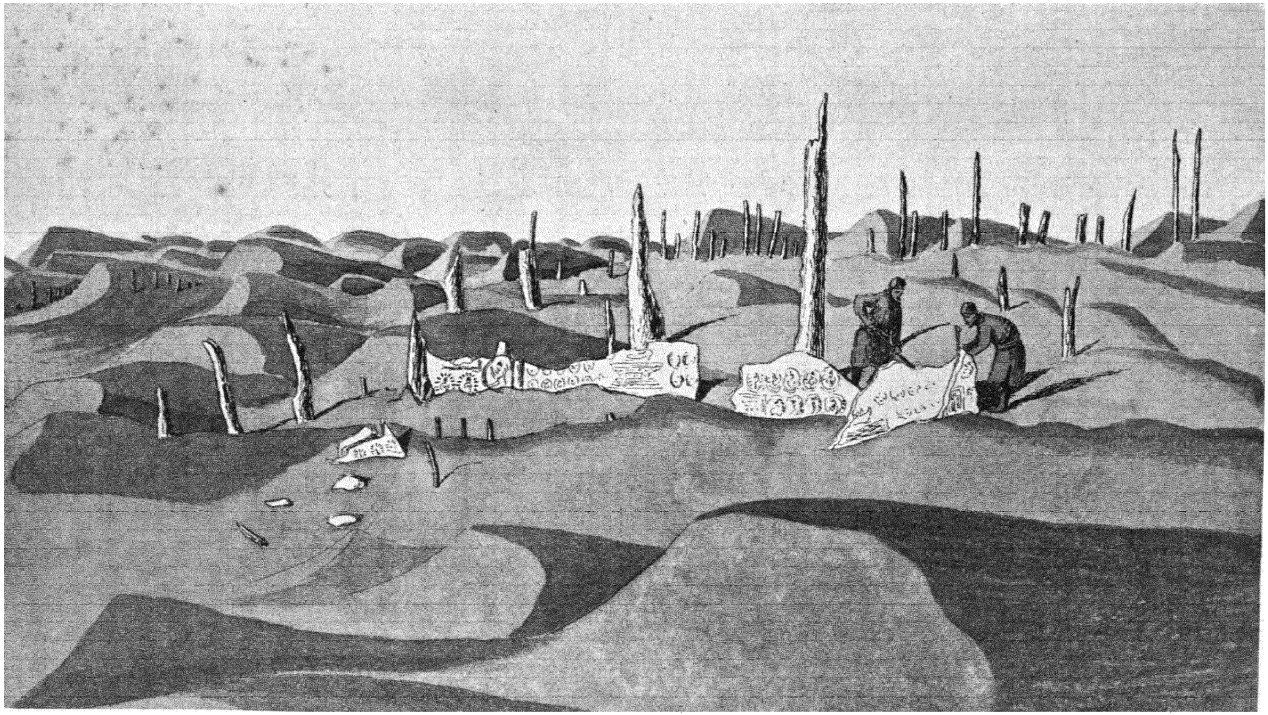
None of the other ruined sites I visited in East Turkestan in the least resembled the curious remains we were now about to explore. As a rule the survivals of ancient towns in that region consist of walls and towers of sun-dried, or at least burnt, clay. In Takla-makan however all the houses were built of wood (poplar); not a single trace of a stone or clay house was discernible. They were also constructed in quite a different way. Although the ground plan in many respects resembled that of the modern houses, most of them were built in the shape of a small square or oblong within a larger one, and divided into several small rooms. The only portions that survived were posts six to ten feet high and pointed at the top, worn away by wind and sand, cracked and hard, but nevertheless as brittle as glass, breaking readily when struck.

There were hundreds of these ruined houses; but I

was unable to make out the ground-plan of the city, nor could I trace the streets, bazaars, and squares, because the whole of the site, which occupies an extensive area, from two to two and a half miles in diameter, was buried under high sand-dunes. The only houses which were visible above the all-engulfing ocean of sand were those that were built upon original rising ground, or now stand in the depressions between the sand-dunes.

Excavating in dry sand is desperate work; as fast as you dig it out, it runs in again and fills up the hole. Each sand-dune must be entirely removed before it will give up the secrets that lie hidden beneath it; and that is a task beyond human power—nothing except a buran can do that. All the same I succeeded in making a sufficient number of discoveries to derive an idea of the general character of the ancient city.

In one of the buildings, which the men called Budkhaneh (the Temple of Buddha), the walls were still extant to the height of about three feet. They consisted of kamish (reed) stalks tightly bound together in small hard bundles and fastened to stakes, and were plastered with a coating of clay mixed with chaff, making a tough, solid, and durable building material. The walls, which were quite thin, were plastered outside as well as inside, and were decorated with a number of paintings, executed in a masterly manner. They represented female figures, somewhat airily clad, kneeling with their hands folded as in prayer. Their hair was twisted in a black knot on the top of the head, and the eyebrows were traced in a *continuous* line, with a mark above the root of the nose, after the fashion customary among the Hindus of the present day. We also found pictures of men with black beards and moustaches, in whom the Aryan type was clearly distinguishable at the first glance; they were dressed in the same manner as the modern Persians. Besides these, there were figures of dogs and horses, and boats rocking on the waves—a strangely impressive picture in the heart of the arid desert—ornaments, running borders of ovals, each en-



THE FIRST ANCIENT CITY DISCOVERED IN THE DESERT EAST OF THE KERIYA-DARIA

closing the figure of a seated woman with a rosary in her hands, and above all lotus flowers in profusion. See the two accompanying plates.

To have carried away the wall, just as it was, was of course utterly out of the question. It will last well enough; but the plaster and the paintings peeled off at the least touch. I therefore copied the latter, taking the dimensions and noting down the colours. In digging on the outside of the wall we discovered a piece of paper, written in what were to me undecipherable characters, although many of them were quite well preserved. Near the same spot we also discovered a life-sized human foot modelled in gypsum. Like the paintings, it was executed with unusual refinement of taste, and had plainly belonged to an idol, an image of Buddha. The men's supposition, that we were in an old Buddhist temple, was not improbable. The commanding position of the ruin on elevated ground and the praying figures alike supported their view.

As there was nothing more to be found there, we attacked another building. The outer surface of its walls was destroyed, and only a few of the posts still remained; but these were sufficient to show, from the square holes and marks near the top, that the house had consisted of two stories, or like the Persian houses, and like many of the dwellings in Khotan, Kargalik, and Yarkand, was provided with a *bala-khaneh* (upper house).

In that place the sand was quite shallow, and by pure chance the men's spades unearthed a number of gypsum figures in relief, each from four to eight inches high, and flat at the back, showing that they had served as wall-decorations. They represented images of Buddha seated, against a background of lotus-leaves, or a wreath of flames; women standing, with one hand outstretched and the other laid over the breast, dressed in long, voluminous mantles, with hanging sleeves and open at the neck so as to show a necklace. The faces were nearly round; and the hair was gathered up in a knot on the top of the head. The ears were very long, with

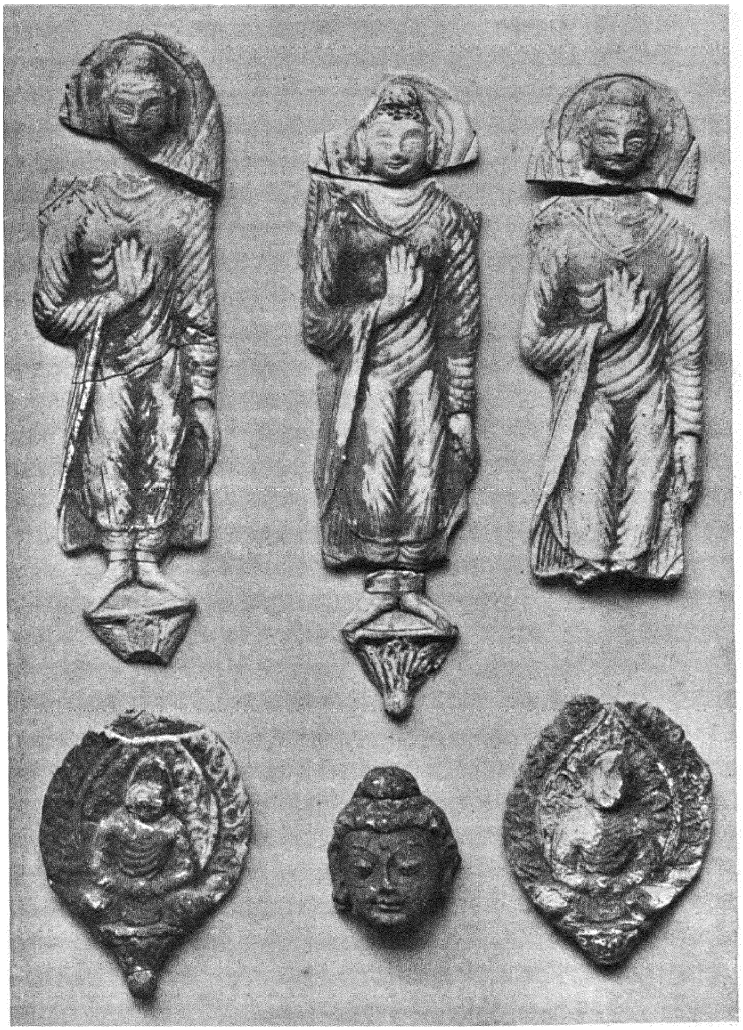
hanging lobes, as in Buddhist images of idols at the present day. The eyes were almond-shaped and oblique; and at the back of the head was a ring resembling a halo. Other figures represented women with bared breasts, holding a bow-shaped garland over their heads. Then there were friezes of divers kinds, fragments of pillars, beadings, and flowers—all in plaster. Of each of these I took a selection; some of them are shown on page 799.

In some of the other houses we also made discoveries, though of less importance. Thus we found a long piece of carved wooden cornice, the pattern of which I copied, a silkworm chrysalis, the axle of a wheel, which appeared to have belonged to a spinning-wheel or some implement of that kind, fragments and handles of earthenware pitchers, a well-preserved single helix or wooden screw, and a millstone of porphyry more than six feet in diameter, which was of course at one time driven by running water.

Among the sand-dunes there were several traces of gardens. Truncated stems of the ordinary poplars still stood in rows, marking the direction of ancient avenues. Nor were indications wanting that here apricot and plum-trees had formerly lived and thrived.

The walls of this God-accursed city, this second Sodom in the desert, had thus in ancient times been washed by a powerful stream—the Keriya-daria; and its houses and temples been watered by numerous artificial canals. Close to the city, and along the banks of the river, luxuriant woods tossed their quivering leaves in the breeze, as they still do beside the existing Keriya-daria; and in the hot summer days the leafy apricot-trees gave cool shade to the inhabitants. The streams were powerful enough to make millstones revolve. Silk was cultivated, and horticulture and the industries flourished. The people who dwelt there manifestly knew how to decorate their homes with good taste and a sense of artistic fitness.

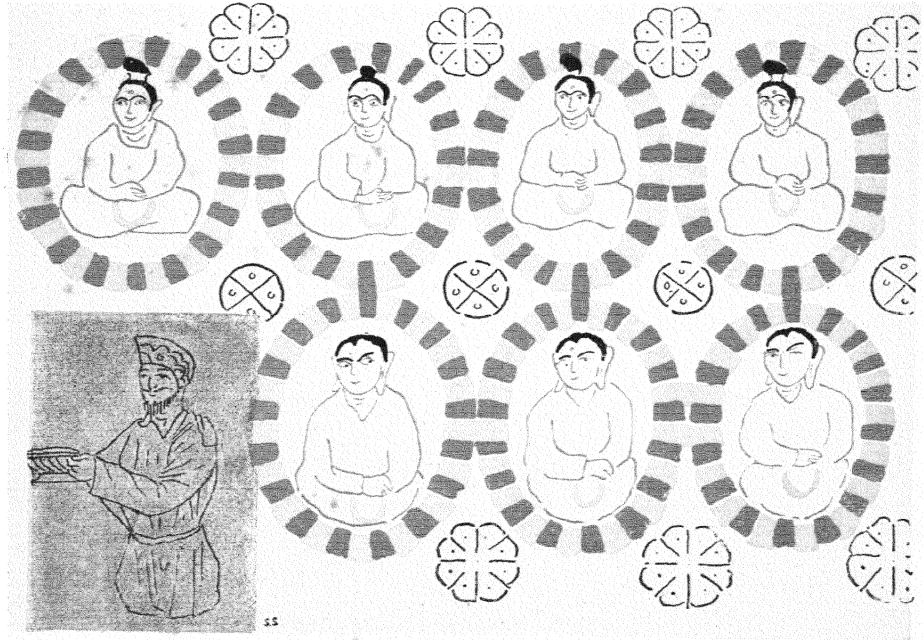
At what period was this mysterious city inhabited? When did its last crop of russet apricots ripen in the sun?



PLASTER IMAGES OF BUDDHA

FROM THE FIRST ANCIENT CITY WEST OF THE KERIYA-DARIA

17/44 of natural size



MURAL PAINTING FROM THE FIRST ANCIENT TOWN IN THE DESERT EAST OF THE KERIYA-DARIA

I have described, never existed among the Turki races who now inhabit East Turkestan. There cannot be a doubt that the city was of Buddhist origin. We may therefore conclude *a priori*, and without fear of contradiction, that the city is older than the Arab invasion led by Kuteybeh Ibn Muslim in the beginning of the eighth century. Most of the saints' tombs which from time to time I have had occasion to mention are memorials of that proselytising campaign. I have already quoted the Chinese traveller, Shi Fa Hian, who in the seventh century A.D. visited the Tukhari (Tokhala, Takla, Takla-makan?), who dwelt east of the Khotan-daria, south of the Tarim, and south-west of Lop-nor. If along with this historical testimony we consider the inferences that may be drawn from the archæological data I collected, and from the observations I made regarding the rate at which the sand-dunes move, we may form an approximate calculation of the time which the sand has taken to travel from the city south-west to the region in which the last sand-dunes are now met with along the northern foot of the Kwen-lun Mountains.

Neither the fact, that the wooden cornice with its carvings was in a state of excellent preservation, nor the fact that the camels and donkeys consumed with relish the kamish (reeds) of which the walls were constructed, will warrant the conclusion, that the city belongs to a comparatively recent epoch. The slow rate at which the sand-dunes move militates effectually against any such supposition as that. Moreover, as I have already mentioned, the fine, dry desert sand possesses a certain power of conserving organic matter.

In the region of the buried city the prevailing winds come from the north-east and east, and are particularly violent in April and May. It is in these months that the greater number of the kara-burans or "black sandstorms" occur, which carry on their wings such vast quantities of sand and dust as to make day as black as night. In March and June come the *sarik-burans* or "yellow sandstorms," which, although less violent, nevertheless possess an enor-

mous carrying capacity. During the other months of the year the wind blows less frequently and with greater variableness. On January 25th, with a tolerably strong south-west wind, I found that the crest of a sand-dune travelled $4\frac{1}{2}$ inches to the north-east in the space of forty-five minutes. The wind changed in the night, and the top of the dune then returned to the south-west, travelling $35\frac{3}{4}$ inches in nine hours. Assuming that in every year there are on an average twenty-four days in which the wind blows with hurricane violence towards the south-west, and that on each such day it blows almost uninterruptedly, so that a sand-dune will travel six to seven feet, it would travel altogether about 160 feet in the course of the year, and would therefore require a thousand years to reach the point at which the desert sand has now arrived in its journey towards the south. At the same time, it must be borne in mind that I have assumed the greatest possible number of burans in the year, and hence have obtained a minimum estimate for the age of the city. Then again the sand-dunes do not move directly south, but to the south-west, a circumstance which increases the probable age to some 1500 years. Finally we have to take into account the less violent wind which blows in the opposite direction; which probably adds yet another five hundred years to the age of the city. But I shall be able to return to this subject at greater length, and with exacter data, after I have worked out the meteorological observations which I brought home with me. We may further pretty confidently assert, that the inhabitants of the town were Buddhists and of Aryan race. Perhaps it is they who have given rise to the many legends about the people Tokta-rashid Nokta-rashid, against whom Sultan Arslan (Ordán Padshah) is said to have fought. It may be that this city flourished at the same period as Boraskan.

At this point I may perhaps conveniently interpolate a few facts about the individual sand-dunes. The base is originally half-moon shaped, with the convex side gently sloping to the windward, and a concave steep side to leeward. At each end in the direction of the wind

the dune sends out a horn or wing, which gradually tapers off, becoming lower and more pointed by degrees. When the dunes run into one another continuously, their original form is departed from; they merge into each other, and coalesce with their neighbours. In spite of that however they always preserve the same structural formation. Daily and hourly during a long desert march you cannot detect any deviation in this respect. On the sheltered side their angle of inclination is always thirty-three degrees, and from this they vary very little indeed. On the windward side, on the contrary, they incline at all angles from twenty degrees to one; sometimes they are even vertical, or overhang the foot, sloping as much as ten degrees *inside* the top outer edge. If you disturb the sand at the base of the dune, on the leeward side, fresh sand trickles down from the top, and a groove gradually shows itself running all the way up from the bottom. This marks the line at which the sand is packed closest, owing to its being exposed to the greatest wind-pressure. Hence, as soon as the groove has worked its way to the summit of the dune, it is easy to discern a double inner structure—namely, two series of strata, one parallel to the windward side, the other to the leeward. This structure, which corresponds to the lines of cleavage in a crystal, runs right through the dune from top to bottom. The fine delicate rippling of the surface is merely secondary and superficial, quite independent of the inner structure. It travels at much greater speed than the sand-dune itself. With a moderately strong wind, it will move 9½ inches in the hour. These ripplings owe their formation to the drift-sand, which, swept along by the wind, impinges upon the summit of the dune, and trickles down on the leeward side, where the sand is always loosest, since it settles through its own inherent weight, and is not consolidated by the pressure of the wind. It is impossible for camels to climb up the leeward side of a dune. When such an obstacle confronts you, you have no choice but to go round it. In the level spaces between the dunes the sand is also loose, so that the camels sink in to a

depth of seven or eight inches. We always aimed therefore to keep as much as possible along the crests of the dunes; there the animals only sank in half an inch or less.

The davans previously mentioned consist of innumerable sand-dunes heaped together one on the top of the other, and appear to stretch across the entire breadth of the desert. Each davan, with its accompanying depression, has a breadth of about a mile and a quarter. A section of the whole in profile would give an undulating, denticulated line, the denticulations being the sand-dunes and the undulations the greater upswellings of the surface. The latter are probably due to the original contours of the desert, such as they existed prior to the irruption of the sand. In this part of the desert the great upswellings run north and south. Hence it is not improbable, that they have been determined by the courses of ancient rivers, or that the sand has accumulated along the strips of land that were never inundated by the rivers when they changed their beds.

CHAPTER LXIV.

A CURIOUS SHEPHERD RACE

OUR guides, being now superfluous, were sent back. They returned over our trail, resting at the wells we had dug. I continued my journey with the four men who started with me from Khotan.

On January 25th we crossed eight davans, running to eighty feet or more in height; though towards evening, when we halted, we found water at a depth of six feet.

The next day the sand was heavier, as we worked our way across eight davans. Beyond the eighth we came upon a number of tamarisks and dying kamish (reeds) in a depression, and were tempted to make a halt, although we had not gone far. To the east there was a huge davan, looking through the haze like a distant mountain. We held a council of war; it was decided to see first what lay beyond the formidable davan. It was as much as 130 feet high, and was the biggest we had so far encountered. At sight of it the men became very much depressed. The camels tramped along at a slow, sluggish gait, but the donkeys lagged a long way in the rear.

At last we reached the top. But to our amazement, there no longer was any davan! Still, we could not see far ahead, for the atmosphere was laden with dust from the last storm. Shortly afterwards we observed the track of a fox, and found a dead wild-duck. Tamarisks and other desert plants were more numerous. To our unspeakable delight, the sand-dunes became lower and lower. We saw the footprints of men and of horses. We emerged into the open, where the tall bare poplars faced us in serried lines of forest. We discovered a deserted hut, merely a roof resting on its uprights. That night we encamped on the banks of the Keriya-daria.

Thus we had successfully crossed the strip of desert and reached the river, whose luxuriant vegetation was a delightful sight to eyes which for a full week had rested upon nothing but yellow, yellow sand. At the spot where we halted for the night, the river was 105 feet broad, and covered with a substantial sheet of ice, through which we hacked a hole, that proved more prolific than the wells we had lately dug in the desert. The camels were given their fill of the icy cold river-water. We killed our last sheep, built up an enormous log-fire, and were all in the best of spirits, despite the fact that the dust-laden atmosphere obscured the view and shut out the stars above our heads. The hut had evidently been visited the day before, judging from the remains of a camp-fire, and the fresh tracks, which the wind had not yet obliterated. But we saw nobody.

On the following day, January 27th, we directed our course northwards, keeping along the left bank of the Keriya-daria. Our chief concern now was to find someone who could give us information about the river. It had never before been visited by a European, and its course north of the town of Keriya was merely marked on our maps with a dotted line. But not a soul was visible. We plodded on hour after hour, sometimes through thick poplar woods, sometimes through thickets and fallen branches, and dense beds of yellow, withered kamish; sometimes making detours among the sand-dunes, wherever they approached so close to the river-bank as to completely supplant the forest.

The glittering river of ice wound away to the north with innumerable sharp turns, sometimes spreading out into lake-like expansions, so that the opposite bank became lost to sight in the haze. We frequently crossed forest-paths, which disappeared again in the undergrowth, and saw innumerable spoor of wild boar, hares, foxes, roe-deer, red-deer, and the tracks of tame sheep, and sometimes even the imprint of a human foot; but the forest was as silent as the grave—not a sound did we hear. All the sheep-tracks and footpaths of the shepherds

went towards the south. We began to be afraid it was the time of year when the shepherds drive their flocks nearer to Keriya, and that we should not meet any of them.

When the day, and with it our march, was nearing its close, we passed, a short distance from the river, a bed of reeds surrounded on all sides by primeval forest. There we were agreeably surprised to hear the bleating of sheep. A large flock was grazing peacefully among the tall kamish. There must be people somewhere in the vicinity. We shouted; we whistled. There was no answer; nobody appeared.

I sent all four men into the forest, each in a different direction, whilst I stayed behind with the camels. At the end of a good half-hour Ahmed Merghen came back accompanied by a shepherd and his wife, who, terrified by our appearance, had fled and hidden themselves in the underwood. They were soon reassured however, and showed us the way to their *sattma* (reed hut), which was not very far away. There we spent the night. The poor shepherd was cross-questioned unmercifully. In fact, I thoroughly turned him inside out, exhausting the whole of his not very extensive stock of knowledge about the things of yesterday and to-day, and storing them all up in the pages of my diary.

"What is your name?" I asked; and was told in answer: "Hussein and Hassan."

When I remarked that the double name seemed rather unusual, the man explained, that Hassan was really the name of his twin brother who lived at Keriya, but that he himself always used both names, as they were twins. Hussein then told me, that to the north, as far as the river reached, were shepherds, camped with flocks and herds, but at long intervals apart, and they belonged to rich bais in Keriya.

The separate flocks ranged between three hundred and two thousand sheep. To each shepherd is assigned a particular district, beyond which he has no right to trespass, and in which he lives the whole year through, wandering from one woodland tract to another, and stopping ten or twenty days at a time at each *aghil*

(sheepfold), according as the pasture holds out. For instance, our friend Hussein (and Hassan) had the run of thirty aghils situated within two day's-journey of one another. The owner of his flock lived in Keriya; and every spring and autumn came to shear the sheep and count them, as well as to bring maize-flour and other necessaries to the shepherds. Hussein himself only went to town every other year. From Kotchkar-aghil (the ram-fold), the point where we struck the river, Keriya was distant only four day's-journey. Farther down the river there were shepherds who had only been to Keriya once in their lifetime; nay, we actually met a man, thirty-five years old, who had never been there, and could not conceive what a town or bazaar was like. Most of them however do visit the town from time to time.

The forests of the Keriya-daria below the town were inhabited by about a hundred and fifty people, constituting a community apart, cut off from all communication with the outer world, far from all roads, inaccessible to every authority, surrounded on all sides by the grim silence of the desert.

The shepherds never see a human being, except their nearest neighbours, and the bais journeying to their aghils lower down the river. They are therefore half wild and excessively shy, born and bred as they are in the depths of the primeval forest. The only things they know anything about are the watching and keeping of their sheep, how to shear them, how to drive them to the pastures, how to cut down young trees and branches for them, milk them, and in due season separate the lambs from their mothers. They also make maize-bread, build their sattmas or reed huts, dig wells when the river gives out, or when they are at a distance from it, and other simple occupations of the kind. The *ketmen* (a Sart spade with the blade fixed at right angles to the shaft) and the *balta* (axe) are their most important tools. In fact they always carry the latter on their backs, pushed through their girdles.

It had surprised me to find that the shepherds of the Khotan-daria lived alone, leaving their wives and children

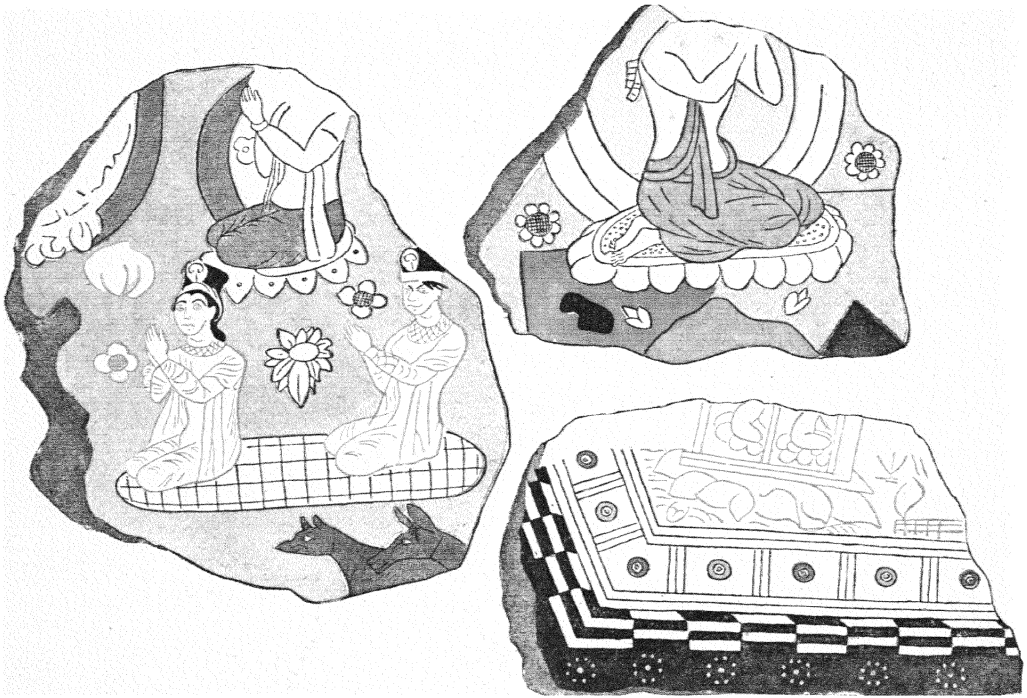
at Khotan; and I thought to myself, that were I a shepherd and married, I should take good care to have my wife with me out there in the woods. But the Khotan-daria is, we learned, a thoroughfare, though not a very frequented one, which the Chinese sometimes use, and the shepherds were afraid of the licence with which the Chinese sometimes treat the native women.

It is otherwise beside the Keriya-daria. There there was no road, and the shepherds had their families with them. Hussein and his better half, who was childless, in their loneliness reminded me somewhat of Adam and Eve, except that they were clothed from head to foot in sheepskins.

With regard to the river, Hussein told me, that shortly above Keriya it is distributed through numerous ariks (irrigation-canals) to the fields in the district, so that the river almost disappears. It is no doubt partly for this reason that none of the travellers who have been to Keriya—Przhevalsky, Pievtsoff, Grombtchevsky, Dutreuil de Rhins, Littledale—have thought it worth while to explore the river. With the exception of Pievtsoff, they have all delineated its course on their maps far too short.

Below the town were many copious wells, formed by the overflow from the ariks. These again serve to feed the river anew. For this reason the natives say, that the river gets larger the farther it goes, although it might be expected that the reverse would be the case; but the assertion is of course only partially correct. In June and July, when the ice and snow melt on the mountains of Tibet, the flood comes down and fills the river to the brink; but it is never so swollen but that it can be forded in several places. The flood which goes past the irrigation-canals is called *ak-su*, or "white water," because it comes from the melting snows; in contradistinction to *kara-su* or "black water," which comes from natural springs. The water sinks rapidly in the autumn, and by the end of November freezes in large detached sheets, which become piled up one above the other, so that the river looks larger than it really is.

At the time of our visit, the river was in this, its



MURAL PAINTING FROM THE FIRST ANCIENT TOWN EAST OF THE KERIYA-DARIA

winter stage. It was expected that, if the atmosphere remained clear and still, the ice would break up in twenty days' time; otherwise it would be longer. When the thaw sets in, it causes a spring-flood of considerable volume. After that the bed is dry for a couple of months, and the shepherds are obliged to dig for water for themselves and their flocks. To be brief, the Keriya-daria exhibits precisely the same characteristics as its neighbour, the Khotan-daria, though in volume and length it is far inferior.

Hussein afterwards went on his way to the south and we to the north, marching along a dry channel which the river abandoned fifteen years ago, in favour of a new bed which it ploughed through the sand two miles to the east. This it now follows for a day's journey and a half; although it again exhibits a tendency to trend to the east. The belt of forest and reed-beds still remains beside the abandoned channel, living on its soakage water. But the time will come when the roots will fail to reach down far enough; then the sand will get the upper hand, and the forest will die down, forming strips of *köttek* (dead forest), like those we observed near the ancient buried city. Meanwhile new woods will grow up beside the newly-made channel.

On the evening of January 28th we met near *Kurruk-akhin* (the Dry Bed) three more shepherds, with a flock of 400 sheep. These men enjoyed the right of killing twenty sheep a year for their own sustenance; to which were added as extras all those that were mutilated by wolves or wild-boar, or those which broke their legs, or in any other way became disabled. Fifteen a year was the average number they counted upon getting in this way. Allowing for this, it required three years for a flock of 400 sheep to increase to 550; but, as the bai's forest pasturage was not able to support more than 400 sheep, sixty or seventy were sold off every year in Keriya. These and the two shearings of wool in the year constituted the bai's profits from his flock. In Keriya a first-class sheep cost about three-and-sixpence, and even a fairly good one could be bought for a little over a shilling.

CHAPTER LXV.

DOWN THE KERIYA-DARIA

AFTER a day's rest we pushed on again, still in a northerly direction. We now always took a man with us, to guide us through the woods. We often rode through primeval forest, in which the trees were large and stood close together, and where the camels had great difficulty in making their way through the underwood; whilst I had to keep a sharp look-out to avoid being swept off my camel by the hanging branches. On January 30th we passed the point where the new river-bed again re-united with the old. There the river reached the noble breadth of a hundred and ten yards. The ice was fourteen inches thick; in some places as bright as a looking-glass, in others thinly sprinkled with dust.

For the space of ten days the atmosphere remained charged with fine dust, which, lifted by the wind in the early part of the year, floats about in the air a long time before settling back to the earth again. Every year at this season the atmosphere becomes dust-clouded in this way—a very unwelcome visitation to the shepherds; for it is so fine that it feathers every blade of grass as with a light down, causing the sheep to have strangles. It settles on everything, colouring the yellow sand-dunes white, so that tracks made across them appear as dark lines, even at a great distance.

On February 1st the river began to show a more marked tendency to trend to the north-east. I had already conceived the idea of crossing the whole of that part of the Desert of Gobi from south to north, and trying to reach the Tarim river. It was therefore rather disturbing to

SHEPHERD FAMILY AT TONKUZ-BASSTE (KERIYA-DARIA)

observe this deviation of the stream to the right, for it might possibly become more pronounced the further we went. The river might even turn eventually and flow parallel with the Tarim, making direct for Lop-nor, which of course it could never reach! Each day the problem became more exciting. Would the expedition succeed, or should we be compelled to retrace our steps the way we had come?

Yugan-kum, the district we reached that day, answered well to its name of the "Mighty Sand"; for the river was overhung by high barren sand-dunes, which presented an almost perpendicular face to its channel. On the south however they were bordered by a steppe, where we again found shepherds. One of them accompanied us as far as the wooded tract called Tonkuz-basste (the Hanging Wild-boar). There two shepherd families were living like savages, camping in the open air round a fire. They were surrounded by a number of small children, whose only garment was an open fur coat. They were in charge of three hundred sheep grazing near by; but had also other live-stock, namely a cock, three hens, a pigeon, and a couple of dogs. Their household utensils, consisting of wooden dishes for baking, milking, and meals, were strewn about the ground. They kept their drinking-water in skins and wooden tubs, the latter hollowed out of the stems of poplars, and their flour in bags. I also observed a few *kungans* (copper cans), knives, a pair of scissors, wooden spoons, a *dutara* (two-stringed musical instrument), felt carpets, a cooking-pot, a horsehair sieve for sifting flour, and a few articles of clothing. Two of the men wore the most extraordinary foot-gear I had hitherto seen, namely, the foot of a wild camel, with its hoofs and everything complete. The shepherds and their families were easily tamed, and even submitted to being sketched.

Two of these shepherds told me that, a day's journey to the north-west, there was another ruined town buried in the sand. They called it Kara-dung (the Black Hill), because the tamarisks which grew on the sand-

dunes close by looked black in contrast with the yellow sand.

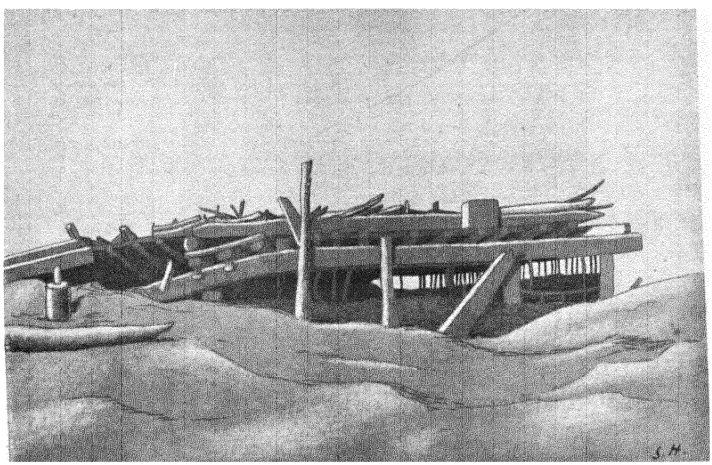
February 2nd and 3rd were sacrificed to a visit to the place. On the way thither we made an interesting discovery—namely, that we were riding in the dry bed of a river, which ended among the sand-dunes in the vicinity of a little pool of salt water, called Sisma-köll.* Here again the river had deviated to a more easterly course; but at one time it manifestly flowed close past the ruins of the town.

This town was built on a smaller scale than the other, but its buildings belonged to the same epoch. I found the same style of paintings on the plaster, though in less good preservation, the same style of architecture, and the same building materials. One structure, quadrilateral in shape, with its opposite sides 279 and 249 feet long respectively, resembled a caravanserai; it was built round a courtyard, in the middle of which was a smaller square house. In another house the beams of the substructure were extraordinarily well-preserved. I did not make any discovery of unusual interest; but studied the manner in which the houses were constructed, the beams joined together, and the fireplaces arranged. I found however the axle of an arba (cart), showing there had once been roads there that could be driven on; and there were a vast number of shards from earthenware vessels.

These ruins are known to the shepherds and hunters of the Khotan-daria. My man Kasim, the hunter, had been there once before; it took him five days' travelling from the Khotan-daria. But curiously enough, none of these men had ever thought of extending their journey one day further to the east, where they would have found water in abundance, people who spoke their own language, sheep, bread, and everything they needed. As they only took, on a donkey, bread and water sufficient to last ten days, they had consequently only been able to stay one day among the ruins, where they spent the time, as usual, in searching for treasure. Both the forest-dwellers beside

* "Köll" is the same word as "kul" and means "lake."

the Khotan-daria and those beside the Keriya-daria were thus in the habit of visiting the place occasionally; yet they had never met each other! For this reason the former did not know of the existence of the Keriya-daria; neither had the latter ever heard of the Khotan-daria. Both alike called the place by the same name, and for the same reason, the contrast between the black patches of tamarisks and the yellow sand, a proof that geographical



SUBSTRUCTURE OF A HOUSE

In the second ancient town of the desert west of the Keriya-daria

nomenclature even in that remote and isolated region is not meaningless.

Having examined the ruins of Kara-dung, we returned to the Keriya-daria, and continued our journey. As we advanced, the river became more irregular, and shed off, as it were, a number of side-arms, which formed marshes. Near Tonkuz-basste it divided into two branches, which lower down, towards the north, gradually diverged. The shepherds told me, that seven or eight years ago the current flowed almost entirely through the right or eastern branch, but subsequently returned to the left branch,

in which it was flowing at the time of my visit. This year however the winter water had begun to creep back into the eastern arm; and they expected the summer floods would follow it. The two channels thus alternate with each other. Every year the sediment which the stream brings down settles a hand's-breadth thick at the bottom, thus raising the bed, and driving the water to seek a lower level in the other channel. At the extremity of the eastern branch, which was accompanied all the way by woods, there were several small salt lakes, situated four day's-journeys from the forest region of Katak.

I call attention to this alternation in the river's bed, because it may serve to illustrate the ease with which streams change their channels in this level country. We were destined to find the same conditions at Lop-nor, only that in the case of the Keriya-daria it is a river which shifts its bed, whereas at Lop-nor it is a lake which changes its situation.

On February 4th we were the guests of the shepherds who live in the woods of Arka-chatt (the Further Island—or strip of land between two river-beds). The next day the physical conditions of the country assumed a very different aspect. On both sides the river sent off innumerable branches, which, generally mere ribbons of ice, sometimes cut off entirely from the main stream, wound away into the woods and disappeared. The belt of woodland as well as the reed-beds became gradually broader, so that we seemed to be marching across a sort of tropical delta. So far as the eye could reach, there was not a sand-dune to be seen. How far would these, for us, so favourable conditions continue towards the north? Were these woods connected with the forests of the Tarim? These questions were continually in my mind. Every day we came across shepherds, who did not know how far the river went. On the evening of the 5th we encamped at Chugutmek with four shepherds, who were in charge of 800 sheep and six cows.

At Sarik-keshmeh, a place we reached on February 6th,

the river was still 260 feet broad, and looked as if it would continue another 500 miles. It is worthy of note, that the powerful current of the Khotan-daria, which in summer conveys such large quantities of water right through the Takla-makan Desert, to pour them into the Yarkand-daria (which unites with the Ak-su-daria to form the Tarim), dies away during the winter to a narrow ice-bound ribbon, which fails to reach as far as Buksem, the point where I struck the river last year after that terrible march across the desert. This is due to the fact that the Khotan-daria is fed exclusively by the melting snows and glaciers of northern Tibet; whereas in both autumn and winter the much smaller Keriya-daria receives important additions from springs.

Nevertheless our river, which had hitherto been such a splendid guide to us through the desert, did come to an end, worsted in its fateful struggle with the desert sand. For upon reaching the woods of Katak on February 7th we learned that the river only continued another day's journey and a half to the north; beyond that stretched in every direction the eternal sand.

At Katak we halted a day, with a forest-man Mohammed Bai, a comical old fellow, who had spent his whole life in the woods, and did not know whether the country belonged to Yakub Beg or to the Chinese. These people never pay any taxes, and therefore never come into contact with the Chinese authorities. Probably the Chinese have no idea, that the woods of the Keriya-daria are inhabited. Otherwise these natives would assuredly be taxed like all the rest.

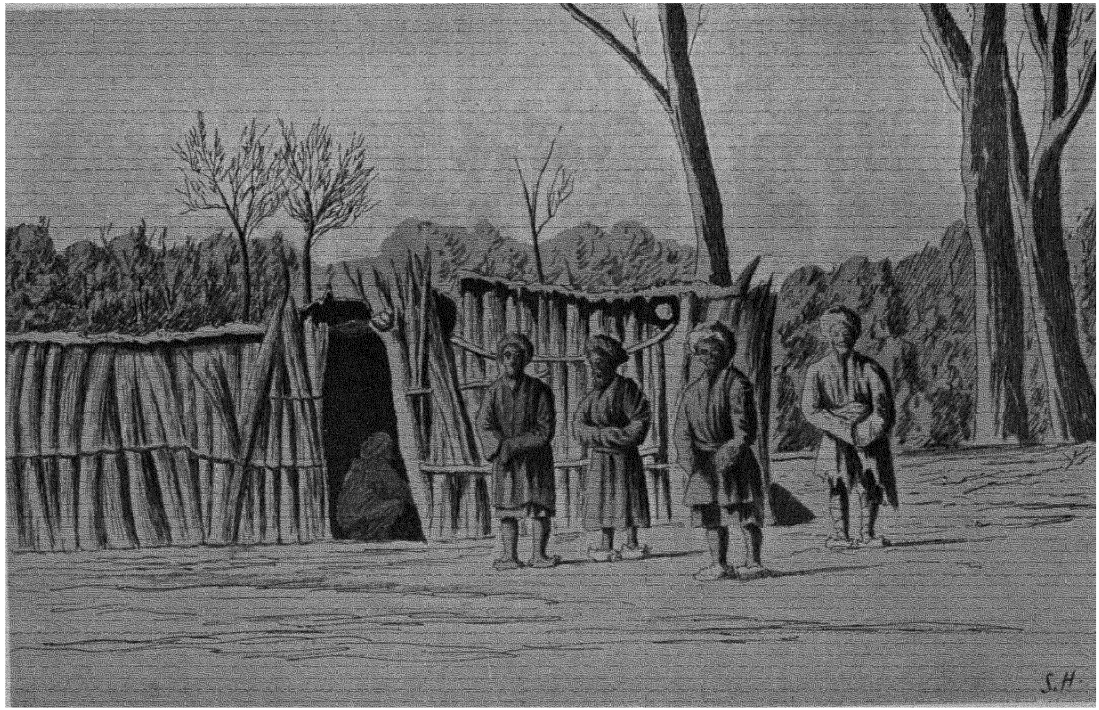
The water which was then flowing past Katak was said to be only ten days old. It flowed underneath the ice as through a pipe, and froze on piece by piece, so that the ice stretched like a long tentacle towards the north.

I was astonished to hear that three years previously a tiger had come up from the river to the sattmas (shepherds' reed huts) at Katak, and carried off a cow. Mohammed Bai and his shepherds brought back the

MOHAMMED BAI

remains to their camp-fire, in order to save the hide, and then went off and drove their sheep into the folds. In the meantime the tiger re-appeared and resumed his meal, although the cow was lying close to the fire. When he went away, the shepherds saw by his trail that he had gone down stream, *i.e.* northwards; but after a few days he came back and struck across the desert towards the east. It is very seldom tigers are seen in those parts.

This was very encouraging news; for I thought that possibly the tiger might have come from Shah-yar on the Tarim, for in the woods there tigers are common. But the old man was doubtful about it; and told us that to the north the sand was high, and that, even if there did exist a river called the Yarkand-daria or Tarim, it would certainly take us two or three months to reach it.



MOHAMMED BAI'S REED HUT (SATTMA)

During the thirty-five years he could look back through, the current of the Keriya-daria had certainly never diminished; but he had remarked that the sand had increased, and encroached more and more upon the woods. According to Mohammed Bai, the desert on the north reached to the end of the world, and it took about three months to get there.

Although quite cut off from the outer world, with his wife, his sons, and their children, Mohammed Bai was a Mohammedan, and punctually said his prayers; for, "if I did not," he explained, "the wolves and wild-boar would soon annihilate my flocks."

These forest-men pray daily to Hazrett-i-Musa (Moses), who is said to have been a shepherd himself, and is their patron saint. On the other hand, they do not know the names of the months or days of the week. But their mother-tongue they have not lost—for your native language follows you like the influenza to the uttermost ends of the earth. It sounded pretty much the same from their lips as it did anywhere else in the country; slight dialectic variations and a greater paucity of diction being the only differences observable.

When I asked these people whether they did not esteem themselves lucky to be left in such absolute freedom, and, above all, at having no dealings with the Chinese officials, they answered, that they thought the wolves and wild-boar were just as great enemies as the Chinese.

On February 9th we pushed on northwards again. The river, which had been nearly 280 feet broad near Katak—this however at a lake-like expansion—now shrank to fifty feet, and wound through the impenetrable forest in a hesitating manner and by a series of sharp turns. That evening we again encamped in the wilderness, for we had left the last of the shepherds' huts behind us. At that point the river had dwindled down to little more than a brook some fifteen feet across, with a volume of not more than thirty-five cubic feet of water in the second.

After our last guide left us the day before to return to his own place, we had followed the rapidly failing stream,

sometimes through tamarisk thickets so dense that we were forced to cut our way through them with our hatchets, sometimes through small kamish-beds or across sand-dunes sparsely overgrown with vegetation.

It saddened me when we at length reached the point where the stream died away in the sand, under a sheet of soft ice; the river finally giving up its desperate struggle against the desert. All the same, the dry bed served us yet one day longer. It was narrow and deep, being generally reached by the summer floods, and its banks were occupied by primeval forest, so thick that nothing short of fire could effectually clear it. At intervals there were tunnels through the thickets, along which the wild-boar penetrate to the river for the purpose of uprooting the reeds that grow in its bed. The landscape reminded me in some respects of the creeks winding among the dark date-palms at Basra (Bussorah) on the Shatt-el-Arab.

On the evening of February 10th we encamped in the river-bed, and digging for water, found it at a depth of six feet. There for the last time we heard the wind rustling in the leaves of the poplars which were still left hanging sere and yellow from the previous autumn. On every side the eternal sand loured upon us. Once more we were about to confront its awful powers of destruction.

CHAPTER LXVI.

WHERE THE WILD CAMEL LIVES

IN my castle-building moments I had often conceived the wish to see a wild camel and possess its skin; but never, even in my wildest dreams, did I imagine I should make such close and intimate acquaintance with that remarkable animal as now proved to be the case. Although I had seen a stuffed specimen in the Academy of Sciences at St. Petersburg, brought home by Przhevalsky, and knew that Littledale and Pievtsoff and his officers had shot them, I could never help thinking of the animal with some degree of scepticism, and always imagined it enveloped in a sort of mystic glamour.

Lest, after this solemn exordium, the reader should be deluded into thinking I am a mighty Nimrod of the gun, I must hasten to explain that I have never shot a wild camel in my life. In the first place, I am no sportsman —a fact to which I owe the advantage of having had time for many a scientific observation that otherwise would not have been made. Secondly, I am short-sighted, which entails the great disadvantage, that the quarry is out of range before I have got a glimpse of it; and thirdly, even though I had been a sportsman, I should assuredly have hesitated to send a ball into such a noble creature as the wild camel. Then I always have the feeling that there is nothing very clever about taking a life which you have not the power to give back again; and failing that power, it appears to me questionable how far a man has the right to kill unnecessarily.

As, however, we were now approaching the special haunt of the wild camel, namely, the most inaccessible parts of the Desert of Gobi, I naturally was anxious not

to lose the opportunity of getting a skin, which I hoped would eventually reach Stockholm. My own shortcomings as a sportsman were more than counterbalanced by Islam Bai and the two men from the Khotan-daria, who were all keen hunters, and were consumed with desire, not only to see this animal of which they had merely heard speak, but also to assail it in its desert home. In fact, the wild camel was our chief topic of conversation all through the forests of the Keriya-daria.

My wise friend, Ahmed the Hunter, declared positively: "They are descended from the tame camels kept by the dwellers in the ancient towns"; and let Przhevalsky think what he may, I have a suspicion that Ahmed is right. If I may judge from the collection of terra-cotta camels, which I discovered at Borasan, and which are probably two thousand years old, the camel was even then regarded as the chief domestic animal of the country; and what is more reasonable to suppose than that the buried towns in the Takla-makan Desert maintained communication with China and India by means of them? When the sand advanced, smothering the vegetation and filling up the channels, these ships of the desert no doubt found opportunity to free themselves from the tyrannical yoke of man. In their freedom they have increased to such an extent, that they are now found in numbers both in this and in other parts of the Desert of Gobi. The supposition is perhaps bold, but to me it seems probable, that if we could trace the wild camel's pedigree, we should only have to go back a hundred generations or so in order to reach the tame camel. And for this belief I will now adduce a few reasons.

Przhevalsky met with the wild camel in the Altyn-tagh and near Lop-nor; and from the observations he made, concluded that "all the present wild camels are strictly descended from wild ancestors; but they have presumably some time or another been crossed with tame camels, which have escaped from captivity. The latter—if indeed they were capable of reproduction—

must have left an offspring which in the succeeding generations has become more closely identical with the wild type." Dr. E. Hahn has also expressed a similar opinion in his book, *Die Hausthiere* (Our Domestic Animals).

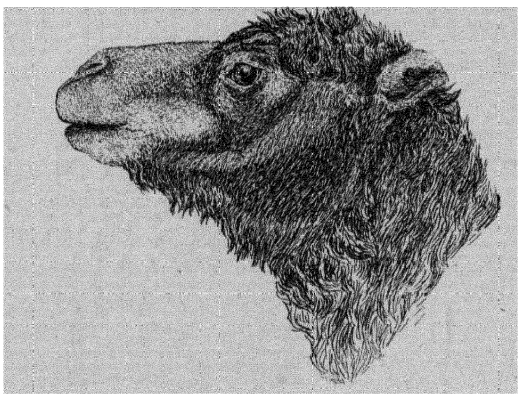
Now this supposition naturally applies only to the camels which Przhevalsky himself encountered. He cannot possibly refer to the camels in the neighbourhood of the lower Keriya-daria, for the sufficient reason, that he had no idea of their existence. He circumscribed the distribution of the wild camel in the following manner: "It is the unanimous opinion of the inhabitants of the Lop-nor region, that the real home of the wild camel is the desert of Kum-tagh, east of Lop-nor. It is also found along the lower Tarim and in the Kurruk-tagh. Along the Cherchen-daria it is rare; still further west, towards Khotan, it is not found at all."

Dr. Hahn writes: "The deserts of Central Asia may be regarded as the home of the wild camel. All desert animals are widely distributed. It is therefore fair to assume, that the wild camel at one time inhabited the whole of the vast desert which stretches from the western borders of Further India and North Persia up to Mongolia. Where, and when, and by what race, the camel was first tamed is absolutely unknown. Probably it was by nomad desert tribes, who occasionally perhaps tilled the soil in the oases, but for the most part lived by hunting."

Although Przhevalsky's description of the wild camel agrees on the whole with the appearance of the camels that frequent the desert north of the Keriya-daria, the latter cannot be unconditionally relegated to the same category, seeing that they apparently inhabit a limited region, and that there is no connection between them and the camels of Lop-nor. What is true in the one case is not necessarily true in the other. Around Lop-nor wild blood may predominate; north of the Keriya-daria tame blood predominates. In any case the difference between the tame and the wild camel is, from a zoological point

of view, almost negligible. Here again I may quote Dr. Hahn: "The wild camel differs from the tame camel merely through the absence of fat under the humps, which is thus a characteristic of the domestic animal." For my own part, I found that the three wild camels we shot had quite respectable stores of fat under their humps, though not indeed in quite such large quantities as in the tame camel.

The first time we heard the wild camel of the Keriya-daria mentioned was at Tonkuz-basste on February 1st. The shepherds thereabouts had not, indeed, seen them

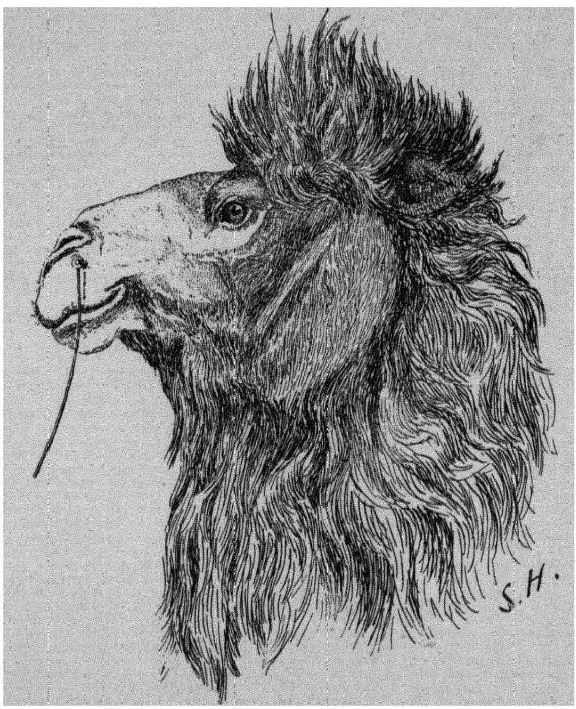


HEAD OF A WILD CAMEL

themselves; but they had sometimes observed their tracks in the sand, which approached the edge of the forest. After that not a day passed without something being added to our knowledge of their characteristics. Many of the shepherds further down the river had actually seen them, either singly or in herds of five or six. They told me they resembled their tame kindred to a hair, were of the same size, moved in the same way, and exhibited the same habits. The rutting-season too was the same, namely, January and February; and even the impressions of their feet in the sand were precisely alike.

I was told, that the wild camel was excessively shy,

and that as soon as he observed he was being followed, he fled like the wind, and did not stop for two or three days. He had a positive terror of the smoke of a camp-fire; and the shepherds declared that no sooner did he scent burning wood than he went off altogether, and kept away a long time. Once, a long time ago, somebody brought a couple of tame camels down the river, but



HEAD OF A TAME CAMEL

even after they were freed from their pack-saddles, the wild camels avoided them like the pest, apparently considering them enemies quite as dangerous as tigers and wolves. The shepherds declared further, that the wild camel notices at once the peg and cord in the tame camel's nostril, with which he is disciplined, and immediately scents his congener's burden, whether flour or meal or sheep's-wool, or whatever it may be, and

notices that its humps are flattened and its hair chafed by the pack-saddle.

Although I am not a zoologist, I will nevertheless venture the supposition (which, however, I was in a position to modify later on) that these very qualities are simply traits of atavism, proofs that the wild camel was at one time tame; and that the generation which now wanders so freely among the sand-hills of the Desert of Gobi still retains an unconscious, instinctive terror of everything that recalls the slavery of their forefathers—the time when they stood bound by the camp-fire, when the tyrant man bored a hole through their nostrils with an awl, and when their humps were pressed and their hair chafed by his cruel burdens.

Mohammed Bai, the last shepherd we met near the river, who had spent all his life in the desert and forest, was as familiar with the habits of the wild camel as he was with those of his sheep. In fact, the ten or twelve persons of his little aghil lived chiefly on the flesh of the wild camel during the winter months. He had shot three that year, in spite of a wretched gun, which would not kill at more than fifty paces, so that he was obliged to conceal himself in the eye of the wind and patiently wait until a camel came within range. For the moment the wild camel scents danger he sets off as hard as he can gallop and does not stop for one or two days. The previous year the old man contrived to capture a young one, not more than a week old. The whole of the spring and summer it grazed with the sheep, and became quite as accustomed to people as any tame camel. Then it unfortunately died.

It might perhaps be inferred, that the ease with which the wild camel becomes used to men is but another trait of atavism, were it not for the contrary fact, that the tame camel quite as readily forgets that it has been the slave of man. When my caravan came to grief in the Taklamakan Desert the previous year one of the camels succeeded in reaching the Khotan-daria alone, and ranged the forest for several days uncontrolled. When Ahmed

the Hunter found him, the animal was half wild and fled in terror at his approach. As a rule, however, the tame camel is a cantankerous and unamiable beast at the best. He never becomes so domesticated as the horse. If you attempt to pat him, you run the risk of being kicked, and if you stroke his face, he utters a discontented scream and emits a foul-smelling mucus. The camel I rode during this expedition was an exception to this rule: he and I were on the most cordial and confidential terms. But, then, he had found out that I never did him any harm or touched the rope in his nostril.

I was further told that the wild camel lives in the deepest part of the desert, and knows the depressions in which a few poplars and tamarisks grow sporadically. In summer the river flood travels a considerable distance beyond the last human dwelling; and so tempts the wild camel to come down to drink in herds and get a good meal of kamish. In winter, according to Mohammed Bai, he does not drink at all.

He avoids the forest, and never enters the jungle-like undergrowth, for there his view would be restricted and in case of a surprise he could not get away with sufficient rapidity. He loves rather the open wastes of the desert. If the tame camel is the ship of the desert, then assuredly the wild camel is the Flying Dutchman, who sails and sails and never founders, not even in those terrible places where the tame camel suffers shipwreck.

On February 9th we had our first intimation of his presence, in that we found a tuft of hair on a bush. The next day in the dry summer bed of the river we came across numerous fresh tracks and droppings. Our hunters were more excited than ever, made long detours on the outskirts of the desert, but returned with nothing, except that they had seen a herd of seven head disappear into the desert.

The following legend regarding the origin of the wild camel is current among the shepherds of the Keriya-daria. God sent a *peresh* (spirit) from heaven to earth, and there

he was changed to a *divaneh* (dervish), and was bidden go to Hazrett Ibraham (the Patriarch Abraham), and ask that he would give him, a poor man, animals from his flocks and herds. For twenty days Abraham gave the dervish a thousand animals daily, the first day sheep, the second day goats, then yaks, horses, camels, and so forth. Then God asked the dervish, if Abraham had fulfilled his request; and the dervish answered, that Abraham had given him all that he possessed, so that he was now a poor man. Then God ordered the dervish to give all the animals back to Abraham; but the latter hesitated to take them, saying that what he had once given he would not take back. The dervish carried Abraham's answer to God; and God commanded all the animals to be homeless, and to wander about the earth without an owner, and any man that was so minded might freely take them and kill them. Then the sheep became arkharis (wild sheep), the goats tekkes, kiyik, and maral; the yaks fled to the mountains and became wild yaks; the horses were changed to khulans (wild asses); and the camels sought refuge in the desert.

On February 11th we marched through a Transitional region, in which the river-beds became less distinct, the forest gradually ceased, the tamarisks grew rarer, and the sand higher, although as yet it did not cause us any difficulty. Every now and again we sighted a solitary poplar growing along the line of the river-bed, now however choked with sand, while between them stood rows of dead tree-trunks as brittle as glass.

Over country of this description we pushed on all day. The tracks of the wild camel were now so common that we no longer paid any attention to them. In the afternoon we reached a tract where the old bed of the river was more easily distinguishable and the tamarisks more abundant than in other places.

Kasim, who always went on ahead with his gun over his shoulder, looking for the best road, stopped all of a sudden, as though he had been struck by lightning, and crouching down like a cat, signed to us to stop. Then

he crept in among the tamarisks with the noiseless stealth of a panther. We at once became aware of a herd of wild camel two hundred paces away.

I always had my field-glass ready to hand, and was therefore able to follow the hunt that ensued from beginning to end. Kasim was armed with his primitive flint-lock, Islam Bai, who followed after him, had the Russian Berdan rifle. When Kasim fired, the camels started, gazed a few seconds attentively in the direction from which the danger threatened, then turned right round and went off towards the north at a trot. They did not however travel very fast; possibly they had not recovered from their surprise, or did not quite understand what it was all about. The camel at which Kasim shot went off at a slow, heavy, clumsy trot. We ran after the animal and came up with him the moment after he fell. He was still alive; but a knife-thrust in the neck put an end to his sufferings.

That evening the camp was all excitement, bustle, and talk. We had almost given up hope of even seeing a wild camel, and yet there one lay—I had almost said as large as life—before us.

I of course examined the creature from top to toe. It proved to be a twelve-year-old male, about the same size as our tame camels. The hair was short, except on the under side of the throat, the neck, the top of the head, the humps, and the outer sides of the upper part of the forelegs, so that in comparison with our domestic camels, he looked rather bare. He measured 10 ft. 10 in. in length from the under-lip along the belly to the root of the tail; was 7 feet in girth between the humps; the soles of the fore-feet were $8\frac{1}{4}$ inches broad and $8\frac{1}{2}$ inches long, and their pads were coarser and less worn than those of the domestic camel. The hoofs too were longer and more claw-like, so that they left a plainer impression in the sand than those of the tame camel. The upper lip was a little less indented and shorter; the under lip did not hang; the eye was wilder. The humps were smaller, more regularly shaped, and more erect. The humps of

the tame camel on the other hand, in consequence of the work he does, and of his larger secretion of fat, hang over a good deal. The colour was brown, slightly tinged with red, a little lighter than the tame camel; the hair was remarkably fine, and soft, and free from flaws.

But there was no time to be lost. The sun had set and the evening was growing chilly: at 9 p.m. we had 16°9 Fahr. (−8°4 C.). "We must save the skin," I said; but Islam remarked that it was a camel-load in itself, and that just now we must keep the animals as lightly laden as possible, partly because we had the desert before us, and partly because we had to carry water. There was a moment's pause of doubt, which was cut short by Kasim, who had shot the camel, roundly declaring, that the skin should go with us even if he had to carry it himself.

The work was now redistributed. Islam and Ahmed skinned the camel; Kasim found out the most likely place to set to work to dig a well; while Kerim Jan looked after the camp generally and tended the camels, which were kept tied up that night in case they might take a fancy to go off and join their wild kindred. Meanwhile I got my own supper ready; and, as usual, wrote down my notes, and worked out the day's route.

Late in the evening we all assembled round the fire. The camel's skin was so heavy that it took three men all their time to drag it to camp; the head and feet, it is true, were not yet cut off. The men still had several hours' work beside the fire, before the skin was all off, and ready to be spread out on the ground and strewn with warm sand. The latter process was repeated several times during the night; the sand absorbed the moisture, so that the skin decreased very considerably in weight.

The well-digging, on the contrary, came to a less satisfactory conclusion. Kasim dug away indefatigably; but at the depth of 10 ft. 6 in. the sand was still relatively dry, so that the task was given up.

We therefore made up our minds to stay where we were the whole of the following day; for we had learnt by dear-bought experience, that it is fatal to venture far into the

sandy desert without water. We resolved we would not advance more than one day beyond our last well. When we could no longer find water we would retrace our steps; although there is nothing I dislike so much as returning over the road I have gone.

All search the next morning, the 12th February, for a more promising spot for a well was fruitless. Kasim therefore set to work again courageously upon the old one, and at the depth of 13 ft. 8 in. actually succeeded in getting water. Its temperature was 56°7 Fahr. (13°7 C.), although the surface of the ground was slightly frozen. We let down a roughly made ladder to the bottom of the well, and with a bucket hauled up the water, which trickled very slowly out of a stratum of sand between two strata of clay. First of all the camels and donkeys were allowed to drink their fill; then, during the course of the day, four goat-skins were filled; so that we were able to strike camp again on the 13th with a clear conscience. The camel-skin, after its treatment with warm sand, was sufficiently light for a donkey to carry, although I must admit he always lagged sadly behind.

CHAPTER LXVII.

WHERE IS THE TARIM?

THROUGH dead woods and past solitary dying poplars we made our way northwards, over the rudimentary sand-dunes. For another half-day's march, we were able to distinguish plainly the old river-bed, although the water no longer reached it. The sand-dunes, however, increased in height from twelve feet to twenty, and then to twenty-five. Vegetation became sparser; while both east and west the barren sand-hills, rising up like mountain-ridges, approached quite near to the desiccated river-bed.

Immediately after we quitted the river-bed, we saw on our left a herd of six wild camels quietly grazing and resting—a big male, two young ones, and three females. Strange to say, they allowed us to approach within two hundred yards, so that I was in a position to get a good look at them, and observe all their movements, particularly as the sun was high and the atmosphere clear. The big male camel was lying down quietly beside a poplar, and the others stood and gazed at us with fixed attention and wonderment, but without showing any inclination to flight.

As we were travelling at a slow rate, Islam Bai was enabled to creep round them to within fifty paces. But the animals soon perceived there was danger in the air. The big male got up, and the herd moved slowly off towards the north-west, thus crossing our route and passing the tamarisk behind which Islam was lying in ambush. Islam fired, and the male camel, after going three paces, fell; when we came up with him a few minutes later he was quite dead. The ball had entered the neck, making

a wound so small that we had some difficulty in discovering it, for the flow of blood remained in the hair.

He was a magnificent specimen. But the desert was spying upon us; we durst not tarry, even to save a second wild camel's skin. The men however cut the fat out of the humps; it proved a welcome addition to our rice-pudding (pillau). We also took a good supply of the hair, for twisting into ropes, for we needed some.

The humps on this camel were much more developed. The anterior hump rested on seven spinous processes of the dorsal vertebræ; the posterior hump on six. The seven processes were very prominent; whereas the six scarcely projected at all above the general level of the spinal cord. Between these apophyses, or spinous processes, stretched the tough yellow tendons; and as the fat was merely kept in place at the top by connective tissue, it was easy to cut it out. The carcass was allowed to remain where it was, as Ahmed said, a choice dastarkhan (tit-bit) for the wolves and foxes. The first camel that we shot and skinned became as hard as a lump of ice during the night; and no doubt the live ones would fight shy of the places where their dead relatives lay for a long time to come.

We had not gone far before we surprised a second herd of five wild camels, one male, two females, and two young ones; these also were incautious. After moving about fifty paces or so away, they stopped and waited until we were quite near; then they shambled a few yards further. This manœuvre was repeated three times. Islam shot a she-camel before I had time to stop him. The ball struck her in the joint of the right foreleg, and she immediately fell, dropping into the posture in which camels usually rest—that is, on the callosities at the knees and breast. She turned her head to the left, opened her mouth, thrust her lips into the sand, and screamed wildly with pain. Although she never looked up at us, I fancied I read in her dying glance an expression of hatred and terror of her ancestors' tyrants, who had now come, as it were, to punish the camels for fleeing from captivity. Just as the knife was about to put an end

to her torture she died. I was ashamed at being the cause of this innocent and undoubtedly happy life being taken, and forbade any more shooting.

Our experience of the wild camel's shyness did not altogether bear out what the shepherds told us. We saw no indications of either caution or swiftness, but were easily able to get within short range. Moreover, we found that they were very easy to kill, falling at the first ball, no matter where it hit them, whether in the back, neck, or leg. That they were so little on their guard, as well as lean, was no doubt due to the fact of its being their rutting-season.

It was both interesting and amusing to watch our three tame he-camels. They got wind of the wild ones long before we saw them; and often long before we perceived any herd, they would gurgle, and lash their backs with their tails, while the foam dropped in flakes from their lips. When they saw the dying she-camel, they were half frantic, and had to be tethered; they ground their teeth and foamed at the mouth, and their eyes, at other times so placid, rolled with frenetic excitement.

During the next few days we saw several herds, and sometimes solitary individuals, in fact, we became so used to them that at last we ceased to pay them any particular attention. They were generally browsing on the dry poplar leaves and tamarisks; and when they turned to flee, it was always in the direction of the high sand-hills. They moved along the tops of the sand-hills with amazing ease; though their gait was every whit as shambling as that of the tame camels, and they dragged their long ungainly legs after them in every bit as ungraceful a manner. But while the humps of the tame camel wobble and shake like lumps of jelly when the animal puts on any pace, those of the wild camel remained motionless and firmly erect. Their scream had the same mournful, melancholy note as the cry of our camels.

Meanwhile we lighted upon an unexpectedly happy solution of the water difficulty; on the evening of February 13th we only dug five feet and came upon

clear fresh water, with a temperature of 42°1 Fahr. (5°6 C.).

On February 14th we accomplished a long march, although the sand was somewhat higher, and living tamarisks and poplars scarcer; but there were plenty of dead woods all day. Sometimes the hard white stumps were set as close as gravestones in a cemetery, and we were obliged to thread our way slowly between them. When the camels' loads scraped against them, they cracked with a noise like splintering glass. The steep sides of the sand-dunes faced the south-west. Our range of vision was curtailed on all sides by high menacing davans, to which we took care to give a wide berth. Every living poplar bore unequivocal traces of the visits of the wild camel. The bark and branches were eaten off as high up as the animal could reach. The reason we were still marching in the old river-bed was partly because of the impediments caused by the dead forest, and partly because certain ridges and ledges of clay, which at one time evidently bounded the river-bed, encumbered the spaces between the sand-dunes. The further we advanced towards the north the more the original irregularities of the surface were levelled down by the drift-sand, so that sometimes we were uncertain as to where the bed of the river was. A camel-track which we followed for a long distance led us astray, in that it took us too far to the west. At our next camping-place, the twenty-fourth since we left Tavek-kel, we found water at a depth of 5 ft. 5 in.; it was quite as good as river water, and its temperature was 44°1 Fahr. (6°7 C.). By chance we also discovered, at a depth of eight and a half inches from the top of a sand-dune, a layer of snow more than three-quarters of an inch thick; it was covered over with sand and lay parallel to the surface of the dune. This showed that it sometimes snows in those regions; also that it blows in the winter, for the sand-dune had increased nine inches in height since the snow fell. This was the only time I saw snow in the Takla-makan Desert.

On February 15th we lost our way among the sand-dunes, which sometimes rose to close upon 100 feet in height. The lee side of the dunes faced south-west, and the relation of the height to the distance between the crests of two adjacent dunes varied on an average in the proportion of 1 to 12·8. Poplars and tamarisks were very rare all day long; but towards evening we came across another strip of vegetation. From the spot where we encamped we counted forty-two live poplars. Only one camel-track was visible, and that an old one; but tracks of hares and birds were not uncommon. Not far off some hunter from the Keriya-daria had put up several poles as a sort of signal or mark, probably to indicate that that was the limit of their range towards the north. Our well that evening was 6 ft. $3\frac{1}{2}$ in. deep and its temperature 45°5 Fahr. (7°51 C.). The ground was frozen to a depth of five and a half inches; the water-carrying stratum of sand rested on impervious clay.

February 16th. We continued our slow march towards the north. Every day I anxiously reckoned the distance we had travelled, and every evening counted the probable distance that still separated us from the Tarim. We were very anxious to reach it and say adieu to the perilous desert. During the forenoon the sand was less high than the day before, and we scanned the northern horizon impatiently for the first glimpse of the forest-belt of the Tarim. An oasis of some seventy vigorous poplars tempted us to halt. But Ahmed the Hunter discovered the track of a panther, and assured me that those animals seldom travel more than a day's journey from water. We therefore went on again; for it was quite evident the animal had not come from the south, from the Keriya-daria.

After that the sand-dunes rose again to fifty feet; the region assumed its usual sterile and desolate appearance. We only twice saw signs of the wild camel. When the light began to fail, we took up our temporary abode round an isolated poplar, which the camels soon stripped of its bark. All through this part of our journey through the

desert the donkeys lived chiefly on the dung of the wild camel. It was too late to dig a well; but we still had some water left in our goat-skins. Having found some fuel, we sat round the fire talking, with a blue-black sky full of glittering stars above our heads.

The men were in splendid spirits, looking forward with hope to the morrow. Kerim Jan looked after our five animals. Ahmed and Kasim collected a heap of dry roots and branches. Islam crouched over the cooking-pot, with a long spoon stirring the contents—rice-pudding with onions, raisins, and carrots, all boiling together in the fat from the wild camel's humps. I myself lay on my stomach on my carpet, pipe in mouth, writing up my diary by the light of the fire. Round about us the sand-dunes arched their backs in weird silence. The poplars looked lonely and disconsolate in the gleam of the fire-flames. The stars seemed to fix us with their bright and penetrating glance, as if wondering whether we were some of the dwellers of the towns of ancient days mysteriously quickened into life again. And indeed who knows how many graves of the dead that have slumbered for thousands of years we trampled on in the countless footsteps we took over that eerie sand? Everything was so silent and still. It would have been altogether uncanny, but for the fierce crackling of the dry firewood. In that wonderful country I felt like a king. Mine was the march of a conqueror. I had subdued the land. It was mine, it belonged to me. I was the first European who trod that unknown, long-forgotten region. It was a grand thought that came to me by my own fireside. I dozed off, and slept immoderately well.

February 17th. The landscape still continued the same. The sand was high and heavy; davans appeared again both in the east and the west. One or two poplars were always in sight; although they were generally an hour's distance apart. The lines which went from the one to the other still stretched north and south, parallel with the Khotan-daria and the Keriya-daria, not with the Tarim; and no other sign indicated the proximity of this

river. Upon reaching a couple of poplars, where the ground promised water, we halted. Water we must have, for we had come to the end of our own supply yesterday. We found it at 5 ft. 4 in., and with a temperature of 41°7 Fahr. (5°4 C.).

February 18th. The water took so long to run out that we were only able to fill one *tulum* (goat-skin) before we started in the morning. The ground became heavier and heavier. One davan was a good 130 feet high; however we slowly worked our way over the piled up sand-dunes till we at length reached the culminating point; whence the northern horizon was barely visible at an immeasurable distance. The sand was everywhere absolutely barren, and resembled the western part of the Takla-makan Desert. That day we were all unusually silent. Ahmed the Hunter only laughed once; that was when I pointed down into a yawning circular chasm between the wings of two sand-dunes, and asked him, if he would not like to slide down into the pit and fetch up a little water. Islam and I had been in worse case; and our spirits had their effect upon the others, who were beginning to feel very downhearted. We rested at a suitable place and dug a well. At five feet deep the sand was moist, but not moist enough to promise water; so we gave up the well. The water-supply in the goat-skin did for the evening and morning. The camels were hungry; we gave them their pack-saddles to eat. Twice during the day's march we crossed the track of a fox leading first a little way into the desert, and then returning and going due north, and this served to keep up our spirits. What in the world was the fox doing there? Looking for hares? Probably. But it ought to have been able to find them nearer home. We also saw a raven flying in the same direction. Ahmed thought he had been to have a look at the two dead camels we had shot, and was now hastening to the Tarim to fetch his kindred to share in the feast. Perhaps he was; all the same, the wind during the past few days had been in the north!

Ah well! Our water was at an end, and the well was dry. Was there a similar terrible desert before us, and a similar ghastly fate awaiting us, as in the western Taklamakan? No; this time we would be wiser. We held a council of war, and resolved to risk one more day's march to the north. The fox could not have come so very far from the Tarim; yet the fox is a wily animal, a dangerous guide, and we made up our minds to be on our guard against him.

If we did not find water on the morrow, we were to return to the well we dug at camp No. XXVII.

CHAPTER LXVIII.

THROUGH THE FORESTS OF THE TARIM

FEBRUARY 19th. After travelling a couple of hours through the high sand, we once more perceived signs of vegetation towards the north, namely the desert bush saksaul (*Anabasis Ammodendron*), which in the Turki dialect of Kashgar is called *sak-sak*, and in that of Khotan *köuruk*. The saksaul appeared to be supplanting the tamarisk, for the latter was conspicuously absent. We again observed signs of the wild camel, hare, fox, and lizard. The ground between some of the dunes consisted of what the men called *shor*, *i.e.* damp clay coated with saline incrustations. Every now and again we came across the yellow, wind-driven flags and sheaths of kamish (reeds). The Tarim could not be very far away.

The dunes were 25 to 30 feet high. From the top of a davan or pass I at length saw a small patch of kamish, and there we rested, so as to give the camels a meal. Before morning they had cleared the entire patch. A well we dug yielded water (40°3 Fahr. or 4°6 C.) at a depth of five feet; but it was salt and bitter, so that even the animals refused to drink it.

Ahmed was at last easy in his mind: for he had made the same observation I had, namely that the water in the desert wells always turns salt when you are approaching a river. At any rate, it was a good omen on my birthday; for we had now a sure indication that we were nearing the Tarim. In the evening we filled several vessels with water drawn from the well, and when the morning came melted the ice which formed on them during the night, and in that way got rid of a good deal of the saline

impregnations. All the same it required an effort of will to get a few mouthfuls down, even in the form of tea.

February 20th. The fox did not mislead us more than one day. Before the morning was over, the dunes had sunk first to 16 feet, then to 6 or 7 feet, in height, whilst at the same time they were less closely packed together, and at length occurred only intermittently. Tamarisks and poplars began to appear singly and in scattered clumps; and at last we saw in the far-off distance the thin dark line of the forests of the Tarim. What a glorious sight! All danger was now over. Then the usual indications began to show themselves—*chiggeh* (rushes), the spoor of wild-boar, the track of a horseman, presumably a hunter who had recently crossed our line of march, then the footprints of a barefooted man, in all probability a shepherd. But the most remarkable of all the signs we observed were the fresh prints of the wild camels' cushioned feet. Perhaps however the wild camel haunts the narrow strip of country south of the Tarim? I do not know.

The ground was now level and open, and vegetation became more plentiful, whilst at the same time the sand-dunes gradually decreased in number. We crossed over a dry river-bed, which went from the west to the east, no doubt a side-arm of the Tarim when the river is in flood. There was still a small frozen pool in the bottom, and down to it ran a recently trampled path. We ought to have encamped there; but we did not. We pushed on further, for we were under the impression that another hour, or at the most two, would bring us to the river. The forest grew thicker, but was varied at intervals by open glades. One thing astonished us greatly: all the tracks of wild animals went east and west, and so too did a furrowed road made by the wheels of an *arba* (cart). Hour after hour we kept plodding on towards the north. But silence reigned supreme; there was not a token of life. It grew dusk; we still kept toiling on. It grew dark. We searched in vain for the river; and at last, at a late hour of the night, we fairly stuck fast in a

dense thicket. Wearied out, we encamped in an abandoned sheepfold, and used up its posts and rails for our fire. It was the second night we were without water, and we were tormented with thirst. The men hunted about all over the thicket, but without success; and had to give it up and wait until the morning.

February 21st. The Tarim seemed to flee before us. All day long we sought for water. But though we discovered innumerable signs of men and horses going in every direction, yet of water we found not a trace. The road still led partly through the primeval forest, in which the trees stood so thick together that I had to use a stick to ward off the branches and prevent them from striking me in the face; and partly through luxuriant kamish steppes; and partly again across barren sand, with scattered tussocks of grass and desert plants. The desire for water was so painful that two or three times we attempted to dig a well, but it was only labour wasted.

In one place we came across three sattmas (reed huts), with bundles of reeds stacked up on their roofs. We also observed tracks of men and cattle, which could not be more than a day old. A patch of cultivated ground, and a post and threshing-floor, were further evidence of the proximity of human beings. We shouted. No answer came. The forest was intersected by several dried-up watercourses; but not one of them contained even the tiniest pool. We got deeper and deeper entangled in the interminable forest.

All at once Islam Bai, who was in advance, shouted back "*Su! su!*" (Water! water!). And rightly enough, there was a large pool in the bottom of a deep winding watercourse; but it was coated with thick ice. The caravan quickened its pace. The men hastened to get out their axes and spades; and in a couple of minutes they had hewn a hole and were down flat on their stomachs drinking.

We at once pitched our tent in a grove of grand old poplars. Putting all their strength together, the men dragged forward two or three dry tree-trunks, and when

night came made a couple of huge bonfires, which lighted up the forest to a great distance. Once more we were getting on well; but we were even in better form when we heard a dog barking in the distance. Ahmed and Kasim hurried off in the direction from which the sound came, and after being a good long time absent came back accompanied by three men, whom I questioned and cross-questioned. Amongst other things, they told me that the first river-bed we crossed the day before was called the Achick-daria (the Salt River), and that the forest tract we were then in was known as Kara-dash (the Black Pool). There were several shepherds in the neighbourhood, in charge of some 4000 sheep belonging to bais in Shah-yar.

The following day we continued our journey towards the north-east with a guide, and at Teress crossed the Yarkand-daria (Tarim), which was 170 yards wide. Although the ice was tolerably strong, it bent and cracked under the weight of the camels. The animals were themselves afraid of getting a bath, and were therefore led across one at a time. All the same, they instinctively straddled wide, so as to spread their weight over as wide a surface as possible, and kept their heads close down to the ice, so as not to hurt themselves if their feet did go through. In the village of Chimen we once more enjoyed the luxury of a roof over our heads, although the most primitive imaginable.

Here I paid Ahmed and Kasim for the services they had rendered me; for they were leaving us to return up the Khotan-daria to Tavek-kel. I had taken a liking to these excellent forest-men, and was really sorry to part from them. But they were anxious to get back home in time for the spring sowings; they were also growing more and more uneasy every day as the distance increased from the districts they were acquainted with. I gave them not only the money we had agreed upon, but also the donkeys, and provisions to last them all the way to Tavek-kel. They undertook to carry the skin of the wild camel to Khotan, and they executed the commission like honest fellows. My chief consolation

at parting from them was, that I now really needed other guides, men who were familiar with the forests of the Tarim and the intricate river-channels of the Tarim system.

On 23rd February we rode into Shah-yar, having been forty-one days in crossing the desert of the Takla-makan, a journey in which we had made many unexpected discoveries. I had mapped the Keriya-daria in detail, had proved beyond question the existence of the wild camel in the desert north of that river, had discovered a race of shepherds living in a semi-savage condition, and, most important of all, had discovered two ancient cities. My first journey across the Takla-makan had been disastrous; the second proved a series of triumphs. On the first journey I sought for ruins of an ancient civilization, and sought in vain; the second journey clearly demonstrated that the thousand and one legends of hidden treasures and cities buried in the sand were not altogether old wives' tales.

Whilst in Shah-yar a bright idea occurred to me. Instead of going back by the Khotan-daria, part of which I had already travelled down, why not strike direct for the Lop-nor, and get my boating trip on it, one of the principal objects of my journey, done with once for all? Instantly certain objections presented themselves. Before leaving Khotan I had not had the remotest idea of taking such a roundabout route of some 1500 miles. I had only come equipped for an expedition of fifty days. The worst of it was I had not brought a single map of the Lop-nor with me; and I had left my general Chinese passport behind me in Khotan. The amban of that place had, it is true, given me a local passport, valid for the province of Khotan. But I considered it as so much worthless paper, for we were only going to travel through the desert; and yet, as events subsequently proved, it was really invaluable. Besides, though this was of little moment as compared with the above-mentioned objections, we had only our winter clothes and felt boots with us, and my sketch-books, note-books, steel pens, tea, and

tobacco were rapidly running to an end. But necessity knows no law. I had Przhevalsky's map of the Lop-nor by heart; and moreover I intended to make a thorough topographical examination of the entire neighbourhood. As for the want of a passport, I must endeavour to keep out of the way of any Chinese mandarins who would be likely to ask me for my credentials. The clothing difficulty could be easily overcome: we could make light summer suits for ourselves in Korla. In the same town we bought skin boots in the bazaar. I got some paper, though of wretched quality, in Shah-yar; nevertheless it did not impair the accuracy of my sketches. *Kok-chai* or green tea was to be had everywhere; and if the worst came to the worst, I could make shift with smoking Chinese tobacco in a nargileh or water-pipe, although the Chinese mix with the "weed" an evil-smelling oil and clay dust from a certain hill in China, under the idea that they thereby add piquancy to the "smoke." Islam Bai managed to procure fresh supplies of wheat, rice, bread, eggs, and sugar. The camels' pack-saddles were mended. Then, after a two-days' rest in Shah-yar, we were fit and ready for a new venture.

But first a few words about Shah-yar. The little town derives its water-supply from the Tian-shan Mountains. A short distance north of it the river Musart-daria (the River of the Ice-Pass), which flows to the south-east, divides into two branches; one of them enters the lake of Pásning-köll (the Lake in the Depression), whilst the other passes within a short distance of the town, and contributes its water through several ariks (irrigation-canals). At the bifurcation there is a dam, which holds up the water in the lake during the summer and thus tends to prevent inundations; but when the water is low, the dam is left open, and the water then serves the town, its villages, and cultivated fields. Shah-yar (the King's Terrace) is ruled over by a beg, two min-bashis, and several yuz-bashis. The first mentioned, Temir Beg (the Iron Chieftain), was displeased because I had not a passport; he tried to prevent me from advancing further, and forbade his people to show me the

road. But we outwitted him. There is a wonderful magic in Chinese silver! In the environs of the town are cultivated rice, wheat, maize, barley, apricots, peaches, grapes, apples, pears, melons, cotton, and some silk. The products of greatest commercial importance are however sheep, hides, and wool, which are exported to Ak-su. Ten Chinese merchants and five from West Turkestan traded in the bazaar; also merchants from Kashgar, Ak-su, and Khotan. The only buildings in any way distinguished from the everlasting low clay houses were a *khanekah* (prayer-house), two madrasas, and a few caravanserais.

I need not dwell at length upon our journeying through the forest of Tarim, but will confine myself to one or two episodes, which to some extent illustrate the character of the region. I and the four men, with the three camels, left Shah-yar on February 26th. After passing the cultivated fields of the town, we travelled across boundless steppes, grazed by multitudinous flocks and herds. At first our course was to the south-east; and eventually we approached the Tarim. At the place where we struck it, the river was called the Ughen-daria. From that point we steered due east for several days, keeping between the Ughen-daria and the Inchickeh-daria.

February 27th. We were sometimes journeying through the forest, sometimes across the open steppe, dotted with shepherds' camps. We encamped in a sattma in the wooded district of Yollbars-bashi (the Place where Tigers Begin to Show themselves). A shepherd told me, that the Achick-daria was in that region called the Arka-daria (the Further River), that it only flows in the summer, and then several days' journey to the east disappears in the sand. South of that river, he said, the wild camel was not at all rare, and a long way in the desert there were ruins of a town which nobody had ever seen, but which everybody had heard speak of. Its name was Shahr-i-Köttek, *i.e.* the Town in the Dead Forest, or else Shahr-i-Katak—a place which likewise haunts the desert between the Yarkand-daria and the Kashgar-daria.

The same shepherd also gave me information about the

main stream of the Tarim. He said that in June its flood is truly enormous. It then rises every day for twenty days, until it is 300 fathoms (or 600 yards) wide, and as deep as a poplar is high, *i.e.* about 50 feet. It remains in flood about a month; then begins to subside, at first slowly, then faster and faster, until in the end of November the frost comes and sets its congealing hand upon it. The river, which always freezes from the bottom upwards, and thaws the reverse way on, from the top downwards, remains frozen for three and a half months. Ten days later on the shepherd expected the ice would be so soft and brashy that it would be impossible to cross the river on foot. The current is lowest in the beginning of May.

February 28th. Every day after leaving the Achick-daria we saw vast numbers of wild-geese; but at the place where we encamped to-day, a deserted sattma in a glade of the forest known as Tuppe-teshdi, they were more numerous than usual. Every three or four minutes a flock of from thirty to fifty went sailing past, all going due east, no doubt making for Lop-nor. Occasionally a group of four or five came lagging behind the main body. So long as the sun was up, they flew so high that they looked no bigger than little black dots against the sky; but immediately the sun set they came down to within sixty or seventy feet of the earth, and seemed to skim the tops of the poplars. Then we often heard a faint gabbling, as though they were taking counsel together as to which would be the most suitable resting-place for the night. Some flocks however still kept up at a considerable height during the night; probably they had not made such a long day's journey as those which flew lower, and which evidently meant to settle.

Marvellous creatures those wild-geese! They knew the geography of the region as well as if they enjoyed the advantage of using the very best maps and instruments. They always flew in a long string one behind the other; and each flock pursued exactly the same line of flight, over the very same poplars, and towards precisely the same point of the compass. Directly we

heard them in the distance, we knew over which tree the first in the string would become visible. Their instinct of locality is amazing. But no doubt they have innumerable "sign-posts" all along the road. They always come down nearer the earth long before they settle; as though they knew the next resting-place was not far off. Once every year they make the extraordinary journey all the way from India to Siberia, and once a year back again, a journey which it would take a human being a couple of years to perform, at the cost of no small amount of trouble. It would be an interesting study for an ornithologist to trace out the flight-routes of the wild-geese and other migratory birds across the Asiatic continent; a map depicting their lines of flight would be invested with no ordinary value. Along the Tarim basin they almost certainly follow the course of the river. Lop-nor is with equal certainty an important rendezvous. Several flight-routes also intersect there; and there the wild-geese, like the wild-duck and several *Grallatores* (waders), stay some time. But how do they get over the lofty mountains, across the stupendous plateau of Tibet? In the parts of Tibet which I afterwards travelled through, I only observed wild-geese two or three times. On the other hand, the Sarik-kol valley, and Lakes Rang-kul and Chackmakden-kul, seem to mark an important migratory route. Another well-known flight-route is said to coincide with the meridian of Kucha as far as the Tarim, and thence down the river to Lop-nor.

The region through which we were then travelling was known by the general name of Ughen; but each sattma, together with the portion of the forest and pasturage which belonged to it, had a separate name. As a rule, the houses were constructed of clay, with a flat boarden roof; but in addition many of the people possessed light, airy summer-houses, with a projecting roof supported by pillars. On the whole, however, the shepherds of the Tarim led the same sort of nomadic life as the shepherds of the Khotan-daria and the Keriya-daria. But they were by no means so peaceful and good-natured: they often

viewed us with jealous mistrust, and every homestead was guarded by half-a-dozen ferocious dogs.

With each day we advanced, we gained a better insight into the complicated river-system, and understood its character better. The main stream does not confine itself to one channel; but in its sinuous course through the forest often divides and re-unites. At Dung-sattma the Yarkand-daria (Tarim) was likewise known as the Yumulag-daria (the Round River), and its left-hand or northern branch as the Ughen-daria. But in different parts of the forest the river nomenclature is extremely confused, and it is scarcely possible to give a clear account of it without the aid of my detailed itinerary map. I shall have occasion to return to this interesting hydrographical problem later on.

It was not an easy matter to make progress through the dense forest, nor even across the open champaign, for there the reeds stood ten feet high; but luckily we had a trustworthy guide in Islam Akhun from Shah-yar.

On March 2nd we encamped on the bank of the Ughen-daria, at a spot where the stream was quite narrow; and on the following afternoon beside the clear blue waters of the Inchickeh-daria (the Narrow River), which flowed with a scarce discernible movement at the bottom of a deep and confined channel.

March 5th. We halted for the day in the forest-tract of Chong-tokai (the Big Forest), in order to give the camels a rest; and there we bought a sheep, and I took an astronomical observation. At that place the Inchickeh-daria was called the Chayan, and was twenty-six feet wide and five feet deep.

On March 6th we directed our march towards the north-east, accompanied by shepherds of Chong-tokai. The forest grew thinner and thinner, and soon became confined to a few scattered tamarisks and saksaul bushes, the latter growing on small conical mounds held together by the roots of the plant. The country grew more desolate; small sand-dunes appeared at intervals; and before we halted for the night we found ourselves in the middle of a

barren sandy desert. This detached piece of desert, which extends to the neighbourhood of the Koncheh-daria, contracting however to the south of Kucha, enjoys no special name, but is generally called simply Kum (Sand Desert) or Chöl (the Desolate Plain). Here too there were rumours of ancient cities; but the reports were as usual vague. All I was able to discover were the blade of a flint knife and some fragments of vessels of burnt clay. Carrying with us a *tulum* (inflated goat-skin) full of water, we encamped in a very ancient dried-up river-bed, overhung by dunes twenty to twenty-five feet high. This channel made numerous abrupt turns, whilst preserving a general easterly direction. It had formerly served as an outlet for one or other of the streams which we had now left behind us; thus furnishing another proof of the great changes to which the drainage channels in those level regions are subjected.

The following day we traversed what remained of the desert, and once more entered the dense poplar forest. There by means of a bridge we crossed the Char-chak, an arm of the river, some thirty feet broad and ten feet deep. The bridge was constructed of elastic planks, and was ten feet above the surface of the water. The two bigger camels walked across with their usual calm confidence; but the youngest, which very often made a fuss, could not be induced either by fair means or by foul to set foot on the bridge. He stood like a log, utterly heedless alike of the rope in his nose and of the thick sticks which played upon his ribs. We were obliged to go another way round, and crossed the river at Uiyup-serker; there the refractory beast took a less precarious bridge in a couple of awkward bounds.

CHAPTER LXIX.

AT KORLA AND KARA-SHAHR

AT length on March 10th we rode into the streets of Korla. Our three camels, which were accustomed to the quietude and peace of the desert, grew restive at the noise and hubbub in the narrow streets. A troop of boys followed close at our heels, making any amount of fun of me; and I have little doubt I made a comical enough figure perched up on the top of my tall camel. In the bazaar I found some merchants from Russian Turkestan; and their aksakal (or agent), Kul Mohammed from Margelan, received me with flattering politeness. He placed two large rooms in the caravanserai at my disposal, and I shared them with a countless swarm of rats, which jumped and pattered about on the floor round my bed all night long.

The Chinese do not consider Korla of sufficient importance to have an amban all to itself: it is administratively dependent upon Kara-shahr, and has a garrison of only one lanza, subject to the authority of Li Daloi. Nay, worse than that, the new telegraph line from Peking to Kashgar *viâ* Lan-chow, Urumchi, Kara-shahr, and Ak-su, does not touch Korla. And yet the town stands on the great commercial and caravan highway between Peking and Western Asia; hence many wealthy and distinguished Chinese pass through it. But to me the most interesting feature about the place was, that it was situated on a river, the Koncheh-daria or Korla-daria, which flows *out* of the Bagrash-köll (Baghrach-köll), the largest lake in Central Asia, in comparison with which Lop nor is a paltry marsh.

On March 11th I measured the volume of the Koncheh-daria; it was 2530 cubit feet in the second. In the town the river was spanned by a wooden bridge, and I was astonished to observe, that it almost rested upon the surface of the stream; and yet it was the season of spring, when the rivers of East Turkestan are without exception at their lowest level, some of them indeed, like the Khotan-daria, quite dried up. No doubt the Korla-daria was governed by the same laws; that is to say, it attained its maximum volume in the summer. But if so, the bridge must infallibly be swept away like a chip, and all traffic along the great highway would be suspended. That was inconceivable. I was however given to understand, that the river has a constant level; it is always at the same height, never varying more than two fingers' breadth.

Moreover, as in contradistinction to every other river in the country, its water was as clear as crystal, a glorious blue, it became pretty evident to me, that the river must be in intimate and even peculiar dependence upon the Bagrash-koll. Putting aside the insignificant rivulets, which enjoy a merely temporary existence after a shower, the lake of Bagrash-köll is only fed by one stream; but then that is a stream of extraordinary volume, the principal artery of the Yulduz valley, called by the Mongols Khaidik-gol or Hädick-gol, and by the Mohammedans of Central Asia Kara-shahr-dariasi. This river does partake of the same character as the other streams of East Turkestan. During the summer its volume is enormous, and its water turbid, in consequence of the amount of sand it holds in suspension; in autumn and spring it is of a medium size; and in winter it approaches its minimum, being covered, like the lake into which it flows, by a thick sheet of ice.

This hydrographical problem had for me such an attraction that I was obliged to run up to Kara-shahr, which stands on the left bank of the Hädick-gol; nor was I in any way deterred by the fact, that the town was the seat of a powerful amban (Chinese governor), and that I had no passport.

I went thither on March 12th, taking only Kul Mohammed with me, and leaving Islam Bai and Kerim Jan behind in Korla, to look after the camels and baggage. It was a ride of thirty-six miles, and we did it in six hours; arriving just as the ice was breaking up, and the Mongols, or, as the Central Asian Mohammedans call them, Kalmucks (Kalmak), were getting out their punts to ferry travellers and caravans across the river. Thus I had an excellent opportunity to measure the volume of the river, which I did on March 14th, and found it was 1890 cubic feet in the second, that is to say, during those days there flowed every second 640 cubic feet more water *out* of the lake than flowed *into* it.

The marks of the highest level reached by the river during the previous summer were still visible. The ferrymen gave me general data bearing upon the seasonal changes of level that the river undergoes. Thus I was able to make an approximate calculation of the relative inflow and outflow during the year; and I got as my result, that the enormous quantity of 70,650 million cubic feet more flow into the lake than out of it. Nor indeed is this so very astounding, when you bear in mind, that Lop-nor, which at the very least receives as much as the Bagrash-köll, does not lose a single drop through any outflow, or by any other means except evaporation, and that an enormous quantity soaks into the ground. But then in that region, where the relative moisture of the air is so very insignificant, it is evaporation which plays the principal part in maintaining the balance between precipitation and drainage.

What is stranger, however, is that in winter the lake discharges a larger quantity than it receives. The explanation would seem to be this. The large basin enclosed between the Tian-shan Mountains and the Kurruk-tagh, a basin which it takes a mounted man three days to ride through from end to end and one day to cross, acts as a distributor or regulator of the water, much in the same way as the second ball in a scent-spray.

Finally, I may mention that the water which flows into

the lake is muddy, cold, and perfectly fresh; whereas the water which flows out is clear as crystal, is some degrees warmer, and has a *soupçon* of salt in it, all phenomena so simple as to stand in no need of explanation.

The large lake of Issyk-kul in Semiryechensk presents a problem which has been a standing puzzle to geologists, hydrographers, and travellers. The river Chu, a stream of some magnitude, flows across the perfectly level plain to within a couple of miles or so of the west end of the lake; but instead of entering the lake, as would naturally be expected, it flows on towards the north-west and pierces the great mountain-range of Ala-tau. Nor does it in any way add to the volume of the lake, except occasionally during periods of very unusual flood, and then it does sometimes send off a small side-branch. Various complex theories, partly geological, partly hydrographical, have been invented to account for this. I too have hit upon a theory, which enjoys the advantage of being at any rate simple. The relation of the Chu to the Issyk-kul is exactly paralleled by the relation of the Hädick-gol and the Koncheh-daria to the Bagrash-köll.

The distance between the point where the delta of the Hädick-gol enters the lake and the point at which the Koncheh-daria runs out of it is only 15 or 16 miles. Between the two points the lake is shallow and overgrown with luxuriant reeds; whereas its middle and eastern parts are deep and free from vegetation. Moreover the Hädick-gol sends off a long delta-arm towards the Koncheh-daria. On the way to Kara-shahr we passed, at the distance of about an hour and a half, a dry channel, which branched off from the Hädick-gol and joined the Koncheh-daria. I inquired into its character, and was told, that every fifth or eighth year the Hädick-gol overflows its banks, and a portion of its flood-water makes its way along that dry channel direct to the Koncheh-daria without passing through Bagrash-köll. The contour of the ground, I may remark, is almost perfectly level, and its elevation above the surface of the lake trifling.

Assume now, that the overflow occurs fifteen times in

the course of a century. Then, in the next following century it may possibly happen thirty times. And so it will go on, increasing in frequency in proportion as the Hädick-gol pushes out its delta further and further into the lake, until eventually the river will raise a barrier to its own further advance, and instead of flowing into the lake will pour the greater portion of its torrent along what is now an intermittent watercourse, partly choked with sand and soil. When that result is brought about, the river will no longer flow in its old bed, but will flow past the lake at a few miles' distance. Thus we have precisely the same peculiar conditions as those which obtain at Issyk-kul, namely a lake embedded between the lofty crests of the Tian-shan Mountains, with a large river flowing past its western extremity, so near as almost to touch it, yet without contributing to it one gallon of water. The lake would then decrease in area, whilst the salinity of its water would increase, precisely as is the case with the Issyk-kul.

Kara-shahr (the Black Town) fully deserves its name; for it is without comparison the dirtiest town in all Central Asia. It stands on the left bank of the river, on a level, barren plain, totally destitute of any feature of interest. Nevertheless it is a large town, very much larger than Korla, consisting of a countless number of miserable hovels, courtyards, bazaars, and Mongol tents, surrounded by a wall, and is the chief commercial emporium in that part of Chinese Turkestan.

Politeness dictated that I should make a call upon the amban of the place, Hwen Darin. Accordingly, with my local passport in my pocket, I went alone and unsuspecting to his yamen (official residence). He was a little old man, some sixty years of age, with a white beard, who received me smilingly, and with especial friendliness and politeness, and offered me tea, pastry, and an opium-pipe. Through the mouth of a Turki interpreter, I told him what had brought me there; and when I went on to express my regret, that I had not brought a more authoritative passport with me, he replied, with all the

studied courtesy of a Frenchman, "You are our friend and guest. You do not need any passport. You yourself are a sufficient passport." I suppose Hwen Darin did not think I looked likely to imperil the peace of the country. Indeed he ordered another passport to be made out for me, valid for his own province. Then, at the end of about an hour, I said my adieus and left him; and in all probability we shall never meet again. But I shall always keep a warm place in my memory for the good old man: I can see him at this instant as distinctly as the hour we separated.

I will relate one other incident of my excursion into that neighbourhood. On March 15th, well satisfied with my little flying trip to Kara-shahr, I went back to Korla. As soon as I arrived, Islam Bai came and told me that, two days previously, as he was sitting beside a stall in the bazaar, talking to an Andijan (West Turkestan) merchant, five Chinese soldiers rode past. Their leader carried on a pole an emblem of the power and sovereignty of Kwang Tsü, Emperor of China. Now it is customary, when the said symbol is borne through the bazaar, or wheresoever else it may be, for everybody to rise to their feet, and for every rider to dismount, and all pay obeisance to it as to a Gessler's hat.

Islam Bai, being a Russian subject, did not consider —and quite rightly too—that he was under any obligation to pay homage to Chinese sovereignty, and consequently sat still. Thereupon the Chinese soldiers halted, dismounted, seized him, pulled off his chapan (cloak), and whilst four of them held him with his arms outstretched, the fifth scourged him till the blood ran down his back.

I instantly sat down and wrote the following letter to Li Daloi, the commander of the soldiers, partly to procure satisfaction for my faithful attendant, partly to uphold the prestige of the European:—

"During my absence your soldiers have beaten my servant, a Russian subject. If you can show me any treaty agreement between Russia and China which empowers Chinese soldiers to do such a thing, I will let

the matter drop. If not, I demand the arrest of the delinquents and their punishment in the public square of this town. If you fail to comply with this demand, I shall return to Kara-shahr, and telegraph a report of the occurrence, not only to the Russian consul in Urumchi, but also to Fu Tai (the governor-general of East Turkestan, who also dwelt in Urumchi)."

This peremptory letter produced an instantaneous effect. Li Daloi came to me, and with a tearful voice humbly promised that my demands should be complied with. Then he went away; but soon came back again to report that the guilty parties could not be discovered, and nobody knew anything about the affair. Islam showed his back, and said, that the soldier who whipped him had a deep scar on his left cheek.

I therefore demanded, that the entire lanza who constituted the garrison should be paraded in the courtyard of the Andijan merchants' serai, where we were staying.

The soldiers passed one by one before Islam.

"This is the man," cried Islam, as the man with the scar went past him, and he seized him by the collar and dragged him before Li Daloi. The latter at once asserted his authority, and promptly issued his commands for the delinquent to be punished. Then ensued a scene which the good folk of Korla are not likely to forget in a hurry, for they crowded into the courtyard and even filled the roofs of the adjacent houses.

The soldier was stretched flat on the ground; two of his comrades held his arms, two others held his feet, and a fifth exposed the nether portion of his person, and he was thoroughly punished in the same way in which he had unjustly assaulted Islam Bai. When I considered he had had enough, I bade them stop, saying the one thrashing counterbalanced the other.

All the same this occurrence was neither pleasant nor agreeable. I prefer to travel peaceably and quietly through the land, but I could not pass over such gross ill-treatment of one of my followers. Nor need the sensitive fear that the Chinese soldier was any the worse

either in body or soul. As for his soul, let us hope, he was a trifle repentant after he had digested his punishment, and his body would not suffer, if only he abstained from riding hard for a week or two.

When, later in the day, I went to Li Daloi to thank him for so promptly and satisfactorily meeting me in this matter, I perceived I was the object of a good deal of special attention in the town. The people in the streets made way for me. The street urchins no longer dared to laugh at me. All the time however I had been thinking of something which fortunately never once entered Li Daloi's head. Had he only been sharp enough, he would have met my demand with the counter-demand to see my passport, and to be furnished with evidence that Islam Bai really was a Russian subject. If he had done that, what could I have answered? It would then have been my turn to be deferential and courteous. But lucky for me, it never occurred to Li Daloi to ask for the passport.

The Mohammedan portion of the town was governed by three begs, one of whom, a white-bearded old man, had forty years before served under Vali Khan Tura, who murdered Adolf Schlagintweit, and the old man had also been in favour with Yakub Beg. Kul Mohammed, the aksakal of the Andijanliks (West Turkestan merchants), had been settled in Korla for many years; he was living there in 1877, when Yakub Beg died in the town. Yakub was waiting there with 6000 men for a favourable opportunity to attack the Chinese. Kul Mohammed gave a different version of the murder from the usually received account. The conqueror was going that afternoon to take tea with his confidential supporter, the influential Niaz Hakim Beg of Khotan. This was the man who at his prince's command built the before-mentioned caravanserais of Kosh-lengher and Chullak-lengher, on the road between Yarkand and Khotan. Niaz Beg, who had quarrelled with his master, mixed poison in Yakub's tea, and the poisoned cup speedily did its fatal work.

Korla and the fifty-five villages dependent upon it,

produce wool, sheepskins, fox-skins, cotton, silk, and rice, all of which are exported to Ak-su and Dural. Other productions of the same district are wheat, maize, barley, pomegranates, and a quantity of other fruits. A sweet yellow pear, called *näsbet*, which melts on the tongue, is famous throughout the whole of East Turkestan. The wheat is sown in March, and is ripe four months later; but in those villages which suffer from a deficiency of water, the wheat is sown in the autumn. Rice is sown in April, and the harvest takes place two months afterwards.

Korla ranks in the matter of size with Maral-bashi, Yanghi-hissar, Guma, and Shah-yar. Its bazaar was nothing out of the ordinary; but the town occupied a splendid situation beside the crystal stream, whose little eddies circled round and round underneath its small bridges. Building-sites within the town being rather restricted, many of the houses have been built on piles at the margin of the river. Several of them were quite picturesque, and through chinks in the floor you could see the blue-green current gliding along like oil underneath. The temperature was only 41° Fahr. (5° C.), nevertheless a dozen urchins were swimming and splashing about in it, and letting themselves be carried down by the current. I was told that every man in Korla can swim, and during the hot season they cool themselves every day in the fresh cool river.

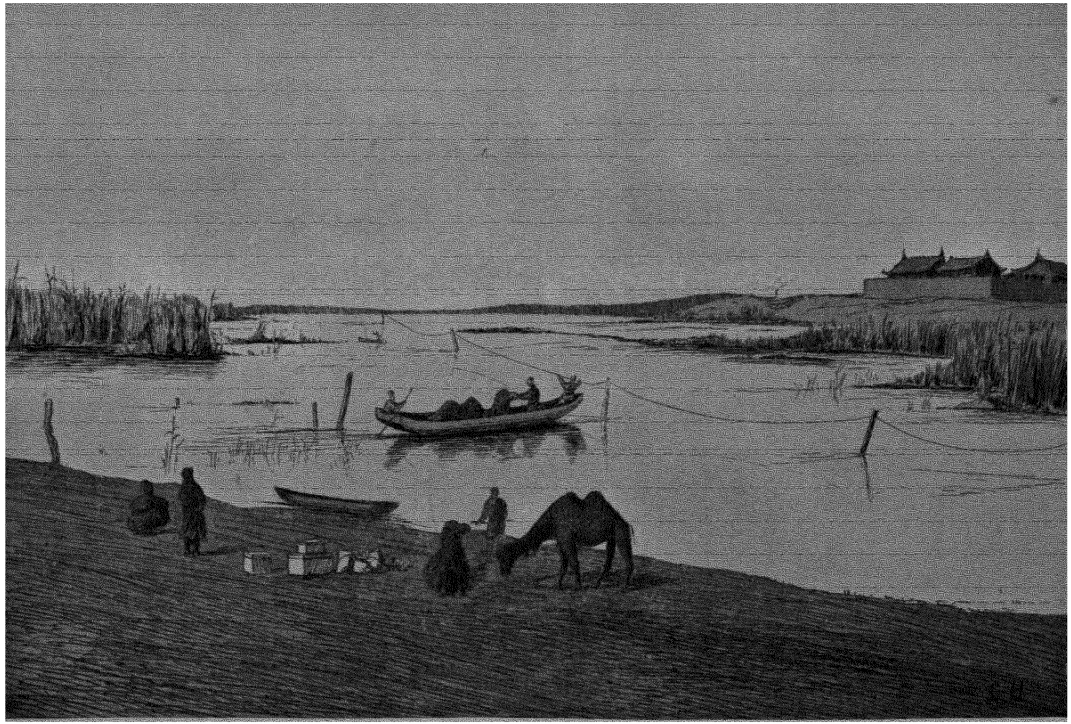
CHAPTER LXX.

THE LOP-NOR PROBLEM

IN Korla we augmented the caravan by two fresh horses, replenished our commissariat-boxes, and engaged two excellent guides, who led us to Tikkenlik, a small village situated on the lower Koncheh-daria, at the point of confluence of two branches or bifurcating arms from the Tarim. From Korla to that village there were three routes. One followed the Koncheh-daria, the second skirted the mountains Kurruk-tagh (the Dry Mountains), and the third traversed the stony, sandy desert between the mountains and the river. The first was already sufficiently well known. Of the others I chose the third, and in the course of the journey discovered two ancient Chinese fortresses, and a long string of potais ("mile-posts"), that is, lofty pyramids of wood and clay, measuring the distance of the road in Chinese *li* (li = 485 yards).

This latter discovery was one of unusual interest. It demonstrated that in former times an important highway ran between Korla and—well, what place? The highway, which bore to the south-east, ends at the present time in a sandy desert. Now in this same latitude of 40° 30′ N. the Chinese maps placed the ancient Lop-nor; and, as I shall have occasion to show further on in my account of this very interesting journey, the Chinese maps were right.

The ancient highway I have just mentioned led therefore, there can be little doubt, to the former Lop-nor, and was abandoned after the lake became dried up in consequence of occurrences which I shall point out lower down. But that this highway formed an important link



CROSSING THE KONCHEH-DARIA

of communication is proved by these very potais, for the Chinese do not take the trouble to erect such conveniences, even at the present day, except along the most important caravan-routes.

Przhevalsky was the first European who visited Lop-nor. He however found the lake a full degree farther to the south than it was shown on the Chinese maps; moreover, he announced that its water was fresh, not salt.* In consequence of this, he became involved in a controversy with the German geographer, Baron von Richthofen—a controversy which has been awaiting a definite solution ever since Przhevalsky's death. Baron von Richthofen wrote a paper in the *Verhandlungen* (Proceedings) of the Geographical Society of Berlin, in which with singular acumen he demonstrated that a desert lake, such as Lop-nor, which possesses no outflow to the sea, must indisputably and of necessity contain salt water. Now, seeing that the basin discovered by Przhevalsky contained fresh water, and in view of the further fact, that the Chinese topographers never enter any geographical feature upon their maps unless they have themselves actually seen it, and yet they had a Lop-nor a full degree north of the position in which Przhevalsky placed the lake which he discovered, Von Richthofen suggested that Przhevalsky's lake must be a modern formation, which has come into existence since the Chinese mapped their Lop-nor.

Przhevalsky travelled to his Lop-nor by the great highway which runs between the Koncheh-daria and the Tarim, and could not therefore possibly ascertain whether farther to the east there was or was not a lake, or the desiccated basin of a lake, because that question could only be answered by travelling on the east side of the Koncheh-daria; for there ought to be on that side a branch flowing from the Koncheh-daria into the old Lop-nor of the Chinese maps. In the controversy which raged between the two great authorities, both parties were right, as I shall show in what follows.

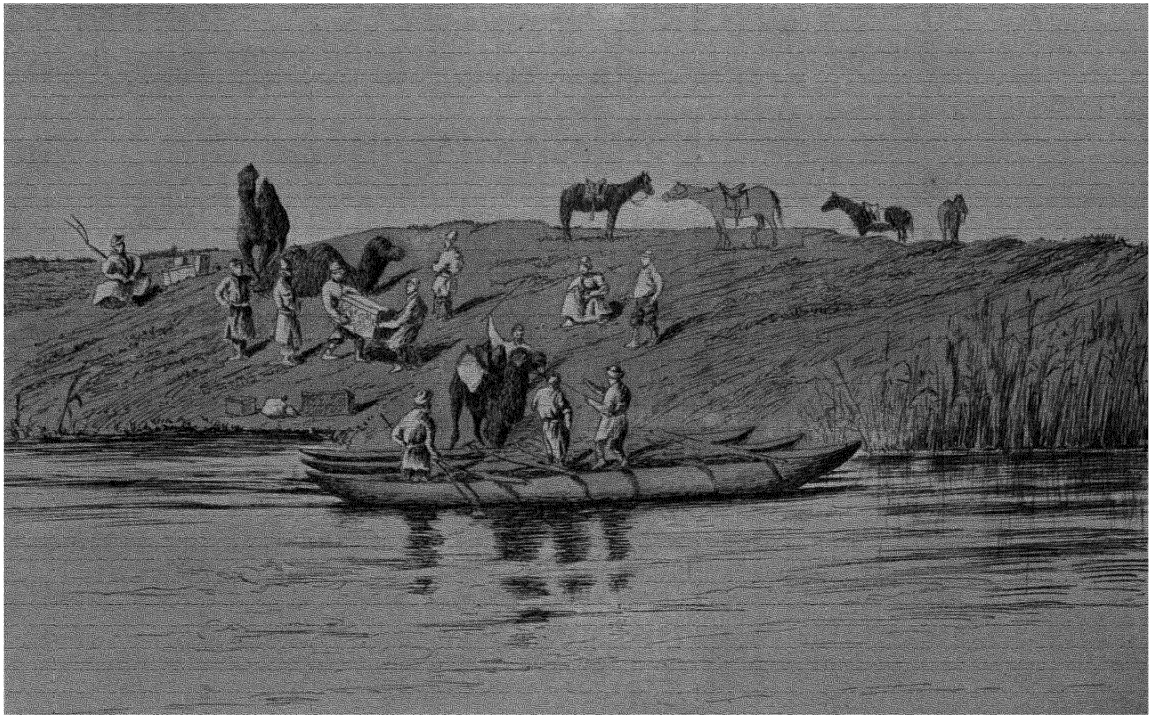
Since Przhevalsky first discovered his Lop-nor, it has

* See Introduction, pp. 15–18.

been visited by the following Europeans :—Carey and Dalgleish, Prince Henry of Orleans and Bonvalot, Pievtsoff and his two officers, and the geologist Bogdanovitch, and lastly by Littledale and his wife. But all these travelled by precisely the same route as the great Russian explorer, and therefore none of them, with the exception of Pievtsoff, has been able to add anything material to the masterly and conscientious description of the region which Przhevalsky gave in his account of his first journey (1876–77) to (his) Lop-nor, and which he supplemented himself after his second journey thither in the spring of 1885.

If therefore I was to be in a position to determine the controversy between Przhevalsky and Von Richthofen, as indeed I hoped to be able to do, I must above all things avoid travelling to the lake by the same route that my predecessors had trod, and instead of that must make it my special object to visit the spot in which the Chinese geographers placed their Lop-nor, and in which, according to Von Richthofen, it ought to be situated.

Full of high spirits and hopes of success, I left the village of Tikkenlik on March 31st, and journeyed exactly due east. My companions were Islam Bai, Kerim Jan, and two men who had an intimate knowledge of the country, and who told me, even before we left Tikkenlik, that a considerable distance to the east there was a long chain of lakes. At the very outset of the expedition we discovered, that the Koncheh-daria emptied itself north of Tikkenlik into a marshy lake called Maltak-köll. But on the other side of the lake it flowed out again, and added its waters to the waters of the two branches of the Tarim before mentioned, and known as Kok-ala. After the confluence the united stream, under the name of the Kunchekkish-Tarim (the Eastern River), flowed partly into the lake Chivillik-köll, and thence back again into the Tarim, and partly direct to the Tarim, which it reached at the ferry of Arghan (Przhevalsky's Ayrilghan), after losing a large proportion of its current by evaporation on the way.



CROSSING A BRANCH OF THE KONCHEH-DARIA COMING FROM MALTAK-KÖLL

The remaining portion of the Koncheh-daria flows east-south-east under the name of the Ilek (the River). We travelled along the left bank of this stream for three days, and then on April 4th, to my great satisfaction, I found that, as the Chinese represented, and as Von Richthofen believed, it does fall into a long, narrow lake, so long that for three days more we were able to travel along its eastern shore. The lake is however now almost completely overgrown with kamish (reeds), although a few years ago the Lop-men, or native inhabitants of the region, used to fish there. These people have different names for different parts of the lake, and usually divide it into four basins, Avullu-köll, Kara-koll, Tayek-koll, and Arka-koll. But in reality there is only one lake, almost divided in two or three places by out-jutting peninsulas.

The lake, like the Lop-nor of the Chinese maps, was situated approximately in 40° 30′ N. lat. The Chinese geographers of the present day still call the region between Tikkenlik and Arghan by the name of Lop-nor, a name which is absolutely unknown in the neighbourhood of the lake discovered by Przhevalsky. That lake embraces two basins, known as Kara-buran and Kara-koshun. The name Lop is given by the Lop-men and all the inhabitants of East Turkestan—in so far as they know anything about it at all—to the entire region which stretches all the way from the confluence of the Ughen-daria and the Tarim to Charkhlik.

In one respect there was a discrepancy. The lake which I discovered stretched from north to south, whereas the Lop-nor of the Chinese maps stretched from east to west. But for this divergence, at first sight so surprising, there is a perfectly natural explanation. In the first place, it must be steadily borne in mind, that the whole of the Lop region lies at almost the same horizontal level, so that even a slight change of relative *niveau* is capable of affecting more or less seriously the entire hydrographical disposition of the locality. Now there are two agencies constantly operating to bring about changes of this nature—namely, the prevailing winds and the sedimentary deposits of the

river Tarim itself. The prevailing winds in the Lop region blow from the east and east-north-east, and sand-storms from the same quarters are common in March, April, and May. So long as we remained in the neighbourhood of the quadruple lake the atmosphere was calm, but no sooner did we leave it than a buran came on, and continued, with the exception of a lull of a couple of days, all the time we were travelling in that neighbourhood.

The power and force of these constantly recurring storms is almost inconceivable: they literally drive back the water of the lake and heap it up along the western shore. Then comes the drift-sand of the desert and fills up the gap left in the east. Nor was evidence wanting that this lake-complex formerly extended farther towards the east than it does at present. All along its eastern side there was a chain of small salt lagoons, marshes, and pools, which had been cut off from the lake by the encroachments of the sand in quite recent times. Closely parallel with them there was also a narrow belt of forest, for the most part poplars and tamarisks. Three stages of development were plainly distinguishable—far out in the desert, on the east, was a dead forest (köttek); then amongst the sand-dunes which approached nearest to the east shore of the lake fine living trees; and lastly, on the actual shore of the lake, young and tender saplings, the beginnings of a forest. Now trees cannot live without water. Hence the inference is unmistakeable, that the lake has moved westwards, and that the forest has followed the lake. The dead poplar trees which now stand far to the east, out in the midst of a dreary waste of sand-dunes, must formerly have stood on the shore of the lake, and drawn their nourishment from its waters.

There can hardly be a doubt that this long quadruple lake is all that remains of the old Lop-nor. The Ilek, which enters at its northern extremity, issues again at its southern extremity, that is from Arka-köll (the Farther Lake), and winds southwards with the most capricious meanderings, leaving about three miles to the east the ruins of the old Chinese fortress of Merdek-shahr. Then

A REFRACTORY CAMEL, CROSSING THE KONCHEH-DARIA

the river once more forms a long chain of small lakes, and finally rejoins the Tarim at Shirgheh-chappgan. The largest lakes in this string are called Sadak-köll and Niaz-köll, being named after a couple of Lop-men, whose cabins stand on their shores.

Now it is only nine years ago when these lakes were last filled with water by the Ilek. Previous to that they were nothing but desert; although even then the present lake-basins and the river-bed were in existence, the deepest places in the latter making salt-water pools, at which the wild camels came down to drink. When Przhevalsky returned home after his second journey (1885) to Lop-nor, he disputed the existence of any lake to the east of the Tarim. As it happened, he was right, for the dry lake-basins and river-bed were not filled with water until three years later. On the other hand, Von Richthofen was equally right, when he postulated the existence of a lake in this very quarter — a lake which indeed actually existed, though in a condition of temporary desiccation.

The southern Lop-nor—I will retain the name, for it has become established on the best European maps—the southern Lop-nor, at the date of Przhevalsky's visits, was a lake of considerable size, so large that from the village of Abdal he was able to make a boat-journey of several days' duration on its waters eastwards to the fishing-station of Kara-koshun. Eleven and a half years later I attempted the very same boat-journey from Abdal, but could only advance for two short days, and then with great difficulty, because of the reeds. The fishing-station of Kara-koshun was entirely abandoned, the lake in its vicinity having become quite overgrown.

At the date of Przhevalsky's visits, Kara-buran, the other basin of the southern Lop-nor, was a large open lake more like a sea than a lake, for a man standing on the one shore was not able to see across it to the other. The name (the Black Storm) indicates sufficiently, that it lies in a region which is peculiarly exposed to the ravages of the terrific sandstorms. At the time I visited

it, there was only an insignificant residuum of the former sea-like lake left close under the western shore; it had become choked with the sedimentary deposits of the Tarim to such an extent that even the shallow dug-outs (canoes) of the native fishermen would not float on its waters. In summer that fragmentary residuum is completely cut off from the Tarim and the Cherchen-daria, and in consequence the water quickly turns salt, and by the end of the summer has all evaporated. The site of the lake then becomes overgrown with luxuriant grass, and affords rich pasturage for the sheep and cattle of the people of Charkhlik. When in the end of April we journeyed from Abdal to Charkhlik, we travelled over a long stretch of alluvial ground, which, when Przhevalsky visited that region, was covered by the water of the lake Kara-buran.

In a word, the Tarim contributes to the southern Lop-nor an incomparably smaller quantity of water now than it did at the time of Przhevalsky's visits. Even Prince Henry of Orleans observed the same thing, although he visited the lake only four years later than the Russian explorer. Thus the lake is at present undergoing a process of shrinkage.

From Chegghelik-uy, where the river deflects to the east-north-east, its volume decreases with amazing rapidity, principally in consequence of the numerous small shallow lakes along its banks. These are in part natural, in part artificial, made by the fishermen of the region. But in either case the water which overflows into them is left to evaporate. Thus they maintain a continual drain upon the river. The subjoined table of measurements will corroborate what I have just said. I may remark that the distance between Chegghelik-uy and Kum-chappgan amounts to barely forty miles.

	Breadth of stream.	Maximum depth.	Velocity in the second.	Volume in the second.
Chegghelik-uy	50 yards	14 feet	1·7 feet	2530 cubic feet.
Abdal	49 „	20 „	1·2 „	2145 „
Kum-chappgan	33 „	22¼ „	·98 „	1775 „

These measurements were made between April 18th and April 23rd.

At Kum-chappgan the river splits up and becomes lost in a multitude of lakes and marshes, the largest of which, namely those in the middle, contain perfectly fresh water; whilst in the lagoons all round the outsides the water is salt. The table above shows, that the breadth, the velocity of the current, and its volume all decrease as the river advances to the east; whilst the depth increases.

We have thus found that the quadruple Lop-nor of the Chinese has become refilled with water during the last nine years, whereas during the last twelve years the southern Lop-nor has dwindled to a series of shallow marshes. Is not the conclusion, therefore, not merely justified, but even forced upon us, that the two lake-systems are mutually related in an extraordinarily close and intimate way; or in other words, as the northern Lop-nor increases, the southern Lop-nor decreases, and *vice-versâ*.

I cannot refrain from pointing to one or two other features which support the theory, that the lakes discovered by Przhevalsky are, geologically speaking, of quite recent origin.

Each of the streams of East Turkestan which unite to form the Tarim is accompanied by belts of poplar forest along its banks. Even the Keriya-daria, which is now cut off from the Tarim system and becomes lost in the sand, is no exception to the rule. In places it possessed a poplar forest so thick as to be quite impenetrable. The forest generally begins at the point where the several rivers debouch upon the plains, and consequently on the border of the same climatic region. Now rivers count amongst the safest and most reliable means of transport in the geographical distribution of vegetable species. Hence it would be only reasonable to suppose, that in the district in which the tributaries of the Tarim converge, the poplar forest would be more abundant than anywhere else. Now, as a matter of fact, at the point of present convergence the forest suddenly ceases altogether. The last specimens of *Populus diversifolia* which I saw at Chegghelik-uy were

not more than thirty years old. The banks of both lakes, Kara-buran and Kara-koshun, were totally destitute of every trace of forest, old or new. They were both entirely surrounded by the barren desert. Close to and around the northern Lop-nor, on the contrary, I found both dead and living forest.

The explanation of this unequal distribution of forest is not far to seek: the southern Lop-nor is of such recent formation that the forest has not yet had time to reach its shores.

These arguments are based upon facts of pure physical geography. There are also others of a historical character. I have already mentioned more than once, that the Chinese cartographers entered upon their maps a large lake, surrounded by several smaller ones, in 40° 30′ N. lat.

Six hundred and twenty-five years ago Marco Polo visited the "town of Lop." Its ruins, which have now almost entirely disappeared, probably lie immediately south of the lake Kara-buran. If there had been any lake in that neighbourhood at the time of his visit, the great Venetian traveller could hardly have avoided taking some notice of it. True, he does not mention Yarkand, or Khotan, or the Cherchen-daria, a stream which he actually crossed over. All the same, it is a fact which deserves mention, that Marco Polo does not say a word about the existence of a lake occupying the position of Przhevalsky's Lop-nor; but he does give a detailed description of the Lop desert—"which is so large that the traveller needeth a full year to cross from the one side of it to the other."

The old chieftain of Abdal, Kunchekkan Beg, a friend of Przhevalsky, and also my especial friend, is eighty years old. Both his father, Jehan Beg, and his grandfather, Numet Beg (the dignity of beg being hereditary in the family), lived to be ninety years of age. Kunchekkan Beg told me, that his grandfather lived beside a large lake north of the existing Lop-nor of Przhevalsky, and that, where the latter now is, there was at that time nothing but the sandy desert. The first formation

LOP-MEN ON THE TARIM, NEAR KUM-CHAPPGAN

of the southern Lop-nor dates from the year when Numet Beg was twenty-five years old, in consequence of the Tarim seeking a new channel for itself, and the lake beside which he dwelt, and in which his forefathers had fished, dried up. It was he (Numet Beg) who founded Abdal, and there his descendants still live. According to my calculation all that happened about 175 years ago, or say about the year 1720.

In the winter of 1893–94 the Lop region was visited by P. K. Kozloff, who had previously taken part in the journeys of Przhevalsky and Pievtsoff. He travelled from Tikkenlik along the left bank of the Kunchekkish-Tarim, and discovered the lake Chivillik-köll, which I only saw at a distance. From Arghan he made an excursion to the lake of Sogot, which probably is the same as my Arka-köll. Thence he travelled by the ordinary road to Abdal, and afterwards turned towards the north-east along the southern shore of Kara-koshun.

I first learned of a *tura* ("gentleman," *i.e.* European) having been in the neighbourhood at Tikkenlik, and inquired, as accurately as was possible through the natives, which way he had gone, so that I might not unnecessarily visit the same places as he. One of the most interesting discoveries made by Kozloff was that of an ancient river-bed, which the natives called Kum-daria (the Sand River). It struck off from the Koncheh-daria a short distance north of Tikkenlik, and went due east, skirting the southern foot of the Kurruk-tagh.

Kozloff's explorations and my own have rounded off Przhevalsky's, and materially added to our knowledge of the entire Lop region. We now possess a detailed, accurate map of it. But the dispute regarding the Lop-nor is not by any means settled yet. Kozloff has written an article, *Lop-nor, with Especial Reference to Sven Hedin's Lecture before the Imperial Russian Geographical Society on* 15 (27)*th October* 1897, in which he attempts to controvert Baron von Richthofen's views and mine with regard to the position of the old Chinese Lop-nor. Immediately I returned to Khotan, I sent Von Richthofen

an account of the discoveries I had made, and it was printed in the *Zeitschrift der Gesellschaft für Erdkunde zu Berlin*, vol. xxxi., 1896, pp. 295–361. My paper was accompanied by a note from the pen of Baron von Richthofen, in which, after a brief *résumé* of the earlier phase of the Lop-nor controversy, he went on to say, "Several travellers have, it is true, followed the course of the Tarim, but they have all trodden in the footsteps of Przhevalsky. It was for that reason Dr. Sven Hedin undertook to solve the problem. The fact of his choosing a more easterly route from north to south proves that he had a just appreciation of the question at issue. His observations, and the conclusions he has drawn from them, have enabled him to confirm the accuracy of my deductions in the *Verhandlungen* (Proceedings) of the Geographical Society of Berlin in the year 1878 (*vide* pp. 121–144)."

Kozloff analyzes the various accounts of the Lop-nor district — Przhevalsky's, Von Richthofen's, Pievtsoff's, Bogdanovitch's, his own, and mine, and arrives at the following result:—"The only conclusion I can draw from the above-quoted discussion is this—that Kara-koshun kul is not only the Lop-nor of my revered teacher N. M. Przhevalsky, but also the real historical ancient Lop-nor of the Chinese geographers. As it is now, so it has been during the last thousand years, and so it will continue to be." This result is all the more surprising, because on the very same page, only a few lines earlier, he writes thus, "I am entirely of Sven Hedin's opinion, that the ancestors of the present inhabitants of Lop-nor formerly dwelt beside a lake which lay to the north of Lop-nor. It was the lake Utchu-kul, regarding which Pievtsoff has left us an account." These statements imply a direct contradiction: they prove that the lake has not remained in its existing condition "during the last thousand years." But the uncritical character of this talk about the thousand unchangeable years is best demonstrated by Kozloff's own map. He there shows the "ancient bed (Kum-daria) of the Koncheh-daria" south of Kurruk-tagh, the "dry river-bed (Köttek-Tarim)"

6½ miles west of the meridional course of the Tarim, the "ancient river-bed of the Cherchen-daria" twelve miles north of the point where the Cherchen-daria empties itself into the Kara-buran, and the "dry river-bed of Shirgheh-chappgan" eight miles north of Abdal. I also discovered other ancient river-beds at Kum-chekkeh and Merdek-shahr. But the four I have cited from Kozloff are sufficient to show that, far from being permanent in its position, the lake of Lop-nor, together with the rivers which flow into it, is, on the contrary, subject to greater changes than perhaps any other lake of the same size on the face of the earth.

The problem is extremely interesting and fascinating from the scientific point of view; but the length and purpose of this present book warn me that I must refrain from entering upon it here. I intend to discuss the question thoroughly in a subsequent work. In the meantime my able and enthusiastic fellow-traveller, Lieutenant Kozloff, has thrown down the gauge of battle. It will give me great pleasure to take it up. That will be the second phase of the Lop-nor controversy. We possess all the materials for a solution. It only remains to prove which of the two groups of lakes, the northern or the southern, that which I discovered, or that which Przhevalsky discovered, is the older; whichever is the older must undoubtedly be identified with the Lop-nor of the Chinese maps. Which of the two parties is right is a matter of little real moment in itself. I trust that national prepossessions will have no weight in determining a question of fact. The essential thing to do is to unravel the truth; and in so far as it contributes to that end a controversy is always advantageous.

Thus we have learnt, on the banks of the "moving" lake, that the gigantic river-system which drains the vast central basin of the interior of Asia—embracing the Kizil-su, which flows down from the eternal snows of the Terek-davan; the Raskan-daria, which is fed by the glaciers of the eastern Pamirs, the Hindu-kush, and north-western Tibet, and whose current, running with

a volume of 5330 cubic feet in the second, we only crossed at the risk of our lives in September 1895; the Khotan-daria, which traverses the Takla-makan Desert from end to end, cleaving its way with irresistible impetus through the sand-dunes; the Ak-su and the Taushkan-daria, which at the same period of the previous year we were only able to cross on horseback with the assistance of ten *suchis* or water men; the Cherchen-daria, which carries a portion of the rainfall of Northern Tibet down to the plains, and in summer grows so powerful that for a time it stops the road between Khotan and Lop-nor; and finally the Koncheh-daria, which, summer and winter, day and night, alike, has a steady flow of 2490 cubic feet in the second—we have, I say, learned that all these great streams are not strong enough to maintain a permanent lake in the heart of the limitless Desert of Gobi.

At Chegghelik-uy, in April, we found that the conjoint stream possessed precisely the same quantity of water that its tributary, the Koncheh-daria, had alone at Korla. Where does the rest go to? Well, a large portion of the water of the Koncheh-daria enters the northern group of lakes, and there evaporates; the desert sand, like a sponge, drinks up another portion; and the thirsty atmosphere, whose relative moisture in those regions is merely trifling, also absorbs enormous quantities. All these agencies drain away the volume of the stream. No wonder then that the small amount which survives the desperate struggle to cling to the surface of the earth is subject to such severe fluctuations both in respect of situation and of quantity.

The fishing-station of Kum-chappgan marks, as it were, the entrance to the tomb of the Tarim. There the terrible Desert of Gobi, whose murderous propensities the human will and the giant strength of water alike are powerless to subdue, proclaims, in the name of Him who governs every change that ensues on the face of the earth, "Hitherto shalt thou come, but no further; and here shall thy proud waves be stayed."

CHAPTER LXXI.

A BOAT EXCURSION ON THE NORTHERN LOP-NOR

IN the previous chapter I have offered a brief outline of the Lop-nor problem and controversy, and of the new points of view which my discoveries led me to take up. It now remains that I say a few words about our further journeyings in that region.

On April 4th we discovered that part of the northern Lop-nor which the Lop-men call Avullu-köll, and then for three days travelled along its eastern shore. The whole way we had extraordinary difficulties to encounter, chiefly owing to the fact that the sand-dunes, thirty to fifty feet in height, plunged straight down into the lake at an angle of thirty-three degrees. At intervals the sand drew back a space; and there a poplar forest grew. Wherever the dunes dropped to a lower elevation, the poplars were replaced by tamarisks, each rising from the top of a huge mound formed by the roots of the tree itself. So closely did these tamarisk mounds stand together in some places that we had to thread our way through a veritable labyrinth of them, so that it was often preferable to make a detour into the sandy desert to avoid them.

The lakes of the northern Lop-nor were so overgrown with reeds (as we afterwards found that Kara-koshun was also), that we were unable to see the open water in the middle, except from the top of the highest dunes near their shores. Two or three times, in places where the water was shallow, or there was none at all, we tried to force our way through the reeds, although they were twice as tall as the camels, and grew as close as those

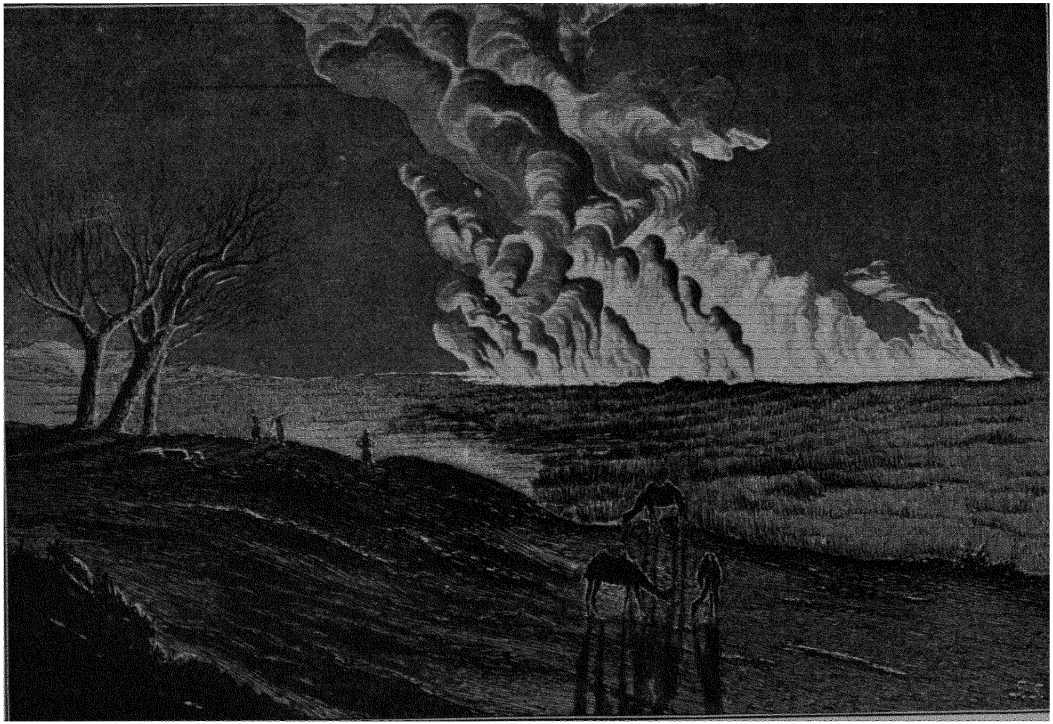
which the native inhabitants of the region bound together to make the walls of their cabins. One of the guides went on first to examine the nature of the ground; then followed the camels, trampling the reeds down with their feet, and breaking and thrusting them aside with their heavy, ungainly bodies. As I followed the guides, I seemed to be travelling through a dark tunnel, and was very glad to get out again, and have an uninterrupted view of the road before me.

The camels were so exhausted by the unfavourable country that we were obliged to give them a day's rest.

April 6th. As usual we encamped in the open air, on a high sand-dune, under the shade of a group of ancient poplars, which had just put on their brightest mantles of spring greenery. From our camp we commanded a wide view across the Kara-köll, and far away in the west saw the thick belts of reeds which encircle Chivillik-köll. The heat was already oppressive — at one p.m. 91°6 Fahr. (33°1 C.) in the shade—and the atmosphere was absolutely still, a rare thing at that time of the year.

During these still, calm days we were greatly tormented by gnats. All the way we rode we were accompanied by a pillar of a cloud of those pestilent insects. Their sole object in life seemed to be to torment human beings, and try their patience to the uttermost. But after the sun set, and we encamped for the night, they were worse than ever. Millions upon millions of them hummed around us, as eager and voracious as though we were come there solely to give them a treat for supper! How is it possible to write when a thousand gnats are fighting for the joy of stinging your hand, and that in defiance of the piece of cloth you flap in your other hand? Or where is the pleasure, with the thermometer standing where I have just stated, in surrounding your camp with a ring-wall of fire, and almost suffocating yourself with smoke?

When we came to the basin of Kara-köll, we hit upon a crafty device for retaliating upon the gnats. At sunset



THE REEDS OF KARA-KÖLL ON FIRE

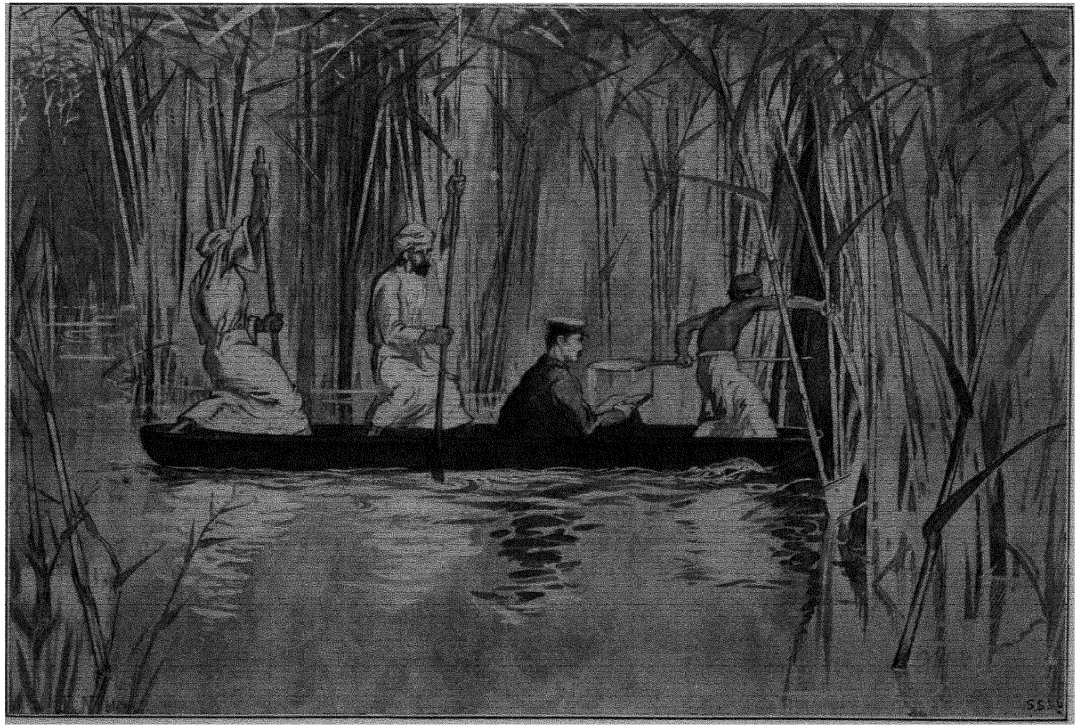
we set fire to the dry reeds of the previous year. The flames spread across the lake with the rapidity of a prairie fire, and the smoke hovered like a light veil over the neighbourhood of our camp. I lay awake half the night, enjoying the glorious vigour of the flames, and rejoicing in the vengeful thought, that countless hosts of gnats were being wafted like chaff to the ends of the world on the drifting soot. At other times I had been obliged to protect my poor skin at night by a weapon of defence that was not at all nice; namely smearing my hands and face with nicotine. And I had to smoke really very hard, so as not to run short of the essential juice! I brought with me from Khotan sufficient tobacco to last, as I calculated, fifty days; but that had all vanished long ago in smoke. I bought a supply of Chinese tobacco in Shah-yar, but that was only for use in case of urgent necessity. I further supplemented my store at Korla, by investing a threepenny piece in a barrel of the bitter, sour native tobacco, compared with which the aroma of the strongest "twist" is as pure Havana.

Speaking of setting fire to the reeds, my guide told me, that on one occasion when somebody set fire to the reeds of Kara-köll in stormy weather, the fire burnt on for three summers and three winters. That is of course an uncommonly fine mare's-nest, and the Asiatics do know how to manufacture the article, and even go the length of believing implicitly in the products of their own facile skill; still, even when allowance is made for that, it is perfectly clear that, once a fire has seized upon the dry reeds, it goes on burning for an extraordinary length of time. The old chief of Abdal, Kunchekkan Beg, was pleased to believe that, if the reeds of the southern Lop-nor were to be set on fire, they would burn for at least a week. In consequence of the strong draught sweeping through the dry reed-stalks close to the surface of the water, the flames rage and roar as though they were fanned by a gigantic pair of bellows. The reeds crackle and burst, and burn down to the water's edge, whilst showers of sparks and long spiral clouds of smoke float away through the air.

When on 9th April we encamped at Kum-chekkeh we had not seen a human being for seven days. There we found, dwelling on the bank of the river Ilek, three fishermen's families, who only a short time before had flitted thither from the vicinity of the northern Lop-nor. At that point the river, after filtering through the reed-beds in the lakes, was bright as silver, and of a lovely dark blue. Thence it flowed south in a deeply eroded channel; and at the distance of two long day's-marches rejoined the river Tarim, forming another chain of small lakes on the way.

From Kum-chekkeh I sent my caravan on in charge of Islam Bai to the confluence of the two streams, whilst I myself, with two men to row me, made an excursion by canoe to the extreme end of the southern Lop-nor, that is, of Kara-koshun. The excursion took eight days, rest-days not included. It was a splendid trip. No craft ever bore a more grateful passenger. After the heavy, hot, toilsome marching through the everlasting sand, the quietude, the rest, the ease were perfectly delicious—indescribable!

The dwellers around the old as well as the new Lop-nor call themselves Loplik, *i.e.* Lop-men, and their canoes or dug-outs *kemi*, a word which signifies "boat," "ferry," or any sort of swimming apparatus. The canoes vary of course very much in size. The largest I saw was over 26 feet long, and $2\frac{1}{2}$ feet broad. The one I travelled in was about 20 feet long, but barely more than $1\frac{1}{2}$ feet across. Three men, working hard, can hew a canoe out of a poplar in five days, the tree being, of course, sound at heart and free from cracks. The people never use sails, but always row, using an oar with a thin, broad blade. They call their oar, which they ply with great strength and dexterity, *gedyäck*, the same word that is employed to designate a musical instrument which resembles a guitar in shape. Out on the open lake the rowers generally knelt; but in the thick reeds they stood up, so as to see better, and faced the way they were going, and so punted the canoe along. As a rule there are two oarsmen to each



THE AUTHOR IN A CANOE ON THE KARA-KOSHUN

canoe, and the last of the two usually stands, so as to see over the head of the man in front of him.

I took advantage of a rest-day to make several trial-trips on the lake, so as to ascertain my oarsmen's average rate of speed, in other words, to obtain a unit of time and distance by which to measure the length of the journey before me. We started on April 11th, one rower in the bow, the other in the stern, and I in the middle, sitting as comfortably as in an easy-chair on a pile of felts and cushions, with my itinerary note-book, compass, and pen in hand, the other instruments, knotted sounding-line, tape-measure, and provisions for two or three days being stowed away in every nook and corner that was free. I had a pleasant companion in my Chinese dog Yolldash the Third. When we left Korla he was a little yellow puppy, and as he was not strong enough to run beside the caravan in its long journey through the sand, I had him packed into a basket, and let him ride on one of the camels.

The first day's riding made him "sea-sick"; but he soon became accustomed to the motion. When he grew tired of running, he would simply lie down beside a tuft of grass, and wait till one of the men went back and fetched him, and put him in his basket. Throughout the rest of my journeying in Asia, this little dog never quitted my side; he was my intimate companion in every day's march and every adventure. He accompanied me in the canoe, and quickly showed his satisfaction at such a comfortable mode of progression. He was with me throughout the long journey back to Khotan, in my travels through Tibet, through Tsaidam, through China, Mongolia, and Siberia. Yolldash accomplished the greater portion of all that long journey on his own feet, and when we at last reached St. Petersburg was in first-rate condition. Unfortunately dogs are not allowed to be taken into Sweden from Russia; consequently, on the very threshold of home, I was forced to part from my faithful fellow-traveller. I left him in the best of hands however, with Mr. Backlund, councillor of state, in Pulkova. There his Asiatic manners, being somewhat uncultivated, were

quickly dressed out of him, and he is now waiting with impatience to start on a fresh journey to the great deserts of Central Asia.

All being in readiness, the oars dipped in the water, and the canoe glided with the supple ease of an eel over the dark blue meandering river.

But by this the atmosphere had lost its stillness and calm. During the previous night a hard "black buran" had sprung up from the east, and the sky was now black with it. The majestic old poplars humbly bent before the fury of its wrath. So long as we were on the river, there was no danger, for it flowed at the bottom of a deep narrow channel, protected by belts of reeds; and then again, the teeth of the storm were broken by the forest which grew along the river-bank. But this only lasted for a couple of hours or so. After that we were on the open lake the whole way. The two oarsmen were afraid of this part of the journey, and it required all my powers of persuasion to induce them to believe there was no danger; for we could all three of us swim, and Yolldash as well. To me the buran was rather welcome than otherwise; for that day at one p.m. the thermometer only registered 69°2 Fahr. (20°7 C.). The storm sang its shrill monotonous song in the leafy crowns of the poplars, a song that never wearied, a song that continually gave the key to new fantasies of day-dreaming.

And so we hastened along the dark pathway of the water, I idly watching the capricious play and interplay of the dimpling eddies as the swift canoe glided on past them. The narrow belts of reeds hedged in the river on either hand, and made me imagine we were gliding down a deserted Venetian canal.

Every now and again we stopped, that I might measure the depth of the river. Once the oarsmen stopped of their own accord, and said, that "just there" there used to be a permanent salt pool in the river-bed at the time both river and lakes were dry. I sounded, and found the depth was thirty-one feet, truly an extraordinary depth for a river with a volume of only 810 cubic feet in the

A LITTLE LOP-BOY FROM SADAK-KÖLL

second. One of my boatmen, the hunter Kurban, who had been ranging that country for fifty years, and knew it both when it was nothing but desert, and subsequently after the water returned nine years ago—Kurban told me, that Przhevalsky sent him and two or three other willing fellows from Abdal to procure him the skin of a wild camel. They shot a camel, and were handsomely rewarded for the skin with money, knives, and other things. But since the water came back, and people followed it to live there, the wild animals had entirely disappeared, having no doubt taken refuge in the desert farther to the east.

We came out upon the first of the lakes. The storm-lashed waves were boiling westwards, their crests tipped with plumes of foam. There was risk in venturing out upon them with the unsteady canoe; besides, the lakes were extremely shallow, and if the canoe were to strike against the sandy bottom, it would be certain to capsize, both wind and waves being on the larboard. We therefore hugged the eastern shore as closely as we possibly could, availing ourselves of the shelter of the high sand-dunes.

At length we happily reached a village without a name at the nearer extremity of Sadak-köll, a place where several families dwelt in reed huts. These people received me with the most natural hospitality, cooked the fish they had just drawn out of the lake, and gave me in addition wild-ducks' eggs, and the young, tender shoots of kamish (reeds), and bread; and as I consumed my simple, but very tasty, supper, I was the admired centre of a ring of laughing, chattering Lopliks (Lop-men) of both sexes and every age—indeed the young women were not in the least ashamed to let me see their fresh-coloured, though far from beautiful, features.

I afterwards discovered the cause of this unusual absence of shame and timidity. The good people had never before seen a European, although they had heard speak of the Chong-tura (Great Man), *i.e.*, Przhevalsky, who had visited their fellow-tribesmen farther to the south, with

twenty Cossacks armed to the teeth, and long strings of camels, and a multitude of strange things. I therefore was a puzzle to them; for I was come quite alone, without followers, without a caravan, in a canoe, accompanied by two of their own people, speaking their own language, eating the food they ate, and almost as poor as themselves. Their preconceived idea of a European was thus sadly upset. The difference between a European and a Lop-man was really not so very great after all. On April 12th the storm was so bad that we could not go out. But the next day it abated a little, and we again embarked in the canoe. When their craft are not in use, the Lop-men draw them up on land, and pour water over them at intervals to prevent them from cracking. Even then a canoe seldom lasts more than ten years.

We started before sunrise, and had a glorious journey, partly over the open lake, partly through the reed-beds. The greatest depths in the latter portions of the lake were 11½ and 15½ feet. But at noon the storm freshened up to its previous unbridled fury, so that the rest of our day's journey was not without peril. The lakes were connected together by narrow straits or sounds; and the entrances to these we could only make by crossing wide open bays. How the men found their way was a perfect marvel to me. The shores of the lakes were extremely irregular, by reason of the great number of creeks, peninsulas, and islands which diversified them; and the entrances to the sounds were not perceptible until we were actually in them. To add to the difficulty of finding the way, the loose sand was blown in clouds off the tops of the sand-dunes on the east side of the lakes, shrouding the shores in a dense haze, and covering the lakes with a yellow veil of dust. The water was in a state of violent commotion. The waves seethed round the canoe, and the spray flew in gusty splashes from the summit of every wave, soaking us to the skin. We had to keep a very sharp look-out. We even went so far as to take off some superfluous clothing, that we might swim the more easily, if it should be needful to do so. In fact, we actually had to balance the canoes with

our bodies and arms, and exercise the utmost vigilance lest we ran aground upon a treacherous sandbank.

Luckily we had no mishap. We threaded one sound after the other. Only once did we lay to under the shelter of a small sandy holm for about an hour, and that was in the middle of the large lake of Niaz-köll. After that the lakes were smaller in size, and finally we entered the river Ilek, and rowed along its smooth surface until we came to the village of Shirgheh-chappgan (Shirgheh's Canal), Shirgheh being the name of a Lop-man. Some half-a-dozen families lived in the village; and there I found my caravan, and Islam Bai and the other men grown rather uneasy at my prolonged absence.

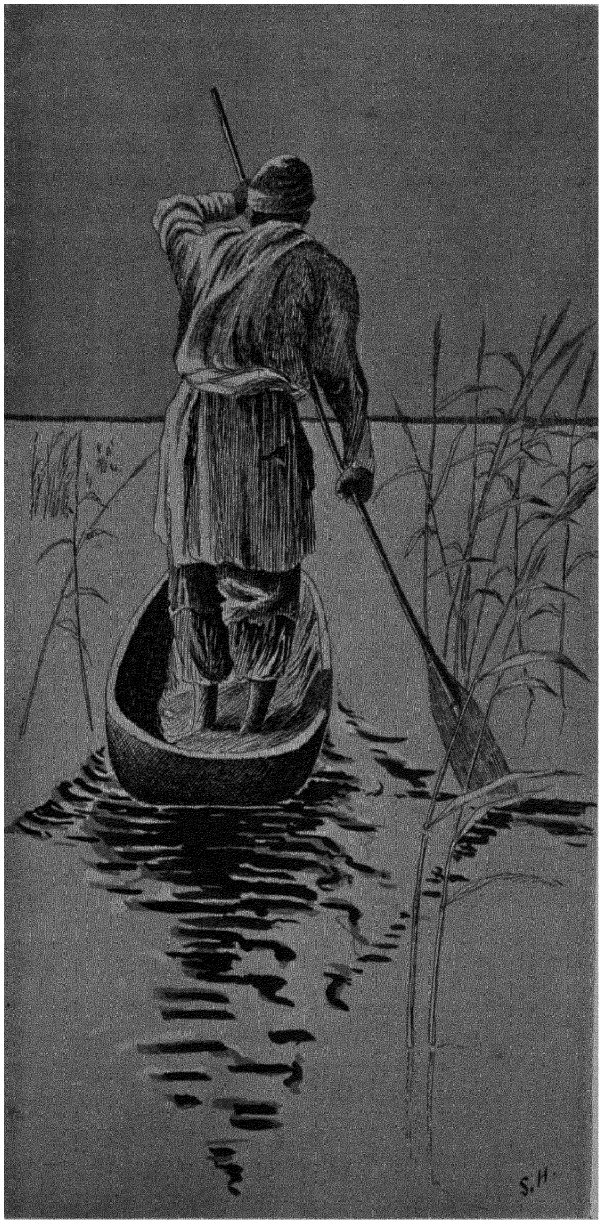
CHAPTER LXXII.

ALONG PRZHEVALSKY'S LOP-NOR BY BOAT

AFTER I had rested a couple of days, the caravan continued its march by land towards Chegghelik-uy on the Tarim, whilst I proceeded thither by boat. The Chong-tarim (Great Tarim) curved backwards and forwards in the most capricious fashion, frequently describing an almost complete circle, so that we really steered all round the compass. Being now in the open, and unsheltered against the fury of the hurricane, my boatmen took the precaution to fasten two canoes side by side, holding them together by means of two poles lashed to the bulwarks and leaving about a foot's space between the two craft. This double canoe (*kosh-kemi*) was manned by four boatmen; and yet so furious was the storm, that their strength was put to the severest proof, although in the reaches in which the noses of the canoes were turned towards the west, they were caught by the wind and driven along at a perfectly giddy pace.

The forests gradually thinned away, until they ceased altogether, and the barren desert lined both banks of the river, the eastern as well as the western.

Çhegghelik-uy is a typical Asiatic fishing-station—a row of yellow reed cabins along the river-bank, a score of canoes drawn up on land immediately in front of them, nets hung out to dry on long poles, and an all-pervading odour of rancid fish. Eight families are permanently settled in the place all the year round; but in winter they are joined by fifteen other families, who go down to Charkhlik in the spring, sow their crops, wait till they are ripe, and harvest them, and then return to Cheg-



A LOP-MAN IN HIS CANOE

ghelik-uy. Thus they are semi-nomadic in their mode of life.

The caravan went on further to Abdal by land, whilst I still continued the journey by water, across the scanty surviving portions of what twelve years ago was the broad lake of Kara-buran.

The storm had at length paused to take breath; but instead of it we had rain all day long (April 18th). During the heaviest downpour we took shelter for a couple of hours in the little village of Tokkuz-attam (the Nine Fathers), a place entirely surrounded by water. The lakes were throughout very shallow, owing to the thick deposits of fluvial sediment and sand; indeed there were long stretches where the water was scarce four inches deep, so that the boatmen had to get out and wade, and drag the canoe after them as though it were a hand-sledge.

We spent the night in the village of Chai, and next day rowed all the way to Abdal, a distance of thirty-seven miles (though only twenty-five miles as the crow flies). It was splendid travelling, for the weather was fine. The further the Tarim flowed to the east, the deeper and narrower it grew, whilst its banks became more and more desolate, till at last not a vestige of vegetation was to be seen.

When we drew near to Abdal it was evening, and the entire population of the place were out on the river-bank to welcome us. Seeing amongst them a little old patriarch of a man, I cried, pointing to him, although I had never seen him in my life before, "That's Kunchekkan Beg!" Whereat they were not a little astonished. But after the portrait of the old man given by Przhevalsky in his account of his fourth journey, it was not difficult to recognize him. On his part the aged chief welcomed me as though I were an old acquaintance, and led me to a clean "parlour" in his reed cabin.

Kunchekkan Beg was a fine old fellow. He talked away all the time without once waiting to be prompted, and gave me a store of valuable information. Przhevalsky had made him a present of his own photograph, as well as photographs of several scenes taken in the neighbour-

hood of the lakes, fish-nets, a cooking-pan, and various other useful articles. The old man preserved all his treasures in a sand-dune a little to the north of Abdal, so as to safeguard them from accidents by fire and the attacks of Dungan robbers. I tried to explain to him what our boats were like in Sweden, and how we manage our oars. The old man clapped his hands together, and

KUNCHEKKAN BEG, OF ABDAL

cried in a tone of great cocksureness, "Oh, I knew all about that long ago. The Chong-tura (*i.e.*, Przhevalsky) told me all that. I know exactly what things look like where you come from. I am almost as good a 'Russian' as you are."

On April 21st we went a trip along the river to the large village of Kum-chappgan, and the old chief, Kunchekkan Beg (the Chief of the Rising Sun), plied one of the oars with as much power and accuracy as he no doubt did sixty years before.

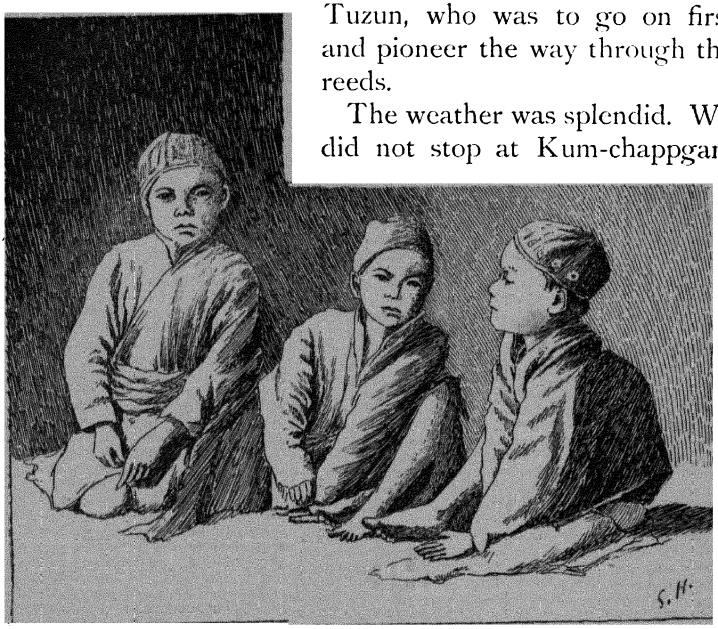
THE DAUGHTER-IN-LAW OF KUNCHEKKAN BEG

I was told in Abdal that the river was in no sense navigable beyond Kum-chappgan, for at that place it split into a number of small arms and became lost in a multitude of lakes and marshes. Przhevalsky had rowed all the way to Kara-koshun along a chain of lakes. But these were now all overgrown with reeds, and the people who at the time of his visit dwelt on the shores of Kara-koshun had left it ten years ago. But at Kum-chappgan I found two men, who undertook to row me for two days towards the east-north-east, that is, as far as it was possible to get with a canoe. I was particularly anxious to have my map of these lakes as complete as possible, so I determined to make the journey; but had first to go back to Abdal, for we had brought no provisions with us.

I travelled back, not by the Tarim, but by the lakes of Abdal, which run parallel and close to its right bank, for they belong in reality to the class of side or riparian lagoons, which drain off the water of the river. Owing to the vast amount of sediment which the stream deposits in the course of the year, the river-bed has become raised above the level of the land immediately adjoining it on either side, and thus flows as it were in a raised channel. The water frequently takes advantage of weak spots in its enclosing banks, and bursts through, and floods the low-lying tracts in the vicinity. Besides, the Lop-men purposely make breaches in the river-banks, so as to let the water out to form artificial lakes. Then in the spring, when the river falls to its lowest level, they stop up the gaps, and after the water in the artificial lakes has sufficiently evaporated, they catch the fish which have swum out through the breaches. During the winter the people live upon dried fish and bread. But the inhabitants of Kum-chekkeh were genuine ichthyophagi or fish-eaters, for they lived entirely upon fish all the year round; the only additions to their diet being the eggs of wild-duck, the young shoots of reeds, and salt. According to Pievtsoff, the southern Lop-nor contains two species of mountain barbels (*Schizostorax Biddulphi* and *Sch.*

argentatus), one of loach (*Nemachilus yarkandensis*), one of carp (*Diptychus gymnogaster*), and the pike-like *Aspiorrhynchus Przhevalskii.*

We started for the trip on April 22nd in three canoes. In one were myself and three boatmen; in another Islam Bai, with the provisions, and two boatmen; and in the third, a tiny cockleshell of a thing, the old and experienced Tuzun, who was to go on first and pioneer the way through the reeds.



BOYS FROM KUM-CHAPPGAN, LOP-NOR

The weather was splendid. We did not stop at Kum-chappgan, but pushed on down the largest arm of the river, the one on the left, and were soon lost among the tall reeds. Were it not for the narrow channels which the Lop-men keep open through them, these forests of reeds would be absolutely impassable; and even the channels (*chappgans*) they do keep open would grow over in one year if the young sprouting reeds were not pulled up by the roots every spring. As a rule a chappgan is about a yard wide, and is lined on both sides by reeds as hard and impassable as boarden walls, and not less than fifteen or sixteen feet high. In several places they were tied together in stand-

ing sheaves, or bent back over, so as not to fall forward and choke up the lode or channel.

The primary object of these chappgans, which intersect one another in a labyrinthine maze in every direction, and in which a stranger alone would infallibly be lost, is not however solely to serve as waterways. They are used principally for catching fish. We rowed over hundreds and hundreds of nets, and in the clear transparent water I could see countless shoals of fish swimming along underneath us. We caught a few as we went along and cooked them. Each family has its own chappgans, in which they alone are entitled to set their nets.

How the men found their way through such a confusing labyrinth I was puzzled to understand. Every now and again the channel we were in would open out into a small round basin fenced in on all sides by reeds; and from it would radiate half-a-dozen other basins, all exactly alike. As soon as the canoe put her nose into one of these lagoons, the boatmen dipped in their oars and made her skim across the open pool like a wild-duck, so that the water hissed off her bow, and I could not help fancying that in a minute or so we should dash our heads against a wooden wall. But no: with a swish and a crackle, the reeds bent apart to right and to left like curtains, and we glided into the next narrow tunnel-like chappgan.

Thus we raced merrily on the whole day long. At intervals I got a clear glimpse or two of the slowly dwindling Tarim. Some of the lakes we rowed across were sheets of considerable size; in one of them, Yokkanak-köll, I sounded the greatest depth of any measurement I took in the southern Lop-nor, namely, fourteen feet. Thus the lakes are very shallow; in fact they were more like marshes than lakes.

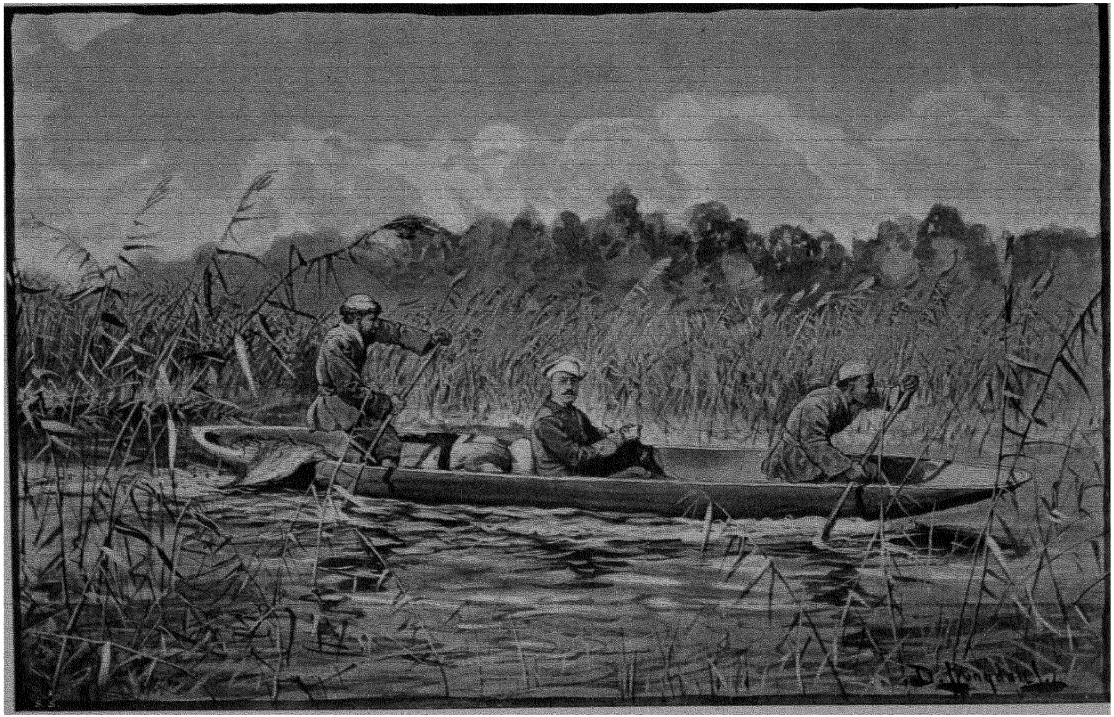
In the afternoon we shot out into the largest of the lakes, Kanat-baglagan-köll (the Lake of the Tied Wing), probably so called from the fact that some time or other a wild-duck's wing was tied to the reeds to serve as a sign-post. We had the greatest difficulty in the world to wriggle across to the northern side; but as the shore

consisted of moist mud impregnated with sand, I preferred to sleep in the canoe.

The next day we rowed on further across the large lake. Once when we stopped to take a sounding, Yolldash, thinking it was too warm in the canoe, made a dash over the side; but after a good long swim, he came to the conclusion that it was too far to land, and so climbed back on board. The tiny pioneer canoe led the way; then followed the provision boat; and last of all the one in which I sat. I ate my simple breakfast of wild-ducks' eggs and bread on the lake. Islam Bai handed the dishes to me by putting them in a wooden bowl, and setting it afloat on the water (which was perfectly smooth), and I caught it up as we darted past.

A belt of gigantic reeds, each fully 25 feet in height, and measuring 2¼ inches in circumference at the surface of the water, stretched diagonally across the lake. As the Lop-men seldom ventured so far as the point we had then reached, the chappgans were grown up again. The tiny pioneer canoe managed to get through pretty easily; but the two bigger, heavier boats had to work their way through inch by inch. The boatmen laid aside their oars and forced the boat on with their arms, using the reeds as a fulcrum. We were completely shut in on all sides. Not a drop of water was visible; it was entirely hidden by the reeds and the boat. Into that dark, close, warm tunnel not a gleam of sunshine penetrated. I drew a sigh of intense relief when we at length emerged from the watery defile and debouched upon the last open lake, with its surface crumpled by the breeze.

At noon we reached the very extremity of the open lakes; beyond that it was absolutely impossible to get through the reeds, either by canoe in the summer or on the ice in the winter. They stood as tightly packed together as the palings in a wooden palisade. In some places they were indeed so densely matted together, and so strong, that we actually walked along the top of the tangled mat they made, without for a single instant being reminded, that there was ten feet of water immediately under our feet.



BOATING AMONG THE REEDS OF THE SOUTHERN LOP-NOR

Before turning back, we forced our way once more to the northern shore of the lake. There, from the top of a characteristic tamarisk root-mound, I obtained a wide view in every direction. To the east there was not so much as a square yard of open water; nothing but a veritable forest of reeds of the rankest growth. In the opposite direction, towards the west, the narrow waterway by which we had come looked like a coil of blue ribbon winding through the yellow reeds. And an equally vivid contrast was afforded by the small green patches of young spring shoots scattered thinly amongst the serried reed-beds.

We returned to Abdal by the same way we had travelled out. The route having been already plotted, I had nothing to do except to lean back on my felts and cushions, and listen to the gulping of the water against the sides of the canoe, as well as watch the fascinating interplay of colour in the transparent water. Over the deeper parts of the lake it was ultramarine blue; but over the shallower parts it gleamed, in consequence of the reflection from the yellow reeds, like jelly made of Rhenish wine.

When we came out upon the Tarim (*the* River) immediately east of Kum-chappgan, the current was stronger against us, and we went slower than on the outward journey. On the way out, the canoes had been swept along this part of the river at a tremendous pace, and all the men had to do was to dip their oars in lightly every now and again to guide their slight, elastic craft. Now however, on the way back, they were forced to ply their oars with a resolute will.

I was anxious to gain time, and so kept the men hard at it as long as daylight lasted, and even a good way on into the night; nor did they murmur, for I promised to reward them well. The moon came out and illumined the narrow waterway as with the penetrating rays of a lighthouse. The night was still and mild. Nothing disturbed the brooding silence save the rhythmical swing of the oars and the occasional splash of a fish leaping to the surface of the river. It was a fascinating night, one I shall not readily forget.

CHAPTER LXXIII.

THE RETURN TO KHOTAN

THE first four months of the year we were continuously travelling towards the east, and putting an ever greater distance between ourselves and our new base of operations in Khotan. By the time we reached the goal of our journey, the farthest of the lakes of Lop-nor, we were fully six hundred miles from the place where I had left nearly all my baggage, and such of my money as I did not absolutely need. But the long journey had not been fruitless. I had achieved the objects I set out to accomplish; I had examined the ancient cities of the desert, had traced the course of the Keriya-daria as far as it goes, had crossed the Desert of Gobi, unravelled the complicated river-system of the Tarim, studied the problem of Bagrash-köll, and explored the neighbourhood of Lop-nor.

Our hard, forced march across the desert had tried us all severely. The summer with its oppressive heat was coming on, not at all a pleasant outlook for us, seeing that we had only our winter equipment of clothing with us; and we were all longing to get back to Khotan to rest. If only we could have flown there, we should certainly have done it; because, since the journeys of Przhevalsky, Pievtsoff, Dutreuil de Rhins, and the Littledales, both routes along the northern foot of the Kwen-lun Mountains are sufficiently well known; besides which, they have little of interest to offer. But not possessing the wings of the wild-duck, we had no other alternative but to ride. Hence, after a hearty farewell of the "classic" old chieftain, Kunchekkan Beg, we left Abdal, with our three camels and two horses, on 25th April.

I was right glad to have my face turned towards the west; for after I reached Khotan, there would only remain one part, the last, of my great scheme unaccomplished, namely, the exploration of Northern Tibet. Moreover I was eager to get to Khotan for another reason. In Kara-shahr I heard from Consul-General Petrovsky, that he had sent on to Khotan a big packet of letters for me from Sweden. What had been happening at home during all my long absence? That packet of letters drew me westwards with the force of a powerful magnet. When therefore the pertinacious storm from the east again began to blow just as we left Abdal, driving clouds of dust and sand before it, it seemed to me as if Heaven itself were minded to help us.

As I have before mentioned, these desert-storms are both grandiose and awe-inspiring. Along that portion of its course in which the Tarim, in ordinary circumstances, flows towards the east, the surface current, under the impact of the wind then blowing, flowed in the exactly opposite direction. For instance, whilst at Abdal the level sank sixteen to twenty inches, in the Kara-buran, to the west, it rose eight to twelve inches. Thus the lake expanded to an appreciable extent. When you are riding before such a storm, you have some difficulty in keeping your seat. Every moment you feel as if you would be lifted bodily out of the saddle. The horses stagger as though they were drunk, and the camels straddle wide so as not to lose their equilibrium.

Although the lake of Kara-buran had thus widened its borders, we nevertheless rode across it, that is to say, those portions of it which have dried up since the date of Przhevalsky's visit. After that we came to the lower course of the brook of Charkhlik, which would empty itself into the lake but that shortly before reaching it it disappears in low-lying ground. This brook also felt the effects of the storm; it too turned back in its course for a space, flooding the lower grounds on both sides to a great distance and blotting out the track. For the most part we rode at haphazard, through six or eight inches of water; and

for as far as we could see, there was nothing but a boundless expanse of water, literally rent to tatters by the wind. The spray was dashed about our ears, the water was bodily driven up into the air, shivered into myriads of drops, and flung down again with a furious hissing and splashing. We could not however see very far; the atmosphere was so thickly laden with dust, that it was actually darkened. During the three days and three nights that this "black buran" raged without a moment's cessation, the temperature never rose above 59° Fahr. (15° C.) and 64°4 Fahr. (18° C.), and accordingly we felt it decidedly cool.

By the time we reached Charkhlik, a little "town" of about one hundred families, the storm had subsided and the weather was calm. But, on the other hand, our camp was in commotion. For the first thing, we were going to part with our three camels, which ever since we left Khotan had rendered us invaluable service. For months they had tramped with the endurance of Stoics through the terrible desert sand, had stalked with majestic gravity through the primeval forests of the Tarim, had forded rivers and morasses without showing any sign of fear, never complaining, seldom occasioning difficulties, but often quickening our courage by their imperturbable calmness. But we had used their strength to the uttermost. They too urgently needed rest. To have taken them with us all the way to Khotan would have been cruel; for in Central Asia, camels do no work in the summer, but enjoy the privilege of grazing on the mountain pastures.

It was hardest to part with my riding-camel, a splendid male ten years old. The camel, as I remarked when speaking of the wild species, does not love men, and never becomes as tame as the horse; but with this particular animal I had always been on the very best of terms. Whenever the man approached him, whose duty it was to lead him by the rope through his nostrils, he screamed angrily, and snorted; but after he found out that I never touched the rope, he gave me a very different reception He allowed me to pat his nose, and stroke his face, without manifesting the least resentment. Every morning I used

to give him two large cakes of maize-bread, and at last he grew so accustomed to be fed in that way, that at the stroke of the hour he used to come forward to my tent and remind me of it. Sometimes he even woke me up by giving me a regular poke with his nose.

Now however we were to part from our three veterans, who had for so long a time faced wind and weather together with us. I sold them to a merchant from West Turkestan for about one-half of what I gave for them. In

VILLAGE NEAR KHOTAN

A Bazaar-day

their place I bought four horses. When the purchaser led the camels away, I felt quite lonely. The courtyard looked empty and deserted. Luckily I still had Yolldash, who faithfully kept his place at my side in the hovel in which I was lodged. One day, when I sat writing on a felt carpet, the dog suddenly jumped up, and began growling and barking, with his nose close to the ground. At first I paid no heed; but he came quite close to me, and plainly showed that he was very uneasy. I then looked about for the cause, and discovered quite close to my foot a

yellowish-green, ugly-looking scorpion, two inches long, striking out at the dog with his poisonous tail. But the dog's instinct warned him against seizing the creature in his mouth. I instantly killed the scorpion; and rewarded Yolldash with a large piece of meat, and patted him and caressed him, and gave him to understand that he was a "good fellow."

Charkhlik was ruled by a Chinese amban, Li Darin. When the Dungan revolt, which broke out in December 1894, spread to Si-ning-fu, and there assumed disquieting proportions, the Chinese stationed in the town a garrison of 265 men, armed with discarded English rifles of the period of the Crimean War. Agreeably to the prescribed custom and etiquette, immediately after my arrival I sent a messenger to Li Darin, bearing my Chinese visiting-card and the local passport which Hwen Darin gave me in Kara-shahr, and at the same time inquired, when I might have the honour of waiting upon him personally. In reply, Li Darin sent his interpreter to say, that before he could receive me, he must first see a larger passport, valid for the district over which he ruled. I bade the interpreter, a Mohammedan beg, and a very decent fellow, explain that I had left my "great passports" from Peking and Kashgar behind me in Khotan, because, when I set out on my journey, I had not intended to travel so far, and that it would be best for me to call upon the amban and fully explain matters to him myself.

The answer which came back was, that a man who travelled without a passport must be treated as a suspicious individual, that the amban would not receive me, that the southern route to Khotan was closed against me, but that, seeing I had the "little passport," I might, as a favour, return to Kara-shahr, and then go back to Khotan the same way I had come.

Truly a bright look-out! Three and a half months through the desert by a road I had already explored, and that in the height of summer; whereas by the southern route, *viâ* Cherchen, I could reach Khotan in a single month! I instructed the interpreter to tell

his master, that I despised him, and that notwithstanding, and in defiance of him, I intended the very next day to set out for Cherchen.

I got back the laconic answer, "Go; but if you do, I shall arrest you, and send you back to Kara-shahr under an escort of ten soldiers." It was no use talking any more; I must act. I quickly made up my mind what I should do. I would start the next morning, as I had announced, for Cherchen. Li Darin should then arrest me and send me back to Kara-shahr. Thence I would go on to Urumchi and enlist the help of the Russian consul, to procure me not only a free passage to Cherchen and Khotan, but also a well-merited reprimand to Li Darin, as well as compensation for the loss I should sustain through the delay. I therefore made an arrangement with the merchant who bought my camels, to take charge of my baggage and the horses. I decided to take Islam Bai with me, and we packed a few necessaries in the straps at the back of our saddles.

At first I was seriously annoyed at having been so splendidly caught; for it was of course not to be thought of that I should use force or have recourse to craft against a rude and arrogant mandarin with 265 soldiers at his back. But before the day was over I viewed the journey to Urumchi, a distance of over four hundred miles, in quite a different light. I should travel along new roads and through interesting regions, and should see the Chinese capital of Central Asia, with its crowd of distinguished mandarins, and its little Russian colony. In the end my mind was quite set upon the journey; the only thing that drew me in the opposite direction was my letters in Khotan.

However my star was more powerful than that of Li Darin, amban of Charkhlik. Late that same evening there came to my quarters a mandarin of some fifty years of age, with delicate and distinguished features. He introduced himself as Shi Darin, commandant of the garrison. He told me he had received orders to arrest me next day, and was come to apologize for Li Darin's stupid conduct;

and he said he would try to talk the amban back to reason. After that the conversation passed over to other topics. Shi Darin was deeply interested in my travels, and asked me hosts of questions. When I told him about my disastrous journey across the Takla-makan Desert, he exclaimed loudly, and was ready to throw himself on my neck. "Oh, and so that was *you!* I was in Khotan at the time; nothing else was talked about but your unfortunate journey. Ling Darin told me about you, and we both hoped to have met you in Khotan."

The said Ling Darin was no less a person than Paul Splingaert, a Belgian, who had spent some thirty years of his life in China, and who for four years acted as interpreter to Baron von Richthofen in his travels through that country. He was now an influential mandarin in Su-chow, having become virtually a Chinaman, and married a Chinese wife; by her he had eleven children, of whom several were then being educated in a Roman Catholic mission-school at Shanghai.

Splingaert and Shi Darin had been sent by the governor-general at Urumchi to make a journey of inspection through East Turkestan, more particularly to inquire into the existence of gold in the mountains on the southern borders of the country. Thus they were staying in Khotan at the same time that I was wandering about the forests of Buksem. When they reached Kashgar, I had just started for the Pamirs; and when I returned to Kashgar in the autumn, they had already left. I had a great wish to meet Splingaert; as I was the bearer of greetings to him from Baron von Richthofen. But we did not meet until a year later, when I found him at the Russian embassy in Peking. He was then on the point of settling in Tien-tsin, having been appointed to an important position there through the recommendation of Li Hung Shang.

Having thus found out one another's mutual acquaintances, I and Shi Darin became real good friends, as though we had known one another for years. He remained half the night with me, shared my supper, smoked, talked. I showed him my route-maps and

sketches, and put before him all the pros and cons of the Lop-nor problem. In this last he was especially interested, for he said he knew of his own knowledge, that the lake had formerly occupied a different situation.

Instead of going to Urumchi, we stayed all the next day in Charkhlik, and I made my return visit to Shi Darin. He received me with bright friendliness, and showed me the route-maps he had himself plotted of the mountain-roads south of Charkhlik and Cherchen, and I confess I was astonished at his work. Had the names not been written in Chinese characters, nobody could have told that the maps were not made by a European. The mountains were shown with the orthodox gradings of modern geographers. Then he showed me his English compasses, diopters, measuring-scales, and so forth. After that he took me all over the "fortress," and showed me his stores of ammunition and firearms, and proved himself to be entirely devoid of prejudice. In a word, he was not at all an ordinary Chinaman, but more like a European than a son of the Middle Kingdom. He had been stationed in Kulja for several years, and there been brought into contact with the Russians; and the consequence was, that not only was he an admirer of Western civilization, but he even condemned Chinese civilization. And his acquaintance with Splingaert, and association with him in their long journey, had strengthened his prepossessions in favour of Europeans. Whilst we were at dinner, I thought it would be a favourable opportunity to inquire what he was going to do with regard to arresting me. He replied, that he had spent all the morning, trying to instil a little reason into Li Darin; but that Li Darin had stubbornly persisted that, so long as the Dungans remained in revolt, his instructions were to stop everybody seeking to travel to Khotan *viâ* Cherchen. To this Shi Darin said that he replied, I was not a Dungan, but a peaceful European. The amban retorted, he did not know exactly who I was; I had no passport.

"Well, then, I suppose I must prepare to go to Urumchi?" said I.

"To Urumchi! Are you mad?" cried Shi Darin, exploding with laughter. "No. Go on to Cherchen, as though nothing were the matter. I will be answerable for the consequences. The amban has issued the order for your arrest; but I am commandant of the garrison, not he, and I do not intend to supply a single soldier for any such purpose. And if Li Darin attempts to arrest you with the help of the native begs, I will send an escort of soldiers to protect you."

Could a greater *volta face* of Fortune be imagined? I was to be protected by the very soldiers whom Li Darin had threatened should arrest me! But then, conflicts of this kind between the civil and the military Chinese authorities in the towns of Central Asia are by no means rare occurrences. I observed the same thing in both Kashgar and Khotan.

The next morning we were all ready for starting again. And as though Shi Darin had not already sufficiently shown his good offices towards me, he now sent me a large supply of sugar and tobacco, the very things I wanted. In return I made him a present of some maps which I could do without, and of several small things. Once more therefore we were bound for the west. Our camels were browsing on the green leaves of the trees in a park on the outskirts of the town. As we rode past, we sent them a melancholy farewell; but they never for an instant stopped their busy feeding, nor deigned to waste a single glance upon us.

I must however hasten rapidly over the 560 miles which still separated us from Khotan. I would gladly linger over the details of the journey; but this book is still growing, and I hope moreover to return again to this region, in which I gathered a rich harvest of observations, in a subsequent work.

On the way to Cherchen we visited the ruins of Wash-shahri; and there I bought from a native an antique copper can.* Then we came to the Cherchen-daria, and so through its scanty woods to the town of Cherchen.

* See the illustration, p. 783.

From that place there are two routes to Khotan. By the northern road, through the desert, the route Marco Polo seems to have chosen, Khotan can be reached in ten days; but as it is almost entirely unpopulated, and at that season of the year the water in the wells was salt, and the gnats an intolerable plague, we preferred the southern route, which skirts the Kwen-lun Mountains, and is on an average 3000 or 4000 feet higher than the other route. By that road the air was fresh, the climate altogether delightful, and the scenery richly varied. The districts we travelled through were inhabited by a Turki stem or tribe called Taghliks (Mountaineers), whose livelihood is derived from the keeping of domestic animals, and also, though to a much smaller extent, from agriculture. This road took us four days longer than the northern road; but that was comparatively speaking a trifle.

Our first stage was to the gold-mines of Kopa. Here the native inhabitants seek their fortune in a very primitive fashion. The auriferous rock lies at a maximum depth of 300 feet. To get down to it, the miners dig a shaft (*kan*), and at the bottom of the shaft excavate narrow tunnels, like mole-runs, in a direction parallel to an old river-bed. This however would deserve a chapter to itself; and I must hasten on further across the Kirk-sai (Forty River-beds), through whose deep channels the mountain water, that comes from the melting snows, travels on its way to the glowing furnace of the Gobi or Takla-makan. Thence we rode across Sourgak, where also gold occurs, and so down into the lowlands and the desert, finding an excellent stopping-place in the little oasis of Yaz-yulgun (the Summer Tamarisk). In Keriya I was warmly welcomed by my Kashgar friend, Tsen Daloi, who had recently been appointed amban of the town.

We reached Khotan on May 27th, strong and well, but tired, and with the liveliest anticipations of the rest we were about to enjoy.

CHAPTER LXXIV.

THE SEQUEL OF MY DESERT JOURNEY

IT will be remembered how, during our disastrous journey through the desert of Takla-makan in April and May 1895, we had been obliged to leave behind the travelling-tent, and nearly all our baggage, to the value of about £275; and also two men who lay dying of thirst. In Kashgar the widows of these two men came to me, weeping and begging me to give them back their husbands. I consoled them as well as I could, and gave them what money I was able to afford. After that I was so occupied with the preparations for my journey to the Pamirs, that the occurrences of the desert faded from my recollection. I soon forgot the privations I had endured and the loss I had suffered; but the memory of my marvellous escape and rescue was constantly in my mind, steeling me with confidence in moments of danger.

When the Swedish army officer's revolver, which had been left on the verge of the desert amongst the baggage of the camel Nähr, turned up so unexpectedly at Kashgar in the summer of 1895, our suspicions were certainly aroused. But Consul-General Petrovsky and the Dao Tai sent instructions to Khotan for fresh inquiries to be made; but they led to nothing. I myself reached Khotan early in January 1896, and when I went away, I was fully convinced that the tent, baggage, and two dead men were long ago buried in the sand, where they would remain for a multitude of years. Imagine therefore my surprise when, the very day I got back to Khotan, Liu Darin sent to my house the greater part of my lost belongings, which I had not seen for more than a year.

But I must confess it was not with feelings of unmixed pleasure that I received them back again; for the recovery brought to light the fact that we had fallen amongst thieves and traitors. And then began the unfolding of a criminal romance which was as disagreeable to me as it was complicated in itself, to say nothing of the loss of time occasioned by the unravelling of it all. I will however tell the story succinctly, partly because it illustrates the character of the Mohammedan population, as well as the Chinese methods of administering justice.

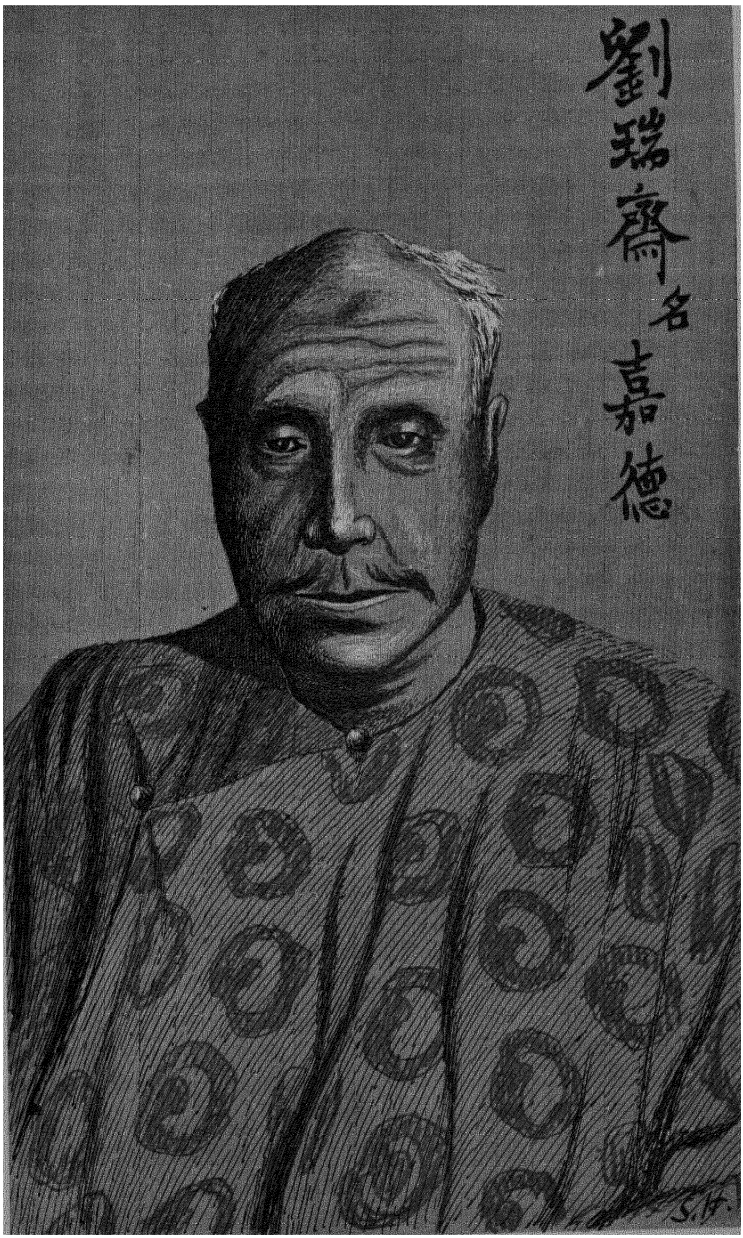
Seyd Akhram Bai, aksakal of the West Turkestan merchants in Khotan, received the Swedish revolver from Yussuf, the merchant who gave water to Islam Bai when he lay dying of thirst. Yussuf no doubt meant it as a bribe to secure the aksakal's good-will and silence. But the aksakal had been already forewarned by Mr. Petrovsky, and so escaped falling into the trap. He subjected Yussuf to sharp examination; and Yussuf finally confessed, that he had received the revolver from Togda Beg, chief of Tavek-kel. The aksakal gave the weapon to Liu Darin, and the latter sent it to the Dao Tai, who sent it to me. Yussuf, finding that the matter awakened a certain amount of interest, thought it prudent to retire to Urumchi. Meanwhile the aksakal, hearing nothing more of the merchant, sent a spy to Tavek-kel, to keep an eye upon Togda Beg and his house.

Clad in rags, the spy went to Tavek-kel, and played his part so well, that Togda Beg took him into his service, and put him in charge of a flock of sheep. The man roamed about the neighbourhood, performing his duty to the complete satisfaction of his new master. His wages were very small; but one day when he went to the beg's house to receive the little that was due to him, he made an important discovery. As soon as the beg caught sight of him in the doorway, he jumped up and prevented him from going in. But the man had already seen sufficient: he saw how the beg, together with our three hunters of the Khotan-daria, namely, Ahmed Merghen, Kasim Akhun, and Togda Shah, as well as

Yakub Shah, the man who guided us to the first of the ancient cities in the desert, were sitting crouching round some boxes; and several articles, which could only belong to a European, had been taken out of them and lay scattered over the carpet. The spy kept his own counsel, received his wages, and walked slowly away; but as soon as he was well out of sight, he caught the first horse he saw, jumped on his back, and galloped off to Khotan, to report to the aksakal what he had seen. The aksakal at once carried the report to Liu Darin, and Liu Darin sent two officers of the law, with a party of soldiers, to Tavek-kel, to search the beg's house and take possession of the stolen property.

In the meantime the beg had speedily missed his new shepherd, and as a horse was also gone, he instantly guessed that something was wrong, and sent men on horseback as hard as they could gallop after the fugitive. But the spy had got too long a start; besides, he knew that his own life depended upon his getting to Khotan first. The beg was now in an awkward predicament; but he saved himself with the craft of a diplomatist: he hurriedly squeezed the things back into the boxes, and took them to Khotan, arriving there in company with the men Liu Darin had sent, and handed everything over to him (the amban), saying that they had only been found two or three days before. The hunters also went to Khotan at the same time, and all the conspirators put up at the same caravanserai. But there too the aksakal had a spy in his service. Next day this spy came and reported that during the night the beg had instructed the hunters what they were to say when Liu Darin questioned them about the affair; for there could be no doubt, he would very soon hold a formal inquiry as to where and when and how they found the things.

But first the aksakal had the hunters before him—the very men, be it remembered, who had gone with Islam Bai to look for the tent after our shipwreck in the desert, but without success. They told him, that in the course of the winter they had gone back to the three poplars, and from



LIU DARIN, AMBAN OF KHOTAN

that point had followed up the trail of a fox, which ran due west into the desert. They followed it for some days, and at last came to a place where the animal had stopped and scratched in the sand. The sand there was as white as chalk; they discovered that the colouring was caused by flour. After that they dug down, and at last came upon the tent, so completely buried in the sand that the tops of the tent-poles were a foot below the surface. Then they fished up the different articles one after the other, and loaded them on donkeys' backs, and carried them to the river.

This was a most interesting story. It proved that the sand-dunes round the tent had increased more than six feet in height; although the increase might in great part be due to local irregularities, caused by the heaping up of the sand on the sheltered side of the tent. In the summer of 1895 there had clearly been heavy gales of wind; but the winter had been as usual calm and quiet, so that the fox's trail had not been blotted out, and was easy to trace. No doubt the foxes had scented the hens and the cases of provisions we left behind, and had gone across the desert in search of them. The hunters found the skeleton of one of the hens on a sand-dune a long way from the camp; but they saw nothing of the two dead men. Possibly they both crept on a little farther on the night of 1st May.

The aksakal quickly formed his own conclusions as to the truth of this story. Why did they not take the things straight to the amban, Liu Darin, instead of waiting until the spy found them out? Well, Togda Beg, who had formerly been a yuz-bashi (captain) in the great Yakub Beg's army, and was known to be a hard and unscrupulous man, and hated accordingly—he had got wind of the "find," and persuaded the hunters, who were good-hearted, harmless men, to keep the affair quiet, and then gradually sell some of the things, keeping those they could make use of themselves. Hence I only recovered some of my property, principally such articles as the natives could find no use for, such as a portion of my instruments, the plane-table

and stand, the medicine-chest, my ulster, cigars, the petroleum cooking-stove, and the two photographic cameras. Unfortunately these last were of very little service afterwards; for the inhabitants of Tavek-kel had appropriated the plates and used them for glazing the grated window-openings of their houses. I was therefore still restricted, as regards the future, to my pen and pencil; hence it is only the earlier portion of this book which is illustrated from photographs.

The hunters fell in with Togda Beg's proposal, and had already disposed of articles to the value of £110. Ahmed Merghen and Kasim Akhun, who had accompanied me down the Keriya-daria, had kept their own counsel throughout the whole of the journey. But I suspect their consciences pricked them; for, whenever our unfortunate desert journey was talked about, they always used to say, that the things I had abandoned were certain to be found again, and that they would look for them as they went home from Chimen, as though they were seeking to cover their retreat. I also understood now, why Togda Beg lodged me in an ordinary house when I visited Tavek-kel, and did not offer me the hospitality of his own. The stolen articles were concealed there in carpets and felts, and possibly something might have been discovered.

The amban, Liu Darin, also held an inquiry, in the course of which he elicited, that the locks of my boxes had been forcibly broken open. (I left them locked and put the key under one of the boxes that unlucky 1st May, 1895.) He asked how the men had dared to do such a thing, and whether they did not know that both the Chinese law and the Mohammedan *sheriet* (theological law) forbade them to lay hands upon another person's property. They replied, the boxes were so heavy, that they were obliged to break them open, in order to carry the contents piecemeal.

All this had taken place two or three months before I got back to Khotan. The hunters had been put to torture to make them confess; after that they were

beaten and cast into prison. But the cunning beg was still at large.

After my return to Khotan the case was taken up again. The aksakal had a spy in the amban's *yamen* (official residence), and it was his business to report what took place there. But we were satisfied, Liu Darin would do what was right in the matter, and would not let himself be bribed. The thieves' destinies were in my hand. Chinese processes of torture often make men cripples, and the suspense in which the poor fellows were being kept, whilst awaiting their doom, must have been terrible. It was of course my intention from the beginning to let them off with a good fright. I did not wish them to be harshly treated; for had not the All-Merciful stretched out His hand to me when my life was in jeopardy?

Liu Darin put on the mantle of a judge, and asserted his authority with dignity and effect. He demanded a list of the articles I had lost, together with their several values; and armed with it, he himself, in his own august person, travelled all the way to Tavek-kel, and pursued his investigations all over again. After that the case was continued in Khotan. The evidence was very conflicting. Liu Darin wanted therefore to have recourse to the rack and the grill; which I opposed with all the energy I was master of. Then he must at least use the rod; and all through the inquiry both rod and executioners were present ready to hand. But when I declared that, if they were employed, I must withdraw, for according to the custom of my country it was wrong to ill-use even a criminal, Liu Darin gave way, and respected my scruples.

The hunters all agreed in maintaining that they had given the whole of the property to Togda Beg, and that if any things were wanting he was the only person who could tell where they had gone to. On the other hand, Togda Beg swore, that the hunters had stolen the missing articles. Liu Darin's Solomon-like judgment was therefore this: "One of the two parties is lying, but the inquiry has not established which party it is. I therefore condemn both parties to pay back to our guest within two days the value

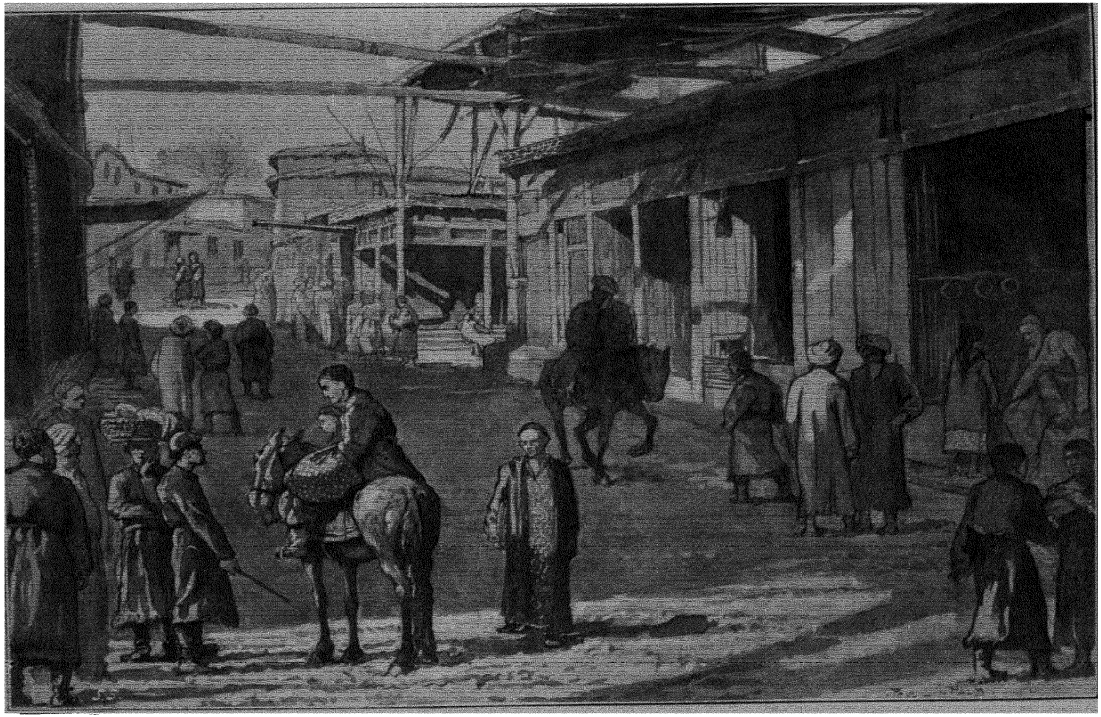
of the articles which have gone amissing, that is five thousand tengeh (nearly £120)."

Immediately, and in the presence of the culprits, I observed, that the amban's decision was perfectly sound and just; but that I would not take money from the thieves, however guilty they were.

To this Liu Darin replied, with firm decision, that, even though the money were a matter of indifference to me, it was a matter of the greatest importance to the Chinese themselves, to teach their subjects, that they could not plunder a European guest with impunity, otherwise the same thing would happen again the next time a traveller came that way.

However I did not consider it satisfactorily proved that the camel which had been left near the river had also been plundered. Moreover the hunters asserted, that some of the things had been left behind in the place where they found the tent. For these reasons I managed to get the fine reduced to a thousand tengeh (£22 10*s*.). If I gained nothing else, I gained at least the respect of the culprits themselves.

The quick sense of justice and the resolute energy which Liu Darin showed in protecting the interests of a European are very unusual qualities in a Chinese mandarin. But I have already observed, that Liu Sui Tsai, to give him his full name, was an exceptionally capable man; and this was proved yet again in another instance. The annual tribute which the oasis of Khotan pays collectively to the Chinese imperial exchequer amounts to about 3000 *jambaus* (£33,000). At Khotan, as indeed in most of the towns of East Turkestan, the governor is changed every three years; but even in that period he generally finds time to "scrape together" a few thousands, for a large portion of the taxes that are levied sticks in his own pocket. Liu Darin had been governor of Khotan three years; but every year he had sent the whole of the tribute without deduction to Peking. His rare integrity had excited considerable attention at Urumchi, and he had just been promoted to be amban of Yarkand, and was to leave



A BAZAAR-STREET IN KHOTAN

for his new sphere of labour the same day I quitted Khotan.

We had a thoroughly pleasant time of it in Khotan. At the command of Liu Darin, the wealthiest man in the place, Alim Akhun, placed his fine summer residence at my disposal; and everything was ready for me when I arrived on the 27th May. I was led through a gate, then across two or three courtyards, and finally into a large garden surrounded by a high square wall. A pavement of stone slabs led to a rectangular brick house, standing on a stone terrace in the middle of the garden. The interior contained only one large apartment, with fifteen windows, the wooden gratings of which opened like jalousies. The terrace was surrounded by a moat, filled with water and crossed by four small bridges. The house had been built for Yakub Beg, the famous ruler of Kashgar, and was surrounded by willows so full of leaf and so closely planted, that not a ray of sunshine was able to pierce through to banish the cool, delicious shade. The temperature in the open rose to 100°4 Fahr. (38° C.); under the trees it was eighteen degrees Fahr. lower. The water rippled along the moat; the wind whispered in the tops of the trees. Although storms of dust were prevalent at that season, none invaded the peace of the garden.

The house had only one door. A wooden platform about a yard high ran all round the other three sides, leaving the middle of the stone floor free. I furnished the platform with packing-cases and carpets, and in one corner set up my bed. There I sat cross-legged, with a box for a table, and worked until far on in the night. The place was not unlike a student's room, except that the large quantity of travelling paraphernalia gave it an unusually picturesque appearance.

The kitchen was situated in a little clay house near the entrance-gate to the garden, and to secure me in some degree from interruption, Islam Bai rigged up a temporary bell between the two houses. I only had two meals a day. Islam came and announced, "*Ash*

tayer, tura" (The rice pudding is ready, sir), then spread a cloth on the platform at my side, and arranged the dishes. Pudding with onions and mutton, soup with vegetables and marrow, fresh bread, sour milk, tea with sugar and cream, eggs, cucumbers, melons, grapes, and apricots—why, I lived in clover, like a prince! Chinese mandarins came to pay me visits. Native traders came bringing antiquities and articles in jade to sell. My only companion was Yolldash. The Mohammedans bestowed upon him the title of Yolldash Akhun or Mr. Travelling-Companion. He kept watch over my house, and by the wagging of his tail manifested his interest when Islam came with the dinner-tray.

How I did enjoy my rest in that beautiful garden! It was so still, so peaceful. Not a sound of the noisy bazaar penetrated thither, not a whiff of the unwholesome atmosphere of the streets. No doubt it was the great contrast with the desert that made the place so delightful; and I enjoyed it none the less that my letters from home contained nothing but good news. After dinner I strolled awhile about the garden, drinking in the scent of the ripening mulberries and peaches, of swelling roses and tulips, the last having a shade of green. There was also a roe-deer, with a blue ribbon and bells round its neck, which sometimes came with short nimble jumps and wanted to play with me. In a word, it was the most delightful place a man could dream about, a perfect paradise in fact, only—there was no Eve.

In the stable stood my fifteen new horses. My riding-horse of the summer of 1895 was the only old one, but it had been left behind in Khotan when I set out for Lop-nor. It was now getting a good rest against the hard work in store for it. Liu Darin sent me an abundant supply of maize and green fodder. I protested that, if he would do so, I should be obliged to start again all the sooner; but he paid no heed to my protests. On the contrary, he begged me to stay; he assured me it was the way every true Chinaman would treat his guest. Nor was that all; when I made my next start, he gave me

provisions for a month for every man and animal in the caravan. In fact, I cannot reckon up all the proofs of kindness and friendship which that excellent mandarin lavished upon me. There is however one thing I must mention. He procured me a Chinese interpreter, Fong Shi, a pleasant and agreeable young Chinaman, who wrote his mother-tongue with ease and spoke Jagatai Turki fluently, and—did not smoke opium. He left his wife and child behind him in Khotan, Liu Darin making himself answerable for their maintenance. But I also paid Fong Shi three months' salary in advance, and that money he gave to his wife. Whenever I could find leisure, he was to give me lessons in Chinese, and we began at once, even before we left Khotan.

When evening came, Islam let down the blinds before the windows and lighted a couple of stearine candles; and then I sat down and worked on steadily till two o'clock in the morning. One dark and stormy night I was awakened by Yolldash barking like a crazed thing at one of the windows. But owing to the melancholy moaning of the wind in the trees I was unable to hear anything unusual. I crept to the bell. The wire was cut; though I never knew whether it was broken by the storm or done on purpose. I went out upon the terrace; the dog, quivering with rage, instantly jumped down into the bushes. I saw a couple of dark figures stealing away towards the garden-wall. I hastened to Islam, who had the firearms, and woke him up. He took a rifle and fired two or three shots at random. The next morning we found a ladder propped against the wall. The thieves, for such the intruders were, had left it behind them in their hurried flight. After that I always kept a loaded revolver by my side. We also stationed two night-watchmen in the garden; and, as the custom is in protecting the bazaars against thieves at night, they sounded three strokes upon a drum every minute. Henceforward I was not disturbed.

But the time flew rapidly. I could not afford to sacrifice more than one month to rest, and soon longed

to be up and moving again. By the end of June everything was ready for another start. Islam Bai, in whom I reposed the most absolute confidence, had engaged a fresh set of attendants, and bought fresh supplies. A tent-maker in the bazaar made me a big new tent for my men's accommodation. I intended to use the same tent which I had left behind me in the desert, and now so strangely recovered from the sand of the Takla-makan.

The men who were to go with me celebrated their departure by a feast on the last afternoon. Coloured Chinese lanterns were hung all round one of the small courtyards. They had a full band of flute-players and drummers; and a couple of dancers, one disguised as a woman, gave exhibitions of their skill, anything but an edifying performance; whilst the Mohammedans sat round in a circle, and applauded and enjoyed themselves. Then tea and rice-pudding were handed round; and so the festivities were kept up until the early hours of the morning.

THROUGH NORTHERN TIBET AND TSAIDAM

CHAPTER LXXV.

OVER THE KWEN-LUN PASSES

ON June 29th we were all up at sunrise. My peaceful house in the garden was cleared out. The horses with the pack-saddles were brought in, and loaded with packing-cases and boxes. Some of them, in consequence of the long rest, had become restive and shy, and throughout the first day had to be led separately.

Whilst the men were getting the caravan arranged for the start, I went to pay my farewell visit to Liu Darin, and presented him with a gold watch, which I bought from a wealthy merchant from Ladak. To the military commandant of the town, who had presented me with a very good carpet for my tent, I gave a revolver, together with our surplus ammunition. Alim Akhun got a bell and a khalat. In fact, I overlooked nobody who had been in any way helpful to me. The Tatar merchant, Rafikoff, undertook to send home my archæological collections, the wild camel's skin, and a number of carpets I bought in Khotan; and thanks to his care and the kindly offices of Mr. Petrovsky, everything reached Stockholm not a bit the worse for the journey.

It was ten o'clock before everything was ready, and the long caravan, consisting of twenty horses and thirty donkeys, led by a troop of men on foot and on horseback, got into motion for the east. Yes, we were at last bound for the Far East!

It took us barely an hour to reach the left bank of the Yurun-kash, which had now a very different appearance from what it had a month earlier. Then it consisted of a single channel, which we rode through without any

difficulty whatever. Now it was divided into four arms, the biggest current being in the channel nearest the right bank. The river was in fact in its summer flood, and the torrent raced down so violently that the ground shook under our feet. I had measured its volume the day before, and found it amounted to 12,700 cubic feet in the second; but fortunately the stream had fallen fourteen inches during the night. In spite of that, we were obliged to requisition the services of a score of water men (suchis). First they took over the horses with the provisions, the tent, and the heavier baggage. Alongside the fourth and most difficult arm stretched a low gravelly island, and there the ferrymen used a long, narrow, but very clumsy boat, in shape like a heavy oblong box. In this primitive craft I, Yolldash, and the more perishable boxes were ferried over. Yolldash was anything but comfortable at crossing in such a "wobbly" affair. The water was fearfully muddy, and its temperature 57°9 Fahr. (14°4 C.).

Beyond the Yurun-kash the road ran through an unbroken succession of villages, all embowered in luxuriant summer greenery, and across a countless number of irrigation-canals, each full to the brink. This network of channels despoiled the river of no small portion of its water.

We spent the first night in a first-rate house at Sampulla; and on the next day, June 30th, passed through the last villages on the south-eastern margin of the oasis of Khotan. The last irrigation-canal stopped at Kutaz-lengher (the Station of the Yak), and then all vegetation ceased with extraordinary suddenness, as sharply as though it had been scalded off with boiling water. Beyond the dividing-line there was not a green blade to be seen. Before us stretched the absolutely sterile *sai*, a sort of Transitional region between the desert and the mountains, with which we had already made acquaintance at Kopa and Sourgak. The surface was hard and yellow, and had a very gentle inclination upwards. Between the belt of sai, which is properly a

gravelly talus at the foot of the mountains, and the sandy desert ran the narrow belt of detached oases, with the caravan-road. The sai was seamed by numerous small torrents, deeply eroded, which poured off the northern versant of the Kwen-lun Mountains. The largest of those we crossed were the Ullug-sai, Keriya-daria, Niya-daria, Tollan-khoja, Bostan-tograk, Mölldya, and Kara-muran. At the points where these several streams burst from the mountains, there were a number of small villages, around which barley is grown, and in that, and in the breeding of sheep and cattle, the inhabitants find their chief means of

THE CHAPP OR RAVINE OF TOLLAN-KHOJA

subsistence. Hence in East Turkestan three varieties of oasis may be distinguished:—(i.) those along the courses of the rivers; (ii.) those which are situated at the edge of the desert and are watered by artificial irrigation-channels —to these all the towns belong; and (iii.) those which lie at the points where the mountain torrents break out of the mountains, and where there is generally a plentiful supply of grass.

At Kutaz-lengher we made a short halt to water the animals; and there the aksakal of Khotan, Iskender, and the rest of the horsemen who had accompanied us, turned back home. The aksakal took my last letters, and

after that I was cut off from all communication with Europe. I should hear nothing more from home until I reached Peking in the Far East.

The next few days we rode along the foot of the mountains, through a country that was beautifully fresh and green, and through the villages of Hasha, Chakkar, and Nura, and so arrived at Dört Imam Sebulla, near Pulur. It had originally been my intention to strike up into the Tibetan plateau from this last-mentioned place; but that I found to be impossible, because the narrow, difficult mountain-path was completely blocked by the unusual quantity of water in the Keriya-daria. We had therefore no other choice but to go back to the great caravan-road. We reached it at the town of Keriya, and stayed there four days; and there we crossed the river.

Thence it took us three days, by way of Oy-tograk and Ovraz, to reach Niya, a little town of 500 *uylik* (houses), with a beg, two yuz-bashis, and four on-bashis (chief over ten men). The oasis is supplied with water from the Ullug-sai or Niya-daria; but in case the river dries up, there are reservoirs to fall back upon. They are, however, quickly exhausted, and for the greater part of the year the people are dependent upon wells, which are thirty to forty feet deep and contain good, fresh water. The oasis is not therefore suited for agriculture, and the gardens do not look so flourishing as in the other oases.

Niya derives such importance as it possesses solely from the fact, that two days' journey to the north, at the point where the river loses itself in the sand, is the tomb of the saint, Imam Jafer Sadik, which every year, especially in the latter part of the summer and autumn, is visited by from 3000 to 4000 pilgrims. And as at Ordan Padshah, it is upon their gifts *in natura*, and the money they give, that the five sheikhs and temple servants subsist. In this way the shrine has become possessed of about 4000 sheep, which graze in the forests of the Niya-daria. The river, after forming a small lake which supplies the place with water, loses itself in the sand a short distance north of the tomb.

At Niya, which we left on July 18th, we once more turned towards the foot of the mountains, and after passing through Chicheghan-lengher and Yulgun-bulak came to the river Tollan-khoja, which has cut a deep channel through the conglomerate strata. On the way we had an awkward misadventure. Islam Bai saw a troop of antelopes grazing a short distance ahead. He rode on in advance, dismounted, tethered his horse, and stalked them through a ravine. The shot (unfortunately it missed) frightened the horses, which were now going by themselves, without being led. Off they started in a wild race for the steppe, an undulating plain dotted with tussocks of grass. Luckily the horse which carried my instrument-cases was prevented from joining in the mad gallop, for it was always led by one of the men. As for the others, they disappeared in a cloud of dust, and only came to a stop when their loads slipped off their backs and got about their feet, preventing them from moving. Some of the boxes were broken; one that contained cooking-utensils was smashed to atoms, and its contents scattered all over the steppe, several china cups being shivered to fragments.

When we got into the neighbourhood of Kara-sai, we heard for the first time of a pass over the Kwen-lun Mountains which was said to lie south of Dalai-kurgan, about one day's journey south-east of Kopa. I decided to go back to Kopa, to pick up more definite information, as well as to procure guides. I also wanted some camels for the journey through Northern Tibet. I heard there were several, grazing in charge of their drivers, on the upper yeylaus (summer pasture-grounds) of the river Mölldya; and therefore sent on one of the trustiest of my men, Parpi Bai, to go and bring some for me to look at. Parpi Bai performed his errand capitally. When on July 28th we halted to rest at Molldya, he met us with thirteen good camels, and brought their owners with him too. I had previously despatched a courier to the beg of Kopa, Togda Mohammed Beg; and he now rode up and helped me in the bargaining, by keeping down the

TOGDA MOHAMMED BEG, OF KOPA

price to a reasonable figure. For 1275 tengeh (£30) I bought six male camels of the variety which are accustomed to travel in mountainous districts, and which had had a thorough summer's rest.

Leaving Kopa on July 30th, we directed our march towards the east-south-east, and crossed over a series of ravines, called *chapps*, deeply excavated in the conglomerates, but dry, except after rain. At the Mitt, an affluent of the Kara-muran, the landscape became picturesque. The river emerged from between the granite cliffs

through a gateway less than fifty yards wide. But immediately after it emerged, it spread itself out in a broad channel which it had carved through the conglomerates, and was joined from the right by the Yakka-chapp, at that season a mere dry ravine with a stony bottom. Like those of the Mitt, its sides were almost vertical, and flung back the rattle of the caravan with a sharp echo. By means of this ravine we ascended to a series of loess hills, soft in outline and overgrown with grass. Then the track swung off to the south-east, towards the entrance of a transverse valley, traversed by a little brook on its way down to the plain. The district was called Dalai-kurgan, and was inhabited by eighteen families of Taghliks (Mountaineers), who owned amongst them some 6000 sheep. They lived in small huts partly excavated out of the loess terraces. We encamped on the left bank of the stream, in the entrance to the valley, and let all our animals run free on the luxuriant grass.

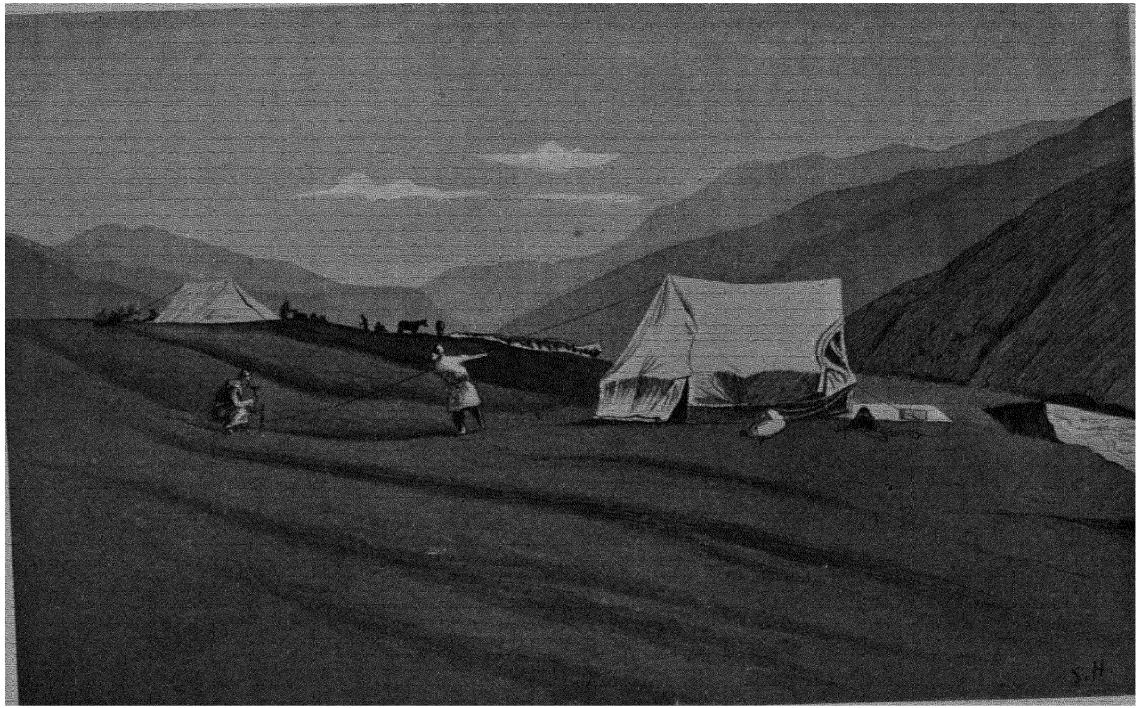
Immediately south of us towered up the mighty mountain chain which the Chinese call Kwen-lun (Kuen-lun); the Taghliks however had no general name for it. The secondary range, which was pierced by the Dalai-kurgan stream, was called the Tokkuz-davan (the Nine Passes) east of the Kara-muran; though at Dalai-kurgan itself that name was not in use. The Taghliks maintained there was only one pass giving access to the high plateau of Tibet, namely the pass of Chokkalik; but they would not undertake to say that we could get through with our camels. I decided therefore to reconnoitre the pass before sending on the whole of the caravan.

Accordingly on August 1st, accompanied by Fong Shi, Islam Akhun, Roslakh, and two Taghliks, I rode up the valley of the Dalai-kurgan to the pass of the same name (14,330 feet in altitude), and on the following day pushed on eastwards to the principal pass (16,180 feet). Thence I obtained a magnificent view of the ocean of tumbling mountain-peaks. The ascent was certainly steep; still we thought the camels could manage it. But the descent on the other side was very much worse, owing to the sharp

jagged rocks which protruded through the almost precipitous gravelly slope. After carefully considering the matter in counsel together, we decided to make the attempt. The baggage could be lowered down the gravel slope; the horses and donkeys would be able to take care of themselves; and if the camels could not manage it, we could roll them up in felt carpets and so haul them down. Having come to this decision, we returned to Dalai-kurgan over the pass of Sarik-kol (13,720 feet), arriving there on the evening of August 3rd.

The caravan was given another day's rest, and then the long string of animals started for the aghil of Sarik-kol (the Village of the Yellow Valley), and there they got their last bite of fresh sappy grass.

On August 6th the caravan, divided into several separate groups, each in charge of a specially appointed leader, and the whole making an imposing appearance, wound slowly up the glen towards the pass of Sarik-kol. The pasturage continued to diminish in extent as we climbed higher; what there was clung for the most part to the banks of the little stream. The bed of the torrent wound mostly through soft earth, but sometimes through conglomerate strata, and its bottom was littered with pieces of bright grey and green granite. In the highest part of the glen the naked granite rocks hung right over the stream, although in places they were still crowned with patches of grass. Meanwhile the glen gradually contracted, and grew steeper and steeper. Slowly, painfully, the animals clambered up the gravelly talus, which choked the trumpet-shaped gap cut through the crest of the range, and over which the beds of the torrents radiated like the ribs of a fan upon the head of the glen below. The camels toiled cautiously up the loose gravel slope. Every minute one or other of the horses or donkeys fell, and lost ground whilst they were being unloaded and loaded again; then they would push on at a quicker pace in the endeavour to catch up with the caravan. I usually rode in the rear, so as to have an eye upon them all; and it was with a feeling of



OUR CAMP IN THE SARIK-KOL VALLEY, LOOKING SOUTH

real relief that I saw the last of the animals disappear behind the summit of the pass.

The southern side of the pass was much less steep, and led down into a wide glen with plenty of loose soil, but rather scanty yeylaks (pasture). On both sides it was shut in by imposing mountain-spurs, like those which overhung the Sarik-kol on the north. In consequence of the inconsiderable fall and the relatively feeble erosive power of the water, the solid rock was not eaten away, although the crest of the main range presented very fantastic outlines.

We kept beside the rivulet which babbled down the middle of the glen until we reached the broad main valley of Lama-chimin, and were just turning to the left, *i.e.* eastwards, towards the pass of Chokkalik, when the aksakal, or chief, of the Taghliks, who was to guide us over it, blurted out that there was a more convenient pass called Yappkaklik in the upper valley of the Mitt. When therefore he told me that Chokkalik was the only pass across the range, he told me a deliberate lie. The fact was, he was afraid to show us a hitherto unknown path into Tibet, through fear of the Chinese. But, having brought us so far on the road, he plucked up courage a little, and gave me fuller and more definite information. I reprimanded him smartly for having deceived me and taken us under false pretences all the way over the passes of Dalai-kurgan, Chokkalik, and Sarik-kol. All the same, I was not sorry to have had the opportunity of making a reconnaissance of the district.

We therefore turned and directed our course south-west, and then due south, crossed the brook that came down from the pass of Chokkalik, left the lower extremity of the glen of Dalai-kurgan on the right, and so threaded the transverse glen of Mitt, considerably further to the west. This glen too was pretty wide, and so level that to us, accustomed as we were to the steep slopes, it appeared to incline towards the south; but the course of the torrent, flowing in the opposite direction, convinced us that we were the victims of an ocular delusion. The

stream issued from between two lofty granite spurs which formed a sort of gateway, and meandered in a broad, shallow, silent current across an almost absolutely level plain. Its bed was lined with soft mud, into which the horses sank over the fetlocks; there was not a pebble or a splinter of stone to be seen in it. At intervals the stream spread out into lake-like expansions, and the shore-lines showed that when in full flood it very nearly stretched from one side of the glen to the other. There were several very sharp turns in its course, and in places it was divided by low islands of mud. Its volume was augmented by rivulets from two or three springs, situated at the foot of the mountains on the left, and the water in them was perfectly clear and fresh, although there were thin white lines along their edges, indicative of saline evaporations.

We pitched our camp at the foot of a conglomerate terrace on the right bank of the stream, commanding a magnificent view to the south. The valley continued to widen out, and finally ended in an extensive plain, upon which several side-glens debouched, and which was crossed by the river Mitt, split into a great number of arms, many of them containing water. In the far, far distance, still to the south, I perceived a line of snowy peaks, imperfectly distinguishable through the hazy atmosphere, peeping up over the tops of the intervening ranges, which abutted upon the plain *en échelon.*

Our camp was the scene of much life and bustle, notwithstanding that there was but a scanty supply of pasturage, and that much poorer in quality than it was at Lama-chimin. In the middle of the camp were the two white tents, with the provision-bags, boxes, saddles, and other *impedimenta* piled up between them. The horses were coupled two and two together to prevent them from straying too far away, but the donkeys and camels were allowed to run freely at large, and tugged greedily at the grass.

CHAPTER LXXVI.

MY CARAVAN: ITS SEVERAL MEMBERS

THIS was the first camp in an entirely uninhabited region. Our faces were now set towards unknown, uninhabited Tibet, and two months were to elapse before we again came into contact with human beings. In a word, we burnt our ships behind us, and had the comfortable feeling of being safe beyond the reach of all the mandarins of China. But for the future we should have to make longer and quicker marches, and only stop in places where there was grass. But in this regard the Taghliks gave us only the poorest Job's comfort, for with one voice they declared that the country to the south was everywhere absolutely barren. This agreed fully with the experience of the Pievtsoff expedition farther to the east, so that I was fully prepared to see the caravan animals gradually become exhausted and perish on the way. But I saw no danger as regarded ourselves; for, supposing things came to the very worst, I hoped we should be able on foot to reach inhabited regions either on the south or on the north.

But beyond that camp the Taghliks were not accustomed to go; and as they had no geographical names for the tracts in front of us, I was obliged to enter the various geographical features on my map under purely conventional signs, such as numerals and the letters of the alphabet. It is very curious that several names in that particular district point to a Mongol source of nomenclature, *e.g.* Kalmak-chapp (the Mongol Ravine), Kalmak-utturgan (where Mongols Have Dwelt), Kara-muran (the Black Water), Dalai-kurgan (the Fortress of Dalai), and Lama-chimin (the Lama's Grazing-grounds).

Here then our valuable animals enjoyed their last good meal of sweet, fresh grass in peace and quietness, all unconscious of the fate that was in store for them. Ere two months were gone most of them lay dead on the barren plateau of Northern Tibet; and yet, when we started, we had by no means a niggardly cavalcade. We brought with us to the foot of the mountains no less than seventeen horses, twelve donkeys, and six camels, besides a number of other animals hired for a short period. At Sarik-kol we added four other horses and seventeen donkeys to the troop, the donkeys being laden with sacks of maize intended as fodder for all the animals of the caravan. Thus we had fifty-six beasts in all, and when I add that, by the time we reached the border-ridge of Tsaidam, we had only three camels, three horses, and one donkey left, and that all seven were worn to skin and bone, and barely able to crawl, or in other words that we lost 90 per cent. of our caravan, you will be able to form some idea of the terrible hardships the poor animals had to undergo. Their loss was no real hindrance to us, for we lost them gradually and proportionally with the decrease in their loads (provisions); but it was very painful to witness the poor brutes' sufferings.

In the aul of Sarik-kol we bought a dozen sheep and two goats, intending to slaughter them one after the other as we went along. I wished to take a score of sheep: but my men assured me, that at the enormous altitudes at which we should be travelling the stomach lost all desire for meat food, and would tolerate nothing but rice. All the same I found that the sheep we did take with us were in brisk demand, and only lasted through half the journey. After the last was killed, we had to content ourselves with the meat of the wild yak.

Lastly, I must not forget to mention as belonging to our travelling menagerie three magnificent dogs---my faithful Yolldash from Korla, who always slept by my side and guarded the tent with such zeal that he would allow nobody to come inside except Islam Bai. Then we had Yollbars (the Tiger), from Kara-sai, a big, yellow, shaggy

brute, and a black and white dog, Buru (the Wolf), from Dalai-kurgan. These two attached themselves to the men's tent, where they made a fearful rumpus at night, and sometimes barked at the caravan animals if they strayed too far from camp. Whilst on the march all three dogs scampered about the caravan, chasing and playing with one another; but the moment they caught sight of any game in the mountains, off they would race, and would remain a long time absent from the caravan. They were always vivacious and wide awake, enlivening both the monotony of our marches and our otherwise silent camps. In fact, they bore the journey across the plateaus best of all the animals in the caravan. They did not appear to suffer in the slightest degree from the extreme rarity of the atmosphere. And they always got plenty to eat; for there were the offals of the slaughtered sheep, and of the yaks and wild asses we shot, and in default of anything better, the horses, camels, and donkeys which fell exhausted by the wayside. In the latter part of the journey one and often more animals gave up and died at every camp.

I had eight attendants, each with his own appropriate duties to perform, namely, Islam Bai, caravan-bashi (leader), Fong Shi, Chinese interpreter, Parpi Bai from Osh, Islam Akhun from Keriya, Hamdan Bai from Cherchen, Ahmed Akhun, who was half a Chinaman, Roslakh from Kara-sai, and Kurban Akhun from Dalai-kurgan. From this last-mentioned place we hired seventeen Taghliks, under the command of their aksakal (chief), to help us over the most difficult of the passes, and it was arranged that at the end of a fortnight or so they were to return home. The two Taghliks who went with me to make the reconnaissance ran away after our return to camp, fearing they would be punished for having led me to a difficult pass when there was an easier one nearer. They slunk away immediately their aksakal made up his mind to show me the way to the pass of Yappkaklik, but we did not miss them until we encamped for the night. They did indeed escape well-deserved punishment, but

they also lost payment for the horses which I hired of them for making the reconnaissance journey.

We had a splendid ride all day, and in spite of the great altitude it was so warm in the sun that I wore only a light summer jacket. But no sooner did the mountains in the west cut off the sun's rays than we at once began to feel the chilly coolness of the evening, and I donned my ulster and winter cap. At nine o'clock in the evening the thermometer registered 41°4 Fahr. (5°2 C.).

From the other tent came the noise of the men jesting and talking, until the ash (pudding) came in, then the din was deafening. My Turkestan attendants considered themselves too good to eat with the temporarily engaged Taghliks; besides, they placed but little confidence in them, and in so doing they were right. The Taghliks therefore were not allowed inside the tent, but had to eat their meals in the open air. During the meal my men discussed the prospects of the journey, and in these discussions Parpi Bai was looked upon as our chief authority, for he had travelled across Tibet several times before. He was with Carey, and his murdered companion Dalgleish, with Bonvalot and Prince Henry of Orleans, with Dutreuil de Rhins, who was likewise murdered, and with Grenard; he had also taken part in some Russian expedition, though he could not tell me which it was. To have lighted upon him was therefore a godsend, for nobody knew the Tibetan plateau better than he did. It is true, evil tongues calumniated him, saying that he had a wife in more than one of the towns of East Turkestan, and that he deserted them in turn as soon as he grew tired of them. Islam Bai considered that the fact of Parpi Bai having been a follower of two Europeans who were murdered was not a good omen. However, all the time he was with me, the man did his duty in an exemplary manner, was always polite and dignified, and enjoyed great influence amongst the other men, not only on the ground of his experience, but also on account of his age: for he was close upon sixty, and the oldest man in the company. He told me how Bonvalot's caravan-animals gave up and died one after the

other: and how Dutreuil de Rhins's caravan was decimated, and finally, after the attack at Tam Buddha, completely disorganized and scattered. These tales caused the other men to take alarm, and they began to think they might consider themselves lucky if they got through the perilous journey with their lives.

The spot beside the Mitt where we encamped was called by the Taghliks Laika or "the Clayey," and rightly so, for the river had there laid down wide-spreading deposits of soft miry clay. The Mountaineers were familiar with the country for about one day's journey beyond that point, and gave me the names of a few of the more conspicuous geographical features, but farther than that they do not venture towards the south. They told me that the transverse gorge, in which the Mitt pierces through the range which we crossed by the pass of Sarik-kol, is very deep and narrow, and quite impassable at all seasons of the year. It is, they said, choked with huge fragments of rock, which have crashed down the precipitous mountain-walls that shut it in, and amongst them the river foams violently along, almost filling the space from side to side. Farther to the west there was another pass, Pelazlik, which led to the upper Kok-muran, and to a district abundantly supplied with yeylaks, hence for that reason called Chimlik.

Higher up the valley of the Mitt there were *kans* or gold-mines, which however do not go deeper than the stature of a man. At that time there were gold-prospectors from Keriya working there. Fortune had not favoured them at Kopa, and ten days before they had moved on to the Mitt valley in the hope of better luck. They proposed to remain there a month longer. These prospectors visit the Mitt valley every year, but cannot work more than about six weeks in all, partly because they are unable to carry provisions with them to last a longer time, and partly because the ground begins to freeze early in September, and remains frozen right away till the beginning of the following June. The gold is obtained by washing in a rocker; but the yield does not seem to be very satisfactory, for the output only averaged

about two tengeh (11*d.*) a day for each man. As there was not a blade of grass in the neighbourhood of the "mines," they sent their donkeys to Lama-chimin to graze, leaving the animals to look after themselves whilst they searched for gold.

The summer precipitation falls for the most part in solid form; in winter the quantity of snow is so great that both valley and pass are completely closed. At the time of our visit the weather was cool, so that the volume of the Mitt was not more than 140 cubic feet in the second. Lower down the stream was joined by several tributaries; and after a quiet sunny day it swells to a very considerable stream.

We had not been accustomed to the cold nights, and felt the first frost (minimum 27°1 Fahr. or −2°7 C.) that came very severely; but no sooner did the sun rise next morning than it was speedily warm again.

On the following morning we discovered that two other men had run away; and I had to find fault with the aksakal again for not keeping his men better under control. There were still thirteen Taghliks left, and they would be sufficient. The reason I wanted so many men was, that the caravan marched in five separate sections.

The camels, which travel at a slow pace, started first under the leadership of Hamdan Bai, and accompanied by two or three Taghliks. After them followed the horse caravan, carrying my personal belongings, such as the tent, kitchen utensils, etc.; this section was in charge of Islam Bai, Parpi Bai, and some of the other Turkestan men. They got over the ground quickest, and so soon took the lead. It was their duty to pick out a convenient place for camping in. The donkeys, which were entrusted to the rest of the men, started at the same time as the horses, but they were soon left behind by the latter, and generally came in at the same time as the camels. The sheep and goats made another caravan. I, Fong Shi, and one of the Taghliks, who knew something of the country a couple of days' journey ahead, brought up the rear; for I was incessantly occupied all day long in noting

the contours of the ground on my map, in making geological and hypsometrical observations, sketching, and so forth. Going last, we came into camp some hours after the horse-caravan, and found the tent already erected and dinner bubbling and steaming in the cooking-pots over a fire made between two stones. It was splendid after the long, tiring ride to go straight into my tent, the floor spread with the costly carpet which I received as a gift from the commandant of Khotan just as I was leaving the town. Along one side of the tent stood my bed, made of furs, felts, and two or three cushions; on the other side my boxes, ranged in order. The moment the two tents came in sight, Yolldash, who always kept close at my horse's heels during the march, used to scamper off in advance and lie down on my bed. When I drew up to the camp, the cunning rascal came and stood in the tent opening, cheerfully wagging his tail, as if to welcome me, and impress upon me the fact that *he* was the real master of the house. But after that he had to content himself with the mandarin's carpet; for I took possession of the soft bed, and at once set about working out the notes I had made during the march, sketching in the itinerary of the day, entering the meteorological observations, labelling specimens, and so on.

Fong Shi promised excellently well, and I valued his companionship highly, for in respect of intellectual attainments a cultivated Chinaman is a long way the superior of a Mohammedan mollah. In my spare hours, and often indeed whilst on horseback, we pegged away at lessons in Chinese, conversing as much as my limited vocabulary would allow. The only drawback to having Fong Shi with me was, that the Mohammedans were jealous of him being so much in my company and sitting in my tent whilst giving me a lesson. They called him jestingly *kityick-tura* or the Little Master, and made a fuss that, being faithful Mohammedans, they were asked to dress food for a heathen Chinese. Two or three times I was obliged to intervene to preserve peace between the parties.

CHAPTER LXXVII.

WE ENTER UNINHABITED REGIONS

AUGUST 7th. We had a long and difficult day's journey. At first we kept along the terrace between the river and the foot of the mountains, in which granite was now succeeded by dark clay-slates. Then we descended a steep hillside to the Kizil-su (the Red Water), which issued from a broad valley on the left. Leaving the broad open valley of the Mitt on the right, we struck up through the valley of Yappkaklik, which was also broad, and rose with a gentle ascent between the massive mountain-spurs which enclosed it. This valley too was joined by several side-glens. The first we passed was a so-called *bikar-yilga* or *cul-de-sac*, which was said to terminate in a wall of inaccessible *ak-chakkil-tagh*, or "white wild cliffs." The second led to a gold *kan* (mine), where the men had been so successful in their search for the precious metal, that they had obtained sufficient for the season, and were already on their way home.

The valley gradually curved round towards the east. Far away in the south was a perfect chaos of mighty mountain-peaks and snow-clad summits. The sai (the word *sai* means also a river-bed filled with stones) of Yappkaklik was traversed by a turbid stream, which gathered up numerous little brooks and torrents from the side-glens as it passed. It was itself very broad and shallow, and generally occupied at least one-half of the bottom of the valley, which consisted of soft humus, with a scanty growth of vegetation. The clay-slate cropped out only at the top of the enclosing

mountains, and at their base, where the river when in flood had washed away the superincumbent soil. On the whole the mountains showed tolerably rounded outlines, and were covered with strata of soft earth and detritus.

As we advanced, the valley gradually contracted, and its surface became more broken and encumbered with gravel. The ascent to the pass of Yappkaklik grew steeper and steeper; nevertheless all the animals, including the camels, acquitted themselves wonderfully well. We fully expected to have to carry their loads up the last and steepest portion of the ascent, but happily none of them needed help even there.

I myself, with my two followers, reached the summit of the pass an hour before the camels and donkeys. Looking back we saw them far down below like little black dots struggling up and up. Towards the west the eye ranged over an unlimited sea of mountain-peaks and crests; whilst to the east also the view of the complex mountain landscape was almost equally grand. The valley on the other side of the pass, which stretched towards the east, was so choked with mud and gravel that it looked like a piece of blue-grey ribbon flung down across the yellow-grey mountains. The pass itself formed a moderately sharp crest, thickly strewn with disintegrated rocks and fragments of black clay-slate. In this respect it resembled the pass of Chokkalik, but was incomparably the easier. For the slopes were less steep, and the altitude lower, not exceeding 15,680 feet. We had splendid weather; the thermometer showed 57°6 Fahr. (14°2 C.).

The descent into the valley on the east was not difficult, although we passed several very narrow places in its upper part. But it soon widened out, and further down a little rivulet trickled along the middle of it.

On the terraced bank of the stream we came upon a grand specimen of the *khulan* (wild ass). Upon being surprised by the dogs, the animal fled down the valley with the speed of the wind, but kept stopping to look at us from a distance. We afterwards learned, that the

men in charge of the horse-caravan, which preceded us, had seen a troop of about a score of khulans when they passed the same place. Islam Bai sent a shot after them; but one of the animals was cut off from the rest of the troop, and followed on behind the caravan.

The soft ground of the west side of the valley was grooved by a number of chapps or ravines. The east side was shut in by a mountain-spur of more solid consistency. This we crossed at its lower extremity by the little secondary pass of Kum-boyan (the Sand Pass), on the top of which was a cairn of stones built by the Taghliks. On the south of Kum-boyan we first passed the end of a side-glen, and then reached the upper valley of the Kara-muran, which flowed in a broad sai towards the north-west, and further down received from the east the stream that came from the Chokkalik-davan (pass).

A three-legged dog, which came with the Taghliks, was unable to go further than the foot of Kum-boyan, and as we rode away from him, his melancholy howls echoed with anything but a cheerful sound against the bare rocky walls.

It was quite dark when we reached the tent, which Islam Bai had pitched beneath a precipitous rock close beside the Kara-muran, now shrunk to an insignificant stream. There was not a blade of grass to give the animals; we had to feed them with maize and barley. The steep cliff was lit up by the ruddy reflection of the brightly blazing fires, the fuel being hard, namely dry *yappkak* plants collected during the march. All the men (except myself) had a headache and were drowsy after their long ride. Islam Bai and Fong Shi suffered terribly from mountain-sickness and were obliged to turn in at once. It was midnight before I had finished my day's work; the plotting of the day's march occupied five pages.

The night was perfectly still, but cold (minimum temperature 36°3 Fahr. or 2°4 C.); although not cold enough to pierce through our furs and felts.

Early in the morning a violent gale set in from the west, which, owing to the conformation of the rocks in the neigh-

bourhood of our camp, developed locally into a cyclone. In an instant down went my tent flat with the ground. Fortunately my instruments were all packed up, so that none of them were injured.

I settled with five of the Taghliks, including the lying aksakal, and they returned home on foot, very glad at not being obliged to go further. We still had eight Mountaineers left with us.

The Taghliks called the neighbourhood where we encamped Bulak-bashi (the Head of the Spring). This was the last name I entered on the way to unknown Tibet, and indeed the last Turki place-name I wrote down during my Asiatic journey. In my journal I have called that place camp No. I.; and the place where we encamped beside the source of the Kara-muran on August 8th, camp No. II.

A small brook, one of the head-streams of the Kara-muran, flowed past the camp at Bulak-bashi; but after we advanced a little way up the valley it became dry. When the stream is low, the water evidently trickles along underneath the gravel, and bursts forth into daylight lower down. In contrast to the sharply accentuated transverse glens through which we had hitherto been travelling, the valley of the Kara-muran expanded towards its upper extremity; the surrounding mountains decreased in relative altitude, but still formed continuous chains of massive proportions, which stretched out their spurs into the valley. The stream was bordered on each bank by a conglomerate terrace, which diminished in elevation in proportion as we ascended. The sai was barren nearly all the way. The only vegetation was yappkak; and their thinly scattered tufts only grew in those spots which the water could reach. The roots were hard and tough. The floor of the valley was covered with fine compact gravel, easy to travel over. There was not the smallest vestige of a path, nor any evidence of human beings having been there before us. The last indication of the presence of our fellow-men was the cairn of stones on the pass of Kum-boyan.

After a while the conglomerate terraces came to an end altogether, and the sai was furrowed by a great number of

small dry, shallow watercourses, all about the same size. I concluded that, when the spring floods come down, the valley is filled from side to side with a broad but shallow stream.

In proportion as the valley expanded, the view in advance widened out more and more. We were travelling through a Transitional region, like those I have already described as existing in the Pamirs—that is to say, a region representing the intermediate stage between a Peripheral region and a Highland Plateau region. Even in its upper part the valley was joined by several small subsidiary glens, and over the head of them, on our right, we caught every now and again glimpses of a mighty mountain-chain, its summits covered with snow. It was Arka-tagh or the Further Mountains—further as compared with the Altun-tagh or Astun-tagh (generally, but incorrectly, known as the Altyn-tagh), on the south of Lop-nor.

The landscape was monotonous in the extreme, a uniform grey, and absolutely barren, not a vestige of life, not a trace of even a khulan (wild ass). But then there was not a blade of vegetation anywhere. I saw no living creature, except a light-green lizard, which scuttled in amongst the gravel.

About ten o'clock in the morning a little snow fell; but the westerly gale continued to blow in fierce gusts all day long, driving clouds of dust and sand along the bed of the stream. Fortunately for us we had the wind right behind us. The drift-sand accumulated in sheltered corners behind the projecting crags, settling itself in the form of rudimentary dunes, though sometimes it amounted to nothing more than a mere yellow sprinkling of the ground.

In those high altitudes the abrasive power of the wind plays a very important part. The west wind, which is said to be the prevailing wind, sweeps away all the finer materials, leaving the gravel behind and exposed; until that in its turn becomes disintegrated and is swept away. The surface of the mountains was everywhere weathered and porous. It was evident there was an enormous difference between the temperature of the day and the

temperature of the night; and this is the most destructive of all the disintegrating agencies. Next after it ranks the wind, which carries away all the finer particles of detritus. Precipitation occupies here the third place; it only falls during two months in the year—and not even then with absolute regularity—and falls in the form of rain.

This type of valley is characteristic. A transverse profile would give a straight base-line (the sai), with the mountains shooting vertically down upon it from both sides, without any talus at their feet.

The higher we ascended, the finer the gravel, until eventually its place was taken by coarse sand. The buran (storm) enveloped every feature of the landscape in its yellow haze. The horses speedily disappeared from sight. Even the camels and donkeys outpaced us that day, and their trail was already half obliterated as we rode along it. In the upper part of the valley we again turned towards the south. Immediately beside us the rock was black clay-slate; but right ahead were two isolated towering masses of red sandstone, forming a gigantic gateway, and towards them we steered our course. They marked the termination of the valley of Kara-muran. Beyond them lay a country of highly diversified features, much levelled down by denudation, a country corresponding to the trough-shaped catchment-basins in the mountain-chains of the Peripheral regions, only that this was shallow and of more than average width. The river did not originate in any definite head-stream, but was formed by a number of small rivulets or furrows (then dry), which converged from every direction upon the chief catchment-basin of the valley. The ground at the foot of the western mountains, that is on our right, was littered with huge fragments of rock fallen from the summits above, and strangely split and fractured, forming a series of crenelations. Seen from a distance, they looked like big red cubes, but when we came nearer they assumed the dimensions of houses of colossal size.

South of the twin mountains of red sandstone we rode across a boundless arena-like plain, covered with sand, which was rippled on the surface, though without any

ONE OF OUR TAGHLIKS

apparent tendency to form dunes. The plain was surrounded by circles of low hills and peaks still lower, the latter so irregularly disposed that I was unable to distinguish any continuous chain running in any definite direction. They were, there could be no doubt, the survivors of former mountain-chains, the portions which have resisted the tooth of denudation longest.

The gale still continued, and about four o'clock developed into a snow-buran. Our backs were lashed by the fine-grained snow, and the clouds raged off to the east, blotting out every feature of the landscape, so that we had some difficulty in keeping in the track of the caravan. But the ground had been warmed by the sun during the day, and the snow quickly melted. At length however we caught a glimpse of the white tents through

the driving snow. The caravan had halted at the foot of a small isolated sandstone hill, where there was a tiny spring, which supplied us with water. A little scanty yappkak grew in the neighbourhood, and with that the animals had to be content. Otherwise it was a barren and desolate region, and the men's spirits fell, so much so that in the evening there was a lively dispute amongst our Taghliks as to which of them should go with us all the way until we again came to inhabited districts. They all wanted to go back; those inhospitable regions had no attraction whatever for them.

August 9th. As usual the night was still; the minimum temperature was 19°4 Fahr. (−7° C.). In the morning my ink was frozen to a lump of ice. Although it was only the beginning of August, yet we were in the middle of winter!

My friend Fong Shi was in a very queer way. He complained of splitting headache and sleeplessness, and was unable to retain on his stomach what he ate. At his urgent entreaty I agreed that, if he was not better to-day, he should go back.

Nobody ran away during the night, so that the caravan was able to start again in the accustomed order of march. The sheep and two goats, which were driven by a man specially appointed for the purpose, travelled well. The goats were very useful in several ways. They always went at the head of the flock, and so incited the slower-footed sheep to keep up with them; and every morning they gave me a cup of milk to my tea. The increasing cold made a change necessary in the arrangement of my tent. The small projection which I dubbed the boudoir was taken in, so that we could draw the side opposite the opening closer together, and so retain the heat more effectually. The ends of the tent-covering, which hung down all round, were folded in underneath the carpets and kept in place by the packing-cases, thus shutting out all draughts, whilst the tent stood as firm as a rock even in a stiff gale.

We were now travelling east-south-east across the slightly undulating plain. So far as we could see, the solid rock

nowhere cropped out, though there were several low hills of gravel and sand. Immediately in front of us was an insignificant crest, on the left a spur of the Astun (Altyn)-tagh, and on the right another low range. The surface was so soft and loose that the horses sank in over the fetlocks, and so level that, had it not been for the small dry rain-channels, it would have been difficult to tell in which direction it sloped. To make it worse for the animals, it was damp from the snow. Then on the east came a series of level tablelands, backed by mountain-ridges in the far distance.

The watercourses all inclined towards the west, until we came to a little lake about two hundred yards in diameter, probably one of the sources of the Kara-muran, though for the time being it was cut off from all connection with it. But the water-marks on its shore seemed to indicate that, when the rains come, it rises, and then sends off a current towards the west-north-west. The water was slightly saline, and the basin into which it was gathered had a white ring round it, about two feet above its then existing level.

From that point we deviated towards the south-east, and struck up a small transverse glen that pierced the range on our right. There the black clay-slate once more predominated. Nevertheless the naked rocks were very rarely visible. All the hills were smothered under loose *débris*, sometimes yellow sand, sometimes pulverised red sandstone, and sometimes again fine black powdered clay-slate, looking in the distance like coal-dust or soot. We crossed over quite a number of minor ramifications of the mountains, as well as the barren sais between them. These last now inclined towards the north-east, and belonged to the river system of the Cherchen-daria; but they were all dry, and the men were afraid we should not find water that afternoon.

We soon ascertained that the sais converged upon one main glen, dry however like the rest, which stretched towards the east. Seeing that the Arka-tagh was immediately to the south of us, and that the route we were

following led us over one mountain-spur after another, we concluded it would be wiser to alter our course for the south, and endeavour to cross the Arka-tagh, so as to get upon the Tibetan plateau with as little delay as possible. We had gone but a short distance in the new direction when we discovered a small spring, and there, to make sure of water, we decided to halt. Camp No. III. was totally devoid of life, save for an occasional abstemious yappkak, and at their tassel-like tufts the hungry animals snatched ravenously. The water trickled out of the spring drop-wise, and a few yards lower down disappeared in the sand. But the men dug a trench, and when sufficient water had collected, brought up the animals to drink one after the other in their proper turns. That day we travelled thirteen miles; on the two preceding days the distances were sixteen and a half and eighteen miles respectively.

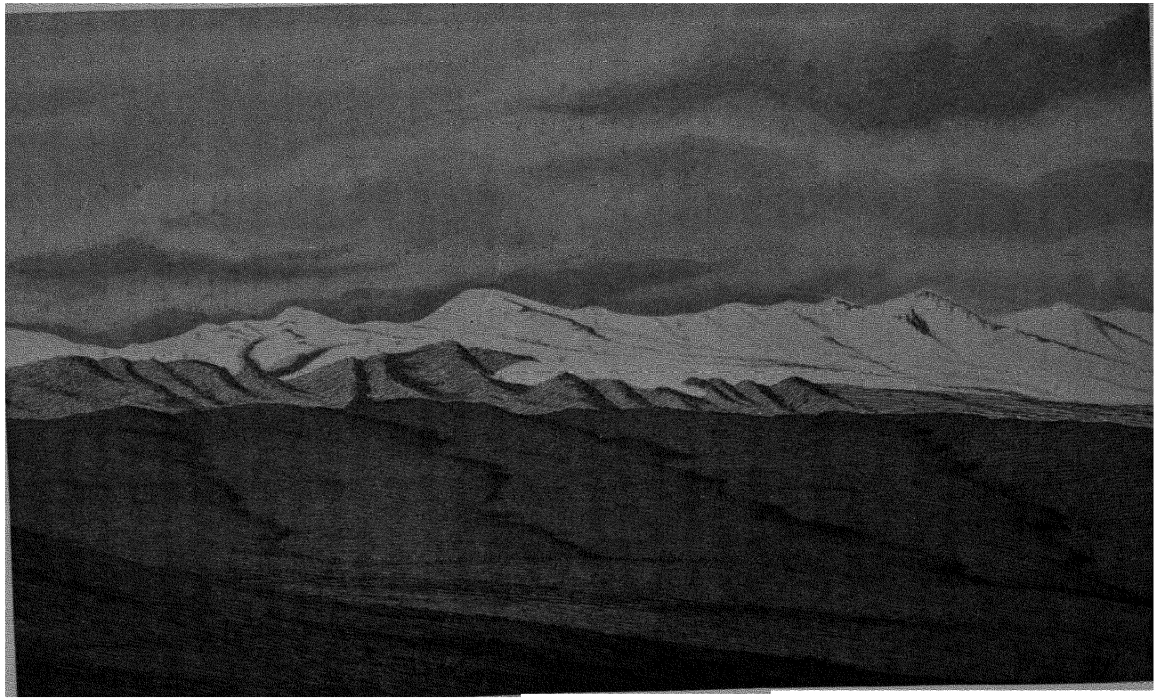
August 10th. My journal for this day begins thus:—"Fong Shi still in a condition of high fever, with pulse at 120 and an excruciating headache." Indeed he looked as though death had laid his grisly hand upon him, and declared that the further he went the worse he got. I resolved therefore to dismiss him. Islam Bai too was afraid the man would die if we took him any further, or his illness might compel us to make a long halt, which in that barren desert might prove disastrous. So long as he was well, Fong Shi was a first-rate companion; but to have to listen to his constant complaints, as I had during the last few days, was very wearisome. But if we let him go back, how should we manage when we came to China? It was not an inviting prospect to have to travel through China without an interpreter. Luckily I had profited so well from Fong Shi's lessons, that I already knew the most important vocables, and the rest I could no doubt learn later on if it were really necessary.

The engagement of Fong Shi had turned out a big mistake. He had already drawn three months' salary in advance; and now I had to pay for his return, by giving him a horse and provisions for the journey. Further than

that, I gave him a supply of quinine capsules and a fur coat, and sent Roslakh with him to act as his escort, and help him if he should fall ill on the road. Upon reaching Dalái-kurgan he intended to rest for a while. He was however grateful and touched when we parted. Thus the young Chinaman's proud dream of one day riding through the gates of Peking and beholding the palace (yamen) of his fabulously mighty emperor, as well as of perhaps securing, through my recommendation, a lucrative post, and finally, though by no means last in his estimation, of exchanging the Turki wife he had left behind in Khotan for a Chinese bride—this proud dream was pricked at the foot of Arka-tagh. Sadly and silently he stood alone in the desert, gazing after us, as we continued our way towards the far distant goal of his youthful ambition.

During the night it snowed smartly, and the ground was still damp when we marched down the little glen in which we had encamped. It was now arranged, that the horse-caravan, which moved the quickest, should determine the direction of our marches. I ordered Islam Bai to keep on as straight as circumstances would allow for the south, our object being to cross over the Arka-tagh; beyond that he was left free to choose his own course. But that was principally dependent upon the contour of the ground: he was obliged to choose the road that presented fewest hindrances to the advance of our caravan animals. I never had any occasion to find fault with his selection of the road; for he had a keen, sharp eye, and was a good judge of how much the camels could do.

The glen gradually widened, and at the same time opened out upon an undulating tableland. At its lower extremity there was, on the left, a particularly picturesque piece of mountain scenery—an agglomeration of regularly formed truncated cones, with grooved sides. The cones themselves consisted partly of red sandstone, partly of a species of conglomerate, extraordinarily hard and of a brick-red colour, resembling breccia. Their apexes were formed by a horizontal layer of coal-black tuff, having the same level throughout. The tuff-caps protected the



ARKA-TAGH, SEEN FROM THE TIBETAN PLATEAU (SOUTH)

underlying stone from disintegration, and had been the means of preserving the isolated beacon-like pyramids, so that they commanded the whole of the tableland, being visible to a great distance. The earth around their bases was strewn with fragments of tuff of different sizes, looking like black spots on a red background; and as we advanced further, we observed fragments of the same rock, but less black in colour, scattered a long distance over the red sand. The tuff, which was inclining to violet, contained an abundance of vesicles, was almost as porous as a sponge, and rang sharply when struck with the hammer. Several hours later we could still see the fiery red gleam of the curious mountain-cones, with their raven-black caps.

On the south side of the Arka-tagh we encountered several similar groups of isolated table-mountains.

CHAPTER LXXVIII.

AMONGST THE SPURS OF THE ARKA-TAGH

ALONG the foot of these mountains was a dry sai, running towards the east; it was of large size, but probably only carried water after heavy downfalls of rain or snow. On the south-east it was bordered by a ridge in the shape of a spoon turned alternately up and down —a type of surface-contour which we often met with afterwards. Beyond the ridge came a small depression, the bottom of which was white with salt, although now dry. These temporary salt-pans likewise belonged to the typical characteristics of the region.

Often however the ground was perfectly level, so that we journeyed across a veritable plateau. The view in every direction was unlimited, the horizon in the far, far distance being bounded by relatively low hills; but there was nowhere a glimpse of either snowy peak or glacier.

The atmosphere was pure, so that we were able to see the horse-caravan like little black dots a long, long distance in advance. I used them as fixed-points for drawing three-mile base-lines for my route-determinations. The only vegetable growth that bid defiance to the niggardly soil was yappkak. There were however numerous indications that *boghe* (antelopes) visited that region, at any rate occasionally. Islam Bai made many attempts to stalk these swift-footed animals, but never once succeeded in catching them napping.

The sky was for the most part thickly veiled with clouds, white and beautiful, and so soft and plastically formed that they looked like living creatures, as they sailed slowly and silently past us, close down near to the earth, but permitting occasional glimpses of the pure blue

firmament to peep through. Upon climbing a small mountain-ridge, we perceived a lake in the west-south-west ensconced between two low ridges. The lake itself was too much out of our direct line of march to be worth a visit; but we crossed over the gully which formed its eastward continuation. At this place the red species of conglomerate before mentioned, with granite, and after the granite green slates, occurred in strata disposed almost vertically. They did not however project more than a foot or so above the broken surface of the detritus with which the ground was strewn, but were visible from a great distance, framing in the landscape with red and black lines.

Then we rode up another watercourse, still moist from the last fall of snow, and came out upon yet another ridge, higher and broader than the last. From its slightly rounded summit a view as welcome as it was unexpected burst upon our sight. Before us lay a gentle hollow, green with yeylaks (pasture), thin of course, but all the same extremely welcome to our beasts, which had tasted no green fodder for four days. The horses in particular looked pined, and neighed continuously for grass. Emin Mirza, a capable Taghlik, who since the departure of Fong Shi acted as my secretary, pointed out with well-grounded surprise, that the caravan was going on past the hollow. There was, it is true, a little pool close by, but its water was salt, and Islam was principally concerned to find fresh water, the chief necessary of life. The grass was so thin and short and fine, that it would only have mocked the animals' patience to let them graze there. That the place was known to the boghe (antelopes) was evident from their numerous spoor. The voles too lived upon the roots of the grass. We saw their runs, but none of the animals themselves. On our right there was another low ridge, and in one of its gullies a thicker growth of grass; it had however been cropped close by the denizens of the desert. But moss thrived in the moisture which oozed out of a spring, beside which the tent was already pitched. That day we travelled fifteen miles.

During the day there had been a fresh breeze from the north-west. I could not have done without a suit of warm clothing in my saddle-straps, for the weather was extremely fickle and changeable. So long as it was still and clear, it was hot enough in the heat of the sun to broil you; but the very next moment, if a cloud happened to obscure the sun, or a violent gust of wind swept down upon you, you shivered and flew to your furs.

Next morning three men were ill, and begged that we would rest there a day, at camp No. IV. I agreed to their request all the more willingly in that the six days' continuous hard travelling had exhausted all the caravan animals; and as we had plenty of both water and grass, it was a very suitable spot to stay in. The only thing of which there was a short supply was fuel. The tufts of yappkak grew isolated and at wide intervals apart; but the men went out and gathered all they could find in the vicinity. It snowed all night and all the next morning, so that the ground was white; but immediately the sun rose, the snow began to melt, and it melted with marvellous rapidity, owing to the dryness of the atmosphere. The snow was hard and granular, and rattled vivaciously upon the tent felts.

The rest did us all good. Peace and silence reigned all round the camp; and the animals strayed to a great distance in their search for more nourishing grass.

During the course of the day the sick list grew longer. Most of the men complained of headache. Even Islam Bai kept his bed and gave vent to melancholy plaints; and as he was caravan-bashi or baz (caravan-leader), this cast down the spirits of the other men. The weather was not very encouraging. The sky was thick with clouds, and dark and gloomy. Snow fell with but short intermission throughout the day, so that the ground was white; and after three o'clock it froze. Add to this that a full-blooded west wind was racing past, and it will be evident that there was no temptation to open-air exploration. I preferred to sit still in my tent, wrapped in my furs, and busy myself with back work or reading.

We slaughtered a sheep, and although there were so many of us, the meat went a very long way, for mountain-sickness takes the appetite. I myself had lost all relish for mutton; the meat never became properly tender, no matter how long it was boiled. Even the rice-pudding (pillau) was not palatable: the grains of the rice refused to soften and swell. Thus there was nothing for us but the everlasting thin mutton broth, with tea and bread as hard as a stone. Our fare was the same at every meal, twice a day, and at last I became so tired of it, that the approach of meal-times made me almost shudder; and I only recovered my usual equanimity when I had got the meal done with and my pipe lighted. Otherwise I was getting on capitally, scarcely knew that I was at an altitude of 16,300 feet above the level of the sea. The only things which made me aware of the fact were shortness of breath and quickened beating of the heart when I walked or underwent physical exertion. At night I was so muffled up in furs and felts that I often woke up gasping for breath and with a disagreeable feeling of anxiety weighing upon me; but the headache from which I suffered the first day or two had entirely disappeared.

About sunset the weather improved. The thick black clouds drifted away to the east, revealing the intense blue sky above our heads. In the west there was a ruddy glow like the reflection of a distant prairie fire, and the flanks of the mountains nearest us were illumined with vivid reds. But to the north the mountains were still enshrouded in thick clouds, from which magnificent lightnings flashed all the evening.

On the morning of August 12th the gully beside which our camp was pitched was filled with a torrent of muddy water—yesterday's snow melted. But it was only the lower portion that was thawed by the sun; the upper portion was still frozen. During the day's march we passed several brooks of clear water.

The gully led up to a small secondary pass through one of the ramifying arms of the Arka-tagh. The prevail-

ing rock was a fine-grained red clay-slate. The yeylaks became fewer and poorer in quality; nevertheless there were still plenty of antelopes and hares, and occasionally we observed the droppings of khulans (wild asses).

The pass crossed, we entered a glen of strongly marked contours, about two and a half miles broad, which curved round from the west-south-west towards the east. Its bottom was much diversified and destitute of water, nor was there a vestige of grass. At that point there did not appear to be any suitable pass for crossing over the Arka-tagh. We therefore turned and followed the glen towards the east, for in that direction the country was open. The mountain-spurs fell away on both sides; but in the background there rose a lofty chain of the grandest dimensions, glittering from top to bottom in the silver mail of its snows. Indeed they were so brilliantly bright that at first we took them for white clouds on the horizon. It was the continuation of Arka-tagh. As I have just said, we were marching towards the east, so that we had the Arka-tagh partly on our right, partly in front of us. Thus the range makes a slight curve to the east-north-east.

Farther, leaving the glen on our left, we began to ascend the lower slopes of the Arka-tagh, crossing over innumerable ravines, most of them with a little water in the bottom. Towards the north the country was quite open, an extensive undulating tableland, with not so much as a hill to restrict the view, but bounded in the extreme distance by a lofty chain overtopped by several snowy peaks. That was the southern aspect of Tokkuz-davan.

In the Arka-tagh we had constantly in view a stupendous double-peaked mountain. Hour after hour we rode towards it, without seeming to get a bit nearer. Our next concern was to find a suitable camping-ground with pasturage; we were in no anxiety about water that day. We pitched the tents, after a march of eighteen miles, by the side of a large brook, where the grass was pretty fair. The caravan animals still stood it very well; but the men, especially Islam Bai, were only in a poor way.

We were compelled to spend August 13th and 14th at camp No. V., and for a distressing reason. At first the men tried to make out that the animals needed rest; but on the morning of the 13th Islam Bai was reported to me as being seriously ill. The poor fellow had been distressed at the idea of my losing so much as a single day on his account, and for that reason bade the other men throw the blame upon the beasts. He was in a high fever, with high pulse, palpitation of the heart, and headache; but he did not believe it was mountain-sickness, for he coughed up blood, and was so weak that he could not lift his hand to his mouth.

In my journal are these words: "Islam begged the other men to try and persuade me to go on again in the morning, and leave him behind with two of the Taghliks, who also were unwell. He proposed to hand over the boxes and keys, as well as the control of the provisions and ammunition, to Parpi Bai. If he got better, he would try to work his way back over the Tokkuz-davan to Cherchen, and thence home *viâ* Kashgar. I gave him quinine and morphia and applied a mustard plaster, to draw the blood away from his head. After that he slept several hours. I am very uneasy about the poor fellow. His case does not look very hopeful; he has never been ill before. It would be terrible to lose him. I should then be lonely indeed. He has been with me from the very beginning, has shared all dangers and privations with me, has always borne the burden and heat of the day, and been a real help to me. It always fell to him to see after the preparation and equipment of the caravan; and it was he who engaged trustworthy men to help, who bought the provisions and took charge of them, and generally kept a prudent and provident eye upon everything. Islam was worth any ten other men; in short his loss would be irreparable. Yet there he lies, like a broken-down old man, moaning as if on the point of death. It would be hard for him to be taken away now, on our last journey — the seventh we have taken together — after

sacrificing his home in Osh for three long years in order to accompany me.

"I am encountering difficulties in my attempt to penetrate into Northern Tibet. Our camp is like a hospital; it is impossible to travel with a troop of invalids. Under such circumstances a man is tied hand and foot. He has no alternative but to leave the incapable behind, after first seeing that they shall be properly protected and cared for, or else—abandon the journey. This last alternative is one of which I have a horror. I would rather perish than turn back. I *must* explore those unknown highland regions which stretch away south from the Arka-tagh. How delightful it is up here in the bright, fresh mountain air, amongst these constantly changing scenes, as compared with the monotonous deserts, with their grey skies, their close sultry atmosphere, their scorpions, ticks, and gnats, and dearth of water! I revel in the thought that I have left those inhospitable tracts behind me. But my men are afraid of the silent mountains; they long to get back to the lowlands.

"Besides being unfortunate in itself, Islam Bai's illness is attended with another mischievous effect. When the other men see that their caravan-bashi (leader) is broken down, they lose heart and their spirits fail, and they begin to think we have death in the camp.

"My confidence however in some degree keeps up their courage. They are pleased when I visit the invalids, and they like to come to me to talk over our plans for the future. Nevertheless they do not talk much; their cheerful songs are silent."

Apart from this, the days we rested there were uneventful. At noon the brook swelled considerably, and turned a brick-red colour; but towards evening it sank again, at the same time clearing back to its pristine purity. The atmosphere was inconceivably pure and transparent, so that the contours and every detail of even the furthest distant mountains stood out sharply. I sent out pioneers towards the south-east. They reported the existence of a deep valley traversed by a stream, which Hamdan Bai

thought might be the Pattkaklik (the Muddy), a tributary of the Cherchen-daria; and he believed it was by its upper extremity that Littledale reached the pass by which he crossed the Arka-tagh. Hamdan Bai ought to know, for he was one of Littledale's company; it subsequently proved however that he was wrong in his surmise.

Parpi Bai believed we should come to plenty of grass in a fortnight. The miserable stuff at Camp No. V. was so bitter, that the horses would never have eaten it, had they not been driven to it by hunger. There were no traces of even khulans: it was evident they knew of other and better pasture-grounds.

Under these circumstances Parpi Bai voted for making a move as soon as possible; for if we stayed there any longer, the horses would fall ill. Two of them were looking queer already; they would not eat, but lay quiet in one place all day long. The others however, as well as the donkeys and camels, were in good condition, considering the hard marches we had made. We still had corn sufficient to last them thirty days, and provisions for ourselves for two months and a half.

In the evening I gave Islam Bai half a grain of morphia. He again got a good sleep, and next morning felt very much better. He succeeded in swallowing a little bread and tea, got up, and walked about a short time wrapped in furs. He hoped he should be able to follow us next day. The weather was disagreeable. Between twelve and four o'clock it hailed, and after that we had a smart shower of rain. Whilst it was hailing the temperature (four o'clock) was 60°8 Fahr. (16° C.); but the rain brought it down to 48°2 Fahr. (9° C.) in the course of a few minutes. The absolute altitude was 16,300 feet.

Every evening just about sunset I had the pleasure of seeing the camels come forward to the tent, slowly, with rocking humps, solemn as judges, to get their daily measure of maize, which was poured out on a piece of sailcloth spread on the ground. Then they knelt down round it and ate up the corn ravenously; but their meagre diet did not make them ill-tempered.

CHAPTER LXXIX.

SEARCHING FOR A PASS

AUGUST 15th. Happily Islam Bai was so much better that we were able to start at the usual time; though one of the sick horses died, and was left behind as a memorial of our visit. It was the first that perished, and alas! was to be followed by too many of the others.

The sky was flecked with fleecy clouds, which brushed against the tops of the mountains, imparting a flattened appearance to the landscape. The "roof seemed to be so low" in the east that you felt as though you could not walk upright under the clouds.

We continued to follow the broad and regular longitudinal valley which ran along the northern foot of the Arka-tagh. It was almost level, or had at any rate an almost imperceptible slope. The white double peak gleamed like a beacon at its eastern extremity. The Arka-tagh on our right was hidden by its own outlying ranges. On our left too there was now a lofty chain, though free from snow. The longitudinal valley was crossed by a deeply incised transverse gorge, filled with conglomerates, through which a mountain-brook had carved a deep channel, now containing a little water. Its sides were a reddish colour, from a brick-red, slaty species of rock, but its bottom was tightly packed with fine gravel of green crystalline slates, granite, and porphyry, probably rocks which prevail in the higher regions of the Arka-tagh. This gigantic trough, which caught up several little streams on its way across the longitudinal valley, cut through the mountain-chain on the north (which now completely hid the Tokkuz-davan) by an extremely

narrow portal, and on the other side probably bent away towards the north-east.

The longitudinal valley became narrower and steeper. We travelled along the left bank of the stream, and had to cross over a long series of *chapps* (ravines). The largest of them, thirty to thirty-five feet deep, with perpendicular sides in many places, contained a little water; and there was a scanty supply of grass in the immediate neighbourhood. It was therefore a lucky accident that, just when we reached the spot, the weather forced us to stop and encamp, notwithstanding we had done only a very short day's march (ten miles).

About noon thick clouds gathered in the west and raced at a terrific pace towards the east; and yet close down upon the earth the wind blew towards the north-east. They speedily encircled us, and closed in upon us. In the east alone there was a patch of glorious blue, but it was rapidly dwindling. On every other side we were hemmed in by dark threatening clouds of a steel-blue colour. Then we heard a faint soughing and moaning behind us. The sound approached nearer, waxed louder. The wind began to blow furiously from the west; and down upon us burst a hailstorm of unparalleled violence, pelting the earth and the mountain-sides till they appeared to smoke again. All at once we were enshrouded in gloom. The thunder crashed deafeningly, and, as it seemed, immediately above our heads; but there was not a single flash of lightning. The landscape was blotted out by the thick driving hail; we could see nothing but the white line of hailstones along the ground close at our feet. They were no bigger than grains of maize, but the wind drove them with such force that I distinctly felt them through my fur coat and cap. Under this undeserved punishment the horses became restive. We were obliged to stand still for a quarter of an hour or so just where we were; it was impossible to see where we were going. There we sat in our saddles, with our backs turned towards the wind, and our cloaks drawn up over our ears, whilst the hail rattled about us. In two or three minutes the

country, lately so smiling, sunny, and peaceful, had put on the garb of the Polar Regions: the earth was as white as chalk.

For fully an hour we were unable to proceed; but as soon as the worst of the squall was past, we dismounted and made haste to get up the tents. The hail continued a full hour longer, and lay an inch thick on the ground. It all disappeared however before the evening; for, as usual, the hail was followed by pouring rain. We managed therefore to get thoroughly wet through before the tents were up. The poor beasts had to stand out in the freezing cold. But the camels did not mind it in the least; they set to work upon the grass.

On 16th August we started early. It was windy and cold, and the sky was covered with clouds. About seven o'clock they broke up and scattered; but not for long, for they soon began to pack together again. It was not at all easy to tell where they came from. At first you would observe nothing more than a mere wisp of a cloud; which would grow bigger and bigger with extraordinary rapidity, and finally invade every inch of the sky.

The preceding evening I sent some of the men up the ravine beside which we encamped. They came back and reported, that at its upper extremity it was steep and narrow, and choked with stones. We thought it best therefore to continue along the latitudinal valley. We therefore crossed over the ravine, though not without much difficulty, and advanced over hummocky ground and past a little lake of about 270 yards in diameter. It contained clear, fresh water; and on its surface were about a dozen wild-geese, resting in their long autumn-flight to India.

We now began to be conscious of the fact that we were ascending. Yeylaks occurred, but in thinner and thinner patches. The valley was entirely shut in by the lofty mountain-ranges on both sides. The rainfall off their flanks and from out their side-glens was gathered into a stream, which lower down united with that beside which

we had pitched camp No. VI. We were at length approaching the upper extremity of the longitudinal valley. Its culmination was marked by a small depression, dry however; and on the other side the water flowed towards the north-east. We turned off towards the east-south-east up a side-glen, which, like the latitudinal valley, was shut in between two big spurs, and, again like it, was traversed by a little brook, which ran so close to the cliffs on the right that it had exposed the green clay-slates.

But all this while we were simply marching at random; we did not know how far this side-glen would allow us to advance. It gradually inclined however to the south-east, skirting a huge mountain peak on the right. When we reached the foot of the mountain, we were again overtaken by a heavy hailstorm, followed by rain and snow, but not so bad as to prevent us from continuing. We now came to expect this sort of weather about one hour after noon, no matter how bright the morning might have been.

In the thick of the storm we approached another tolerably level watershed, which, like the former one, sent off its precipitation to both the east and the west. I now began to understand more definitely, that in the region through which we were travelling, the Arka-tagh system consisted of a number of parallel ranges, strangely ill-provided with transverse valleys. The latitudinal valleys between the ranges we were able to traverse without any difficulty. The side-glens only permitted us to creep the merest trifle further towards the south.

After journeying eastwards for about an hour, we struck up one of these side-glens; but it soon became very steep. The ground in the entrance of the glen showed a curious formation: it consisted of fine detritus, intersected by a number of tiny rivulets which led nowhere, and was consequently so soft that the animals sank in it over their hoofs, and this tried them a good deal.

Meanwhile we plodded on up the glen, which rapidly contracted; and at its upper extremity mounted a steep pass, which we hoped was situated in the main chain of

the Arka-tagh. It cost us a good deal of hard labour to get the horses up. Yet no sooner had we accomplished that than we were enveloped in clouds, and assailed by a gale of snow and hail, and wrapped in an impenetrable mist. We were unable to see which way to go, and yet I was reluctant to lose the opportunity which the pass afforded of obtaining a general view of the complicated and bewildering mountain region in which we were entangled. After a short consultation, we decided to rest where we were, on the top of the pass, which attained an altitude of 17,235 feet. That day we had travelled 16½ miles.

The camp was hastily arranged. It was raw and cold, and very disagreeable. The least exertion brought on palpitation of the heart and shortness of breath. The wind cut through everything, and the hail swept through the pass with merciless violence. There was no grass, not a particle of anything to make a fire of, and the water had to be fetched from a crevice in the rocks a long way down the pass. But about five o'clock it cleared up sufficiently to let us see, away in the south and south-west, a sharp snowy crest of some reddish rock; but there did not appear to be any practicable pass over it. The pass upon which we were encamped only led over another spur of the Arka-tagh. We had therefore climbed it to no purpose. Immediately south of it however was a deep and precipitous ravine, the gathering-trench of rivulets that poured down from an inextricable labyrinth of mountain-chains and peaks, and their connecting ridges. Towards the east however we believed we could distinguish a slight notch in the Arka-tagh, and there was a latitudinal valley running straight in that direction. All around us was a perfect chaos of mountains, some raven black, others brick-red or green, the highest of all white with snow. Relatively they were of no great elevation: we seemed to be at the same altitude as most of them.

But the vast ocean of mountains was soon wreathed in thick clouds and a driving snowstorm. Away they flew in a mad race over the mountain-tops—those dense heavy masses of cloud, trailing the fringes of their snowy

draperies along the rugged earth, and leaving ribbons of white snow behind them. The thunder crashed so that our ears tingled; the heaviest peals made the ground tremble, and the clouds were slashed by flashes of vivid lightning. Our position on the summit of the pass was not free from anxiety. I had the tent put up in such a position that the crest of the range was thirty feet or so higher than the tops of the tent-poles.

That evening we had to wait a long time for the camels and donkeys; in fact, I sent two or three of the men back to look for them. They came up at dusk; their drivers had experienced considerable trouble in getting them up the pass. My supper was more meagre than usual. We boiled the water for tea with one of the packing-cases, which we could manage to do without. We took counsel with the Taghliks, and decided to continue in the same direction, down the steep eastern side of the pass. To attempt to travel southwards was a sheer impossibility.

The moon shone with dazzling brilliancy and was encircled by a magnificently beautiful halo—a disc of vivid yellow edged with violet. But the queen of the night soon withdrew behind the clouds, and the winds roared through the pass from every point of the compass. The night however was still, but cold (minimum temperature, 22°3 Fahr. or −5°4 C.), so cold that I could not get warm until I crept into my nest of furs.

In the morning there was nothing to make a fire of; so I had to content myself with cocoa made with half-melted ice. It would have been a splendid drink in the hot desert, but up amongst the chilly mountains it was rather too cool. The camel and donkey caravans started very early in the morning, and we found out that they had gone down the same way we came up the afternoon before. Leaving Islam Bai, the caravan-leader, to see that the camels and donkeys recovered the right road, I and Emin Mirza went on down in the direction I had ordered the night before. After an hour's ride we came upon the trail of the donkeys and sheep. They had merely gone another way round the mountain upon

which we spent the night. The camels however had been taken in a wrong direction; but we hoped their drivers would soon find out their mistake and come in search of us.

We therefore continued along the latitudinal valley we had travelled up the day before, that is, still towards the east. Hitherto we had observed certain characteristics common to all these latitudinal valleys of the Arka-tagh. They all received their greatest number of tributaries, as well as their largest, from the south, and their smallest, if any at all, from the north. Moreover the streams which coursed down them leaned strongly towards the low mountain-chain which shut them in on the north; and its slopes were in every case steeper than those of the chain which fenced the valleys on the south. On the other hand, the latter were richer in detritus; the bare rock being frequently exposed on the flanks of the northern range.

After going about eight and a half miles, we perceived our donkeys grazing in the distance, on a high terrace which overhung the left bank of the crystal brook we were following. There, amid a scene of extraordinary beauty, we pitched our tents, a process which demanded every man we had, for there was a fierce nor'-wester raging. The passable grass, coming after the enforced fast of the preceding day, rendered a rest imperative for the animals. When, late in the day, Hamdan Bai came in with the camels, he recognized the locality. Only the year before Littledale had encamped barely ten minutes to the north. He had travelled from East Turkestan, and halted there for a few days in order to search for a more westerly pass over the Arka-tagh. But his search had been as unsuccessful as ours. He then tried the valley which opened out on the east, and found there an easy pass, which led to a small lake on the south of the Arka-tagh. We proposed to profit from Littledale's discovery, for Hamdan Bai undertook to guide us to the pass by which the English traveller crossed the range.

The 18th August was consequently given up to rest. I went no further than Littledale's camp. There were still signs of a fire having been made between some soot-grimed stones, and the ground in the vicinity bore numerous traces of his caravan animals, so that we now had plenty of fuel. It was even possible to discern a sort of pathway which the animals had trodden, and by the side of the brook was an old shirt that somebody had flung away. At this spot the streams which drained both the eastern and the western portions of the latitudinal valley united, and pierced the northern range by

SCENE OF LITTLEDALE'S CAMP,
NOT FAR FROM MY CAMP NO. VIII. IN NORTHERN TIBET

a picturesque gorge. The neighbourhood was a vast quarry of black clay-slate. Weathered on the surface, it split into thin laminæ, and alternated with hard crystalline schists; both varieties of rock being very much folded. At noon the confluent stream had a volume of 210 cubic feet in the second; the water was as bright as glass and babbled along with a cheerful noise, tumbling over or foaming round the water-worn stones in its bed. Our camp was pitched in a sharp loop of the winding stream, and as it were upon a sort of little peninsula, skirted by the brook which drained the western part of the latitudinal valley. The volume of water was lowest in the morning, and increased as the day wore

on, so that it reached its maximum in the evening. But during the night it sank again, and became edged with a thin fringe of ice.

The cold made itself felt immediately the sun set, the thermometer falling to five or six degrees above freezing-point. But it was the everlasting wind that was so tiring, and that made the tent cold, because it did not subside until after darkness set in. The nights were always calm and bright. Owing to the active radiation, the uppermost layer of the earth invariably froze; but just as invariably it thawed again immediately the sun rose in the morning.

That night the minimum temperature was 12°2 Fahr. (−11° C.). The altitude above sea-level was 16,675 feet.

CHAPTER LXXX.

THE DECEITFUL TAGHLIKS

THAT evening we made an arrangement with the Taghliks. Three of them, after being paid for the time they had served, were to return home by the same route we had come. Two of the others were to go with us over the Arka-tagh and were then to be dismissed, whilst the rest were to accompany us, like my other attendants from East and West Turkestan, until we again reached inhabited regions, wherever that might be.

The last section of the Taghliks, namely those who were to go with us right through, begged me to advance them the half of their wages. I saw no reason why I should not grant their request, and I paid them. Some of the men from East Turkestan, whose families lived in Keriya and Khotan, sent some considerable portions of their wages by the three Taghliks who were going back, and who agreed to give, before they started the next morning, written acknowledgments of the moneys they had received, as well as pledges that they would deliver them to the proper parties.

This business satisfactorily settled, we all went to bed. The Taghliks slept, as they usually did, in the open air, protected by a rampart of maize sacks, saddles, and other *impedimenta* of travel.

Imagine therefore my men's surprise when they awoke at five o'clock on the morning of August 19th and found that every Taghlik, except my secretary Emin Mirza, had disappeared. Islam Bai woke me at once and told me what had happened. We held a council of war. My

men had slept like logs all night, and had heard no suspicious sounds. They believed the Taghliks ran away about midnight, no doubt hoping that the long start would secure them against pursuit. Besides, they knew that in a region so ill provided with grass as that we were travelling through, every day was precious. When we examined our stores, we discovered that ten donkeys, two horses, and a goodly supply of bread, flour, and maize were missing. The worst feature was, that the Taghliks had drawn half their wages in advance, and had taken the money of the other men as well, without leaving any written acknowledgments. It was evident the flight had been planned beforehand, and they had deliberately set themselves to get as much money into their possession as possible. But we were all amazed, that they had been able to get away without making any noise. One of the men recollected hearing the dogs bark furiously about midnight, but he thought at the time, that they were barking at the camels, which were accustomed to stray away from the camp, flitting about like shadows in the darkness.

But we were not going to be cheated so easily. We examined the ground in the neighbourhood of the camp, to find out which way the thieves had gone. It seemed they had departed in ones and twos in different directions, and made for a common rendezvous at the foot of the mountains on the north, so as to mislead us at the outset if we attempted to pursue after them. Two or three of them walked; a couple rode the horses; the rest were mounted on donkeys. But seeing that several of the donkeys were pretty well done up, the runaways would scarcely be able to march very fast. I therefore ordered, that they should be instantly pursued, and at all costs, by fair means or by foul, should be brought back to camp No. VIII. They had deceived us so shamefully, that they deserved punishment. Parpi Bai, who was a capital fellow, took command of the pursuing division, which consisted of Hamdan Bai and Islam of Keriya. Armed with rifles and revolvers, and mounted on the freshest

horses we had, they followed the trail over the pass in the northern mountains, and rapidly disappeared from sight. If the runaways refused to come with them, my men were instructed to fire off half-a-dozen shots, but were not on any account to injure any of the Taghliks.

We who remained behind in camp had nothing to do but wait patiently till the men came back. The day passed. The night passed. No sign of the pursuers' return. I began to fear they had taken the wrong road, in which case the second error would be worse than the first. But at last, at five o'clock on the next afternoon, they turned up, their horses dead beat, with the following tale :—

At a brisk trot they followed up the trail all day and all the next evening. Their horses were tolerably fresh, and had no loads to carry except their riders. They passed our last two camps, Nos. VII. and VI., and a little way beyond the second perceived, about midnight, a fire burning in the distance. They rode towards it. It had been made, as they expected, by our runaways. The two horses and the donkeys were grazing close by. Five of the Taghliks sat round the fire, warming themselves. The others had already gone to bed. The entire company, men as well as animals, were dead tired after their long forced march. But they had enjoyed the advantages of a rest before starting, and of a downward road after they did start. Hence they had pushed on without stopping; but as most of them walked, they were bound to be overtaken by our mounted men.

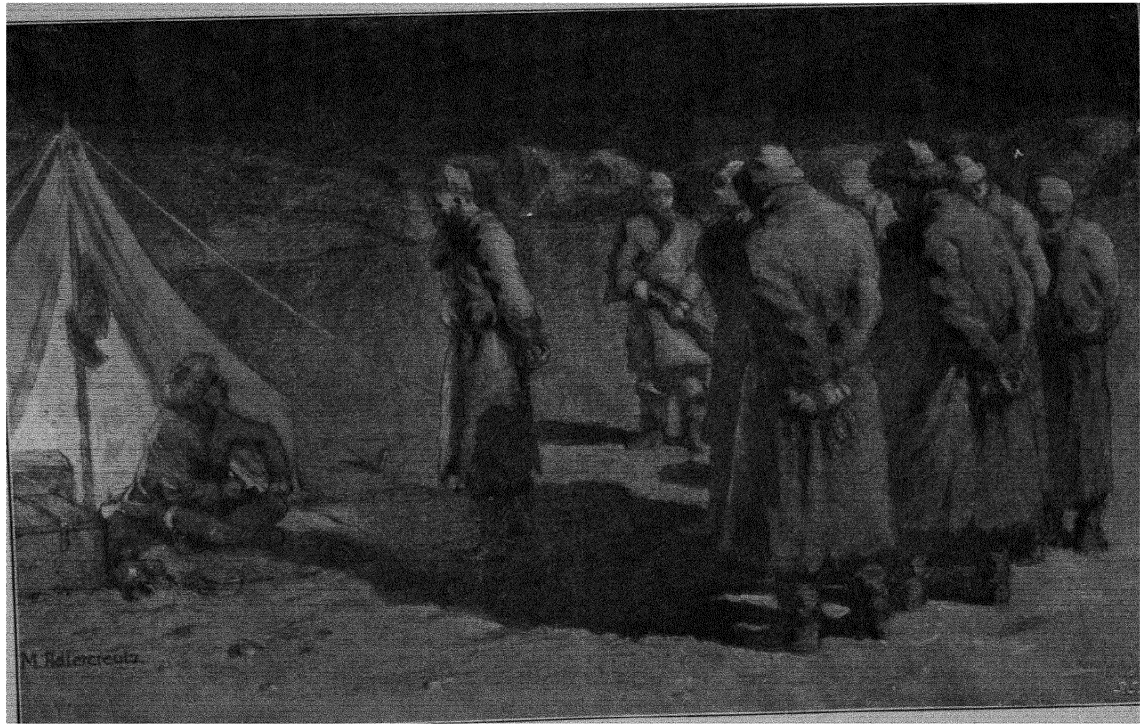
Parpi Bai and his two companions galloped up to the fire. The Taghliks leapt to their feet, and fled in different directions. But Parpi Bai went after them and fired his rifle in the air, shouting to them to stop instantly, or he would shoot them down. Thereupon they flung themselves prone on the ground, crying for mercy, and crept back to the fire. Parpi Bai bound them—every man—and took away all the money they had about them. Then, after two or three hours' sleep, he and his two companions started back early in the morning, bringing the Taghliks

with them, except the three whom I had dismissed and given permission to return. The leader of the gang, a fellow about forty years of age, who had plotted the flight, was made to walk the whole way to camp, with his hands tied behind his back.

It was ten o'clock at night when the runaways, guarded by Islam of Keriya, arrived in camp, and my property was restored to me. But that did not give me back the two valuable days we had lost, and which we could ill afford to lose. The leader of the Taghliks was brought forward to my tent, and the other culprits were made to stand in a semicircle behind him. I charged him with being a thief, and told him that, if he had fallen into the hands of a Chinese amban under circumstances similar to those in which he then stood, things would go queer with him. To teach him that neither he nor any other man could treat a European in the shameful way he had done, I adjudged that he should receive a dozen strokes of the rod, but not severe strokes, although my other men were urgent that he should get a good sound drubbing. Moreover I condemned the thieves to atone for their treacherous conduct by work, to be bound every night until we felt we could trust them, to pay Parpi, Hamdan, and Islam the three days' wages they had lost, to accompany us as far as I thought fit to take them, and when I at length dismissed them, the payment they were to receive should depend entirely upon my good will, and upon how they had behaved themselves in the interval.

It was a picturesque scene, that night court among the desolate mountains. The men stood silently round the tent-opening, wearing their furs, under the faint light of the moon and the gleam of my candle. It was no pleasure to me to be obliged to punish them. But they fully deserved punishment, and that it did them good was proved by their subsequent conduct, which was irreproachable.

Both animals and men, that had taken part in the flight and pursuit, were of course completely exhausted by their forced marches, so that we were compelled to sacrifice yet



TRIAL OF THE TAGHLIK RUNAWAYS

another day—the third in all—at camp No. VIII. The weather still continued wintry. After midday it snowed from time to time, and after three o'clock a violent buran bore down upon us out of the north-west. It blew my tent over, but the tackle creaked and strained some time before it gave way, so that I was prepared for the upset, and no injury was done to anything inside. At eight o'clock it came on to hail, the hailstones rattling loudly upon the tent-covering. Then it was still again. By night the whole country was white with snow, except in the bottom of the brook, where the stream wound in a black sinuous line. The buran continued all night, and the tent bent to such a degree under the weight of the snow that several times I was forced to get up and shake it off. In that way the snow became packed up like a wall all round the tent, thus making it warmer and keeping out the draught. The snowstorm did not stop until well on in the afternoon of August 22nd, and until then we were unable to move.

That day we made an extremely short march, not more than two and a quarter miles, the reason being that there was said to be no grass farther on. We merely travelled up the left side of the valley before mentioned, which opened out from the east, and which, like the western latitudinal valley, was hemmed in by branch ranges of the Arka-tagh of a very considerable magnitude, till we reached the spot where Littledale's caravan had encamped, and there we pitched our tent. We were greatly indebted to him, for we found such a large quantity of dry dung from his animals that we had fuel and to spare. It is curious how well animals' dung keeps in those regions, for that which we gathered had lain more than a year. At first indeed we thought it was left by khulans, for some of those animals had visited the spot quite recently. The truth seems to be, that in those high altitudes it never rains, the downfall always assuming the form of snow or hail, otherwise the dung would soon become pulverized, then dry, and finally be blown away by the wind.

To-day again it began to hail about one o'clock. The wind was our most insufferable enemy. Every day, day after day, it visited us, bringing the hail in its train, and almost always at the same time, and it continued until evening, sometimes indeed all night long. It chilled the atmosphere and penetrated into the tent, making the candle flicker and flare, no matter how closely I drew the felts. And then my bed got so chilled, that when I crept in, it was like putting my feet into half-thawed ice, and there I lay, shivering and shaking, with chattering teeth until I got warm.

August 23rd. I was awakened early in the morning by a violent fall of snow. Winter was upon us again. The horses' backs were white, and as they stood tossing their empty nose-bags, they looked both wearied and disgusted. I called the men up, and they made haste to get the caravan ready for a start, for I expected we should have a long, hard day of it: we hoped to cross over the Arka-tagh by the pass which Littledale discovered, and which Hamdan Bai had undertaken to guide us to.

The long string of caravan animals filed slowly off up the valley, which soon contracted, whilst the bordering mountains decreased in relative altitude, and at the same time assumed rounder forms. The rocks were only exposed in the ravine which the river had eroded. Everywhere else the surface was covered with soil. The stream was in some places broad and shallow, and increased in velocity the higher we ascended. The water, as bright and clear as crystal, tumbled merrily along among the fine gravel with which its channel was strewn. The rocks were composed of a hard crystalline slate of a dark green colour. Then we came to an expansion of the valley, the gathering-basin of the river, in which it received a great number of small tributaries from the mountain-slopes around.

After being compelled to wait a considerable time by a blinding snowstorm, we went on again towards the south-east, up a strongly accentuated valley through which flowed one of the largest affluents of the river. This

fresh valley bifurcated in two several places. At the first bifurcation we came upon a relic of Littledale's expedition, namely the carcass of a donkey shrivelled up like a mummy and in no degree decomposed. It was evident that neither wolf nor bird of prey had scented the carrion. Thus far then we had, rightly enough, followed Littledale's route from our camp No. VIII.

Now at length we perceived before us, in the east-south-east, the pass we had been so long seeking in the crest of the Arka-tagh. But when I and Emin Mirza reached the summit of a secondary pass, lying north of the principal pass, we were amazed to see that the trail of the horse-caravan (which according to the usual order of our march led the way) branched off down a side-glen leading to the left, that is towards the north. Hamdan Bai, who was now acting as our guide, had plainly taken a wrong turn. But it was no use to shout to him, he could not hear us, being too far in advance.

After I had taken the usual observations (18,300 feet), there was nothing for it but to follow in Hamdan's track, for the day was wearing on, and I did not care about sleeping out without my tent and my tea. We soon perceived that the glen, into which they had turned aside, curved round towards the west, so that the horses had gone very much astray, and before I and Emin Mirza had advanced very far we met them coming back, and Hamdan Bai, our guide, marching along at their head, looking very crest-fallen at his inconceivable stupidity. He had kept forging on ahead without thinking, until he crossed his own track, which he made earlier in that same day, and thus actually described a complete circle, and to crown all even climbed a pass, all to no purpose. Hamdan persisted, that just about that point Littledale had really made a short detour to the north, and he expected the valley would now soon bend round towards the east and the south. I never saw such rank stupidity and utter lack of the sense of locality! I took my gentleman smartly to task, and the others too for having followed him so blindly like a flock of silly sheep.

Having advanced some distance farther we encamped, after a march of 13½ miles, in the entrance to a side-glen, although there was not a mouthful of herbage to be found, except a species of moss with tiny red flowers growing between the stones.

Contrary to expectation, it was a beautiful evening. The atmosphere was absolutely pure, and the snow, and the white clouds above it, gleamed dazzlingly white under the full moon. It was dark when the camels came in, gliding up to the camp like silent though majestic shadows. As soon as their loads were taken off their backs, the poor beasts began eagerly looking about for grass. The horses and donkeys were tethered, for we did not let them feed until they had rested a couple of hours. Except the cooks, the men too used to rest as soon as they had erected the tent. Then for one or two hours peace and silence reigned in the camp. I seized the opportunity to take an observation of the moon, by no means an easy task, for it was terribly cold (24°8 Fahr. or −4° C. at nine o'clock). The finely graduated circles in the prismatic circle clouded as often as I attempted to read them; and in such a highly rarefied atmosphere it is impossible to hold your breath, even for two or three seconds together.

When the time came at which the horses and donkeys were usually fed, they began to whinny and paw the ground with impatience, and when the nose-bags were slung round their necks, I liked to hear them crunching and grinding the hard maize between their strong teeth. Their meal ended, they were let run loose for the night, but were collected together early the next morning.

It was so silent, so still in those lofty solitudes, we felt as though we were visitors on some strange planet. The vast spaces of the sky gloomed upon us dusky blue from over the snowy summits of Arka-tagh. It was a world in which all things were motionless, rigid, eternally fixed, save for the twinkling of the stars, the slow and solemn procession of the clouds, the sparkling of the snow crystals. The only sound that reached the ear was the

metallic, but musical, plash of the water as it struck against the icy mail of the river below. The nights were sublime; in beauty they easily surpassed the days. A thousand pities no other living creature but ourselves was able to sleep under their fascinating protection! And yet the river slept, for the frost seized it in his embrace and converted it into ice, and its babble gradually died away in slumber; and so it slept until the sun rose the next morning and warmed it to life again, reminding it that for Nature's children there is no rest: they must ever be spending their energy without cessation in shaping and re-shaping the crust of the patient earth.

CHAPTER LXXXI.

OVER THE ARKA-TAGH AT LAST

THUS it was not until August 24th, that we had the satisfaction of crossing the Arka-tagh. As soon as Hamdan Bai convinced himself and us, that the little glen really did lead to the summit of the range, we once more effected a start. The winding stream trickled along underneath its icy crust; the snow was hard and compact. The same slaty rocks as hitherto still predominated, but cropped out almost vertically. The approach to the pass was not particularly steep, and upon reaching the top we were at length gratified with the view towards the south which we had so longed to behold. But it was not Littledale's pass. The pass by which he crossed the range was situated a few miles farther to the east. This Hamdan Bai was able to confirm by sufficient proof: Littledale's men built a cairn of stones on the summit of the pass they crossed by, but there was no cairn on that by which we crossed. Probably the range can be surmounted in several places in the neighbourhood, possibly at the head of each glen, for the pass by which we reached the other side was very little lower than the crest of the range itself. Although the snow lay in thin patches in the glens on both sides, there was none in the pass itself, and yet the absolute altitude was very considerable, amounting to 18,180 feet.

From the south-east right round to the south-west we had an uninterrupted view of almost boundless extent, only intercepted on the east and west by outliers of the main range. The southern face of the Arka-tagh was much steeper than the northern. We descended through

a winding glen shut in on both sides by subsidiary chains, which projected at right angles from the sides of the pass. Both chains were shorter than the corresponding spurs on the north, their altitudes decreasing rather abruptly, until they merged in an undulating level, and finally in an extensive tableland. As I gazed southwards across that vast high plain, I observed here and there what looked like minor irregularities of the surface, intermingled with low hills, but in reality they were disconnected portions of surviving mountain-chains. The southern horizon was edged as far as I could see both east and west by an imposing range of dark blue mountains, which however, owing to the contrast with the broad plain, appeared to be relatively low. Towards the south-east and south-west the range was overtopped by peaks and crests covered with perpetual snow. To the south-south-west and nearer there was a small lake, apparently the gathering-basin for the drainage waters of the greater portion of the region which lay spread out before us. We had thus reached the first basin on the Tibetan plateau not provided with an outflow.

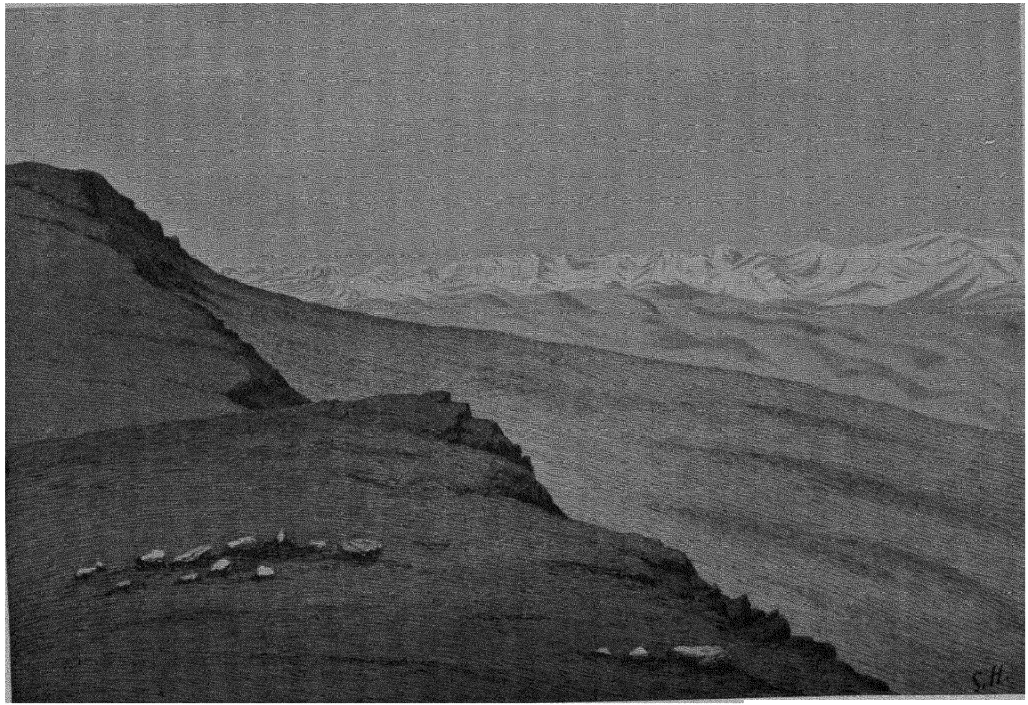
After a good rest on the summit of the pass, we went on down its southern side. I was very pleased to know that at last I had left behind me East Turkestan, and the regions which drain into Lop-nor. We had crossed the Kwen-lun Mountains, the Arka-tagh, and the basin which stretches between them, and were now treading the plateau of Northern Tibet, the vastest upswelling on the face of the earth. To the east every inch of the ground was unknown territory, except along the route which had been followed by Bonvalot and Prince Henry of Orleans, and that by which Dutreuil de Rhins and Grenard had travelled. In fact the latter must have been near where we approached the Tibetan plateau; but we did not observe anything which enabled us to identify it. Littledale's route we had already left behind us. But we were still a long way from the most westerly region that drains into the Pacific Ocean, and for a considerable time to come we should be travelling in parts which do not con-

tribute one drop of water to any of the great oceans of the earth.

We descended, then, beside the stream in the glen on the south. The weather being splendidly fine, every mountain-slope was streaked with foaming rivulets from the rapidly melting snows. At the lower end of the glen we emerged from the mountains. Then, leaving the glen brook on our right, as well as a small solitary, detached portion of the range, the last outlier of the Arka-tagh, we directed our march towards the south-east, having on our left the southern spurs of the Arka-tagh. Here we obtained a splendid view of a vast stretch of the mighty range bathed in brilliant sunshine. It consisted of an aggregation of peaks, most of them rounded at the top. But there was one crest especially conspicuous; it was jagged and pinnacled, and there were numerous clusters of black rocks projecting through its covering of snow. This was the twin peak we had seen between camps No. IV. and V. When I first perceived it, it loomed up on the far distant horizon; now happily it was behind us.

The surface was everywhere covered with fine sand and dust, soft and moist, and consequently very tiring to the caravan animals. The next stream we came to was joined by numerous tributaries, and gradually bent round south and south-east towards the small lake I have already mentioned, thus describing a semicircle round a hill that rose isolated from the tableland. At its foot on the south-west we discovered to our surprise some herbage, which our animals did not refuse after their enforced abstinence of the previous day. One of the camels and one of the horses were pretty spent, and one of the donkeys had given in on the pass.

I climbed the little hill on foot, and from its top obtained some splendid views. I observed what appeared to be several small glaciers stretching south from the region of perpetual snow on the summit of Arka-tagh. Looking towards the east, Arka-tagh faded away on the farthest horizon on my left; whilst on my right was the



THE ARKA-TAGH WHERE WE CROSSED IT, SEEN FROM OUR FIRST CAMP TO THE SOUTH OF IT

mountain-range I had before noticed in the south. It was, we afterwards discovered, a continuation of the Kokoshili Mountains. Between the two ranges extended the broad tableland already mentioned, its eastern horizon forming a perfectly straight line, scarcely perceptible at its southern extremity. Towards the west too both ranges stretched as far as the eye could see, but the country between them was more diversified.

The little hill on which I stood was very interesting. The bare rock, the usual dark green slates, cropped out on its north-eastern and eastern flanks at an angle of 16° to the north-north-west. But its summit was apparently capped by a horizontal layer of blue-black tuff, some sixteen feet thick, with numerous round and elliptical vesicles, partly filled with a white mineral substance. The tuff itself was a good deal weathered, and numerous sharp angular pieces lay scattered about on its surface. I also observed several other isolated hills similarly capped with tuff farther to the south.

As I walked back to my tent, Yolldash at my heels, the sun was already setting in a sky as pure and blue as turquoise, save that a few snow-white fleecy clouds (cirri-cumuli) floated along in isolated groups. But hardly had the upper edge of the sun disappeared below the horizon, when its place in the west was taken by a black, threatening mass of cloud. Close down upon the earth the atmosphere was perfectly calm, but in the higher regions it was blowing hard, as we saw from the dark steel-grey clouds, whose edges were tinted various shades of blood red, vivid yellow, and violet by the setting sun. Some portions of the clouds were entirely black; others reluctantly allowed the sheaf of the sun's rays to penetrate through them. It was a sublime, and yet a fantastic, an awe-inspiring spectacle. I could not tear my eyes away from it. Then came the first puffs of wind, ruffling the calmness of the atmosphere, at first feeble and in intermittent gusts, but soon more violently as well as more frequently. The squall swooped down upon the camp. The wind blew with indescribable fury. The men

ran to the tent-ropes, and held on like grim death, else the tent would have gone over. Down swished the hail, so fiercely that it actually whistled past our ears. The horses and other animals were alarmed and stopped grazing, and in five minutes—the squall was past, driving east at a terrific pace. No fresh clouds appeared in the west. The atmosphere again became still and calm, and a splendid, bright starry evening followed. But it was not destined to last, for all the early part of the night everything was shrouded in a thick mist, so thick that we could not even see the little hill at the foot of which we were encamped.

During the squall, and frequently afterwards too, it seemed to me that the clouds swept along in actual contact with the surface of the earth. When the black storms drove past with their hanging fringes of cloud, the glittering white snowfields on the mountain-sides became dark and gloomy; but in the morning, when the air was again clear and bright, the eternal snows dazzled us with, if it were possible, an even more glorious brilliancy.

August 25th. We travelled towards the south-east, and for more than three hours across an almost level plain. The little brook flowing towards the south-west proved however that it was not absolutely horizontal, but that there was a slight fall towards the small lake into which it emptied. On the way we crossed three glacial streams, but none of them powerful enough to excavate a definite channel for itself. They were each split into a great number of rivulets, which united and divided again and again in a highly capricious manner. The ground beside each rivulet was sopping wet, so that the horses sank in over the fetlocks, and every time they lifted their feet the action was accompanied by the "skwulsh" of watery suction.

The next brook we crossed flowed towards the east, so that we had passed over a watershed without observing it. Here and there we perceived small patches of yeylak (grassy herbage), with abundant droppings of khulans (wild asses) and antelopes near them. About two miles

off on the left we passed another small round rocky protuberance, standing quite isolated, and capped with tuff. Then we became aware of a little lake, not more than a mile and a quarter long, but very irregular in outline, having a number of long narrow creeks running out in every direction. This, the second depression destitute of an outlet, was the gathering-basin of all the streams in the immediate vicinity. From this I was led to infer, and as it subsequently proved to infer rightly, that the whole of the vast plain, which stretched between the Arka-tagh and the continuation of the Koko-shili Mountains, consisted of a series of similar small self-contained lake-basins, unprovided with any outflow to the ocean.

We continued to advance in the same direction until stopped by a long narrow gully, and to get round it we were forced to make a detour to the south, crossing on the way a brook which poured a large quantity of water into the gully. The surface now became more broken, a series of softly rounded hills, troublesome to cross, stretching away towards the north-east. We could still see the glaciers of the Arka-tagh gleaming behind us and on our left; we seemed to increase the distance between ourselves and them only very, very slowly. The mountain-range on the south had now vanished from sight, except when we were on the tops of the hills. The brooks flowed in divers directions, as though they were unable to make up their minds which way to go. There was very little rock visible, beyond black lines of slate where the laminæ peeped up vertically out of the ground like grave-stones. To our agreeable surprise several times during the course of the day's march we passed patches of scanty herbage, the thin kind of grass which the Taghliks call *sarik* or *yeylak-sarik* (yellow grass).

Then we went over some hills, and crossed a brook flowing towards another lake in the east-north-east, and so came to a spacious valley with a river running down it. Here we saw grazing the first wild yak we met with. The river formed a remarkably sharp loop to the east,

south, and south-west, round a hill which had much steeper slopes than any of the hills we had previously encountered. Upon reaching its summit, we were uncertain which way to go, for on every side we were hemmed in by extremely broken country—a perfect labyrinth of hills, with brooks winding amongst them in every direction without any apparent order, except that they all joined a deep stream, with green transparent water, and a volume of 175 cubic feet in the second, flowing towards the south-west.

After the almost monotonous regularity of the rivers of East Turkestan, all of which flow towards one common centre—Lop-nor, it was an unfamiliar and even strange experience to witness this irregularity of direction and this diversity of slope. One hour of our march the brooks would flow towards the east, the next towards the west, or south, or north. Even yet we could not gather where the last stream really meant to go to. However, we still continued to push on steadily to the south-east, ascending a steep glen or gully, on whose grass-grown sides there were such enormous quantities of yak and wild ass dung that it would have served us with fuel for several years. Nor were there wanting plenty of fresh spoor of the animals themselves.

At length we reached the pass at the head of the glen, and lo! a magnificent picture spread out at our feet. On the farther side the pass plunged down steeply to an exceptionally large lake, extending from east to west. Its water was a beautiful light green colour, but over the shallow parts yellow. And now the difficulty of deciding which way to go was seriously increased, for at its eastern end the lake was overhung by almost perpendicular mountains; while in the west, but at some distance from it, were a series of low fenny marshes, and from the south we were cut off by the lake itself.

After weighing the matter for a while, we decided to halt and make a reconnaissance of the surrounding country. The caravan piloted its way carefully down the steep slopes to the northern shore of the lake, and there the men pitched the tents in a tolerably sheltered spot between

two hills. For it was blowing hard from the south-east, a fact of which I became painfully cognizant as I stood on the crest of the pass to sketch and make my observations. I could see to an immense distance. In the south-east was a snow-covered mountain. South of the lake the country was less broken, but there were three other lakes with wet and marshy ground between them. I therefore sent Islam Bai along the lake shore, to find out whether the caravan would be able to advance eastwards. He brought back word, that there was an easy road.

We had barely got comfortably settled down in our tents, when the usual westerly storm came on, this time succeeded by a downpour of rain. Hitherto we had not suffered from want of water, a thing we had anxiously feared before we started. But there was an abundance of water everywhere, nor was grass so scarce as the Taghliks tried to make us believe, no doubt with the view of deterring us from the journey. There was relatively good pasturage around the large lake we had just come upon. The men therefore begged for a day's rest, especially as some of the horses and donkeys were very much done up. The sick camel had not been able to get more than half way of our last day's march, and had been left beside a pool of fresh water. Hamdan Bai, who was in charge of the camels, believed that the sick one was suffering from fever, for he was seized with fits of violent shaking, and coughed a good deal, and for four days had not eaten a mouthful of maize. Whilst we rested, two of the men went back to see how he was faring.

The mountains echoed with the rolling thunder, and the storm-clouds drove eastward as usual.

The day's rest was welcome to both men and animals, for the rarefied atmosphere, to which we only gradually became accustomed, was very trying to our strength. The sick camel was brought into camp No. XII. during the course of the morning, and was able to eat some maize.

Parpi Bai maintained very confidently, that the lake we had reached was not the same lake which Dutreuil de Rhins's caravan passed; but although I knew the

French traveller's route only very imperfectly, I thought it must be the same. The boiling-point of the thermometer gave its altitude as 16,165 feet above sea-level.

In the afternoon the weather was abominable, and prevented me from carrying out the excursion I had planned —namely to the mouth of the stream which entered the western extremity of the lake. It hailed and poured with rain all the afternoon, the landscape being enshrouded in a sort of autumn mist, so that we saw nothing of the large lake beside which we were encamped. Probably the heaviest downfalls occur in this region in the autumn. In the evening the rain ceased, the mist dispersed, the atmosphere became clear and transparent; and the lake glistened like a mirror, reflecting the most beautiful interplay of colour, whilst the Southern Mountains soared upwards like a steel-blue wall.

The treacherous Taghliks, who ran away from camp No. VIII., were bound every night, and made to sleep under a thick felt rug which was spread over the maize sacks, for we should not have been surprised if at any time they had attempted to give us the slip again. Their leader now earnestly begged to be allowed to return home, and as we no longer needed him, his request was granted. I was afraid he would not be able to travel all the long distance by himself; but he told me he intended to make his way to some gold-prospectors he knew of working on the northern flanks of the Arka-tagh. I gave him some money, and a sufficient supply of bread and flour to last him a fortnight, and moreover presented him with a donkey to carry his stores, and with this he was very well satisfied. The rest of the Taghliks preferred to go with us right through to Tsaidam, whence they proposed to return home over the Chimen-tagh or over Bokalik. As during the past few days their conduct had been quite exemplary, they were freed from their bonds at night, and for the future were allowed to sleep in peace.

On August 27th, when we started to continue our journey along the northern shore of the lake, the solitary Taghlik took his leave of us, and turned back along our

A PART OF THE EASTERN ARKA-TAGH, SEEN FROM THE SOUTH

trail, driving his donkey on before him. I was really sorry for the poor fellow at having to travel all that long way by himself, but he was only too glad to get away from us. He had plotted to cheat us, but had fallen into his own trap: it had not been quite so easy to deceive us and rob us as he had imagined.

The sick camel was now mending nicely, and got through the day's march very creditably.

The ground was very favourable for the animals, for we kept close to the lake side, and so escaped the eternal up-and-down hill, which was so exceedingly tiring. The green slaty rocks fell tolerably steeply towards the lake, but at their foot, and between them and the water, was a gravel slope, stretching a considerable distance into the lake. The strip of shore varied in breadth, though in general it was narrow. The ground was hard and very little cut up by rivulets. The water of the lake was perfectly clear, but salt, and at noon had a temperature of 41° Fahr. (5° C.). A narrow fringe of white scum, mingled with brown decayed *algæ*, rocked on the waves as they beat upon the shore. The only living creatures we observed were wagtails and flies. East and west there were magnificent views—the winding shore of the lake, with its mountain offsets, showing a fascinating interplay of colour effects, the slightly crumpled surface of the lake, and arching all in a sky of the purest blue.

This lake, like all those which we encountered later, was long and narrow, a form evidently due to the latitudinal mountain-ranges on the north and south. The farther we advanced towards the east, the more indented and irregular was the outline of its shore. In places we came across small lagoons, and round them the ground was soft and muddy. Shortly before reaching the end of the lake, which terminated in a creek, we had to climb over another cluster of low hills. Then we came to the yellowish-red stream, which flowed into the creek at the end of the lake, through a delta with innumerable small arms and several large ones.

The stream was bordered on the left (as we rode

towards the south-east) by hills of red loess, gently rounded, but sterile. The ground however soon became so soft that the animals were scarcely able to plough their way along with their burdens; we therefore turned up a side-glen to avoid it. The glen led us to a watershed, on the other side of which the drainage channels all flowed towards the east. There we were overtaken by the usual afternoon storm, which lasted an hour.

All day long we had on our left, that is to the north, the spurs of the Arka-tagh, each spur being entirely free from snow. But from camp No. XIII., which we made on the sheltered side of a low hill, we beheld a glittering white double peak soaring above the tops of every other mountain.

The region we were now travelling through swarmed with khulans (wild asses), but they kept at such a distance from us that all attempts to get a shot at them were unavailing. Yolldash however was of a different opinion. He galloped after them, and derived a never-ending delight from putting them to flight. He repeated the manœuvre time after time, and after every chase came back to the caravan, panting and puffing, and with his tongue hanging out. It was comical to watch him when he caught sight of a fresh troop of khulans. He pricked his ears, his eyes sparkled, and for a while he squatted down on his haunches and gazed at them fixedly, without moving, then he slowly stalked them for a while, and finally set off as hard as he could race, like an arrow from a bow. But no sooner did the shy animals catch sight of the dog than off they went with the speed of the wind, and in a few moments left their pursuer far behind them. Nor did Yolldash learn wisdom from experience. At the sight of the next troop off he went again, and so tired himself out to no purpose.

When we drew near to the place where we intended to encamp for the night, I missed the dog. I thought that, as he was tired, he had perhaps joined the camel-caravan; but the camel-caravan came in without him. The last time any of the men saw him, he disappeared

at the heels of a troop of khulans behind the hills on the right of our line of march. I was afraid he had continued his pursuit too far, and lost the trail of the caravan, and so had gone quite astray. I sent a man back to the place where the dog was seen last; it was where we left a donkey that was completely exhausted. But the man came back without having seen any trace of the dog, and he left the donkey behind dying. A couple of horses, which had also given up, were on the other hand brought into camp. The camels stood the fatigues of the journey best.

Once more it was evening. I had my tea, and bread and rice pudding, and then smoked a pipe or two, whilst I worked out the notes I took on the road during the day. When I lay down to sleep, I felt quite lonely without Yolldash, for he was my best companion, and ate and slept at my side. But at three o'clock in the morning I was awakened by something pushing against my bed. There was "his lordship," wagging his tail and licking my face, literally beside himself with joy. The poor beast had been on foot all the afternoon and night seeking us; he was actually too tired to eat, but with a sigh of intense relief curled himself up at once in his usual sleeping-place.

August 28th. The ground was quite level, and with the exception of the two sick horses, all the animals marched well. The Southern Mountain Range was now clearly distinguishable; its snowfields were at a less altitude than those of the Arka-tagh. This day we crossed another low pass. The watershed we passed over the day before must therefore have been of secondary importance only, especially as the intricately winding stream, which we had followed most of the day, curved round it on the north. Now however the drainage channels all flowed definitely towards the east, converging upon a tiny freshwater lake. East of the pass stretched a broad shallow valley, to all appearance quite level; but it had a slope, as was proved by a deep dry watercourse.

There was an abundance of grass everywhere in that region, and consequently great numbers of khulans. One

solitary khulan, a beautiful animal, striped with brown and greyish-yellow, kept ahead of the caravan for close upon two hours, but always at a long distance from us. Sometimes he trotted, sometimes he galloped, with his little tail sticking straight out behind him, but always with his head proudly arched, the incarnation of vigilant energy. Ever and anon he stopped and turned round and gazed at us, and uttered a curious sound, something between the horse's whinny and the donkey's bray. But no sooner did we approach nearer than off he went again, and so on time after time, as though he wanted to show us the way. Then Yollbars, our other big shaggy dog, set off after him. Strange to say, the khulan was not in the least alarmed, but stopped as soon as he saw the dog. At this Yollbars was taken suddenly aback, and stood stock still. That seemed to divert the khulan. He plucked up courage and charged straight down upon the dog. It was now Yollbars' turn to flee, and back he came galloping to the caravan with his tail between his legs.

The ground still continued extraordinarily level. True, we had numbers of low hills on both sides of us, but they were either ramifications of the mountains behind or stood singly isolated. The usual hailstorm came on at half-past one—came as unfailingly every day about the same time as though its onset were regulated by clockwork.

At length we turned off towards the south-east, enticed by some green hills a little way off. There we found another small lake, into which various tiny brooks emptied themselves. We halted on its southern shore after a march of 16½ miles.

The water in the lake was slightly saline, but had a very disagreeable flavour, so that we were unable to drink it. Islam Bai tried to stalk a khulan, but was unsuccessful. The evening was clear and still, not a sound reached our lonely camp. We were alone in the boundless wilds of Tibet.

CHAPTER LXXXII.

THE WILD ASS

AUGUST 29th. Crossing over the hills which bordered the east side of the lake, and then a brook of clear bright water, we approached a broad trough-like valley paved with hard gravel, so that it was easy travelling for the animals. The lake was thus on our left. The stream which flowed into it formed an extensive delta at its western end. After that the lake was hidden behind a low, softly rounded ridge; and on our right we had another similar ridge, beyond which the great snowy peaks of the Southern Mountains glittered in the distance.

In the depression between the ridges, in which there were thin patches of grass, we surprised a khulan. As usual he ran on a short distance ahead of the caravan, pursued by the dogs, but took no further notice of them. Every time he stopped, he viewed the caravan with close attention and great wonder, pricked his ears, expanded his nostrils, and arched his head high. Islam Bai managed to get within range of him, by creeping down a ravine between two hills. He fired two shots at the wild ass; but the animal moved off a few paces none the worse for them. He merely sniffed the wind, and gazed at us with continued curiosity and wonder.

At the third shot he turned and trotted slowly off towards the east, but went rather lame. When we came up to his trail, we saw it was sprinkled with blood. The wild ass was evidently wounded. That being so, we must have the skin at all costs. We now took the khulan for our guide; but he led us further to the north than we wished to go. He was hit in the right hind-leg,

which he trailed uselessly behind him. But he had a good start of us.

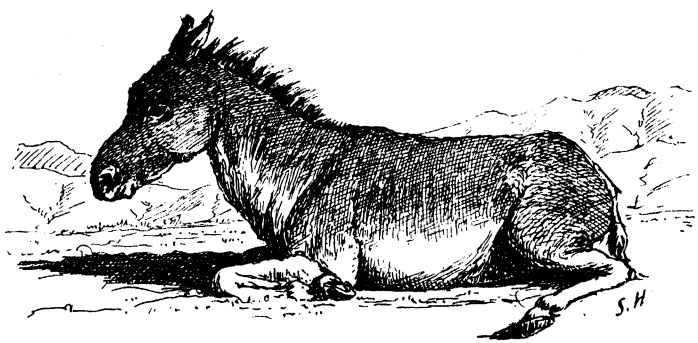
Islam Bai and Parpi Bai went after him as fast as their horses were able to get over the ground; whilst I and Emin Mirza followed at our usual pace. Meanwhile the khulan had stopped to rest, and when we came up to the spot where he rested, we discovered a large pool of blood. He could not hold out long now; all the same he led us a chase of two full hours. At length he conceived the unfortunate idea of quitting the easy valley and trying to climb the flanks of the hills on the left.

At this point we passed another small salt lake on our right, and upon reaching the top of the ridge beheld again the eastern end of the large lake whose southern shore we had followed. Then, crossing over more gentle hills, where the ground was soft and tiring, we approached a small pass, which descended on the north-east pretty steeply to a perfectly level sai (a slope at the foot of a mountain). The stream, which coursed along the sai towards the lake, was split into several arms.

In the middle of the wet sandy belt between two branches of the river the khulan at last fell. Islam Bai and Parpi were by this close upon him; they instantly jumped off their horses and bound his forelegs. And there the creature lay still alive in the most natural position, and regarded us without any perceptible sign of fear. Every now and again however he endeavoured to get up, and struggled on a step or two, but soon fell again. He was wounded in the right hind-leg above the heel, and a portion of the bone showed in the wound, which was very bloody. The khulan was a splendid specimen of his race, a male in fine condition, evidently the sentry of the troop of five which we saw a little way back. His curiosity and desire to protect his companions had led him a little too far, and so into danger. His teeth indicated that he was about nine years old.

On the whole the wild ass bears the closest resemblance to the mule: in other words, he comes intermediate between the horse and the ass, but is nearer to the latter than to

the former. The ears are longer than the horse's, but shorter than the ass's. The tail resembles that of an ass, and only has hair at its lower end. The mane too, which is black and thin, is like that of the ass, in that it is short (about four inches long), and stands stiff and upright. It is continued along the spine in a black line, and finally terminates in the tail. On the back the animal is a reddish-brown colour, which gradually passes over into white down the ribs and sides; underneath it is white. The nose is grey; the ears dark, but white on the inside; the legs gradually shade off to white down by the hoofs. The hoofs are strong, though not quite hard, and are



A WOUNDED KHULAN (WILD ASS)

as large as the horse's. The eyes are brown, with a big black pupil, of the same shape and appearance as in the horse and domestic ass. The chest is broad and strongly developed, so as to accommodate a pair of powerful lungs. The neck too is massive and muscular. But the muscles of the hind legs are especially thick and sinewy, well adapted for developing great speed. The nostrils are very much larger than the horse's. When the wounded khulan sniffed after his companions and snorted, and also when he uttered his harsh scream or neigh, his nostrils expanded into two large apertures, surrounded by taut sinewy muscles, and projected almost straight out before him. In short, the wild ass's nostrils are constructed on a similar scale to his lungs, the whole

respiratory apparatus being specially adapted for the highly rarefied atmosphere he lives in. The Persians therefore in slitting up the nostrils of their tame asses, when they are going to employ them for transport purposes in mountainous regions, really obey a law of nature. Experience has taught them that the animals can then breathe more easily.

Our khulan had, if I may be allowed the expression, a more pronounced Roman nose than the tame ass; that is to say, the profile of his face curved more sharply outwards. The expression of the eyes, which were well protected by eyebrows and eyelashes, was gentle and peaceful. In length, from the edge of his upper lip along his spine to the root of his tail, he measured 7 ft. 7 in. His girth just behind the forelegs was 4 ft. 10 in., and in front of them 5 ft. 3 in. Round the neck immediately behind the ears he measured $31\frac{1}{2}$ inches, immediately in front of them 35 inches. Round the head over the eyes he measured $33\frac{3}{4}$ inches, and round his nose $18\frac{1}{2}$ inches; whilst the space between the crown of the head and the edge of the upper lip was $25\frac{1}{2}$ inches.

Whilst I was measuring and sketching him, he lay perfectly still and quiet, and did not appear to feel any pain from his wound, in which the blood had already coagulated, and he was so destitute of fear that he let me stroke him over the nose without resenting it. When I had done with the beautiful creature, he was given his quietus with a well-directed thrust of a knife. Then the men set to work to flay him, taking very special pains not to injure the skin, which was afterwards spread out on the ground to dry. The best portions of the flesh were taken care of; the rest was left where it was, whilst the dogs feasted on the scraps and offal.

Camp XV., which we reached at the end of fifteen and a half miles, was pitched at the foot of a hill. As the men had worked hard to capture the khulan and get me his skin, and as our animals were a good deal spent, the next day was given up to rest, and as it happened, it was a Sunday.

The westerly storm! No, it did not forget us—nothing of the kind. At half-past one down it swooped with the same unerring certainty it had displayed on each of the days preceding, and in its wake followed a blinding snow-storm. After it had passed, it turned out a splendid afternoon; the sunset was magnificent, the hills and mountains in the west being outlined like inky black silhouettes, whilst in the east they were bathed in vivid reds and yellows.

The next day, August 30th, every man made the most of the opportunity to sleep all he could, whilst the caravan animals roamed over the hills plucking the grass. I made an excursion to the lake that lay to the west of the camp.

A GULL (HANGHEITT) FROM NORTH TIBET

The chief drainage artery of the locality poured its water into a small lagoon, whence it made its way into the lake by a number of small channels. The water, although perfectly clear, was so salt that it stuck to my fingers. Near the shore there were a quantity of white gulls (the men called them *hangheitt*), diving under the waves as they curled towards them. The ground was covered with fine gravel and coarse sand, derived from the same green slates which were everywhere so prevalent. Six or seven feet above the existing level of the lake I observed another shore-line, but could not make out whether it was due to a higher level during the inflow of the summer floods or whether it was simply caused by the beating of the waves. Now that I commanded a full view of the lake I perceived that the waves could be both high and

strong; for they came rolling up from the west tipped with spray, and beat upon the shore with the harmonious regularity of a ring of bells. At three o'clock in the afternoon the temperature of the water was 55°9 Fahr. (13°3 C.) as compared with 52°3 Fahr. (11°3 C.) for the air. The surface of the lake, which lay between the arms of the two ridges, had approximately the same altitude as camp No. XV., or 16,195 feet above the level of the sea. For the sake of clearness, I decided to number these several lakes; this one of which I have just been speaking was therefore No. 5.*

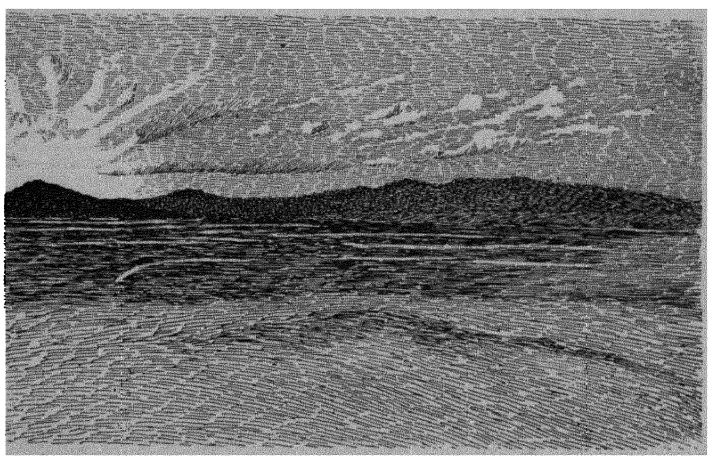
August 31st. Immediately to the east of the camp we discovered a tiny freshwater lake, fed by a glacial torrent from the Arka-tagh. After passing a low range of dark mountains on our left, we turned off towards the east-south-east across a rolling grassy country. Then we entered another latitudinal valley, poorly supplied with water, but tolerably well grassed; and there we observed numbers of khulans, antelopes, and hares. Beyond the 8th lake we crossed another magnificent watershed, on the other (east) side of which all the watercourses drained into lake No. 9. This was an isolated central basin, for it was encompassed by the large lakes into which the Arka-tagh and the great Southern Mountains poured their melting snows. This day we could not see the Arka-tagh: it was hidden behind its own outlying chains. But the snowy peaks of its counterpart frequently glittered down upon us; for we advanced at such a slow rate that we seemed to get no nearer to it. To lake No. 10 it sent down a river of some magnitude. A short distance beyond this last we encamped beside a spring, having done 18½ miles between camp No. XV. and camp No. XVI.

East-south-east of the camp we had a grand peak, covered with vast expanses of snow, among them some small glacier formations; we also caught glimpses of a number of peaks towering up in the west.

* Many of these small lakes are not shown on the map, printed at the end of this volume.

Thanks to the level ground we were travelling over, and to the grass, though this was somewhat scanty it is true, the caravan animals still held out capitally, although we had already lost several of the donkeys.

September 1st. At first our road lay across a low level ridge, with a hard surface, which would have been first-rate for the animals, had it not been that it was honeycombed like a rabbit-warren by a small rodent (*teshikan*). We saw some of the creatures bobbing into their holes with a little squeak; but the holes caused the horses to stumble incessantly.

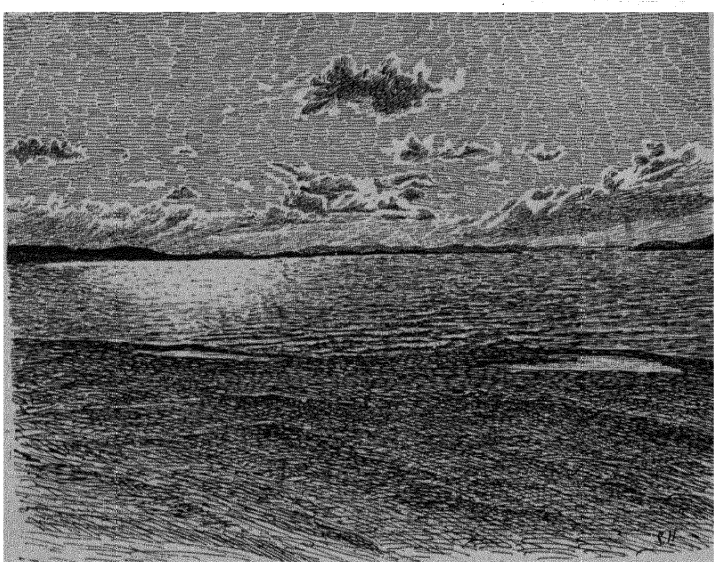


SUNSET AT CAMP NO. XV.

On my map I distinguished the high, dominating peaks which overlooked our line of march from both sides by letters of the alphabet, and determined their position by a series of bearings taken from various points. To-day right underneath one of these peaks the green slates came to an abrupt termination. Then for some distance the surface was strewn with pieces of tuff, about two cubic feet big, of the same kind as that we met with before; the ground between was barren. In the distance we frequently saw herds of five or six *yurgheh* (antelopes) —an animal with a long, narrow, lyre-shaped horn, and

called by the Tibetans *orongo*. Although Islam tried his hardest, he never succeeded in getting within range of them. They gazed at us attentively, then with quick, elastic leaps disappeared behind the desolate hills.

Beyond the snowy mountain-peak we again found fine, close-growing herbage; and the ground was actually spotted brown with the droppings of the wild yak, so abundant were they. The men always had two or three



THE GREAT SALT LAKE OF CAMP NO. XV.
View from its Eastern Shore

empty sacks hanging at the camels' harness during the march; and as they went along, they filled them with that splendid fuel. Thanks to the favourable country, we accomplished not less than 20½ miles before we halted at camp No. XVII.

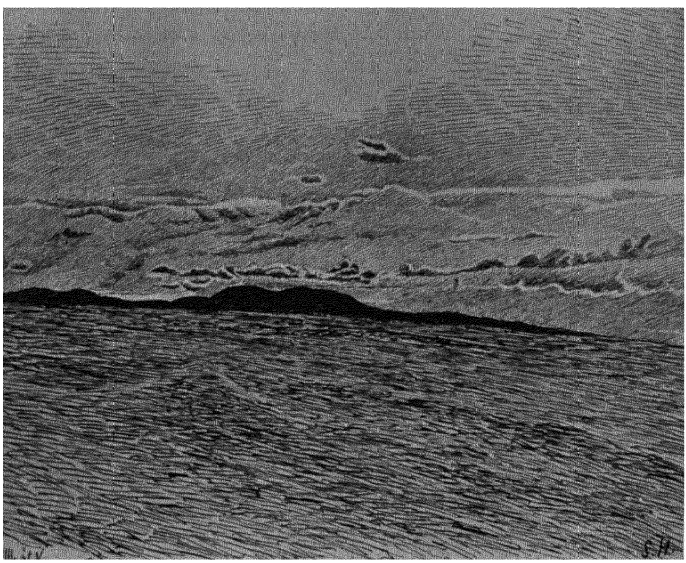
September 2nd. We skirted pretty near to the Southern Mountains, and discovered two or three new lakes. Although the ground was strewn with fragments of green slate and black tuff, the bare rock was not visible. Animal

life was represented by antelopes, a fox, swallows, and larks. But our most interesting discovery this day was, that human beings had once been there before us. At one point there was a well-defined gap in the Southern Range, and through it appeared very conspicuously a rounded mountain-top capped with snow; and on the left of the mountain there was plainly distinguishable an easy pass leading over the range. As soon as we came opposite that strongly marked feature, Parpi Bai rode up to me, and said that he recognized the locality again. "That was the pass by which the caravan of 'Bovolo Tura' (M. Bonvalot) and Prince Henry of Orleans had crossed the range."

Further on, we went down into yet another broad, shallow valley, in which were a couple of small lakes and some marshes. According to my reckoning, we could not now be very far from the route followed by the celebrated French travellers. And as I had Bonvalot's map in my pocket, I thought I ought to be able to identify the more prominent geographical features. I could now understand why at this point the red line indicating M. Bonvalot's route made a bend on the map. Bonvalot's map was not however sufficiently detailed; still there can be little doubt that his Dôme du Sature answers to my Mount D., and his Volcanoes des Ruysbruk are simply the black tuff hills, fragments of which were visible on every side of us. The marshes and lakes which I have mentioned are named by him "*fondrières et lacs gêlés*" (morasses and frozen lakes).

Seeing that the camel-caravan had taken quite a wrong direction, namely towards the north-east, I sent Parpi Bai after them, to turn them back towards the south, the direction in which the horse-caravan had gone. In the broad valley we were travelling down one of the men made a discovery which proved conclusively that our route and that of Bonvalot and Prince Henry of Orleans intersected just at that point. He found camel droppings, old and discoloured, and two or three pieces of white felt carpet (*kighiz*), such as is put on camels' backs to protect

them against the chafing of the packing-cases. We showed them to Parpi Bai. He pronounced them to be pieces of Charkhlik kighiz; and added, that the French travellers had as an actual fact bought a supply in that place. He recollected also, that just before they climbed the pass they did encamp in the place where the man found the pieces. This was for me an exceptionally happy find, since it enabled me to fix precisely where my route intersected that of the French explorers.



VIEW, LOOKING WEST, FROM CAMP NO. XVIII

We pitched camp No. XVIII. beside lake No. 14, after a march of $17\frac{1}{2}$ miles; the camp stood at an altitude of 16,750 feet. East-south-east there rose a cluster of pyramidal peaks and glaciers, which the men were afraid would prevent us from advancing. Our poor animals were getting in a bad way. Already one horse had been abandoned, and two others were so done up that they travelled with the donkeys, and without their loads. Indeed one of them was left behind in camp No. XVIII.

The evening passed and the night came, and nothing was seen of Parpi Bai. We began to be anxious about the camel-caravan. I saw that we must make up our minds to sacrifice the 3rd September as a rest-day. The missing caravan turned up during the course of the next morning. They had been obliged to leave a horse and a donkey on the road. One of the goats too was upon his last legs, and was killed. The camels and other animals were still in pretty good condition, and were turned loose to graze.

Early in the morning Islam Bai caught sight of a yak cow, with two calves at her heels, grazing on the other side of the lake. Taking a rifle, he set out on horseback to try and get a shot at her. He came back at noon, and with some degree of elation told us, that he had "potted" the yak with a couple of balls, one of which penetrated under the spine. Leaving his horse tethered at some distance, he stole upon his prey on foot. The inexperienced calves were wholly unconscious of danger, and their dam, running to warn them, fell an easy victim; but directly she fell, the young ones fled behind the nearest hills.

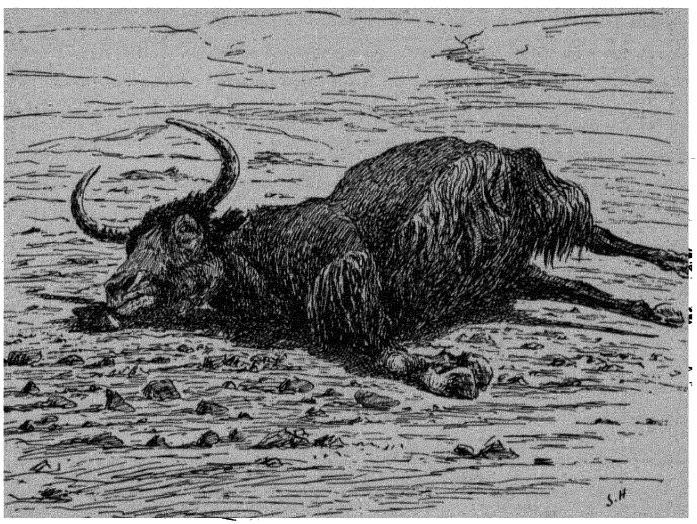
CHAPTER LXXXIII.

HUNTING THE WILD YAK

EARLY in the afternoon I started for the dead yak, intending to measure and sketch the animal. But she was already inflated with gas, and as hard as a drum, whilst a liquid mingled with blood trickled noisily out of her mouth. From the inner corner of her upper lip to the root of her tail she measured 8 feet. The length of the head, from the base of the horn to the upper lip, was 22½ inches; the circumference of the muzzle 17½ inches; above the eyes 29½ inches; round the neck behind the ears 28 inches. Her height at the shoulder was 4 ft. 6 in.; at the loins (her legs being stretched straight out) 4 ft. 5 in. The tail, including the tuft at the end, measured 31½ inches in length; whilst the length of the horns on the outside was 17 inches, and on the inside 15¾ inches, and their circumference at the root 7½ inches. I did not measure the girth of the body owing to its distention. Its colour was black as coal, with a magnificent tuft at the end of the tail. The hoofs were powerful; the udder not very developed, but the teats on the other hand were large. Thick black fringes of woolly hair hung like draperies down the animal's sides; but there was none under its belly. The bottom jaw was equipped with eight slanting incisor teeth, the upper jaw with a broad horny callosity. The tongue was thickly covered with horny barbs, directed backwards towards the throat. With these the yak plucks up grass, lichens, and mosses, using its tongue more than its teeth and horny upper jaw in grazing.

Finding that yaks were numerous in that neighbourhood, we decided not to take the skin, but wait until we

brought a better proportioned animal to the ground. Nevertheless the men chopped out the best pieces of the meat with their axes, as well as the tongue. The latter served me for breakfast for several days, and was excellent eating. The flesh on the contrary was tough, sorry stuff, and had to be boiled several times over before it became anything like tender; but this was also partly the result of the rarefied atmosphere, for water boiled at about 180° Fahr. We also took the tail, and the long fringes of hair, which the men wove into ropes and cords. Further they



A DEAD WILD YAK-COW

arranged some of the hair underneath the front part of their hats to shade their eyes against the sun.

Whilst we were busy with the dead yak, another cow approached within a hundred and fifty yards, then stopped and gazed at us in amazement. Our dogs, ignorant of the noble art of venerie, chased her away, and off she went at a good jog-trot over the hills.

Towards evening we caught sight of a magnificent animal, grazing alone, but near the horses, to which however he seemed to pay no heed. Islam Bai, whose

hunter's appetite was now keenly whetted, stalked him like a panther against the wind, and arriving well within range began to blaze away at him. The yak fell at the third shot. But the next instant he was on his legs again, and charging madly down upon the disturber of his peace. He got another bullet, which made him spin right round; but nothing daunted, back he came to the charge. However he fell several times, always struggling to his feet again, till he at length dropped at the seventh bullet, and lay motionless. Thereupon Islam returned to camp triumphant, declaring that no finer skin could be got. The bull, for such it was, lay on the line of march I had planned for the morrow; hence we decided to leave some of the men to flay him when we went past, as well as a camel to carry the skin to our next camp, which would not be very much farther to the east.

Accordingly on September 4th, we once more got under way. Islam remembered precisely where he killed the yak; it was between the hills. Imagine therefore our amazement, when we came to the place, and found the bull had disappeared!

Islam was so thunderstruck that for a long time he was unable to get out a word. When he did find his voice, he swore that the yak *was* dead when he left him the evening before. However the soft moist ground betrayed the fact, that he had recovered, and in spite of his many wounds had managed to get away. His track seemed to show however that he had fallen again and again, at every few yards. All the same, he could not possibly have travelled very far. Following up his spoor, we soon saw him from the top of the hill. He was walking quietly along by the edge of a spring and pool, sniffing the ground. When we approached within a hundred yards of him, he turned round, and stood and watched us, with his head up in the air. Islam planted another bullet in him. That enraged him to such a degree that he rushed towards us in blind fury. We judged it best to beat a retreat; but had barely turned our startled horses round when he was upon us. But luckily he

stopped twenty paces away, grunting madly, wildly rolled his eyes, snorted, drew in his breath violently, flung up the sand with his nose and horns, till he enveloped himself in a perfect cloud of it, and lashed his sides furiously with his tail.

At about thirty paces' distance Islam put in yet another shot, which made the yak spin round a good many times. Yolldash made a dash at him; but when the maddened bull advanced to meet him with his horns lowered and his tail in the air, Yolldash instantly turned and fled. The tenth shot broke the bull's left leg, so that it hung loosely when, in the madness of despair, he danced round another two or three times. Finally, at closer quarters, Islam let drive for the eleventh time. The bullet penetrated behind the shoulder, and lodging in a more vital part, put an end to the animal's torment. He fell on his right side. When we approached him, he made a last effort to get up, but could not do so. Shortly after that he died, quietly, without any death-struggle.

I made a couple of sketches of him from different points of view. He was a magnificent animal. His incisors were worn down almost level with his gums, proving him to be an old bull; indeed the outermost two were embedded in the flesh. His horns too were slightly burst open on the inner side, another sign of advanced age. Iskender, one of the Taghliks, who had taken part in many a yak hunt, declared that the bull was about twenty years old. The wild yak, he said, lives on an average six years longer than the tame yak, and the latter at twenty years of age is regarded as worn out.

I took the following measurements of the animal. Length from the edge of the upper lip to the root of the tail, 10 ft. 8 in. Length of the tail, including the tuft at the end, 3 ft. 6 in.; circumference of the tail at the root, $7\frac{1}{2}$ in. Length of head from the base of the horn to the upper lip, $28\frac{1}{2}$ in. Distance between the eyes, 17 in. Length of horn on the outside, $30\frac{1}{2}$ in.; on the inside, $19\frac{1}{2}$ in. From this it will be apparent that the horns were very much curved. Circumference of horn

at base, 14 in.; distance between the tips of the horns, 12 in. Circumference of the head, round the muzzle, 24 in.; ditto over the eyes, 44¼ in. Girth of the neck behind the ears, 4 ft. 1 in. Girth of body immediately behind the forelegs, 8 ft. 0½ in. Length of hair on flank, 25½ in.; above the foreleg, 21¼ in.; under the jaw, 4 to 6 in. Circumference of fore-hoof, 16½ in.; its diameter diagonally, 4¼ in.

Its hair was magnificent, thick and even; indeed the long hanging fringes on the sides were so thick that they

THE WILD YAK-BULL

made an actual cushion for the animal to lie on — a sufficient protection against even the rigorous winter climate of Tibet. The hair was a pitch black colour; but the top quarters when seen in a certain light inclined towards dark brown. Along the backbone the hair was very long and black. The eyes were brown, with a black pupil, and very small, the major axis of their opening being hardly 1¾ in. The hair round the eyes was thinnest, and as fine as velvet. On the other hand it was thick and tufted on the cheek and between the horns; on the nose it inclined to be grey.

The tongue was set with extraordinarily hard, sharp barbs. Both tongue and gums were tinged a greyish-blue, as in the tame yak. The muzzle was very broad; the nostrils rather longer, flattened, and turned upwards at a slightly oblique angle. The horns were extraordinarily powerful, and formidable by reason of their sharp points. The close woolly hair swept the ground when the animal stood, and, as I have said, made a soft cushion when he lay down. The tail was enormous; the hoofs strong and powerful; and of such the yak has need, to carry his immense weight over rough and stony ground. The two claws of the hoof can easily be drawn very close together, thus increasing the animal's hold upon the ground when climbing slippery rocks or crossing the slopes of loose mountain *débris*. Behind the hoofs proper were a pair of large secondary hoofs; but they did not touch the ground.

When the yak stands upright on its feet, its shoulder forms a conspicuous solid arch, and from it the neck sweeps sharply down towards the head, which the animal always carries close to the ground. In a similar manner the back slopes away, though less abruptly, towards the root of the tail. The height in the pelvic region is thus much less than at the shoulder. An animal which attains the dimensions I have given must evidently be exceedingly heavy. It took a single man all his time to raise the head of Islam's yak bull; and when the men loaded the flayed skin on the back of the kneeling camel it required four of them to lift it; the head however was still attached, that it might be better cured in camp.

It is marvellous that such a huge beast can subsist and develop such enormous muscular strength on the miserable herbage which those highlands afford. In winter the grass is dead and withered, and even in summer so tough and bitter that our caravan animals would only eat it when driven to do so by extreme hunger.

When the yak is pursued, it goes with a heavy clumsy sort of jog-trot, but gets swiftly over the ground; its tail hanging down and its head carried a little higher

than usual; whilst its long hair trails on the ground. One advantage the yak always has over its pursuers: it never gets short of breath. When it perceives that danger threatens, it sets off at a gallop, with its head down and its tail in the air. When shot at, it stops; and when wounded, will charge its pursuer. In such a case it is prudent to be well on the alert.

Iskender and the other Taghliks told us, that in Cherchen, Charkhlik, and Achan (places at the northern foot of the Kwen-lun Mountains) there lived *pavans* or hunters who gained their livelihood almost entirely by hunting the yak. Their hunting-grounds are the Arka-tagh and Chimen-tagh in Northern Tibet. Each hunter takes with him two men, and a donkey to carry home the skin. But generally two or more hunters work together, so as to support one another if they are attacked by the yak. They are said to be such skilful and perfect marksmen, that they not seldom bring down their prey at the first shot, which must of course be lodged in the heart. They do not like to fire at more than sixty paces, and aim at a spot behind the shoulder. If the bullet penetrates the pelvic region, the animal will not succumb for two or three days after. If it strikes any other part, the yak troubles himself very little about it. To aim at the head is a mere waste of powder, for no bullet will penetrate the massive bone of the forehead. If a bullet does happen to strike a yak there, he merely shakes his head and grunts. But it is a good thing to break one of the legs, for that enables the hunter to put in his second bullet at close quarters, as well as hampers the animal if he charges. From the story of Islam Bai's many shots at our yak bull, it will be evident, that no bullet is really profitably expended unless it strikes a vital organ. It was, it will be remembered, only at the eleventh shot, which penetrated in the neighbourhood of the heart, that the huge monster fell.

The rifles which the Taghlik hunters use are made in the cities of East Turkestan. They are long heavy muzzle-loaders, with flint locks, and when fired are rested on a fork of antelope's horn. With his rifle in his hand,

the hunter creeps close along the ground, skilfully availing himself of the slightest scrap of cover. As soon as he gets within range, he rests his long rifle-barrel on the fork, and aims deliberately, and long, before he discharges his piece. As soon as the yak is dead, it is skinned. The skin is divided into three sections, two slits being made along the upper edge of the hair at the sides, the third along the median line of the belly. The best leather is obtained from the section off the back, which, like the top of the shoulder, is called *sirit*. It is employed for making

THE WILD YAK-BULL (FRONT VIEW)

saddles, saddle-girths, bridle-reins, whips, and so on, as well as for the better kind of boots. The other two sections are used for pretty nearly the same purposes, but are not so good in quality. The soft boots (*churuk*) which the Taghliks usually wear are made from the skin of the legs. The tail is generally hung up as a religious offering (*tugh*) at some masar (saint's tomb).

The skins are sold to the merchants of Cherchen, Charkhlik, and Achan, and they carry them to Khotan, where they sell them to the *kunchis*, *i.e.* tanners and saddlers. The skin of the yak is highly valued because of its extraordinary toughness and durability. It is almost

impossible to wear it out. The price for the skin of a full-grown yak bull is about 17*s.* 9*d.* But the skin of a cow or calf is much cheaper, and is divided into only two portions, for the sole reason that one donkey could not carry the whole skin.

The Taghliks look upon yak-hunting as a dangerous pursuit, and they are quite right in doing so, and also in hunting in company; for if the brute charges, the native hunter's position, with such a clumsy weapon as that he uses, and the little probability there is of his being able to escape, is anything but an enviable one. If he does have the misfortune to be struck by that thundering mass of solid flesh, with the sharp horns that it drives before it, his fate is irrevocably sealed.

So far extends my experience of this royal monarch of the desolate wilds of Tibet—an animal which excites our admiration not only in virtue of its imposing appearance, but also because it alone of living creatures is able to defy the loftiest altitudes, the bitterest cold, the most violent snowstorms and hailstorms which occur in any part of the earth. To all these things the wild yak is indifferent. He seems rather to enjoy it when the hail pelts down upon his back; and when the snows envelop him in their blinding whirl, he goes on quietly grazing as though nothing were the matter. The only extremity of climate which seems to disturb his equanimity is the summer sunshine. When it gets too warm for him, he takes a bath in the nearest stream, and climbs up the mountains to the cool expanses of the snowfields and the curving hollows of the glaciers, where he finds an especial pleasure in rolling himself and lying down to rest in the powdery snows of the *névés*.

CHAPTER LXXXIV.

LAKES WITHOUT END

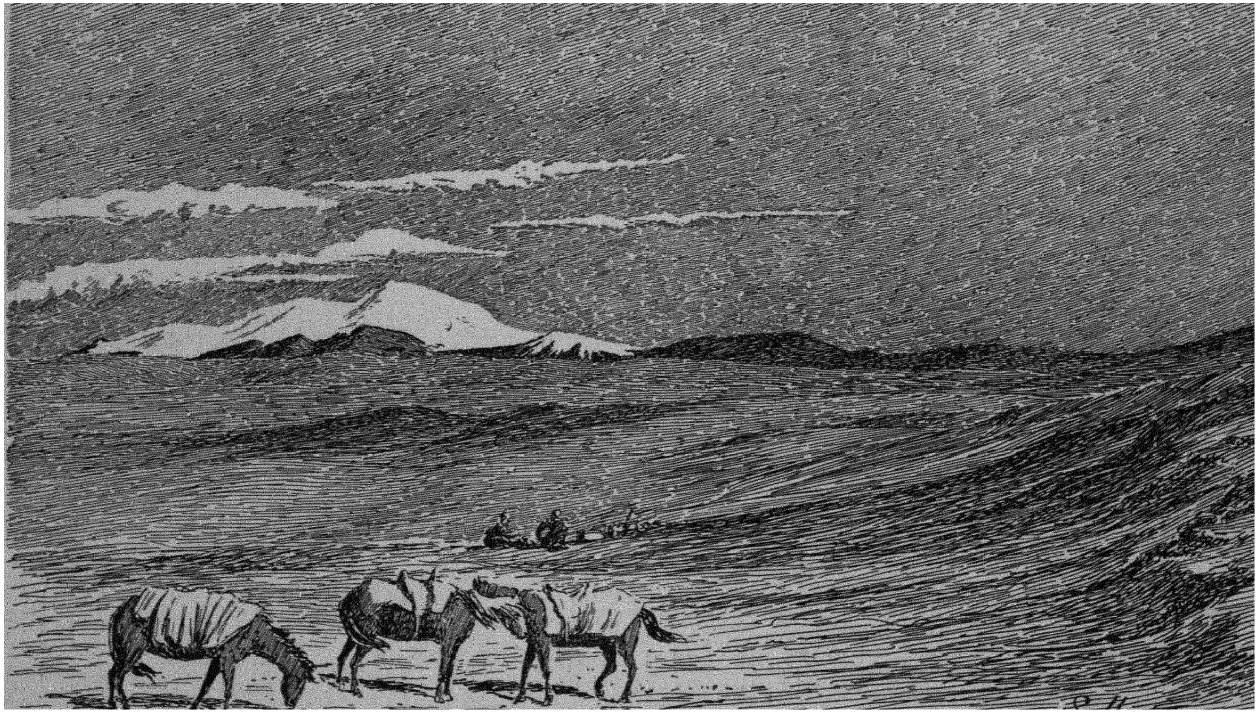
FROM camp No. XIX., where we rested a day, we saw in the south-east a magnificent pinnacled mountain-top, covered for two-thirds of its relative height with glittering snows. To that peak, which lifted its head far above all its neighbours, and like a lighthouse was visible from a very great distance, I gave the name of King Oscar Mountain.

On the east of the camp was a large lake, its waters incomparably bitter, but showing the loveliest shades of colour; whilst vast flocks of gulls rocked on its curling waves. It contained no islands; but the delta of one of the small streams which emptied into it stretched out an arm a long way into the lake. As we skirted the northern shore, we were accompanied for above an hour by a herd of yaks; but they took care to keep out of range. Curiously enough, a well-beaten track meandered along the lake-shore, as though it had been made by cattle and horsemen; but the Taghliks asserted, that it was a path used by the wild yaks and asses, and the foot-prints and droppings along it bore out their judgment. Seeing that the wild yak abounded so plentifully in that region, and must surely die some time or other, I confess I was astonished we had not hitherto come across any skeleton. The first we saw were two skulls with some other bones bleached and crumbling, lying beside this lake. Perhaps when the yak becomes conscious of the approach of death, it hides itself in some lonely, inaccessible retreat among the mountains or by the shores of some solitary lake, where the waves wash away its carcass.

After doing nineteen and a quarter miles we halted for the night at the foot of some hills, and near a brook at the east end of the lake. Four khulans, a stallion and three mares, circled round our camp all the afternoon, being apparently greatly astonished at us all. Round and round they trotted, with a short springy step, their heads in the air and turned towards us, and their tails streaming out obliquely. I never grew tired of watching them; they were such beautiful, such graceful creatures.

On September 7th, the country was as monotonous as before. The broad depression or valley between the Arka-tagh and the Southern Range still continued to be divided into a series of self-contained lake-basins without outlet. At the east end of lake No. 15 we descended an imperceptible slope of soft, moist sand to a small threshold or watershed between that lake-basin and the next. The following day however the country improved a good deal; the ground was hard, and the numerous watercourses small, so that we covered eighteen and a half miles. The almost dead level did not tire the animals anything like so much. Our worst enemy was the wind; which visited us daily, thoroughly chilling tent and furs. Camp No. XXII. stood 16,195 feet above sea-level.

On September 9th, we made the splendid record of twenty-four and three-quarter miles, our longest day's march in Tibet. We crossed the low ridge between lake No. 16 and a broad open valley on the other side, which led down to the next lake, beside which we pitched camp No. XXIII. But this forcing of the pace cost us a horse and a donkey. We were often obliged to make longer marches than we liked in order to reach such pasturage as was to be found; but this day we found none at all. We still had sufficient maize to last the animals ten days; but we husbanded the strength of our best horses as much as we possibly could. The days of many of the others were already unmistakeably numbered. The highest altitudes of the Southern Mountain Range were becoming more closely seamed with glaciers; the mountain-sides were sheathed with their icy mail, like the flanks of

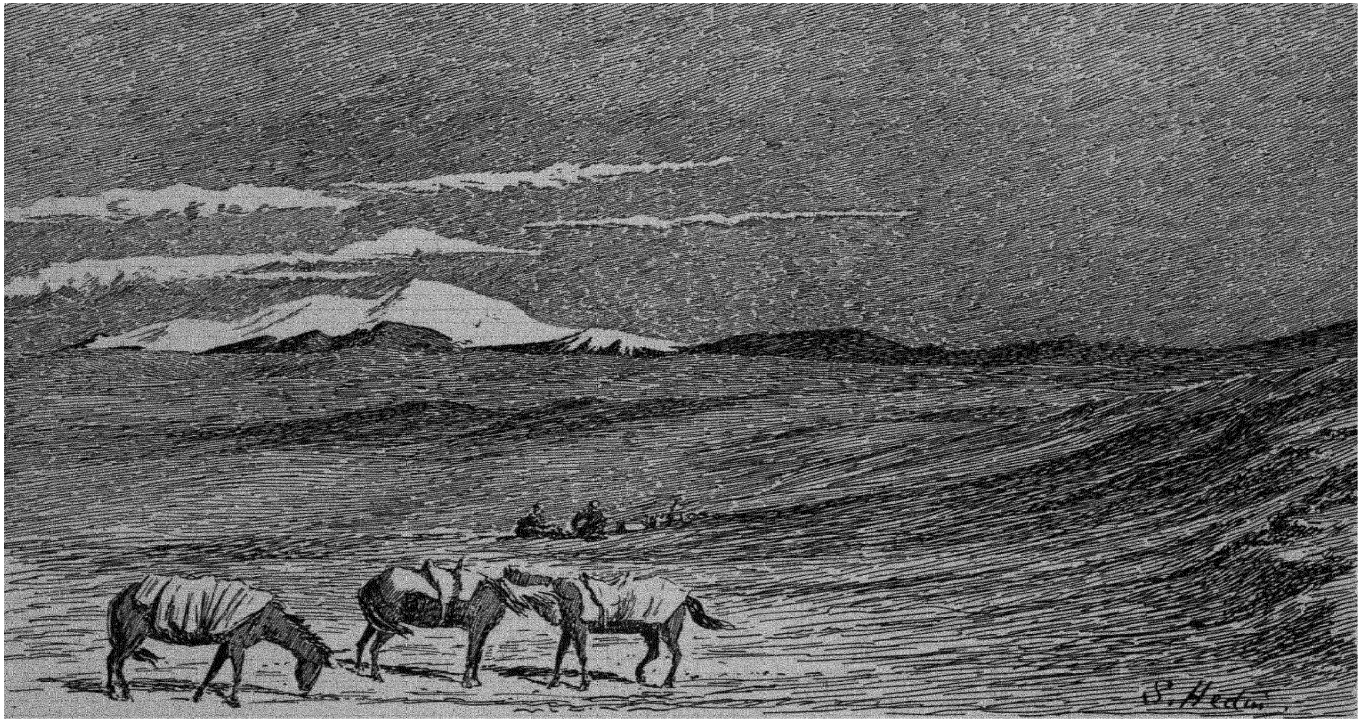


KING OSCAR MOUNTAIN, SEEN FROM THE NORTH

After doing nineteen and a quarter miles we halted for the night at the foot of some hills, and near a brook at the east end of the lake. Four khulans, a stallion and three mares, circled round our camp all the afternoon, being apparently greatly astonished at us all. Round and round they trotted, with a short springy step, their heads in the air and turned towards us, and their tails streaming out obliquely. I never grew tired of watching them; they were such beautiful, such graceful creatures.

On September 7th, the country was as monotonous as before. The broad depression or valley between the Arka-tagh and the Southern Range still continued to be divided into a series of self-contained lake-basins without outlet. At the east end of lake No. 15 we descended an imperceptible slope of soft, moist sand to a small threshold or watershed between that lake-basin and the next. The following day however the country improved a good deal; the ground was hard, and the numerous watercourses small, so that we covered eighteen and a half miles. The almost dead level did not tire the animals anything like so much. Our worst enemy was the wind; which visited us daily, thoroughly chilling tent and furs. Camp No. XXII. stood 16,195 feet above sea-level.

On September 9th, we made the splendid record of twenty-four and three-quarter miles, our longest day's march in Tibet. We crossed the low ridge between lake No. 16 and a broad open valley on the other side, which led down to the next lake, beside which we pitched camp No. XXIII. But this forcing of the pace cost us a horse and a donkey. We were often obliged to make longer marches than we liked in order to reach such pasturage as was to be found; but this day we found none at all. We still had sufficient maize to last the animals ten days; but we husbanded the strength of our best horses as much as we possibly could. The days of many of the others were already unmistakeably numbered. The highest altitudes of the Southern Mountain Range were becoming more closely seamed with glaciers; the mountain-sides were sheathed with their icy mail, like the flanks of



KING OSCAR MOUNTAIN, SEEN FROM THE NORTH

Mus-tagh-ata, although they did not send off any well-developed ice-streams.

September 10th. Our course lay eastwards—always eastwards—along a flat plain, traversed by a stream divided into innumerable narrow channels, which flowed to the next lake, No. 18. Beside this last we encamped; and there, since there was a fair quantity of grass on the neighbouring hills, we also rested a day. And the rest came opportunely, for it was perfectly wintry weather. It hailed and snowed all day long, and an icy wind blew from every quarter. The landscape was enshrouded in thick mist, so that we could not get a single glimpse of our surroundings.

We now took stock of our provision-chests, with the result that we saw it would be necessary to exercise strict economy for the future. We had possibly sufficient bread, flour, and tea to last us a month; but there were eleven of us, and we did not know how far it was to the nearest inhabited district. We had only one sheep left; but if the worst came to the worst, we should have to live upon yak beef. It was six weeks since we left the last inhabited dwelling, and we were all longing to meet with human beings, no matter who or what they were.

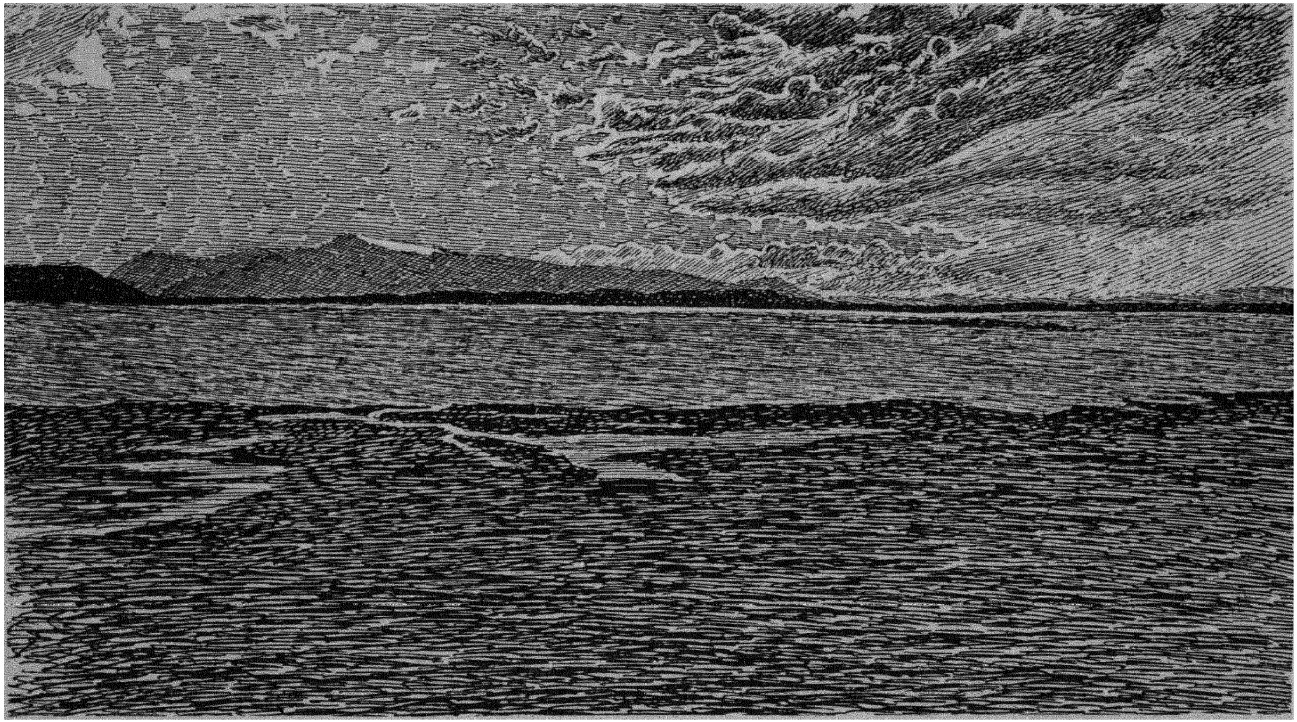
It was impossible to do any work all day. I sat on my bed inside the tent, wrapped in my furs, and finished the last sheets of my map, and read. But my fingers got stiff and blue with cold, so that when my tea was brought in, I was glad to warm them against the teapot. I only felt properly warm the first hour or two after meals; then that everlasting wind chilled me to the bone again.

The neighbourhood of our camp was gloomy and lifeless, except for the screaming of the gulls on the lake. Of vegetation there was not a sign, except the grass which already showed its autumn yellow tinge. The wind howled; the hard-grained snow whistled round the tent; the waves beat softly and monotonously against the shore. The shore on the opposite side was hidden

ardently did I long for a sight of it! All the more that I was now shut up in the heart of the vastest of the continents, many and many a mile from the eternal sea! The tent with its covering of white snow made a conspicuous object in the midst of the grey lonely scene. Our wearied animals nibbled the scanty grass on the hills near by. Some of the men were asleep in their tent; others sat outside, round the fire of wild-yak dung, which sent up a thick column of black smoke. Night came as welcome as an anxiously expected guest. Once in my fur nest of a bed, I soon became warm; and on the wings of gentle dreams I visited that dear spot of earth towards which my desire grew stronger with every day that passed. But we were still a long, long way from Peking; and thither I *must* go. But once there, I should consider myself at home.

September 12th. At five o'clock in the morning, when we set about getting ready for the start, the ground was everywhere covered with snow, right down to the shore of the lake. The landscape was snow, snow, snow—nothing but snow; so that the icy summits of the Southern Mountains no longer gleamed out so prominently as they had hitherto done. But long before the morning was over, the sun had melted most of the snow, which, as it happened, had been heaped on the slope that looked towards the south and south-east. On the other hand the northern slopes remained white all day long, nor did the ice melt on the lagoons and streams. The temperature was the lowest we had hitherto experienced (10°9 Fahr. or − 11°7 C.), and it continued so until midday; and even after that time it was bitterly cold, in consequence of a persistent wind from the north-west. My hands suffered the most, as I was unable to protect them; I needed them every moment for map-sketching.

Like all the previous lakes, lake No. 18 had an east-west direction, and was one of the largest we encountered: we travelled beside it the whole of the day (sixteen and three-quarter miles). Before us the view was illimitable; on either hand were the giant mountains of the great



THE SALT LAKE AT CAMP NO. XXV.

Tibetan plateau. The irregular shore-line was edged with scum, and the breakers rolled against the slaty gravel with a curious metallic sound, no doubt the combined effect of the attenuated atmosphere and the high specific gravity of the water. It will readily be understood that the extreme rarefaction of the atmosphere must exercise an influence upon the acoustic properties of sound. For example, upon those lofty solitudes we were obliged to speak louder and more distinctly than usual; and I could not hear my watch tick unless I held it close to my ear.

At eleven o'clock in the morning the temperature of the air was still 30°9 Fahr. (−0°6 C.), whilst at the same hour that of the water was 45°1 Fahr. (7°3 C.), a fall of several degrees since the preceding day. Here for the first time we observed the track of a bear; indeed we followed it nearly all day. Further on a fox had come down to the lake. Again we crossed a number of small streams flowing from the Arka-tagh. Most of them formed a delta, more or less developed, with long tongues of sand jutting out still further into the lake; and these were always pointed towards the east or south-east, a fact which must probably be ascribed to the pressure exercised by the west wind.

During the march we lost a donkey. After we encamped we lost two more, also a cream-coloured horse which had done excellent service, carrying my instrument-cases all the way from Korla to Lop-nor, and thence *viâ* Cherchen to Khotan, and finally from Khotan to the present place. Our poor beasts were beginning to show terrible signs of the hard travelling. Not a day passed but we lost one, sometimes more. Their carcasses did not corrupt, but in the pure, cold, attenuated air simply shrivelled up to mummies; and there they now lie as memorials of the road we took through the wilds of Northern Tibet. The difficulties of the journey were greatly increased owing to the pasturage being less frequent, and of inferior quality, to that we met with during the first days of our march through the Tibetan

mountains. The plain fact is, horses and donkeys were not suited for such high altitudes. The camels stood the hardships of travel much better; yet even they had grown painfully thinner. The men maintained that the herbage was actually injurious to all the animals. But if so, how is it that the khulans and wild yaks thrive so well on it?

September 13th. This day, although we put seventeen and a half miles under our feet, only one donkey succumbed. The water in the creek at the east end of the lake was so far fresh, thanks to the stream which flowed into it, that the animals were able to drink it. At ten o'clock in the morning its temperature was 49°1 Fahr. (9°5 C.), whilst the temperature of the air was 38°7 Fahr. (3°7 C.). During the course of the morning the wind veered round to the south-west. In consequence of this the scum, which fringed the southern beach, drifted across the lake towards the northern shore like tufts of cotton. The surface of the ground rose imperceptibly towards the east, merging into a level plain, virtually a continuation of the lake-basin. Its marshy ground was very tiring for the animals. But we soon got higher, amongst a tangled labyrinth of low hills; from the top of one of which we obtained a splendid and comprehensive view of the large lake we had just left. Its western extremity was just visible as a faint line along the distant horizon, and above it loomed a row of snow-clad mountain summits.

Having crossed yet another level plain, likewise traversed by a stream making for the lake behind us, and threaded yet another labyrinth of low hills, we reached the saddle which bordered the basin of lake No. 18 on the east. Hour after hour we plodded our slow way through the desolate lifeless scene, the dead silence unbroken by a single sound. At length we reached a small pass overlooking a tiny isolated pool; and beside it I found the tents already pitched when I got down. I hoped, from the broken ground, that we should soon reach a Peripheral region, and

come in contact with some of the head-streams and feeders of the mighty Yang-tse-kiang.

Camp No. XXVI. (16,545 feet) was one of the most unfavourable we pitched upon. There was an almost total dearth of grazing, and there was not a single yak discoverable in the vicinity. Before I could get a little water boiled for my tea, I was obliged to sacrifice two or three of the tent-pegs. It was dark when the camels and the last five donkeys crawled into camp. The failure of the animals threatened to put us in a critical position, similar to that which overtook me during my journey across the Takla-makan Desert in 1895. My caravan was gradually melting away in the same way it did then. Then our eyes were constantly turned towards the east, seeking some relief from the unfavourable ground; so it was now. But we did not now suffer from want of water; and even though we lost every animal we possessed, we should still be able to reach some inhabited district on foot.

CHAPTER LXXXV.

TIBETAN STORMS

SEPTEMBER 14th. The death-register was lengthened by the addition of the deaths of a horse and a donkey. A flock of geese passed over our heads, flying north-west in the direction of Lop-nor—a strange spectacle at this season of the year. All day we toiled along between ridges of moderate elevation, down a broad valley, beside a crystal pure mountain-stream. But although the surface sloped very gradually downwards, it did not help the animals much, for the ground was soft and moist like mud, and they sank in over the hoofs at every step. Patches of snow were still left in places, and when they melted, they too saturated the ground.

I hoped that the stream we were travelling beside was the upper course of the Naptchitai-ulan-muren shown on the maps; but eventually we saw a long way ahead of us another large lake. But perhaps it was a freshwater lake? Perhaps the river flowed right through it, issuing again at the farther end? And my hopes rose as the vast area of the lake gradually became unfolded to our view: its surface made a straight line across the distant horizon. At length we reached the lake itself, and pitched our next camp (15,775 feet) between a couple of low hills on its southern shore, after doing seventeen and a quarter miles.

My first concern was to get a tin of water brought up from the lake. The water was bright and clear. I drank a mouthful of it: it was bitter salt. Another self-contained lake-basin then! and still another pass to surmount at its eastern end! Well, well! We had no choice in the matter. We could not strike off to the north or north-

east, so as to reach Tsaidam the sooner that way; for the insurmountable wall of the Arka-tagh reared itself up in our path. Besides, our animals were not equal to any real climbing; they would be incapable of climbing over anything more serious than a very low pass.

Towards evening the men sent a deputation to me, asking for a day's rest. Two camels and two donkeys were in a bad way, and unless they got rest would almost certainly succumb on the morrow.

On September 16th we travelled no less than twenty miles without losing a single animal. The lake stretched to an extraordinary length. I began to fancy it would be a worthy rival to the Issyk-kul, which is several days' journey long. But we must have been the victims of an optical delusion or mirage; for at the end of two to three hours' march the hills that lined both shores met together, forming a dark line above the level of the lake. Beyond doubt we had another pass in front of us. This time we were travelling along the southern shore of the lake, and there we found plenty of yak dung, as well as numerous spoor. We also picked up a yak's horn, with the mark of a knife-cut plainly distinguishable near the tip. We likewise discovered some fragments of a clay pitcher—another indication that human beings had some time or other been there before us.

Immediately after noon the clouds flocked closer together all round us, whilst a violent east wind arose, and in a very short time down came the usual snowstorm. It was the most violent storm of snow, and with the heaviest fall, I had experienced since I was on the Mustagh-ata. Clouds of powdery snow as fine as flour swept along close to the surface of the earth, succeeded every now and again by showers of hail—totally blotting out the landscape. The ground became instantly white; indeed we were actually snowed up sitting in our saddles. We seemed however to have left the region in which the west wind was prevalent; for during the last day or two the east wind had been the more general. The storm lasted almost two hours, and then the sun shone out again.

The new lake contracted to a long narrow creek. We turned off from it towards the east-south-east, and slowly made our way over the low hills towards the Southern Mountains, hoping to discover some herbage at their foot. On the right we left a small pool, beside which sat a grey bear in a brown study. Yolldash charged down upon him as bold as you please. But when Bruin looked like waiting for the attack, Yolldash turned tail, and fled back again as swift as an arrow, whilst the bear trotted off amongst the hills.

We did find herbage, some patches of it tolerably good, at any rate the best we had come across since we left Dalai-kurgan; we decided therefore to sacrifice another day for the animals' sakes. As it turned out, it was a wise decision; for hail, snow, and wind disputed for the supremacy from a very early hour in the morning. According to their wont, the men sat in a circle round the fire, and mended their ragged clothes and the saddles, whilst Emin Mirza read aloud to them. One of the camels was galled on the pads of his hind feet. Accordingly one of the men made him a pair of stockings of khulan skin, and sewed them on his feet. After that he got on capitally.

September 18th. The heavy snowfall of the preceding day made it difficult for the animals to find the herbage. One donkey was left in the camp, whilst two more of the horses were unfit for work. They were sent along with the last four donkeys; and of these again only one was able to carry anything like an appropriate load. We had now only eight horses left that were fit for service, and all of them were thin and pined. I, Islam Bai, and Parpi Bai were the only members of the caravan who rode. The rest of the men were obliged to walk. As I have said, two of the camels were not very capital, though the others were still in pretty fair condition. The dogs however were in fine trim; they got many a fat meal from the animals which died in camp.

The weather was splendid, and the ground quite level. We travelled along the base of the Southern Mountains,

OUR CARAVAN IN A HAILSTORM, NORTHERN TIBET

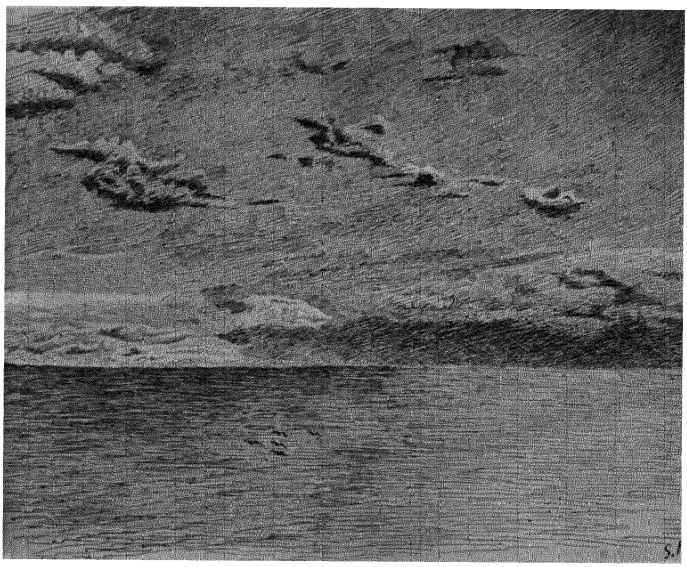
and did seventeen and a half miles before we stopped for the night at camp No. XXIX. There again we rested a day. It was imperative we should husband the animals' strength. About two o'clock in the morning I was awakened by a hurricane of snow, which threatened to rend the tent to pieces; and when daylight came, the snow lay in some places a foot deep. The amount of precipitation seemed to be much heavier in that district than in the regions we had passed through.

At five o'clock in the afternoon I had a hole dug, that I might take the temperature of the ground. At that hour the temperature of the atmosphere was 38°5 Fahr. (3°6 C.). At the depth of 8¼ inches the thermometer registered 37°2 Fahr. (2°9 C.); at 11½ inches 34°7 Fahr. (1°5 C.); at 19½ inches 33°9 Fahr. (1°05 C.); at 27½ inches 32°9 Fahr. (0°5 C.); and at 34½ inches 32°7 Fahr. (0°4 C.). The first four observations were made in fine yellow sand, resting upon blue-black mud and mould, which contained numerous remains of decayed vegetation. The upper layer of the earth used to freeze in the night to the depth of two finger's-breadths, rendering our march somewhat easier of a morning; but it always thawed again as soon as the sun rose.

September 20th. Sixteen miles to camp No. XXX. (15,175 feet). After a tramp of several hours over gentle hills we approached the saddle which bounded lake No. 19 on the east. There I stopped to reconnoitre, so as to ascertain which way to go. The Arka-tagh in the north-east was now lower than it had hitherto been; but we durst not attempt to cross the range with such an exhausted caravan, especially as the Taghliks thought that surmounting the pass would kill all the animals. To the east—yet another lake—yet another self-contained basin destitute of outflow. Was this chain of salt lakes never coming to an end? One thing however was encouraging. The descent from the saddle on which I stood was very much steeper on the east than the ascent had been on the west. We appeared to be approaching lower altitudes than those we had hitherto

travelled at. We also met with new species of plants, specimens of which I added to my botanical collection. Yet another donkey gave up; and the surviving three looked as though they would not last very much longer.

September 21st. The object we had before us throughout the whole of the day's march of sixteen miles was to reach lake No. 20. All day we followed the course of a stream which came down from the Southern



LAKE NO. 20, LOOKING EAST

On the shore of which camps No. XXXI.-XXXIV were pitched

Mountains and flowed into the lake ahead, catching up several tributaries on the way, a stream which had a volume of forty-five cubic feet in the second. None of our animals died. The country was still barren and monotonous. But we saw yaks, khulans, antelopes, bears, voles, ravens, larks, wagtails, and gulls, as well as flies and gadflies. At the point where it entered the lake the stream formed an extensive sedimentary delta. This lake too was like a sea, so large that we were unable to

perceive its eastern extremity. The two giant mountain-chains gradually approached each other in the far perspective; still there was always a gap left between them, in which lake and sky appeared to meet and touch one another. The lake curved first to the north-west then to the south, and so seemed to bar our advance. We did not know which shore to follow, the northern or the southern; but finally chose the former, a decision which cost us two extra days.

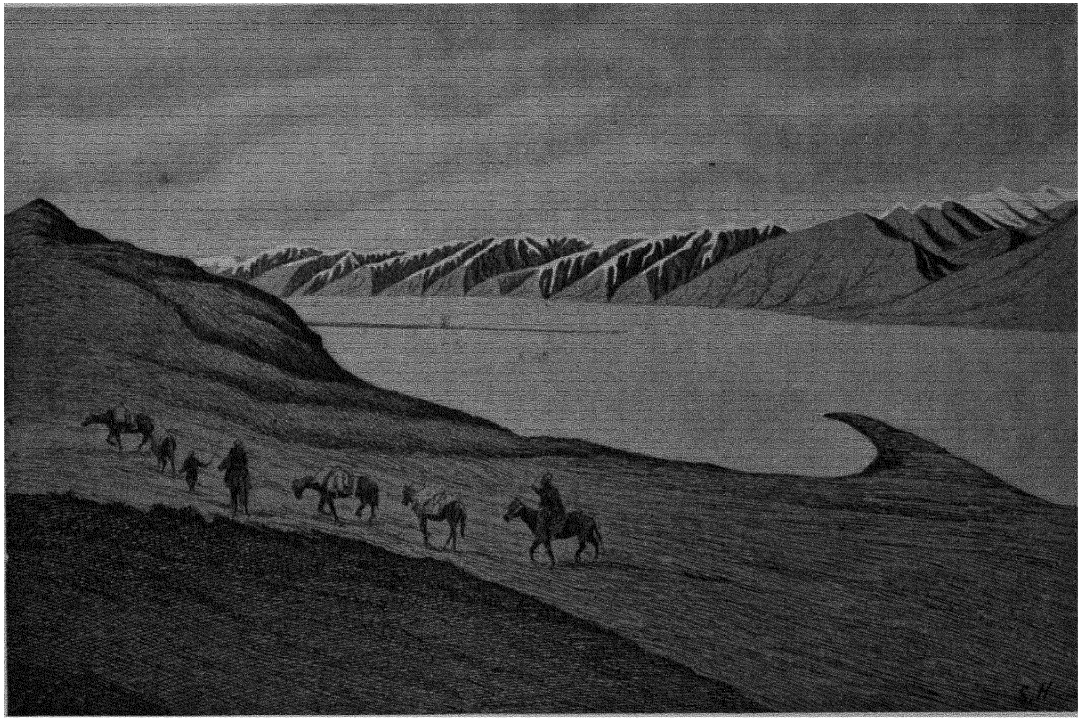
LAKE NO. 20, LOOKING NORTH-EAST

The snowy mountains are the continuation of Arka-tagh

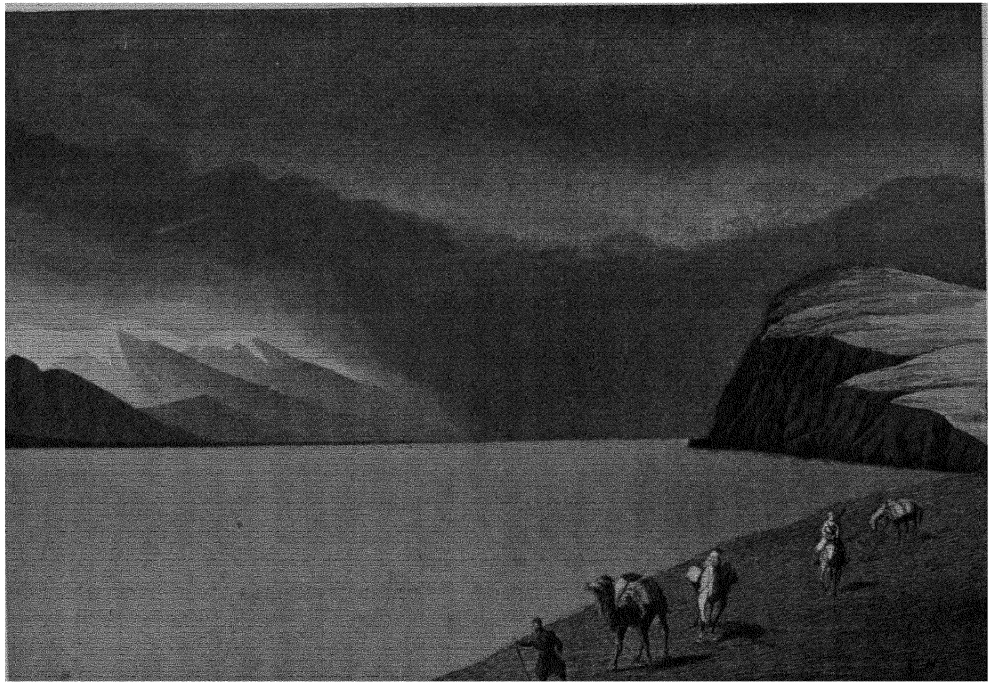
Meanwhile we encamped (No. XXXI.) beside the lake in a spot where there was tolerable herbage. The lake seemed to be deep, for the water was a blue-black colour, and the hills on its western shore came down abruptly towards its margin. It was another self-contained lake without outflow, for its water was bitter salt. We had therefore still another pass to get over at its eastern end. So far as we could see, this was probably the largest of all the salt lakes. But not a sign of human beings.

September 22nd. Our next stage, to camp No. XXXII., was fourteen and a half miles. The ground was the most difficult we had encountered for a long time, consisting for half the way of undulating hills, very much broken, and trenched by gullies and ravines. For some distance however we followed a yak track, which kept at about the same level, although at the cost of innumerable windings and zigzaggings backwards and forwards. The yak, it seems, prefers to make detours rather than constantly go up and down. The hills stood close to the lake shore, and were the northern outliers of a large chain which shut in the lake on the south, and which had hitherto hidden its water from our sight. Hour after hour we rode on towards the west, and yet there was no getting round the lake. We regretted not having chosen the southern shore. Nevertheless we kept pushing on, impelled by the faint hope, that at the western extremity of the lake there might be a glen leading up to a convenient pass over the Arka-tagh. But the farther we advanced towards the west, the lower sank the hills, until at last we were able to ride close along the margin of the water on perfectly level ground. Between us and the lake there was however a chain of freshwater lagoons, each fed by a mountain-stream, and having some invisible connection with the lake.

In addition to the hills, and now the innumerable small brooks, about eleven o'clock the weather took a disagreeable turn. The sky darkened in every quarter, and a hailstorm of unparalleled violence burst over the lake. The clouds drove towards us out of the east like a solid black wall, accompanied by fierce hissings and whinings, like the sound of steam escaping from the boiler of a locomotive. The surface of the lake turned dark grey. The mountains on the shore became lost in the haze; louder and louder waxed the roar of the storm. We could see and we could hear how the drops of water splashed up with a perceptible hiss as the hailstones thrashed the dead smooth surface of the lake. The hail came down in blinding showers; but finally passed over into snow and



LAKE NO. 20, LOOKING NORTH-WEST



A HAILSTORM APPROACHING THE WESTERN GULF OF LAKE NO. 20, LOOKING EAST-SOUTH-EAST

rain. Then the wind changed, and a terrific gale set in from the west. It blew right in our teeth, and nearly froze us to death. The horses literally toiled against it, as though they were struggling up a steep hill. Clots of frothy scum drove against the shore, winding in a sinuous line in and out of the coves and bays. The gulls however seemed to enjoy themselves thoroughly, as they rocked complacently on the crest of the waves.

At length the lake narrowed down to a long creek, pointing west, in which direction the depression was continued by a tolerably broad valley. The north shore was overlooked by the lofty mountains which formed a continuation of the Arka-tagh.

Their ramifying spurs, viewed in perspective, were like gigantic tetrahedra (see p. 1059); as they stood there in a long line, they put me in mind of houses overlooking a corso or marine drive. Upon reaching the end of the lake, the horse-caravan had steered due north, making for the foot of the mountains. We saw the white tents gleaming in the throat of a narrow glen a long time before we reached them. The camping-ground was however ill-chosen, being in the dry bed of a torrent full of stones and gravel; but the perpendicular cliffs at any rate afforded shelter.

September 23rd. Our next camp, No. XXXIII., reached after a march of thirteen and a half miles, was almost exactly opposite to camp No. XXXI., so that the last two days had not brought us a single yard further to the east. We had bad weather all day; first a blinding snowstorm from the east, after that a gale of wind which swept down from the northern mountains. We kept close to the lake shore, having the mountains only about two miles distant on our left. The rocky mountain-wall was broken by a succession of narrow glen-mouths, in which the torrents, now however dry, had formed huge talus slopes of gravel detritus.

Occasionally our route led over very steep hills, on one of which I lost my riding-horse. It was a first-rate animal, and had carried me ever since my summer trip to

the Pamirs in the year 1895. But his powers were now exhausted: he was unable to go any farther. I took Emin Mirza's horse, whilst he led mine at a gentle pace. Then I went on by myself, following the caravan through the blinding snow. But I was destined to ill-luck with my horses that day. Emin Mirza's beast came down with me, though without throwing me out of the saddle. I therefore walked into camp, leading him by the bridle. I was very glad to get under the shelter of my tent; but it was a good hour before my frozen hands were sufficiently warm for me to be able to use them. All the afternoon a full-fledged hurricane blew out of the north. My tent was securely fastened down, the side felts being tucked well in under the travelling-boxes; nevertheless it was blown down, and would certainly have been carried clean away, if I had not laid hold of one of the tent-poles and held fast till the men came to my help, and lashed the tent even more securely with extra ropes on the windward side.

Only five camels turned up at camp. The one with the stockings of khulan-skin had succumbed, and been killed. The men brought the best pieces of the flesh with them, a welcome addition to our larder. Here again we were obliged to give the exhausted animals another day's rest.

The first object my eyes fell upon when I stepped outside my tent in the morning was my riding-horse lying dead on the ground. I had ridden him sixteen months, in all sorts of weather, and he had never once stumbled or fallen, in this respect being excellently suited for my mapping work. At Khotan he had a rest of four months in Liu Darin's stable, and when he came out of it he looked as sleek and fit as an English thoroughbred. During the past week or two he had grown thin, and put on a starveling look; his coat had become rough, and his strength failed. The dogs feasted upon the carcass. From this time I rode a little black horse which I bought in Korla, and which had been with me in my Lop-nor expedition.

THE "KITCHEN" AT CAMP NO. XXXII.

Hares were plentiful in the vicinity of the camp; some of them proved acceptable as a variation in our bill of fare.

September 25th. To camp No. XXXIV. (15,565 feet) was a distance of fifteen miles. The greater part of the day we followed the shore-line of the lake. It made an almost straight line, without capes, or bays, or islands, and stretched towards the east-south-east. In one place however our advance was checked by a low ridge; but in compensation its summit afforded a comprehensive view of our surroundings. To the east the country appeared quite open; and beyond lake No. 20, and in the same line with it, I saw two other small lakes. Their relative situations reminded me of Carey and Dalgleish's map, which I had amongst my baggage. They marked the farthest point to which those travellers penetrated; and Parpi Bai, who had been with them, confirmed me in my supposition. South-east, but in the far, far distance, the landscape was closed in by a mighty mountain-range overtopped by snowy peaks. What connection this range had with the Southern Mountains, the chain which we had had on our right ever since we crossed the Arka-tagh, I could not with certainty determine, my line of vision being intercepted by its spurs and outlying ridges. I suspect however that it was the immediate continuation of the range which is known farther east as the Koko-shili (the Green Hills). I thought it very probable, that we were not far from the region in which the river Napchitai-ulan-muren takes its origin.

The next day we rested, waiting for the snowstorm to pass over. My caravan now consisted of five camels, nine horses, and three donkeys, together with eleven men. But several of the animals could not hold out very much longer; and the Taghlik Iskender was ill, so that he was allowed to ride one of the donkeys. Emin Mirza was obliged to walk after his horse became unfit for service. The last time the horses had any maize was at camp No. XXX.; after that we gave them every morning a

portion of hard stale bread. This was all they got, except for such wretched grass as they were able to find themselves. For ourselves we baked bread in the shape of cakes twice every day. Fortunately we had no lack of fuel; there was an abundant supply of yak dung everywhere.

CHAPTER LXXXVI.

DISCOVERIES OF INSCRIBED STONES

SEPTEMBER 27th. Stage to camp No. XXXV., seventeen miles. This day promised to bring a welcome change in the monotony of our marches. We hoped to recross the Arka-tagh, and so say good-bye to the highlands of Northern Tibet, with their desolate lake-basins destitute of outflow. We knew as a fact, that there was a practicable pass somewhere immediately to the north of us; for during our last rest-day I sent men to reconnoitre, and they brought back the report, that the road was easy. A couple of hours' riding up a gently inclined valley brought us to the relatively low pass. Nor was its northern approach at all steeper. Taking as our guide a brook crusted with ice, we rode down a valley which gradually widened out into an amphitheatre surrounded by mountain-crests. The brook also acted as a footbath for my men; for they had constantly to leap across it, and in the wider parts sometimes failed to land on the other side. Their feet were encased in pieces of felt, wrapped over with khulan-skin, and upon reaching camp it was always their first concern to dry their "shoes."

Having doubled a projecting promontory of the mountains, we came upon a very discouraging sight, namely a small lake into which all the brooks of the district poured their waters. Plainly we had only stumbled into yet another self-contained basin possessing no outflow. The pass we had just crossed was therefore in all probability not the real pass over the Arka-tagh; that still had to be surmounted, and possibly it would be a much more formidable affair.

At length however we reached the amphitheatre or *cirque* of which I have already spoken, and in which the herbage, such as it was, was not scanty. An exceptionally large herd of yaks were grazing at the foot of the rocks on our right. Islam rode towards them, and took a shot at them. Thereupon the herd divided, the greater part fleeing up the mountains, whilst the others, nearly fifty of them, in a tightly packed drove made straight towards me and Emin Mirza. We were alone and without weapons, and felt we were in a pretty tight fix, for the animals seemed to be charging directly down upon us. The leader of the herd was a well-shaped bull; after him a little calf and five old bulls walloped along as hard as they could put feet to ground; whilst the rear was brought up by Islam on horseback. The yaks were enveloped in a perfect cloud of dust. We could distinctly hear the cracking of their hoofs, and were blindly conscious that in another second or two we should be crushed under the avalanche of their irresistible onrush. It appeared however that they had not yet observed us; for no sooner did the leader become aware of us, which he did at about a hundred paces' distance, than he swerved aside, and was instantly followed by the entire battalion. This gave Islam his opportunity. He hastily dismounted and placed himself in ambush, and fired at a venture right in the middle of the troop. The bullet struck a bull in the foreleg; then the animal, mad with fury, charged straight upon the sportsman. Islam flung himself into the saddle, and set off as fast as his enfeebled horse was able to gallop. The yak however, although running on only three legs, caught him up after two or three minutes' chase; but just as he was on the point of tossing horse and rider on his horns, Islam, who saw the danger he was in, turned in his saddle and took aim. But he was so excited, he could not aim with the cool deliberation that so perilous a moment demanded. However, the yak was so close to him that it was scarcely possible to miss; luckily the bullet penetrated in the region of the heart, and thus put an end to the contest.

The yak was a bull about eight years old. The tongue

"THE YAK WAS ON THE POINT OF TOSSING HORSE AND RIDER ON HIS HORNS"

and meat were especially welcome, since our supplies of rice and flour were fast running out. If Islam's last shot had failed, he would infallibly have been lost. The chase of the wild yak is perilous, and it does not always have such a happy ending as this.

This adventure led to our encamping in a place that was not quite so suitable as usual, for it was a long way from water; and then, in order to get the full benefit of the yak, we were obliged to stay there all the next day. The dogs were tied up, to prevent them from spoiling the meat. For dinner therefore I had soup made from yak beef; it was a dark brown colour, and very nourishing and tasty. For some time this soup formed a portion of my daily diet.

If my dinner was good, my dessert was better. I was just lighting my pipe, when all the men, Islam at their head, came to me in a state of great excitement, crying, "*Biss nishan tappdik*" (We have found a sign!) And down before me they laid four large slates, inscribed all over with Tibetan letter-signs. Each of the slates was whole, and manifestly complete in itself; but two were old, for their inscriptions were partly obliterated.

My curiosity was keenly stirred. What could these dead stones not tell me? Why had such great pains been taken to cut these inscriptions upon them? Perhaps they contained the record of some remarkable occurrence, some historical event? Or perhaps they contained information of great value to pilgrims bound for Lhasa? For, according to my maps, the great pilgrim road from Mongolia to the holy capital of the Dalai Lama bent to the south-west somewhere hereabouts. But the thing which delighted the men most was the indisputable evidence which these inscribed stones afforded, that some time or another human beings had visited the region where we then were.

Before we left, I went to the place where the inscribed tablets had been discovered. It was on the shore of a small lake, whither some of the men had gone to fetch water. I soon made out a square of stones, and the

outlines of two or three tents; evidently the place had been inhabited for some time by Tibetan or Mongol nomads, with their herds of yaks. In the immediate vicinity we found eight other stones of a similar character to the first four, all covered with inscriptions. We could not possibly carry them all with us. I selected therefore a couple of well-executed fragments, which were not too thin to stand the rough usage of travel. The others we buried, so as to preserve them; for if the discovery proved to be important, I could return on some future occasion, and fetch them.

Then we continued our journey north-eastwards towards camp No. XXXVI.; and that day covered fifteen miles. Not very long after starting we came to a large stream flowing towards the east, and *out* of the lake. After all, then, lake No. 23 was not a self-contained basin without outlet. For the stream did not flow into, but out of, the lake, and cut its way through the mountain-chain which soared up in front of us. The next notable landmark was an inconsiderable pass, near which we perceived the skull of an arkhari or wild sheep, as well as some herds of yaks and orongo antelopes, and numerous khulans. Every now and again we could make out something like a beaten track; but whether it was made by wild animals or by human beings we could not ascertain. But on the summit of the pass we came across a cairn of stones; *that* at any rate owed its existence to human hands. We descended from the pass into a spacious cauldron-shaped valley, richly supplied with grass, and intersected by several small brooks flowing towards the south-east. It seemed to be a perfect El Dorado for khulans; for they swarmed all over it in such numbers that we counted troops of 80 to 200 individuals, moving like squadrons of cavalry along the mountain-slopes.

In about the middle of the valley we made another discovery—a very remarkable one all things considered, for it consisted of the tracks of three camels and half-a-dozen horses, that is to say, an entire caravan, and it had travelled towards the north-west. According to the Tagh-

liks, the tracks were not more than five days old at the very most. Anyhow, we were once more clearly coming within reach of our fellow-men. This discovery put new life into the men. They kept a sharp look-out for further signs. We might any time now expect to meet Mongols or shepherds.

On the opposite side of the cauldron-shaped valley we ascended between two mountain-spurs to an inconsiderable pass (14,950 feet). There, at the foot of a sand-dune, beside some frozen springs, we pitched our tents. This march cost two more horses their lives.

September 30th. The night was bright but cold. In the morning the country was wreathed in mist, and every blade of grass and every projecting stone was feathered with the long white plumes of the rime-frost. The pass led down into a tolerably broad grassy valley, through which babbled a little brook. A short distance down the valley we caught sight of a black object standing on the left bank of the stream. I took it for a yak lying down and resting; but after we advanced a little nearer, the men asserted that it was a *nishan* (sign, guide-post). We made our way towards it, and were not a little amazed to find in the midst of this wild region an *obo* (religious monument) of such an original and beautiful construction as this was. It had no doubt been built to propitiate the deities of the mountain, and consisted of large slates leaning one against another, covered all over with inscriptions. At last we were getting wind in our sails. The caravan was called in, and up went the tents immediately adjoining the obo; although we had travelled very little more than five miles. There was work here however to keep me busy for two whole days. The grass was better than usual; the brook would supply us with water. A horse and a donkey had, it is true, been left behind in the pass; but that only proved how needful it was to give the animals as much rest as we could possibly spare them.

My first step was to sketch this remarkable structure, and I sketched it from each of its four sides. The ground-plan of the obo resembled the ground-plan of a

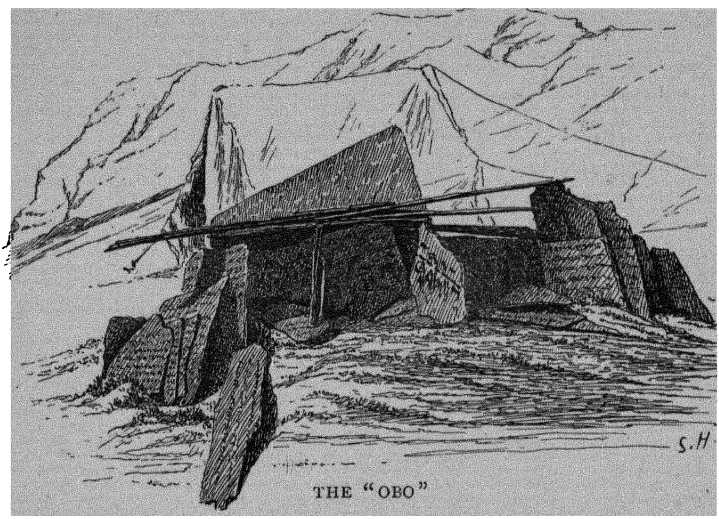
stable, with three stalls, $1\frac{1}{4}$, $1\frac{3}{4}$, $2\frac{1}{4}$ feet wide respectively. Altogether there were forty-nine slabs of slate, propped up edgewise one against another like a "house" built of playing-cards. The slab at the back was nearly $4\frac{1}{2}$ feet long, and $4\frac{3}{4}$ feet high, and overtopped the others in a picturesque fashion. The portion that projected above the roof of the structure was without any inscription; but every part of it was completely covered with ideographs or letter-signs both large and small. Outside it were other slabs, some as much as 5 feet long. All the slabs were quite flat, not much more than one-third of an inch thick, and of a dark green colour. It was astonishing how they could have been quarried out of the adjacent slate mountains in such a flawless condition. The roof of the "stalls," 2 feet above the ground, consisted of four slabs each $7\frac{3}{4}$ feet long, so that they projected beyond the ten pieces which made the gable-ends. The front looked straight down the valley, that is towards the south-east. The letters or ideographs, which varied from $\frac{3}{4}$ to 4 inches in height, had plainly not been chiselled out, but had been impressed upon the slate with some sharp, pointed instrument; otherwise the brittle tablets—they were only like children's school-slates—would not have stood the process. The letters were a light grey colour, and hence were easily distinguishable against the dark green background of the slates.

Close beside the obo were some soot-blackened stones, together with charcoal and ashes, showing that nomads had been there not long before. Further, we discovered a rectangular tomb and a footpath leading to it; and concluded that the place was probably an object of pilgrimage.

I was again confronted with the same question as before—What was it these silent stones could tell me? In all probability the information they conveyed was of a religious nature. But whatever it was, it would no doubt possess some degree of interest. Perhaps it related some incident which happened there? At any rate the inscriptions must be copied; I could get them deciphered

afterwards. We therefore took to pieces the wall that faced south-west, and laid out all the slabs in order on the ground, that we might be able to put them back in their proper places after I had copied them.

The first two that I attacked were small, and I copied them in about half an hour. But shortly after I set to work upon the third, I was struck by the strange uniformity of the lettering, and thought the same signs were repeated with fixed regularity. Upon examining them more closely, I noticed that every seventh letter was



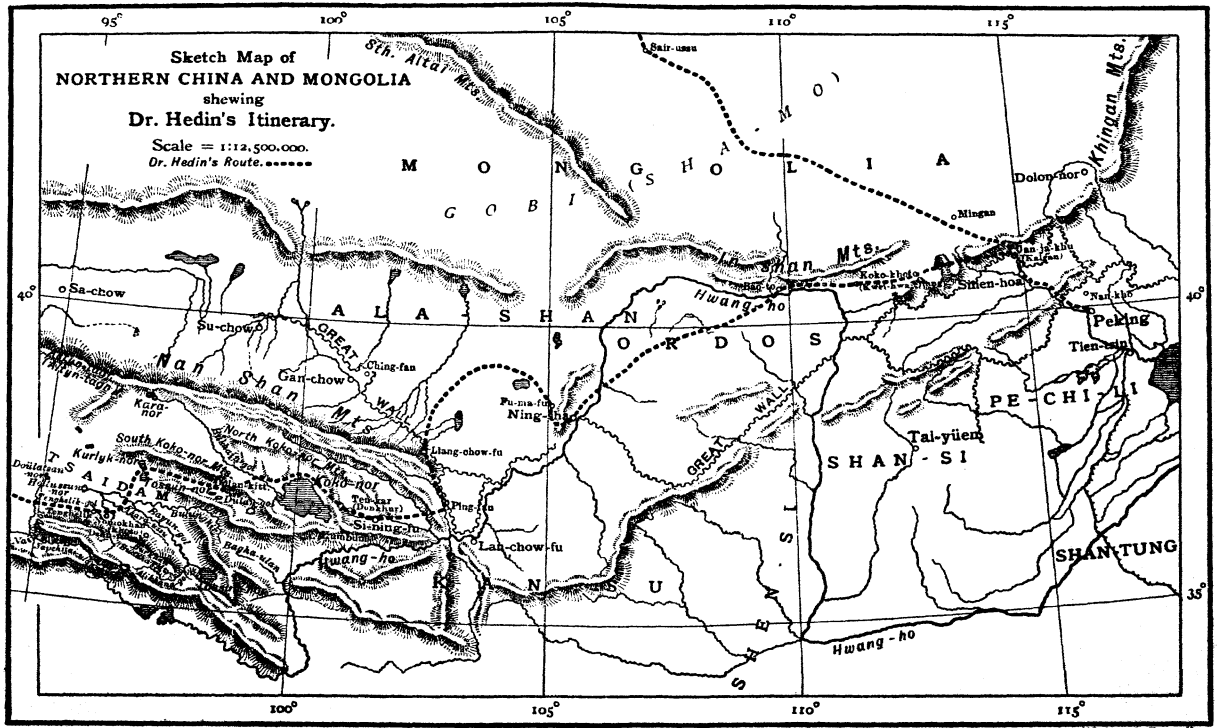
THE "OBO"

always the same. I went out of the tent, and examined the obo. Each and every one of the forty-nine slabs was inscribed with the same seven signs, occurring and recurring again and again precisely in the same regular and uniform order. A light broke in upon me. These mysterious inscriptions could bear only one interpretation. They were repetitions of the well-known Tibetan formula of prayer—"*On maneh padmeh hum*," *i.e.* "Oh the jewel of the lotus!" I instantly stopped my copying. The animals could very well do without a rest on the morrow.

I contented myself with taking two or three pieces

of handsome stone as specimens, leaving behind those I brought from camp No. XXXVI. We could not of course take the whole structure with us: it would have made three camel-loads. Besides, the only importance of the stones was of an ethnographical character, an importance which did not outbalance their intrinsic solid weight.

I now looked upon the obo, not as a great rarity, but as a ridiculous and idiotic piece of nonsense. It was our first acquaintance with the crass exaggerations of Lamaism. Instead of being an important historical document relating to the great Mongol pilgrim road to Lhasa, which (as I have just said) crossed the border-range of Tsaidam in that neighbourhood, it was merely an empty formula. The most beautiful sentence would become stupid and inane if repeated four thousand times. To write the Lord's Prayer four thousand times would not be a stroke of genius; but to engrave a formula of prayer upon stone that number of times, when each letter demanded a special expenditure of strength, time, and labour—it was unquestionably an idiotic proceeding. But then what else can you expect from fanatics who deliberately strangle the common sense with which Mother Nature thought fit to endow them? I felt somewhat crestfallen over the whole business. Still it had done no harm; I had only gleaned a smaller harvest than I hoped for. One gain was at any rate sure: we had now indubitable proof that we had hit upon one of the great highroads that lead to Lhasa. The obo, the tomb, the footpath, and the cairn of stones on the summit of the first pass, all were indisputable witnesses of the fact. Meanwhile lower down the valley the men lighted upon the trails of two or three camels and of several large troops of khulans. The Taghliks maintained that the khulan persistently shuns inhabited districts, and is never found in the vicinity of human beings. They therefore believed, that at the very least we still had two day's-stages before us to reach the nearest inhabited region.



Walker & Boutall sc.

farthest outpost of an inhabited region, after travelling fifty-five days through the wilds of Northern Tibet.

Not long after that we observed the old woman's tent, standing on the right bank of the stream; and beside it we pitched camp No. XXXVIII. Her yaks, goats, and sheep grazed in the vicinity. The last-named made our mouths water terribly.

Our conversation with the old dame may be regarded as a triumphant vindication of the value of the primitive gesture language. She did not of course know who or what we were; and there was none in our party who understood Mongolian. Parpi Bai remembered a single word, *baneh* = "there is"; and I knew the three common geographical terms, *ula* = "mountain," *gol* = "river," and *nur* = "lake." But this vocabulary was scarcely rich enough to make the old woman understand that first and foremost, above all things else, we wanted to buy a sheep. I began to bleat like a ram, at the same time showing her two *liang* or Chinese taels (twelve to thirteen shillings); and she understood me.

That evening we enjoyed the rare luxury of fresh mutton for supper.

My men were perfectly enraptured. They had now done with the dreary, lonely, monotonous manner of life they had pursued on the Tibetan highlands. We had no longer any need to put ourselves on short commons and eat tough yak beef; and perhaps we might be able even here to fill up the lamentable gaps which had been made in our caravan since we crossed the Arka-tagh. Further, employment of the language of signs taught us that the old woman's husband had gone into the *ula* (mountains) to shoot *boka* (yaks); but that she expected him home before the *naren* (sun) set. Whilst waiting for the Mongol's return, I, accompanied by Parpi Bai and Emin Mirza, paid a visit to the interior of the old woman's tent. When she saw us approaching, she came to meet us with her eight-year old son by her side. I gave the boy a sweetmeat and his mother a pinch of tobacco, which she instantly stuffed into her

long, narrow Chinese pipe, and politely motioned us to enter.

The tent was constructed of an old and very ragged felt carpet, held up by two poles. Each of the long sides was kept back by three horizontal poles fastened, by means of ropes passing through holes in the tent-covering, to upright stakes driven into the ground outside. This made the tent more rounded at the top, and consequently more roomy. In the middle of the roof there was a long, narrow smoke-vent. The poles which supported the tent were of tamarisk wood, and had grown at Hajar in Tsaidam.

A violent snowstorm from the west coming on just then, we went inside the tent and had a look at its furnishings. The most important object was a small cubiform box standing against the short side immediately opposite the entrance. As Parpi Bai justly remarked, it was a *budkhaneh* or shrine to Buddha. After some hesitancy the old woman opened the shrine; it contained Tibetan books, written on long, narrow loose sheets, and each book, or bundle of such sheets, was wrapped in a piece of cloth. The old woman dusted the holy shrine with a yak's tail which lay on the box-lid; and beside the box were a few basins of brass and wood, evidently sacred vessels. The rest of the furniture consisted of a Chinese porcelain bowl, a leather pail, a jug of the same material, an iron cooking-pot, a copper saucepan with a lid, a brass teapot, a bag full of a certain dried plant, which was thrown on the fire to give a fragrant smell, together with knives, bellows, steel (for striking fire), saddles and bridles, ragged clothes, a sheep's bladder filled with yak fat, and a bag of *tsamba* (see pp. 1091–1092). The greater part of the space was taken up with hams, legs, and chines of wild yak beef; others lay piled up in a heap outside the tent, so that we were obliged to keep our dogs tied up. The flesh is left in the air until it shrinks, and turns dry and black, and hard as wood. The old woman took a knife, and cut off a few slices, and roasted them over the fire, and then offered

them to us to eat. We subsequently learned, that the family dwelt in the same place all the year round, for the purpose of supplying their fellow-tribesmen in Tsaidam with yak meat.

Three large stones in the middle of the tent supported the cooking-pot, and yak dung, for feeding the fire, was packed up in a circle all round them. When the old woman wanted to make a fire, she caught the sparks from the steel on a handful of vegetable wool or down, which she then placed on the hearth amongst dry, powdered horse dung, and after blowing it alight with the bellows heaped yak dung upon it. The Mongols do not eat the flesh of the khulan. They milk their mares; and the milk tasted like the *ayran* (boiled milk diluted with water, and left to cool and turn sour) of the Kirghiz. A hollow stone, supported by a low tripod, and filled with yak fat, served for a lamp.

Both the old woman and the boy wore sheepskins, with a belt round the middle, and skin boots. Her head was wrapped in a long kerchief, knotted at the back of the neck; and she wore her hair in two long plaits, protected with a piece of cloth. The boy was bareheaded, but wore his hair twisted into three short plaits, which stuck out in different directions like rats' tails.

In the evening, whilst we were having a royal feast of the fresh tasty mutton, the husband, whose name was Dorcheh, arrived home from his yak-hunting. He was not a little amazed to see strangers in his camp; but he was a sensible fellow, and took the matter calmly. A thoroughly typical Mongol, Dorcheh was a little weather-beaten old man, his face furrowed with a thousand wrinkles, his eyes small, his cheek-bones high and projecting, his beard and moustache thin and coarse. He too was dressed in a sheepskin, and wore skin breeches; his feet were sheathed in pieces of felt; and on his head he had a small felt cap or *calotte*.

His knowledge of Jagatai Turki was on a par with Parpi Bai's knowledge of Mongolian. However we managed as well as we could, and soon picked up

TWO MONGOL MEN AND A BOY

Dorcheh at the top

several words. The place where Dorcheh had pitched his tent was called Mössöto, and the stream which flowed through the valley was one of the head-streams of the Naijin-gol. The camel-tracks which we observed two or three days previously were made by the cattle of a camp-mate, who had just transported all his belongings to his winter-camp in Hajar. If we had followed their track, we should have reached Hajar in five days; whereas by our present route it would take us eight days.

One day's journey down the valley there was a settlement of Naiji Mongols. A short time previously they had been attacked by a party of Tangut robbers, who came from the south-east, all armed to the teeth, and carried off everything they could lay their hands on. The unfortunate Mongols were reduced to living exclusively upon yak beef; they sent a deputation to the governor of Si-ning-fu, and he gave them a supply of bread and flour. Dorcheh advised us therefore not to continue in that direction, for we should find nothing at all to eat.

In return for his information, I gave the old man a cigarette and filled his powder-horn; with which he was well pleased. And so that red-letter day came to an end. The constant loneliness had made us somewhat irritable, and "stale." This first contact with our fellow-men freshened us all up, and re-awakened our interests, so that there was quite a new music in the prattling stream, as it rippled amongst the granite blocks which littered its bed.

It was a pure matter of course, that we stayed all the next day beside the first Mongols we came into contact with. Nor were we at all idle. In the first place, we bought three horses of a small breed and in pretty fair condition, as well as two sheep to kill on the road. We also thinned out the worst of our own animals, including two wasted camels. Goats' milk was the only other thing the Mongols had to offer us; but it was most welcome. In return for the

milk they were perfectly delighted with a present of a small supply of tea and bread. Whilst we were trafficking beside my tent, a voice called out "A bear!" Off went Islam with his rifle and Dorcheh with his long clumsy flint-lock musket. But Bruin was too quick for them; he turned and disappeared into the mountains.

I was however most diverted by my first lessons in Mongolian. Dorcheh, who taught me, was very amusing in his efforts to understand my gesture-speech. I first learned the numerals, by holding up one, two, three fingers, and so on in succession,—nägä, hoyyer, gorva, dorvo, tavo, surkha, dolo, nayma, yessu, arva, arva-nagä, and so on. It was equally easy to learn the names of such objects as stood round about us, *e.g.* the tent and its several appurtenances, colours, parts of the human body, geographical features, and so forth. By this means I acquired a tolerable vocabulary relating to the commonest objects of daily life; and after my first lesson was able to talk to Dorcheh about simple matters. For instance, "Gorva temen baneh" (We have three camels); "Bamburchi mo" (The bear is an evil beast); and so on in a similar parrot-like fashion, reminding me of the old-fashioned way of teaching Latin—"Columba est timida," "Mensa est rotunda."

The verbs were difficult to get hold of; but I somehow managed to pick up the most essential the first evening, such as the words for "to go," "beat," "ride," "look for," "fall," "snow," "rain," "find," and several others. The picking up of these verbs entailed several feats of gymnastics. Dorcheh looked perfectly amazed when I thumped him on the back, to find out what that action was called in Mongolian.

For a full fortnight Dorcheh was our guide; and during that time my every spare moment was given to lessons in Mongolian. By closely studying his pronunciation and his conversation with other people, I picked up the language remarkably fast. After the first difficulties were overcome, and you have advanced so far that you can put together

a few simple sentences, and so in some sort keep up a conversation, it becomes merely a question of extending your vocabulary and acquiring the necessary fluency of speech. I never afterwards needed an interpreter for Mongolian. I lived amongst these people several months, and was able without any intermediary to talk with the Living Buddha in Kum-bum, and with the viceroy of Wang-yeh-fu. In this way I managed to overcome the worst difficulties and inconveniences I expected to encounter in consequence of the loss of my Chinese interpreter Fong Shi.

After measuring, early on the morning of October 3rd, the paces and rate of speed of my new Mongolian riding-horse for the purposes of my map-making, we left Mössöto, but not before another Mongol family, dwelling in a tent higher up the valley, came down to have a look at the strangers.

At first we kept along the left side of the stream, then turned off towards the north up a side-glen strewn with stones, where our appearance put to flight a troop of 150 khulans. The glen gradually widened out, and became broad and fertile; and upon our reaching a little pool, Dorcheh dismounted, and said, that it was Yikeh-tsohan-namen (14,400 feet), and that we were to encamp there. We did so, having covered twelve and a half miles since the morning.

On October 4th our guide led us further up the glen, which gradually curved round towards the north-east and east, at the same time growing much steeper and more obstructed with stones and gravel, which had rolled down from the mountains above. Hitherto the prevailing rock had been a dark green micaceous schist, with a dip towards the north. It now became granite, ranging from red to grey, and granite continued to predominate all day, right up to the pass Yikeh-tsohan-davan (16,320 feet). The ascent was tolerably easy; even our three surviving camels mounted its rounded acclivity without any special difficulty. The view from the summit of the pass was not particularly extensive, the pass being shut in by

mountains, which cut off the view. The valley to the east, which curved round towards the north, was likewise encircled by high intercepting mountains. The snow lay very deep on the pass, and was more plentiful on the east side than on the west. The valley to the east, down which we descended through masses of gravel and stones, was likewise more deeply trenched than the valley on the west. The latter had a gentler incline, and formed a sort of step or Transitional offset of the Tibetan plateau. We now perceived that the low pass which we crossed immediately north of lake No. 20 formed an important watershed. South of it the streams drained into the self-contained Tibetan lakes which possess no outflow; whilst north of it they made their way into the salt depression of Tsaidam, which is likewise destitute of an outflow.

The stream which had hitherto coursed along the valley did not accompany it in its curve to the north; but, after picking up a number of tributaries, fell to work upon the herculean task of carving its way through the granite mountains. At present its path is a deep, narrow ravine, with perpendicular walls, and its bottom choked with huge stones. Islam Bai, who still led the way as usual, threaded the ravine with the caravan. But Dorcheh, who rode beside me, to tell me the names of the mountains, valleys, and streams, said, there was a better road up on the top of the left side of the valley, the ground consisting of soft, yellow clay.

From this upper path, which sloped away abruptly to the defile, we heard the stream boiling along at a depth of three hundred feet or more below us. The path was not more than a foot broad, and clung closely to every irregularity of the ground; in places it was actually scooped out of the almost vertical walls, they too being of the same soft material. In consequence of the recent rains the surface was slippery and greasy. Dorcheh rode first, whilst I followed close at his heels, with my heart in my mouth. All at once my horse put his foot a trifle too near the edge of the soft clay path, and down he went.

I had barely time to fling myself out of the saddle, alighting flat on my back on the ground, whilst the horse rolled two or three times over down the steep slope before he was able to stop himself. Dorcheh hurried down after him, and helped him up. If he had not managed to stop himself just as he did, he would almost certainly have gone over the precipice, which was only a yard or two from him; and if I had not thrown myself out of the saddle, I should perhaps have borne him company. After that I prudently walked and led my horse.

The path gradually wound down to the bottom of the defile. There we rejoined the caravan, and made our way zigzag backwards and forwards over the stream, between the countless fragments of rock which littered its channel. It then began to blow from the north, bringing a furious storm of snow, which beat directly in our faces, and prevented us from seeing the country we were approaching. There were still some awkward passages to traverse before we reached the expansion of the valley called Koko-bureh, where there was a plentiful supply of grass on both banks of the river. We had not been down to so low a level for two months; but it was very pleasant to think that we were daily descending to lower and more genial climes. That day we travelled seventeen miles.

CHAPTER LXXXVIII.

AMONG THE MONGOLS OF TSAIDAM

OCTOBER 5th. After leaving Koko-bureh, we still pursued our way down the valley. The bed of the stream continued as full of stones as before, and our Mongolian horses, which were unshod, became rather sore-footed. In an expansion of the valley we met a party of mounted Mongols, all armed to the teeth. Great was the astonishment on both sides. But with Dorcheh's help, I tried to engage them to accompany us. We speedily came to an agreement upon one point. We encamped where we were, in the district of Harato, although we had not covered more than nine and a quarter miles. It was however a splendid camping-ground, with plenteous vegetation. Its altitude was 11,060 feet.

The troop of Mongols consisted of five men and one woman. They were on their way from Yikeh-tsohan-gol to Mossoto, whence they intended to penetrate higher into the mountains to lay in a supply of yak beef for the winter. They expected to be absent fifteen or twenty days; but only carried provisions to last them five or six. After these were consumed, they hoped to live upon yak beef. When they have shot as many yaks as they require, they load the meat on their horses, and themselves make the return journey on foot.

It was the height of the season for yak-hunting; no doubt it is the time of year when the yaks come down to the Peripheral regions in quest of the better herbage. The Mongols hunt on the same plan and in the same manner as the Taghliks. That is to say, two men at

least attack each yak, so as to have one or more guns in reserve in case the beast turns upon the hunter.

The yak-hunters were in "fine form," all cheerful and in good humour. It is easy to imagine that this autumn excursion made an agreeable break in their otherwise monotonous life. The season lasts about a month. Each hunting party has its own well recognized hunting-grounds. The hunters live in the open air, without tent, their only encumbrances being the clothes they wear, their saddles,

ROCKS AT HARATO, IN THE VALLEY OF THE YIKEH-TSOHAN-GOL

muskets, and a small supply of provisions in leathern knapsacks.

The men and woman of the party we met encamped in the bushes beside my tent; that is to say, they made a fire between three stones, and hung over it the cooking-pot filled with water. When I stepped into a vacant place in the circle round the fire, I was received with a friendly "*Amir sän?*" (How are you getting on?).

When the water began to boil, one of the older men produced six wooden bowls from a bag and distributed them amongst the party; after that he gave each person a portion of barley-meal, and then added to it a few slices of a sausage made of mutton lard. As soon as that was

done, the woman, who had been busy feeding and tending the fire, took a ladleful of water out of the pot, and poured it into the bowls over the barley-meal and mutton lard. Such was *tsamba*, the national dish of the Mongols. After the mess was consumed—and it seemed to go down with great relish—there was still sufficient lard and meal sticking to the bottom of the bowl to require another spoonful or two of hot water. That constituted the whole of their meal. After dinner they produced their pipes, and stuffed them with vile Chinese tobacco, which they took out of a pouch at their side, and were soon puffing away in happy contentment. The entire party appeared to be very much addicted to the weed.

Their clothing consisted of pelt (sheepskin) and breeches, boots, and caps. The pelt was worn next the skin. They seemed to be quite insensitive to cold, for the right arm and right side of the body from the waist upwards were bare. At night they wrapped themselves in their pelts and crept close together round the fire; and when it came on to snow, they made a rude kind of protection with their muskets, saddles, and saddle-rugs. They all wore their hair in plaits; and as they sat, their fingers were busy telling the beads of their rosary, so as to keep count how many times they repeated the prayer "On maneh padmeh hum."

October 6th. The Mongols sold us a couple of their horses. Early the next morning, about an hour after they had started for their hunting-grounds, we discovered that habit had been too strong for the animals: they had gone after their late owners. I sent two of the men on horseback up the valley to fetch them back. Hence it was two o'clock before we were able to make a start; although two of the Taghliks got off hours before that with the three camels. I, Dorcheh, and Yolldash also went on in advance, leaving the horse-caravan to follow after us.

We crossed the stream almost immediately, and for some time kept it on our left hand. The valley expanded; and the granite peaks showed a tendency to a separate existence, independent of one another. On the other side

of a last narrow pass or gorge, caused by the stream pressing against the rocks on the right-hand side of its course, we came upon an unusual sight — the horizon forming a perfectly straight line in the far, far distance. After that we quitted the stream; but at the end of an hour or so once more got back into its dry channel. It was now getting not only broader and leveller, but also freer from stones, for it is only in summer that it carries a supply of water. We rode along the dry bed for the rest of the day. The mountain-spurs which bordered the valley of Harato gradually diverged from each other; although their outer ramifications still continued visible in both directions, east and west.

At the end of the valley vegetation ceased nearly altogether. The plain sloped away almost imperceptibly towards the north, and gradually became more and more barren, until finally it passed over into absolute desert, with occasional chains of low sand-dunes, which seemed to have been blown up by the prevailing westerly winds. It was a dreary landscape, utterly destitute of life, with not a trackway to be seen. A death-like silence reigned throughout the length and breadth of the unbounded plain; which was irksome to the eyes after such a long sojourn among the world of mountains in Northern Tibet. Turning in my saddle and looking back, the vast mountain-chain with its snow-clad summits looked as if it were painted on a flat background—the effect of the wonderfully clear atmosphere. I could not even distinguish the exit of the glen out of which we last rode.

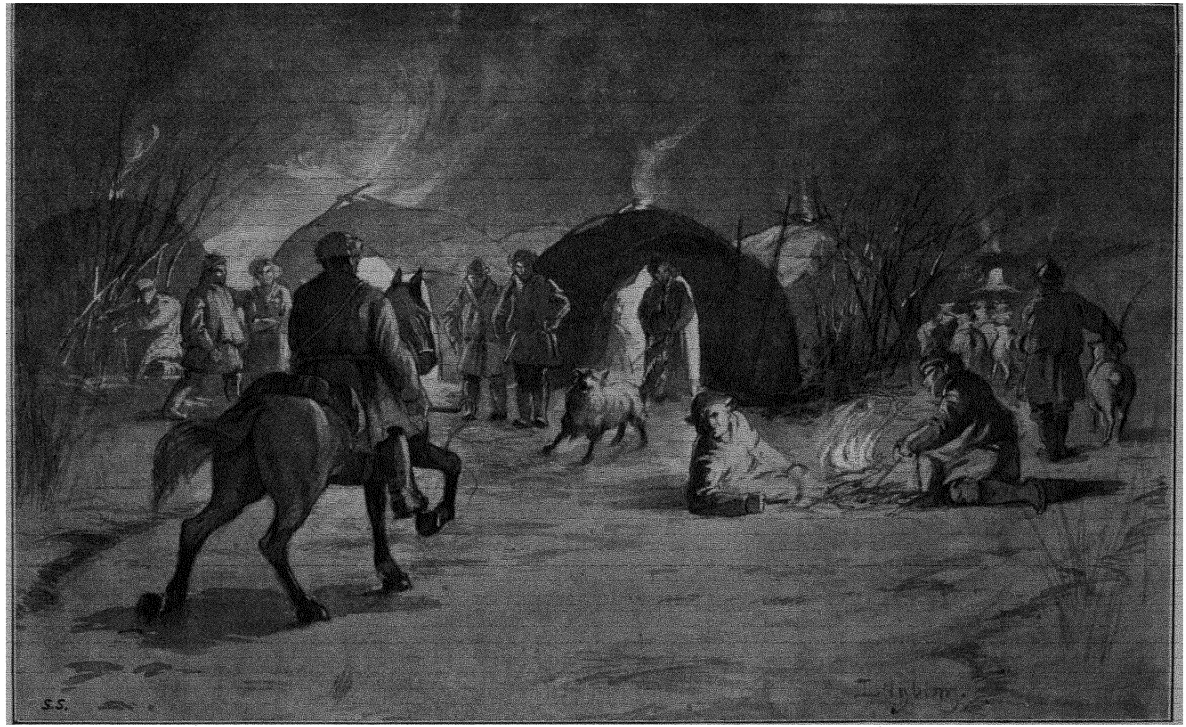
The basin of Tsaidam thus possessed many points of resemblance with the basin of the Tarim. In both the oases are separated from the foot of the mountains by a belt of desert; in both, the streams die away in the sand, although in Tsaidam the central parts of the basin are occupied by a series of extensive marshes, leaving room for only a comparatively narrow strip of desert all round them.

Hour after hour we rode on towards the north, overtaking the camels hours before the shades of night began to

fall. The belt of desert was replaced by steppe, with tamarisks growing on mounds of their own roots as in East Turkestan. At first they only occurred in thinly scattered twos and threes; but farther on formed continuous and intricate woods. After a good deal of searching about, Dorcheh at length discovered a path. But, saying he was afraid the other men, who followed behind and were without a guide, would never be able to find it, he told me which way to go to reach the next camping-place, and then, before I could offer a word of protest, disappeared in the darkness.

Fortunately my horse was more familiar than I was with the locality, and after riding close upon an hour, I caught a glimpse of fires shining through the bushes ahead. The Mongol dogs gave the alarm, and out rushed a horde of them, barking furiously at my horse and at Yolldash, whom I had caught up and placed on the saddle in front of me. I then saw the tents, and people about them. Riding quietly up to one of them, I fastened my horse outside, and went in. There were half-a-dozen Mongols in the tent. They looked up at me with a stare of amazement. I greeted them with the customary "Amir san?" and sat down beside the fire and lighted my pipe. I saw a pan with fermented mare's-milk standing in a corner. I got up and took a good drink. It tasted like small beer, and was very refreshing after my long ride of nearly twenty-seven miles. The Mongols still continued to stare at me without uttering a word, though they did not forget from time to time to push more fuel on the fire. Nor had they recovered from their amazement when Dorcheh arrived two hours later, with the caravan. He then explained to them what manner of folk we were. A fire was made in an open space among the Mongol tents, and my tent was pitched so as to enclose it. It was one o'clock in the morning when I got my supper.

This last forced march cost us two more horses and a donkey; so that now we had only three camels, three horses, and one donkey left out of the fifty-six animals



THE AUTHOR ARRIVING AT THE FIRST MONGOL CAMP AT YIKEH-TSOHAN-GOL

with which two months previously we started from Dalai-kurgan.

We stayed over the 11th October with the Mongol community at Yikeh-tsohan-gol, and the rest was not beneficial merely, it was indispensable. At their own request I there dismissed Hamdan Bai and all the Taghliks. They proposed to return home the nearest way, which lay over the Chimen-tagh and the Tokkuz-davan. As a reward for the labours they had undergone, and for their irreproachable service, I gave them double the wages agreed upon, as well as a large supply of provisions, some sheep, and our worn-out animals; but these last were to be allowed to recover their strength a little before they started back.

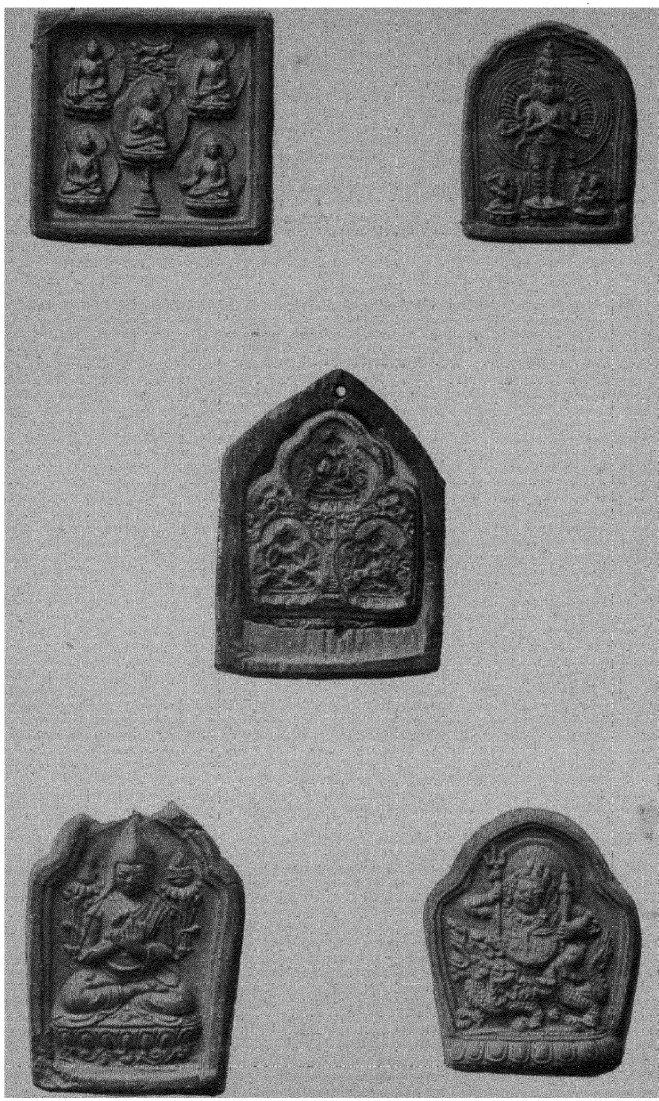
In their place I set about organizing an entirely fresh caravan. And no sooner did the Mongols realize that we wanted horses than every day, nay every hour of the day, the entrance to my tent was besieged by one or more of them offering horses for sale; nor were the prices they asked at all extravagant. When I resumed my journey towards the east, it was as lord and master over a caravan of twenty first-rate animals. But before we could start, new saddles had to be made for most of them; for the greater part of the old ones had of course been lost along with the animals that died by the way in Northern Tibet. Parpi Bai was a skilful hand at the business. The Mongols provided him with all the materials he required; and the open space in front of the men's tent was converted into a saddle-maker's workshop.

For my own part I was hard at work every day learning Mongolian, and "pumping" the Mongolians as to their knowledge of all that region, its geography and climate, their own ways of life, their religion, and so forth. Most of the men had been to Lhasa (Lassa), and had many interesting things to tell me about that provoking city, and the road to it. As soon as they found out that I took an interest in their *burkhans* (images of Buddha made of terra-cotta and worn round the neck in a small *gavo* or

case), they brought them, and sold them to me cheap. But they were more afraid of one another than they were of me. They only came to my tent with them at night, after it was dark, and begged me to keep them closely hidden at the bottom of my boxes. These burkhans are made in Lhasa with masterly skill, and every Mongol I encountered wore one. The case in which the image was carried was very often made of silver, with choice and original engraved designs on the outside, and set with turquoises and coral. The less pretentious gavos were made of copper or brass.

Ere long I stood on terms of cordial intimacy with the inhabitants of Yikeh-tsohan-gol. Whenever I took out my pencil to sketch, they would gather in a circle outside my tent; and when I entered their tents, they were invariably ready to entertain me with tea and tsamba. I failed to discern a trace of either shyness or alarm among them, of either prejudice or superstition; they would sit perfectly still and quiet whilst I sketched them. Some of them even permitted me to take anthropometrical measurements. The only thing they manifested any scruple about was when I wanted to put them with their backs against the tent-pole to take their height. They were always afraid lest I should touch the tops of their heads with my hands. Possibly this was for the same reason that they lift their burkhans to their heads as a sign of reverence; though it may also possibly have been because they had been blessed in Lhasa by the Dalai Lama or some other high dignitary of their faith.

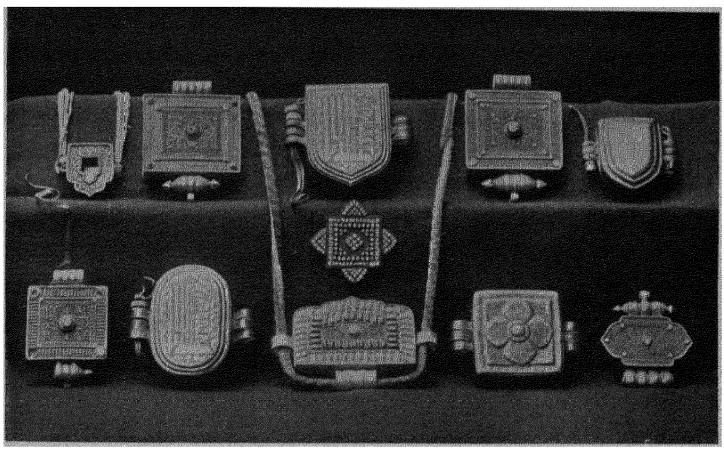
The Mongols of Tsaidam are monogamists; and their women enjoy an incomparably greater amount of freedom than the women do among the Mohammedan tribes of Central Asia. Not only do they share fully in the characteristic gatherings round the fire, and go unveiled, but they are very inadequately clothed. The sheepskin they wear is merely held together by their girdle and at the left shoulder; the whole of the right side of the upper part of the body, down to the waist, is uncovered. The



TERRA-COTTA BURKHANS FROM LHASA

One-half natural size

breasts of even the younger women are anything but well-formed, and hang down loosely in a very unedifying fashion. Whether this undue exposure of the person tends to matrimonial fidelity I will not venture to affirm; I can only say that the Mongols themselves are so thoroughly accustomed to the practice, that to them it is perfectly natural. At any rate, they were not slow to tell me, that morality amongst them stood at a higher level than amongst the Mohammedans; for in their eyes



GAVOS, OR CASES, FOR BURKHANS (SILVER AND COPPER)
One-sixth of natural size

the polygamy which Islam allows the Faithful is proof of a low moral standard.

On the very first day of my stay amongst them Sonum, the chief of Yikeh-tsohan-gol, came to visit me, bringing as gifts of welcome milk, fermented mare's milk (kumiss), and brandy made from the same. The kumiss brandy had a very disagreeable taste; but must have been pretty strong, for Parpi Bai, after a somewhat incautious trial of it, was incapacitated for an entire day. The chief Sonum wore a fiery red mantle, and a Chinese skin cap, with button and long ribbons.

The following day I returned his visit. The little

domestic shrine was set up immediately opposite the entrance to his roomy tent. It consisted of a number of boxes piled one on the top of the other, the whole surmounted by a flat piece of board, along which were ranged a number of dishes and cups containing water, flour, tsamba, and other offerings to the burkhan (holy image of Buddha). I also observed sacred scriptures, prayer-wheels, and burkhans from Lhasa and Tatsilumpo (Tashilunpo). Any person who stops to look at the latter must take his pipe out of his mouth, nor must he breathe upon them. When I inadvertently transgressed against this rule, the burkhan was purified by being held over a brazier, into which fragrant spices were dropped. Nor are the holy images allowed to come in contact with the earth.

In the middle of the tent was the fire, in a sort of iron basket (*tolga*), provided with three upright rods for holding the cooking-pot. The fuel with which the fire was fed consisted of the branches of tamarisks and the roots of other plants. At meal-time the dishes for the guests were placed before them on small stools. In brief, the Mongol tent was better furnished than the Kirghiz tent. They called it in their own tongue *örgö*; it resembled even in detail the *kara-uy* (black tent) of the Kirghiz. It is very remarkable that tents of this shape are in use throughout such an immense area of Central Asia, and amongst people of different races, between whom there exists no direct intercommunication. But the materials are such as those regions all produce in common; and the shape is the most practical, and furnishes the largest amount of space. The chieftain's tent was indicated by a spear stuck in the ground outside. Round about the encampment were numerous exceptionally fine tamarisks, more like trees than bushes. From them the Mongols obtained materials for the dishes, tubs, saddle-trees, tent-poles, and divers other articles which they made themselves. Other household utensils, together with flour and similar commodities, they obtained from Si-ning-fu.

Our Mongol friends were thorough nomads. As soon

as their flocks and herds have eaten up the pasturage in one place, they move away to another.

Their aul was splendidly situated in the dry river-bed, so that they were able to water their animals of an evening from a well not more than four feet deep. They appeared to devote their attention chiefly to the breeding of horses. The entire neighbourhood echoed with their whinnyings and neighings. In the evening the mares were milked by the women; for the staple drink of the Mongols is kumiss or fermented mare's-milk. They also keep a large number of sheep and camels, and horned cattle. Agriculture is not pursued at all.

All the time we stayed at Yikeh-tsohan-gol we were favoured with magnificent weather. The sky was bright and still, and at noon the temperature rose to 59° Fahr. (15° C.); in fact it was so warm inside the tent that I preferred to sit in my shirt sleeves. On the other hand, the nights were every bit as cold as they were up in the mountains of Northern Tibet. The scenery was often very fine, especially when seen under the colouring of the setting sun. In the purple red glow of the sunset the tents, the tamarisks, the mountain backgrounds, especially the Tsohan-ula (Tsohan Mountains) on the south, stood out with the sharpness of silhouettes in the clear transparent atmosphere. In the evening, when the animals had to be attended to, the encampment presented a very busy scene. The women with their broad felt hats and long plaits of hair bustled about among the fat mares and bleating ewes; whilst the men drove the flocks into the folds, assisted by a troop of black long-haired dogs, who barked tumultuously, making a terrible din. Then my men would stop their day's work, and gather round the fire for supper; and whilst eating it Mirza read aloud to them out of the *teskereh* (chronicles) of Imam Jafer Sadik. The whole scene, with the fires gleaming through the half-open tents of the Mongols, was full of the soft beauty of peace, and I thoroughly appreciated it. After the almost unearthly silence of the mountain wilderness, we seemed to have returned to quite a summery clime; and then we were able

to move about and exert ourselves without suffering from shortness of breath, for we were not more than 9240 feet above the level of the sea.

Although my Mohammedan attendants as an actual fact despised the Mongols, looking upon them as savages and heathens, both parties managed to get along very well together, and took pains to try and understand one another. I almost died with laughing to see the hideous grimaces and extraordinary gestures Dorcheh went through, and that with the profoundest gravity, in his efforts to make my men understand what he wanted to say. He shouted at the pitch of his voice, as though they were all stone-deaf, twisted his face about as though it were made of gutta percha, and jumped and flapped his arms as though he had been a cock. And when at length his meaning dawned upon his audience, his delight knew no bounds. He laughed loud and long, and kept on nodding his head like a Chinese porcelain doll with intense self-satisfaction.

CHAPTER LXXXIX.

THROUGH THE DESERT OF TSAIDAM

OCTOBER 12th. At sunrise and immediately after our camp echoed with the noise, bustle, and excitement which invariably attend the first starting of a new caravan. The loads were weighed and arranged in pairs for the different horses, so that the boxes which required more delicate handling might ride on the quietest animals, while the heavier, coarser baggage, such as the tent and provisions, might be put on the skittish. Everybody in the Mongol camp from the chieftain downwards was already up, and eager to supply us with ropes and whatever else we wanted. The women gave us a present of milk, sufficient to last two days. Even after the caravan had got a little distance on the road, we were overtaken by a young man, who had not been able to pluck up courage earlier to offer me his burkhan for sale.

The caravan of about a score of horses made a fine show as they travelled at a rapid pace towards the east under the experienced guidance of Dorcheh. I congratulated myself upon having such a string of fresh, well-conditioned horses. It was quite a relief after the wretched team with which we struggled among the lake-basins of Northern Tibet.

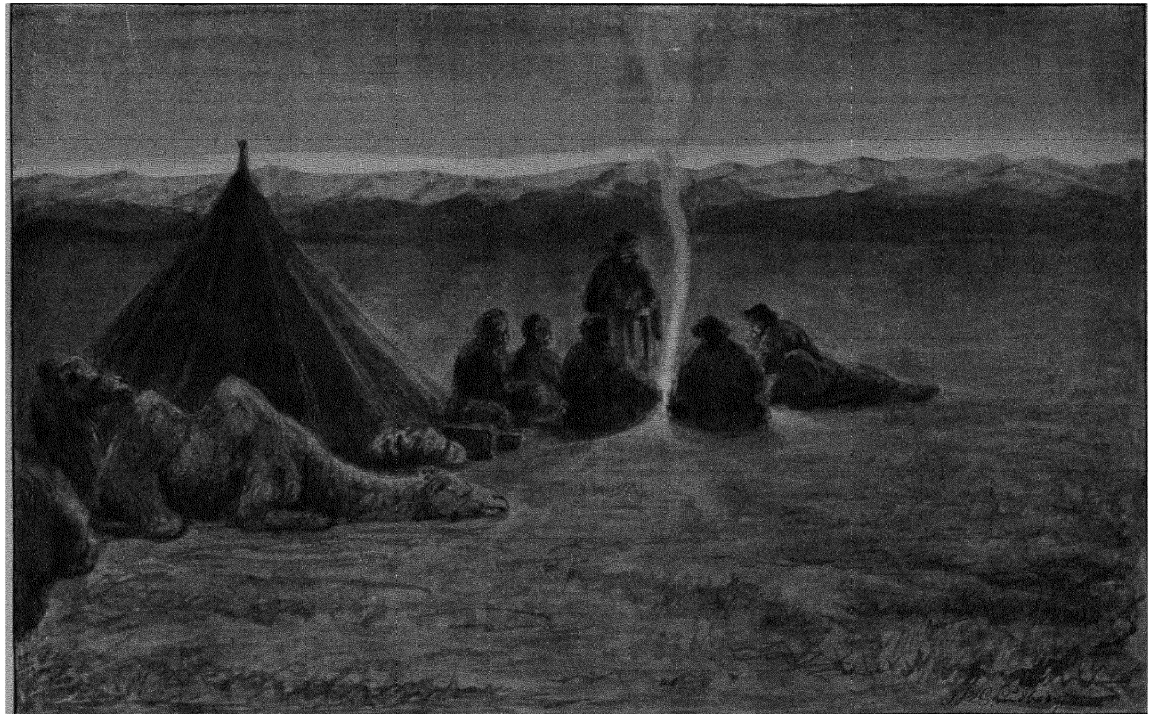
And what a change there was too in the outward appearance of the country! We now rode across a level steppe, covered with luxuriant verdure, and along a well-trodden path, which wound over the plain in easy curves. But on the left we had the boundless ocean of the desert of Tsaidam. The only mountains we could see were the

far distant Tsohan-ula, away to the right. The alternations and changes and surprises which kept me busy amongst the mountains now of course ceased, so that I had next to nothing to do. The country was extremely uniform, the ravines and dry beds of the streams being the only diversities of the surface. At Bagha-namaga (the Little Spring) we stopped to water the horses, and after a march of seventeen and a half miles, halted for the night on the steppe of Hojegor, where there was an abundance of water and grass, as well as fuel.

October 13th. A pretty brisk wind sprang up in the west, and loaded the air with dust, as well as hid the mountains. This day we advanced towards the east-south-east, sometimes across rough desert, the soil of which was heavily impregnated with salt, sometimes across steppes dotted with thick beds of luxuriant reeds, crossing numerous dry ravines on our way. Our day's journey of nineteen and a quarter miles ended at Tsakha, an encampment of ten tents, the same number as at Yikeh-tsohan-gol. The chief gave me a friendly welcome and led me into his own tent, where I found the members of his family busy making stirrups out of branches of tamarisk and covering them with leather.

Next day the path inclined more towards the north, and led across some widely extended salt marshes, which were of course just then dry, but none the less tiresome for the horses, because every old footprint had set into a hard and treacherous hole. In the distance we saw every now and again small tent-villages, and flocks of sheep guarded by boys and women. It was sixteen miles to Yikeh-gol, the third branch of the Naijin-gol, so that our camp was made that night beside the same stream which we encountered for the first time at camp No. XXXV.

In the evening we were visited by a party of Mongols, bringing brandy in two or three copper vessels, and cloth from Lhasa, which they were anxious to sell to us. Our visitors and Dorcheh dipped into the copper vessels so industriously that they grew noisy, and challenged my Mohammedans to a wrestling-match, in which the fuddled



MONGOL CAMP IN TSAIDAM

Mongols were a good deal sobered. After that they fell asleep, and slept hard and heavy. Next morning their heads ached, and they begged me to stay the day there; but I refused to accede to their request.

First thing after starting we crossed the broad bed of the Yikeh-gol. It was a good quarter of a mile wide, but contained next to no water. The terraces on each side of it rose however sixteen feet high, indicating that it swells to a very considerable river in the summer. The bed was littered with gravel, and by a multitude of curves wound northwards towards the great central basin of Tsaidam. The country on the other side of the stream presented the same monotonous uniformity as heretofore. Level as the evening sea, silent and desolate, the steppe stretched in every direction; not a creature, tame or wild, to be seen anywhere, not an object to rest the eye upon. Our camping-place (sixteen and three-quarter miles) was called Urdu-toleh, and offered plenty of both water and grass. Contrary to the practice of the Mohammedans, the Mongols turned their horses loose to graze immediately after halting.

On October 16th, we did not cover more than twelve and a half miles, namely to Togdeh-gol (9140 feet). As a general rule, the Mongols of Tsaidam make very short marches, so that it is not difficult to understand how they take two months to travel to Lhasa, and forty-three days to Si-ning-fu.

The night was cold, the minimum registered being 3°2 Fahr. (– 16° C.). The thermometer dropped much lower than in Northern Tibet; still the continental winter, with its excessive extremes of cold, was close at hand. The day was bright and fine, and in the south we could plainly see the mountain-range called Kharanguin-ula, (the Dark Mountains). The Togdeh-gol flowed at the bottom of a deep narrow gorge, which it occasioned us very great difficulty to get across without a wetting. On the opposite bank we halted among a clump of tamarisks, and made ourselves as comfortable as the circumstances permitted, for I had decided to give the horses a day's rest.

At this point our old friend and guide Dorcheh took his leave, to return to his lonely mountain-home and his wild yak hunting; he was afraid his wife would begin to be anxious at his prolonged absence. In his place I engaged a young Mongol named Loppsen, a big clumsily built fellow, who had several times been to Lhasa and Si-ning-fu, and had an exceptional knowledge of the country we were travelling through. Loppsen (see page 1121) was one of the best followers I ever had. He was always cheerful and pleasant, and freshened up my knowledge of Mongolian. He procured me several burkhans and *tankas*, or temple banners, decorated with portraits of the Dalai Lama and Banching Bogdo. Where he got them from I do not know. Very possibly he stole them from our neighbours, for he was terribly afraid lest they should see them.

October 18th. Our next stage, sixteen and three-quarter miles, was to Toleh. Loppsen came on the next day, having with my permission remained behind in order to furnish himself with provisions and a horse. It was arranged that another man should guide us to Toleh; but of him we never had a glimpse, and set off without a guide. Nor did we really need one, for the path was easy to find. At first we travelled through a belt of tamarisks, so tall and so close set that they resembled a newly planted forest, and in this part of the day's journey we passed a very picturesque obo. Ropes were slung across the road from the branches of the tamarisk thickets on both sides, and to them were stitched pieces of cloth of divers colours, each piece bearing the usual formula of prayer; further the shoulder-blades of sheep, likewise with the everlasting ideographs—"On maneh padmeh hum," hung at intervals amongst the pieces of cloth. The general effect recalled the forest masars of the Mohammedans, only it was more tasteful and decorative.

Upon approaching a pool, we were overtaken by a troop of mounted Mongols, who informed us that that was Toleh, and that for a long day's journey to the

A "TANKA," OR TEMPLE BANNER

east there was not a drop of water to be found. We therefore deemed it expedient to encamp. We also bought from them a sack of barley, which was greatly appreciated by our horses. Grain of all kinds is excessively scarce in Tsaidam. The Mongols buy their wheat in Si-ning-fu. Barley is grown in a few places, though in nothing like sufficient quantity.

Loppsen came up next day, and guided us (sixteen and three-quarter miles) to the deeply eroded stream of Hattar. We now perceived distinctly a mountain-chain on the north also. Loppsen called it Kurlykuin-ula, and gave me to understand that it formed the northern boundary of the Tsaidam depression. That evening we had a talk about my contemplated journey to Si-ning-fu, and Loppsen was of opinion that it would take me thirty days to get there. He said that the Tanguts in the Koko-nor neighbourhood were arrant thieves and robbers, and that whilst passing through their country we should do well to maintain a constant watch. He wondered whether we were sufficiently well armed; but when I showed him our three rifles and five revolvers, he was plainly much easier in his mind. He further warned me, that in the region of the Kurlyk-nor, and further to the east, we must be prepared to find a scarcity of provisions, for the Dungans during their recent revolt had carried off all the flocks of the native population.

On October 20th we had a march of twelve and a half miles to Tenghelik-gol through tamarisk thickets and reed-beds, and across barren desert. The mountains to the south were now called Nomoghin-ula. The Mongols do not seem to have a common name for the range, only a series of local names. The streams at Hattar and Tenghelik, like those of the Bayan-gol, the Khara-ussu, and the Bulunghir-gol, which we crossed later on, all entered the salt lake of Hollussun-nor (the Reed Lake). The Naijin-gol, on the other hand, flowed further west, and entered the lake of Döulätsän-nor, generally called on European maps Davassun-nor. This name is however misleading, for it is merely a general name; almost every

lake in Tsaidam that contains salt water being called Davassun-nor (the Salt Lake).

The following day our route inclined a little towards the north, so that the southern mountains grew fainter, whilst those in the opposite quarter became more distinct. The march lay across desert and steppe for seventeen and a quarter miles as far as Ova-tögöruck, where I was as usual received in a friendly spirit by the inhabitants of the few Mongol tents. These people belonged to the important sept or tribe of the Tajehnur Mongols. I was able to get some useful craniological measurements from them.

They wore a big sheepskin tunic, held together by a belt round the waist, but they pulled the tunic up through the girdle in such fashion that it bulged over at both sides like a couple of cushions. These hollow spaces they used as pockets, and on occasion as provision-bags. At their side they also carried in a smaller belt their knife, pipe, tobacco-pouch, and a pair of nippers, with which they pull out their beard if it threatens to grow too thick. Their boots were pointed at the toes. Their hats were pointed or rounded; very often however their head-covering consisted of nothing more than a piece of felt, stretched across the forehead and tied at the back of the neck; sometimes they even go bare-headed. As a rule, they wear the hair short and close, its usual colour being brown or black. Pigtails are much seldomer met with in Tsaidam than amongst the Khalkha Mongols in Mongolia proper. Owing to their constantly living in the open air, their skin is a copper-brown colour, though it must be admitted a good deal of the colouring is due to dirt. Their teeth are small and yellow, but appear to keep sound a long time. Their cheek-bones are high and prominent, their nose is rather flat and small, the head as round as a ball, flattened anteriorly, the beard slow of growth. It is not until a man is past thirty that the fine down develops into a beard, and then the beard is excessively thin.

At Ova-tögöruck we managed to get two or three bags

of corn for the horses, and bought a young mare to carry them. As we had a couple of days of desert travelling before us, the grain was a valuable acquisition. There we rested a day, and Islam Bai seized the opportunity to turn out and take stock of our provision-cases, bringing to light a bag of coffee berries, and a bottle of golden syrup, which Father Hendricks gave me more than a year previously. The coffee was an agreeable change from the invariable tea, and the syrup served for dessert after dinner.

On October 23rd the path inclined towards the north-east. We were about to cross the central desert region of Tsaidam. Vegetation grew thinner and rarer, and finally ceased altogether. The ground was bare and barren, rough and moist, and frequently showed white because of the large impregnation of salt. Once more we were ploughing our way through the dreary desert. Half-way across we expected to ford the Khara-ussu (the Black River). The first of its arms we came to was very small, and the thick dirty water crawled over the muddy bottom with a scarce perceptible movement. Its second arm was dry. Then came the third, so deeply sunk in the ground, and so narrow, that we did not see it until we were close upon it, in fact only a few horse's-lengths away. The banks were of slippery clay, and went steep down to the bottom of the river, so that we had to cut a sloping path in each for the horses to go up and down. Loppsen, who knew where the ford was, rode down first, but the horse had not gone four paces before he sank over the pommel of the saddle in the soft mud, wetting his rider to the waist. Islam tried another place, but with no better fortune. The men rode up and down the bank seeking for a more suitable crossing, but in both directions the river was narrower and deeper, and Loppsen maintained that that was the only ford there was across the Khara-ussu. He was amazed to find so much water in the river, and could only explain it as being due to the unusual warmth of the air during the past few days, combined with a

A MONGOL BEGGAR

copious fall of snow on the Burkhan Buddha, a mountain whose summit gleamed white in the south. After all, the water was not more than three or four feet deep, but unfortunately the horses sank so heavily in the mud, and were even in danger of sticking fast in it. Every packing-case we had would get saturated to the lid. That would never do.

Although we had not covered more than seven and a half miles that day, we had no other choice except to pitch our tents and wait until the water went down. It was very annoying to be stopped by this wretched pretence

of a river, not more than forty feet wide at the most, and to be forced to rest in such a howling wilderness, with no other vegetation than a tiny bed of reeds. "Patience!" whispered the west wind as it flaunted restlessly across the wide expanse of the desert. Patience! It was to that west wind we were in no small degree indebted for the delay, seeing that it dammed back the water in its course towards the west.

The tents were put up, the horses turned loose, and a notched stick put down in the stream close to the bank, to show us whether the water rose or fell. By next morning the surface had only fallen three-quarters of an inch, and the bed of reeds was gnawed right down to the roots. I therefore sent Loppsen and two or three of the other men back with their horses to the pastures of Ova-tögöruck. The westerly gale was blowing fiercer than ever. The tent-covering on the windward side was driven in like a half-collapsed bladder, seriously curtailing the space inside. The packing-cases, which had been placed on the turned-in ends of the tent-covering, to hold them fast, rocked and shook, and the tent-poles creaked; every moment I fully expected to see the tent go flying like a kite across the river.

Why had this obstacle come in my way like this? I asked myself restlessly. For I was now waxing impatient to get home, and counted every day's journey as so much ground won. It was now fully a year since last I had news from home. I was quite isolated, and very lonely. For more than three years I had been absolutely alone in the heart of that immeasurable continent of Asia; I thought I should never reach its coast! Every day it afforded me a special pleasure to count how many miles we had rubbed off the score, and subtract them from the hundreds which still stretched between me and my far-distant goal—Peking. From Khara-ussu to Peking was 1260 miles. What an amount of patience I should need before we had traversed all that long distance at the slow rate at which we were crawling along! And what adventures still awaited us ere our

tired horses entered the western gate of the famous capital of the Far East? I was growing tired of wandering about like a homeless exile among the half-savage tribes of Asia. I was become fairly familiar with them, and longed to get back among my own people and my own kin. My attendants, their several life-stories, their faiths, their knowledge—I knew them all through and through. I longed ardently for a change of companionship.

At last, on the morning of October 25th, the stream had fallen sufficiently for us to cross. The boxes were tied as high up on the horses' backs as we could get them, and each horse was led across separately. But every animal that crossed churned up the mud afresh, so that those which came last sank in the deepest. However all got over without mishap, and as soon as we were all on the right bank, the baggage was re-adjusted and we went off again.

The path led across a desolate country in an almost perfectly straight line towards the north-north-east. Soon afterwards we crossed the main channel of the Khara-ussu, and then the Bulunghir-gol. The surface was not over and above comfortable to ride on, as it consisted of a hard crumbly clay, of a brownish grey colour, impregnated with salt, and it was full of holes and rough places like a coggled road. But there was an entire absence of drift-sand. Where we crossed it, the basin of Tsaidam was not particularly broad, and after a ride of fifteen and a half miles, we again came in sight of vegetation. But we had no water at our next camping-station, Tsakha-tsak. Loppsen had however warned us beforehand, and we took a supply with us in goatskins.

We still had over 1240 miles to Peking!

CHAPTER XC.

AMONG THE MONGOLIAN LAKES

ON October 26th we travelled the long stage of twenty-four and a quarter miles, and so approached the northern border of the basin of Tsaidam. The country showed no alteration of feature, and we still continued in the same direction. Soon after starting we had to face a "hog's back" of low barren clay hills, thrown together in the most extraordinary shapes and forms, resembling towers, walls, and pyramids. Once only was the solemn desolation and silence of the scene broken by a few starveling tamarisks and saksauls; but how they managed to subsist, God alone knows, for the ground was as dry as tinder, we never saw a single drop of water all day long. We crossed over an entire series of low clay passes. The first was marked by an obo, whilst the "sign-post" which indicated the last consisted of the branches and roots of saksaul lashed together in the shape of arches. At intervals amongst these hills the ground was perfectly flat, and white with salt. Loppsen said that after rain those places were brimming with water.

On the other side of the hills we saw stretching before us, as far as the eye could reach, a level but barren plain, strewn with sand. It was however easy going for our tired horses, which were now urgently wanting water. At length we caught a glimpse of a lake. It was Tossun-nor, a lake embedded amid clay terraces and hills, which fell steeply towards the water's edge.* Here our path joined the road which leads from Dsun-sassak to Northern Tibet, and which has been described by Przhevalsky.

Instead of continuing on towards the north-east, which would have been shorter, I preferred to skirt the western shore of the lake, so as to get an idea of its general shape, and examine the mouths of the streams which feed it. We therefore rode down the hill, and followed a narrow strip of level ground close alongside the water; thus we had the whole of the beautiful blue lake immediately on our right. Its surface was diversified with two or three islands, and out on the waters floated a flock of majestic swans, their plumage a dazzling white. The opposite shores were very plainly marked, and at the north-east angle of the lake stood the fine Tsagan-obo (White Mound of Offerings).

The water of the lake was inconceivably salt. Its shores, together with the scanty tufts of grass which grew on them, were powdered with white, as though coated with rime frost. At length we reached a spot where the reeds grew tall and luxuriant amongst the thickets. There we found fresh water. Indeed the place was known as Tsagan-namaga (the White Springs). There we pitched our tents, and a pleasant camping-station it proved to be. I now understood how the lake acquired its name of the Fat Lake. Loppsen explained, that whoever rested beside it found everything he needed—water, grass, fuel, in fact the fat of the land.

What a splendid scene it was, and what a rich variety of colour! As the sun set, the hills and terraces on the opposite shore glowed brick-red across the vivid blue sheet of water, on which the noble swans floated in placid unconcern. Nor did the scene lose anything of its beauty under the magic rays of the moon. The goddess of the night shone with a dazzling splendour amongst the light cloud skirmishers that flecked the sky. Not a breath stirred along the glassy surface of the lake. The tent and tamarisks, ringed round with black reed-beds, stood out in bold and sharp-cut relief, whilst on the shore, down by the water's edge, the salt deposits glistened like new-fallen snow. As I wandered in lonely mood by the brink of the lake, my glance flitted dreamily across it, and my spirit

fell captive to its glamorous spell. Why is it those silent Asiatic lakes, with their lone desolate shores, produced such a feeling of familiar strangeness, of mystery, of melancholy in my mind? I know the reason, I know it well. It was because the soft lapping of their waves was the only thing in all that far-off land which echoed the memories of other waves on other shores. But why was it those waves

MY MONGOL GUIDE, LOPPSEN

rocked my mind in the cradle of dreams, and why was it they awakened memories of other shores? I know the reason well. It was because the capricious spirits that sing the songs of eternity through the voices of the winds —it was because they sang there, in the lonely heart of Asia, the same melodies that they have sung for thousands of years among the skerry isles of Sweden, which have not their like on all the earth!

The next day we followed the shore northwards for a

time, but the ground becoming unfavourable down by the lake, we went up on the open level terraces, strewn with coarse sand and gravel. The track crossed a deep dry ravine, which in all probability only carried water during the season of the summer rains. Glancing up it, we caught a glimpse of the Tossun-nor, as it were, through a gateway. Then we approached the broad funnel-shaped depression through which the Holuin-gol entered the lake. But instead of crossing it, we turned up the right bank. The country was however as unfavourable as it well could be—the same complex labyrinth of tamarisk mounds, clay ridges, sand-dunes, and thickets that we had to contend against on the east side of the old Lop-nor. The ford across the Holuin-gol was at Bongkim-obo, a small square "chapel," containing a stone slab with the inevitable formula of prayer carved upon it in relief. The river was 100 feet broad, its maximum depth being not more than three feet, its bottom hard, and its water bright as crystal, so that the animals got over without wetting any of the baggage.

After that the path went almost due east. On the right, but at some distance away, we had the northern shore of Tossun-nor, and on the left, *i.e.* towards the north, the blue expanse of the still larger Kurlyk-nor, also called Khara-nor and Hollussun-nor. The south side of the latter lake was bordered with a wide belt of yellow reeds, almost entirely concealing the place where the Holuin-gol ran out of the lake, to empty itself eventually into the Tossun-nor. On the other hand, the northern shore appeared to be free from reeds, the bare and desolate slopes of the Southern Koko-nor Range sloping straight down to the surface of the lake.

It is an excellent arrangement of Nature to have contrived two lakes in that place instead of one. Into the northern lake, Kurlyk-nor, flowed the rivers Balduin-gol, Bayin-gol, Alikhani-gol, and several small brooks. The current which flowed out of it through the Holuin-gol was relatively sweet, so that the saline matters which the streams carried down with them from the mountains

were not deposited until after they reached the more distant lake of Tossun-nor.

After a journey of close upon sixteen miles we came to a halt near the shore of the lake, at the obo of Hlakimto, the handsomest structure of the kind we had yet seen, crowning a barren eminence, and visible to a great distance. It consisted of three cubical monuments resembling altars, built of sun-dried clay, and resting upon pyramidal pedestals. Around it eleven poles, standing upright in the ground, were arranged in the form of an oblong, all laced together by innumerable cords, whilst other cords connected the four corner poles diagonally with a twelfth, which overtopped the central and highest (11 ft. $9\frac{1}{2}$ in. high) of the three monuments. Thousands of little flags or pieces of cloth, of every conceivable colour, as well as the shoulder-blades of sheep, all inscribed with the everlasting Buddhist prayer "On maneh padmeh hum," were stitched to the cords. In the middle monument there was a large square hole, into which Loppsen thrust his arm, and drew out a roll of long narrow strips of paper written all over with Tibetan script. He said there were also burkhans built into the structure, but those he durst not meddle with.

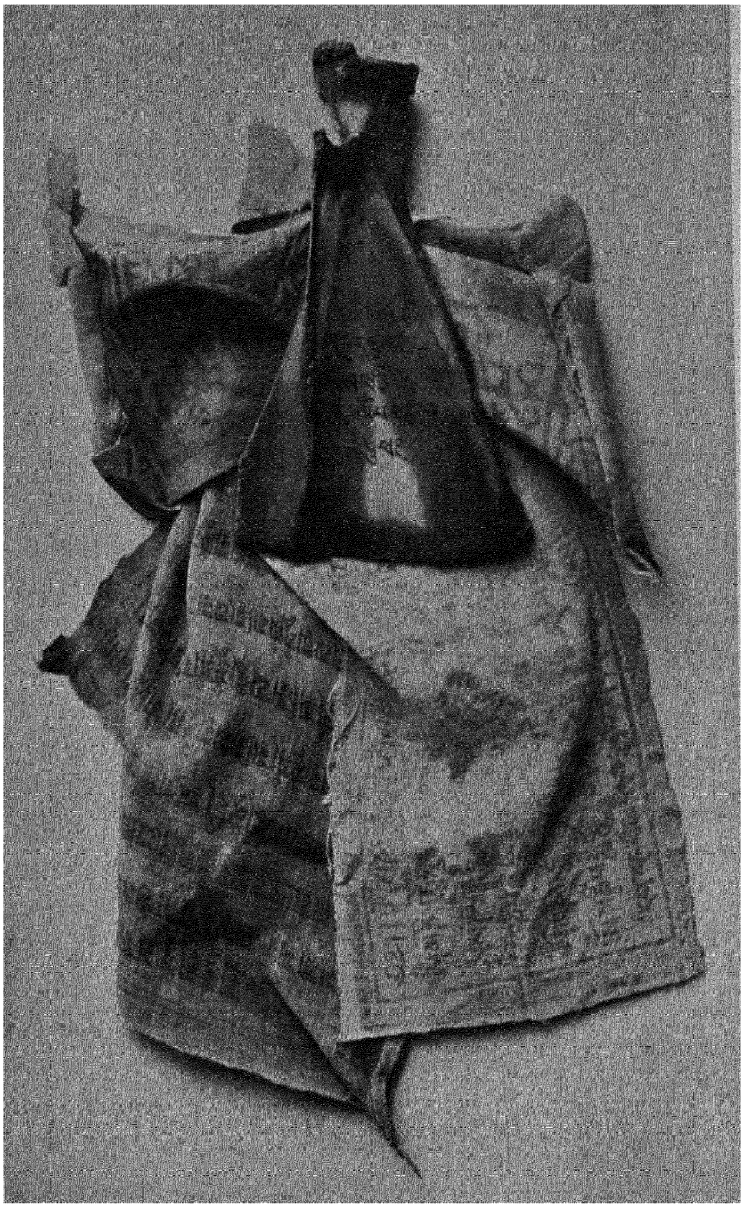
The obo of Hlakimto was built, my men told me, in honour of the *shibbtiks* or *ädsins* of Kurlyk-nor, just as the obo of Tsagan propitiates the shibbtiks of Tossun-nor. Loppsen explained to me that the shibbtiks are spirits or guardian deities, who are alive and resemble men, but to mortal eyes are invisible. There are only good shibbtiks. It is to them that men are indebted for the existence of lakes, rivers, mountains, and so forth. In addition to these spirits, there are also *gadserin-ädsin* or earth spirits, *tengruin-ädsin* or sky spirits, *noruin-ädsin* or lake spirits, and so on. But there are none in the desert; and that is why men find there none of the things they have need of most.

Seen in the moonlight, the obo presented a remarkably picturesque appearance. The three pyramidal structures were like ghosts, and the thousand pennants fluttered in

the wind as though they were supplicating, that peace might descend upon some poor soul which had departed this life stained with an awful sin. The stillness of the night was broken by mysterious sounds. Were the spirits of the lake dancing in gladness across its smooth darkling surface? No, it was only the wild-geese calling one to another among the reeds. Two or three ruddy fires gleamed across the darkness of the night from the east end of the lake.

October 28th. The path kept parallel with the lake shore, that is towards the east-south-east. On our left therefore we had Kurlyk-nor, backed on its opposite or northern shore by the Southern Koko-nor Range, and on our right the desolate plain. As we advanced, the lake gradually contracted, and its water was more and more encroached upon by the reeds, which nevertheless left a narrow belt of open water close under the southern shore. We were quite alone in the wilderness, not another creature to be seen, though every now and again we encountered the skeletons of horses lying by the side of the path, proclaiming that people were wont to travel that way. Since leaving Tenghelik we had not met a single mounted Mongol. Loppsen said that the further we advanced towards the east the more unsafe grew the roads by reason of the depredations of the Tangut robbers. At the east end of the lake we saw however in the distance two or three solitary tents. We did not stop, but pushed on to Alikhani-gol (fifteen and a half miles), a stream which because of the thick reed-beds enters the lake unseen. Its banks were marshy and fenny, and the ground treacherous. In one place, which looked perfectly firm, Islam Bai dropped so deep into the soft slushy mud that the men had much ado to save his horse. During that day's march we lost the first of our new horses.

On October 30th we rode across the Barun-kövveh (the southern branch of the Alikhani-gol), and had on our left hand Tsun-ula (the Northern Mountains). The geographical nomenclature in Mongolia is generally as simple



OFFERINGS AT THE "OBO" OF HLAKIMTO

as this. We only had one or two glimpses of the stream, its bed was cut so deeply in the soft soil. The previous night was cold (– 8°7 Fahr. or – 22°6 C.), so that several sheets of ice tossed on the current, crashing sharply against the banks and against one another. The road to Sorgotsu, a distance of seventeen and a half miles, ran through sandy desert, interspersed with small sand-dunes, reed-beds, and steppes.

Loppsen's cheerfulness had now entirely deserted him. He rode along silent and depressed, his eyes constantly fixed upon the road in front of him, and all day long he kept mumbling, "On maneh padmeh hum." When I enquired what was the cause of this gloom, he shook his head, and replied, we were now coming to a dangerous country. Two Mongols he saw whilst resting at Alikhani-gol told him, that only a few days before Tangut robbers had been to Kurlyk-nor and stolen some horses. He begged us to have our firearms in readiness, for even though we did not meet any of the robbers on the road, they were all the same hiding in the mountains, whence they could watch all our movements. Our fires at night would guide them, and we might think ourselves lucky if we lost nothing more than our horses. I therefore brought out the rifles and revolvers, and distributed them amongst the men of the caravan, at the same time giving each man a supply of cartridges. But Sorgotsu was silent and deserted. We saw no fires, either out on the steppe or at the foot of the mountains, and no signs of human beings. We were quite reassured. All the same, for precaution's sake, the horses were brought back into camp at dark, and turned loose again to graze at daybreak. Our dogs however were excellent night-watchmen. The smallest suspicious sound set them off barking.

The evenings and nights were brilliantly bright, still, and cold. The ink in my pen was frozen as early as four o'clock in the afternoon, and I had to keep thawing it by breathing upon it. I got out my old Kashgar fur coat, which had lain packed away for close upon a twelvemonth. Hot tea was now more welcome than

ever, and every evening Islam made me a wheaten loaf. We had brought with us a small stove made of sheet iron, and it now proved very useful, although employed for the first time. Islam put it on the ground inside the tent, and the chimney was fastened with wire to the brass ferrule or socket that held together the two halves of the tent-pole in such a way that it peeped out of the tent-opening. Then he lighted the stove with dry sticks, and it crackled and hissed away beautifully. This was a first-rate idea: it made the tent quite warm and cosy and comfortable—as comfortable as my own study in Stockholm. Yolldash thoroughly approved of the innovation, although he pricked his ears at first, when he heard the dry branches crackling, and the iron prickling under the heat. At night I let the stove die out of itself, and after that the tent grew icy cold. But I cared little about that: I was well wrapped up in my furs, with nothing except my nose peeping out. I always kept a cup of tea from my supper standing by the head of my bed. But in the morning any tea that chanced to be left in the cup was frozen into a lump of ice, and so too was the ink.

The men also were well off. They had a large fire, round which they all gathered. That night at Sorgotsu was the coldest I had experienced for two and a half years —namely – 14°8 Fahr. (– 26° C.), and inside the tent 9°4 Fahr. (– 23° C.).

CHAPTER XCI.

AN ENCOUNTER WITH TANGUT ROBBERS

ON the last day of October we rode across the steppes to Kövveh-khuduk (the Spring on the Shore), on the southern shore of Khara-nor, a lake which lay in the middle of a small self-contained basin that gathered up the drainage of the surrounding mountains. It was now however quite dry. On the north side, between the lake and the mountains, were a series of yellow sand-dunes; but on the south shore there was plenty of rich herbage. The water of the spring was saltish. But it was a long day's march to the next spring going east, so that, although we had only covered eight and a half miles, we were obliged to encamp where we were.

At that place another enemy threatened our horses. My men detected in the loose soft soil the footprints of bears, which had come down out of the mountains in quest of berries. Loppsen warned us to keep a watch upon our animals, for the bears were wont to lie in wait behind the bushes, and thence attack them and kill them. Here again therefore after the horses had grazed some hours, they were fetched up and tethered amongst the tents.

I now ordered that two men should keep watch every night, and should be relieved every second hour. In order to keep themselves awake, and to let us know they were awake, they were instructed to beat at regular intervals a couple of saucepans—in default of drums. They might also sing as much as they liked, to guard themselves against the attacks of slumber. Often after that, when I awoke in the night, I heard their monotonous, melancholy

Mohammedan songs, echoing like cries of distress around the camp fires. As soon as day dawned, the sentries turned in, trusting to the dogs to give the alarm after that if anything happened.

November 1st. The night passed peacefully. Nothing was heard of either Tanguts or bears, and rifle on shoulder we set off towards the east-south-east. The lake speedily vanished from sight, as we entered a tolerably broad valley, which ascended as we advanced. We then had on both sides moderately high mountain-chains, with jagged tops, and free from snow. The path went up a dry rain-channel, the principal drainage artery of the district, which ran along the middle of the valley among patches of steppe, bushes, and thickets.

We came across the fresh track of a bear going in the direction we were travelling. Islam and Loppsen begged permission to follow him. They soon came pretty near him, and all three disappeared behind the bushes.

The caravan was skirting the mountains on the right. Immediately after passing a projecting shoulder of rock I stopped, with Emin Mirza, to take an observation. The mountains were composed of a violet-black clay-slate, with an inclination of fifty-three degrees towards E. 160° S. Then we rode on after the caravan, and drew near to the middle of the valley.

At the end of about an hour we were rather startled to see Islam and Loppsen come galloping back as hard as their horses could put hoofs to ground, waving their rifles over their heads and shouting, "Tangut robbers! Tangut robbers!" They raced up to us, and close behind them pursued a band of about a dozen mounted Tanguts, enveloped in a cloud of dust. I instantly commanded the caravan to halt. "The baggage animals behind those bushes in charge of one man! Out weapons! Cartridges ready!"

I, Islam, Parpi, and Loppsen, after dismounting and throwing off our furs and pelts, took our station on the top of two clay hills. The Mohammedans fairly shook with anxiety. Parpi had been in conflict with the

"TANGUT ROBBERS! TANGUT ROBBERS!"

Tanguts before, for he was one of Dutreuil de Rhins's party, when that traveller was attacked two and a half years earlier and murdered at Tam-buddha. Przhevalsky and Roborovsky were both compelled to fight in this same neighbourhood, so that I was fully alive to the gravity of the situation. There were twelve of the Tanguts, and Loppsen said that each man would certainly carry a gun. We had only three rifles, besides five revolvers. Their superiority was therefore manifest. Loppsen and Islam were the only two on our side who were anything like good shots, whereas all the Tanguts shoot well, taking long cool aim over their musket-forks, and only firing when they are absolutely sure of hitting. Under these circumstances how would the fight end? Was my caravan going to be routed and scattered and all the labours of my last journey destroyed?

No, things were not so dangerous as they looked. When the band of robbers perceived that we were a pretty large company, and saw our weapons glancing in the sunshine, they pulled up at about a hundred and fifty paces' distance. We could see them distinctly as soon as the dust settled. They crowded together, gesticulating and shouting loudly. The result of their deliberations seemed to be that it would not be advisable to attack until they had ascertained how many we were, and how we were armed. Meanwhile we waited at our posts on the hills. I went on calmly smoking my pipe, and the action had a manifest effect on my men. I also observed the Tanguts through my field-glass, for I always had it at my side.

After about a minute's noisy discussion the Tanguts wheeled away at right angles towards the foot of the mountains on the south. There they divided. Half of them rode up a ravine among the rocks, whilst the other half continued parallel with us, but at the distance of two rifle-shots, for as soon as they turned, we resumed our journey, keeping close together in a body.

The valley began to narrow, contracting to a sort of rocky gateway. Loppsen was apprehensive the Tanguts

would hasten on before us, and hide themselves among the rocks, and shoot us down as we went through. There was however no other road, and to turn back was not to be thought of. The best thing we could do therefore was to try and reach the place first, or at any rate pass it before the Tanguts were able to take up advantageous positions. They had however one great advantage over us. They knew every nook and cranny of the mountains, their gorges, ravines, and hiding-places. Moreover our horses were heavily laden, whilst those of the Tanguts were but very lightly accoutred. Hence they easily gained upon us, at the same time gradually closing in upon the road, and finally disappeared in the openings of the rocks.

We hurried on as fast as our horses were able to travel, having the right flank of the caravan covered by those of us who were armed. Then we again caught sight of the Tanguts. They had halted, and did not appear to contemplate an attack. Thus we threaded the extremely narrow defile without misadventure. We rode however with our rifles ready cocked, and our eyes searching the rocks on the right.

On the other side of the defile the valley widened out again, and it was with a feeling of great relief that we debouched into the open. Loppsen believed that the Tanguts had taken a short cut through the mountains, intending to attack us in another place. He was sure they had been on their way to Kurlyk-nor to steal horses, but had turned back in the expectation of finding richer booty in our caravan.

The valley finally opened out into a broad plain, and after a march of twenty-one miles we halted at Kharasharuin-kubb, a place in which there was plenty of good grass, and an open freshwater pool, fed from a spring. We turned the horses loose on the edge of a patch of reeds, and they had a good drink at the pool. Then I set two of the Mohammedans, Kurban and Ahmed, to watch that they did not wander too far away.

As soon as it began to be dusk, the horses were tethered amongst the tents, close to the reeds. We kept the fire over which our supper was cooked purposely low, damped down as much as possible, so that the flames should not betray our position more than could be helped. Loppsen was very anxious with regard to the night, for the Tanguts would easily be able to observe us, whilst keeping themselves concealed in the grass. And Loppsen was right, for no sooner was it dark than we heard them creeping all round the camp, uttering unearthly howls, which I can liken to nothing better than the howling of hyænas or the long-drawn melancholy whine of hungry wolves prowling through the night. It was however a favourite *ruse de guerre* of the Tanguts, adopted, Loppsen said, to find out whether their intended victims had watch-dogs or not. Our dogs gave them no room for doubt, for they barked furiously all night long, and kept dashing out towards the pool, near which, it was evident, the Tanguts had fastened their horses. Loppsen was unable to find words strong enough to express his hatred of the Tanguts. They were not, he considered, one bit better than dogs, and like dogs they sneaked along, crouching close to the ground, rolling up the skirts of their pelts and carrying their guns in their right hands.

However we maintained a vigilant watch, a sentry being stationed at each end of the string of tethered horses, who kept up an almost constant singing and drumming upon the saucepans. Only two men were allowed to sleep at once. The others patrolled unceasingly backwards and forwards between the horses and the tents. Every five minutes or so Parpi Bai would cry: "Khabärdar?" (Are the sentries awake?). Loppsen sat over the fire, silent, warming his hands. But there was not much rest for any of us that night. Every now and again the men stamped up and down, the horses pawed the ground and neighed, and at regular intervals came the cries of the sentries and the banging of the saucepans; in a word, we were regularly besieged. The

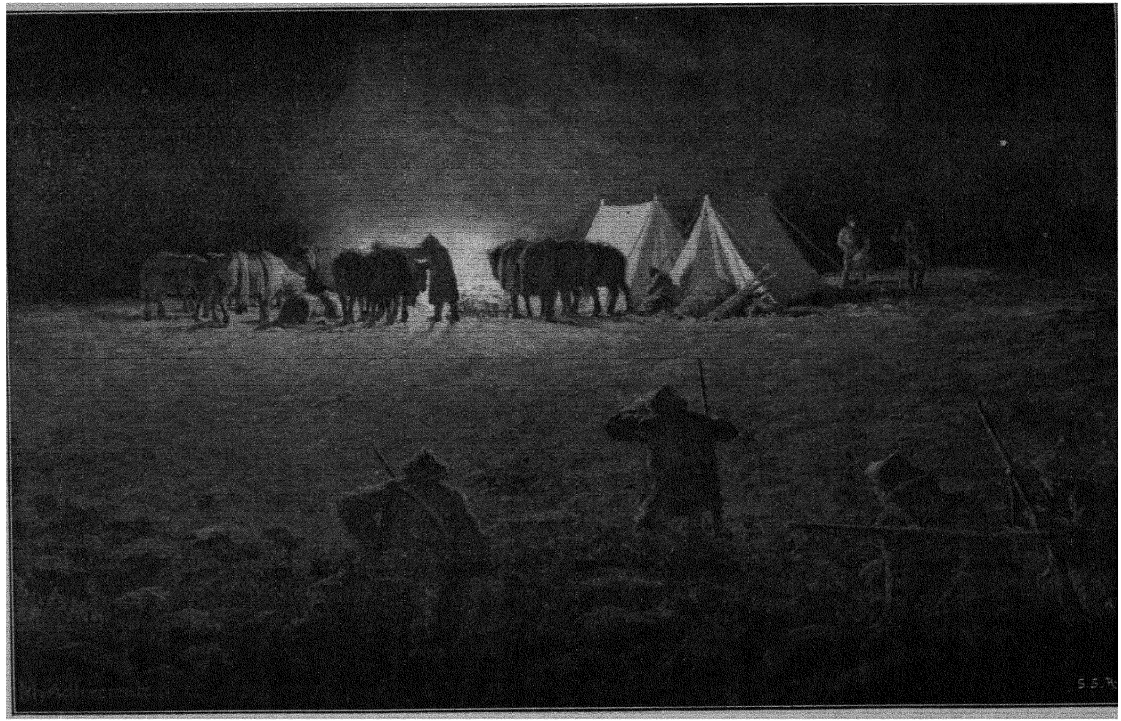
Tanguts' intention to attack us unawares was thus thwarted. They did not succeed in stealing a single horse from us.

In this way we made our entry into the country of the Khara Tanguts, with a sharp reminder that we should have to be on the alert. The Tanguts are notorious robbers and thieves, who love to plunder their more peacefully disposed neighbours, the Mongols. When the latter go to the temple-feasts at the monastery of Kum-bum, they always ride in large well-armed companies, for their only road lies through the country of the Tanguts.

I am inclined to think it was fear rather than vigilance which kept my men awake. They were instructed to wake me if the Tanguts began to shoot. Once or twice I woke up of my own accord, and on each occasion heard their incessant cries of "Khabärdar? Khabärdar?" and in the intervals between their challenges to one another came the weird melancholy howls of the Tanguts.

At sunrise the Tanguts drew back to a respectful distance. But no sooner did our caravan make a start than they made a rush for the spot where we had encamped the night. The empty match-boxes, ends of candles, and pieces of torn newspaper would prove to them, that they had not simply Mongols to deal with, and that would probably deter them from further pursuit.

On November 2nd we rode almost due east across spacious steppes, between two mountain-chains on north and south, and accomplished no less than twenty-six and three-quarter miles. In several places we crossed the winding tracks of the Tanguts, and my men believed there were several of the robbers lurking in the entrances of the glens that pierced the mountains. The ground was level and easy riding, and we travelled at a good pace, notwithstanding that the strength of some of our horses was beginning to give out. On three separate occasions we saw a large troop of khulans (wild asses), but they all fled up into the mountains. The configuration of the surface was similar to that of Northern Tibet,



"WE MAINTAINED A VIGILANT WATCH AGAINST THE TANGUTS"

in so far as it consisted of a succession of self-contained basins destitute of outflow, but at this time they were all dry. The first depression we came to had a small lake in the middle, the second a long narrow lake. About midway along the shore of the latter, which was called Serkeh-nor, was an obo known as Gadser-udsur.

Lake Serkeh-nor was pretty nearly dry. We only saw water in three places, the rest of the lake bottom being coated with a thick white layer of salt. The Mongols, when travelling to the sacred temple of Kum-bum, are in the habit of taking bags of salt from this place, which they barter in Ten-kar (Donkhur) and Si-ning-fu weight for weight for bags of *taran-gurill* or burnt flour. In summer the lake fills with water, but it is so shallow that, were it not for the mud at the bottom, it would easily be possible to ride right across it. The district around its eastern extremity, called Ortäni, possessed both grass and fresh springs. There our track joined the routes from Dsun-sassak and Nomokhan-khoto, both notable camping-stations of the Mongols in the east of Tsaidam. During the night, for we pitched our tents beside the springs of Ortäni, we kept as vigilant a watch as we had done the night before. But we were not disturbed, nor did we hear an echo of the Tanguts.

Our next stage was fifteen miles and a half to Dulan-yung. On the way the road deflected towards the north-east so as to strike the valley of the Dulan-gol, which was broad and framed in by grassy hills, and traversed by a clear brook, with a good deal of water in it. The mountains on the right were crowned at fairly regular intervals with detached forests, while their slopes were dotted with large herds of sheep. Hundreds of tame yaks ranged up and down the stream. We pitched our tents on its right bank in a splendid neighbourhood, not far from a Tangut tent.

I resolved to let the Tanguts see that we had no fear of them. Two men whom we met on the road clapped spurs to their horses the moment they caught sight of us. But well on towards evening two others, armed with long swords, ventured at length to draw near to my tent.

They were dressed in precisely the same manner as the Mongols, but did not understand a single word of Mongolian. Loppsen however, having four times made the pilgrimage to Lhasa, was tolerably versed in their language—Tibetan, so that through him I was able to converse with them. Seeing that they were received in a friendly spirit, the Tanguts laid aside a good deal of their shyness; all the same, they were not very sure what to make of us. However, they sold us a sheep, and provided us with milk for the evening. Our camping-ground had been deliberately chosen on a sort of island, overgrown with bushes, between two arms of the stream, and commanding a view of the whole of the valley. We had plenty of fuel. The brook prattled vivaciously down its stony channel. I sent the horses to a pasture-ground in the immediate vicinity in charge of two men, mounted and armed, with strict injunctions to keep watchful guard over them all night.

FROM TSAIDAM TO PEKING

CHAPTER XCII.

THROUGH THE COUNTRY OF THE TANGUTS

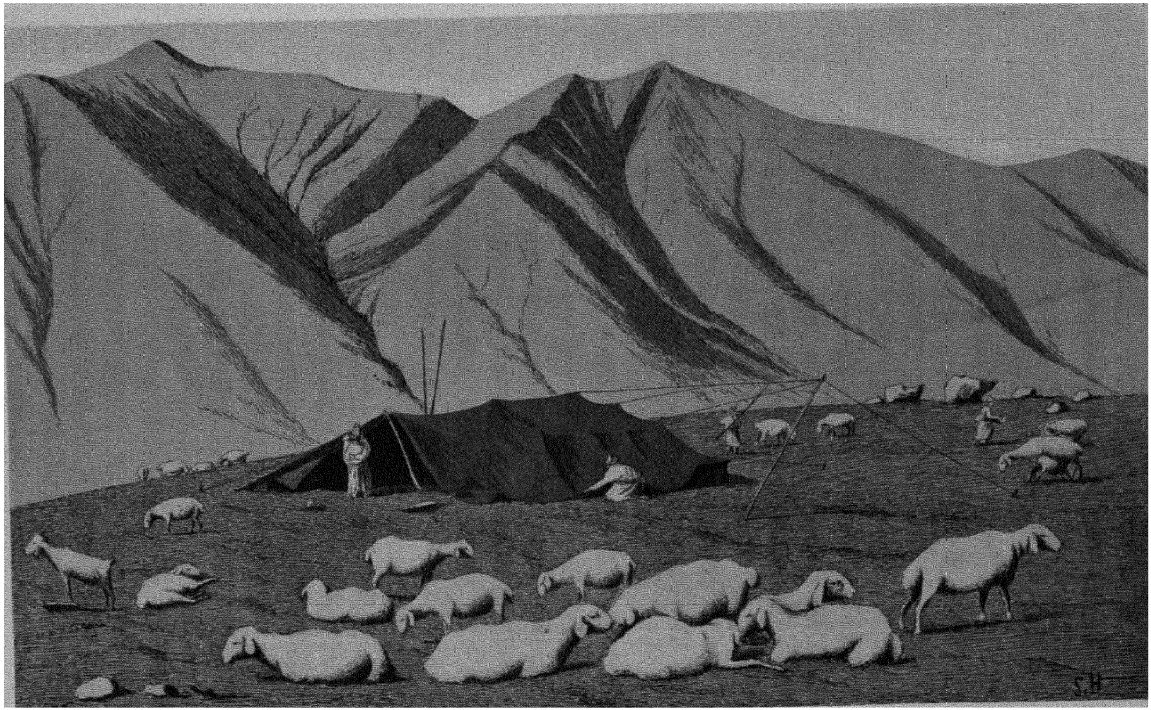
AT Dulan-yung (the Warm River) we stayed over November 4th and let the worn-out night-watchmen lie and snore all day long. Loppsen still continued to urge vigilance, warning us not to be lulled into a false sense of security by the apparent friendliness of the Tanguts and the cheap price (a liang or tael, worth about 3*s.* 1½*d.*) at which they had sold us the sheep and the milk; he was afraid they meant to recoup themselves by thieving. After a good deal of hesitation he was persuaded to accompany me to the two Tangut tents near to which we had encamped. At first he was far from enamoured with the idea: and my Mohammedans too endeavoured to dissuade me from going. But I failed to see what danger there could be, for I was going quite peaceably and unarmed to throw myself upon their hospitality.

The two tents, both as black as the night, stood close together. We were met just in front of them by half-a-dozen ill-natured black dogs. Then a man came out and drove the dogs away, and after inquiring what we wanted, invited us to go inside his tent. Loppsen told him, I only wanted to see how the Tanguts lived. I accordingly stepped inside, and took a seat beside the fire, where two women were engaged cooking tea, with flour and butter, in a large pot. One of the two was our host's young wife. She looked pleasant and sprightly, and was giving the breast to a noisy infant. All the time I was in the hut she never took her eyes off me. The other was a repulsive old woman, who had a girl

of about five by her side. Both women, as well as the man, were dressed in exactly the same style as the Mongols, but had laid aside their sheepskins, leaving only the left arm covered. All the rest of the upper part of the body, down to the waist, was bare. The younger woman was well-shaped and strongly made, and her skin was a copper-brown colour. In general appearance they bore a close resemblance to the Mongol type, at any rate it seemed so to me who saw these people for the first time. Indeed I should have been ready to set them down for Mongols, had it not been for their language, and the peculiar construction of their tent, both of which betrayed a different race. Immediately opposite the entrance, upon a box, was a domestic shrine of the same character as that which I have described among the Mongols. Our Tangut host too wore a gavo (case) round his neck, containing a burkhan (image of Buddha).

We were invited to take tea. Then I noticed the different parts of the tent and inquired their several names, and even wrote them down, to the great disquietude of Loppsen, who urged that the Tanguts might misinterpret what I was doing, and imagine I had come with evil intentions. The two women laughed heartily at my desperate attempts to pronounce the intricate Tibetan words, with their artificial accumulation of consonants at the beginning. They could not for the life of them take their eyes off me. Their hair hung about their dirty heads in a vast number of thin plaits, some of which fell down over their shoulders and back, some in front over the bosom. From the end of the lowest plait behind, as well as from the ends of two others on each side of the head, there hung three heavy gay-coloured adornments, consisting of red and blue ribbons, pieces of cloth, and glass beads of different colours. These pendulous impediments flapped against their backs at every movement, and must have been extremely irksome whenever they moved their heads.

The tent had a four-square ground-plan, giving easily three or four times the amount of space there is in an



A TANGUT TENT AT DULAN-YUNG

ordinary Mongol or Kirghiz tent. On the whole it resembled a low, truncated pyramid, the sides sloping inwards as they went up; but the roof had the shape of a low irregular prism. A row of poles along the middle held up the tent-cloth, which was made of a coarse black linen, which the Tanguts weave themselves, a chink being left along the top for the smoke to escape. The tent-cloth was kept taut by means of ropes from the four corners and from the top of each of the sides, running over a cleft or fork in a pole, and fastened to stakes driven into the ground. The rain-water was carried away by a gutter dug all round the tent. In the middle of the tent was the fireplace, cleverly constructed of flat stones, placed slanting one against the other, with a hollow between for the cooking-pot; there were also holes for the draught. The fuel, consisting of animals' dung, was kept between two rows of similar stones.

Along three of the sides stood rows of sacks, partly made of linen, partly of skin, and containing corn, flour, fat, and salt. These sacks also helped to shut out the draught and prevent it coming in under the folds of the tent-walls. The ragged carpets spread round the fire were littered with a multitude of things—such as furs, copper kettles, wooden bowls, teapots, Chinese porcelain bowls, square flour-boxes, bellows, saddles and bridles—all flung down in picturesque confusion. Several of their belongings, for example the swords, were made by the Tanguts themselves. The religious objects came from Lhasa, and some of the household articles from Si-ning-fu.

November 5th. Raw cold weather, the sky covered with clouds, snow on the ground—quite a rare sight since we came down off the Tibetan plateau. In the morning ten Tanguts came to the camp, each armed with a straight, sharp sword, and dressed in vari-coloured blue and red costumes, with bag-caps, which gave them a certain resemblance to soldiers. They brought us two or three cans of milk, and wanted to sell some horses. But the price they asked was far too high, and so we did no

business. Without being impertinent, they examined several of my belongings, and were agreeable and talkative. My revolver inspired them with the profoundest respect after they learned that it was charged with six cartridges at once.

I was anxious to engage a Tangut guide; but they answered that one man could not go with me alone. Nor were they satisfied to take twelve liang each for the journey to Si-ning-fu; they demanded sixteen liang (about £2 10s.). After I at length agreed to this, they went on to say that they had no horses. This however was a palpable excuse. The fact was, they were suspicious of us, and were afraid to travel in our company. Fortunately Loppsen had an intimate knowledge of the country, and was moreover the best and most trustworthy guide I ever had.

The valley rose gradually towards the east, between rounded hills covered with soft soil. Half-way up, the slopes were thickly planted with *Coniferæ*, and occasionally the bare rock cropped out above the girdle of forest. The end of every side-valley was occupied by the black tents of the Tanguts, standing scattered about, and wearing a forbidding aspect—ideal lurking-places for robbers and bandits. We counted twenty-five such tents, or, including those at Dulan-yung, some forty in all. Had the inhabitants been so inclined, it would have been an easy matter for them to have stopped our way and overpowered us. But we rode on unmolested, although at every tent the people came out to stare at us.

At last I caught sight of a curious pyramidal object standing in the middle of the valley. It was a cube supporting a cylinder, both made of clay. Loppsen explained that it was a *sovurga*, or sign to indicate that there was a temple close by, and the next instant I caught sight of the walls of Dulan-kitt, the first walled town since we left Kopa. It was a place of a very few houses, but with some tents. The lower parts of the houses were built of stone, the upper parts of clay. The inhabitants were Banga Mongols, a sept in ill-repute for thievery.

The temple (*kitt*) of which Loppsen spoke was a large square house, with a flat roof and windows. This was the residence of the principal lama of the twenty-five septs of the Koko-nor Mongols, namely Khoduktouin-gaghen, himself a Mongol by race, who is said to have lived in Dulan-kitt in successive incarnations for a period of 6100 years. As soon as the lama is sixty-one years old, he lies down and dies, but immediately re-enters life in the person of a little child, who becomes his successor. There are sixty-one lamas of the same rank in Mongolia, Kum-bum, and Tibet.

After a march of sixteen miles we encamped immediately east of Tsagan-nor (the White Lake). The lake was wedged, as it were, into the mountain-side, in such a way that the granite cliffs jutted out in some places in rugged, weathered spurs, descending steeply into the water. By that the forest had dwindled almost entirely away. The last few trees were however so far up the mountain-side that we could not get at them. That evening therefore we had only a scanty supply of fuel.

Loppsen came to me full of trouble. He had lost the pouch in which he carried his provisions, together with ten liang (31*s.* 3*d.*) in silver, with which he had intended buying a camel in Kum-bum. He had had the pouch under his head for a pillow the previous night, and no doubt it had been stolen by one of our worthy Tangut visitors whilst the men were getting the caravan ready to start. I promised Loppsen to make good his loss, if he would procure me some temple flags in Kum-bum. This he promised to do, and after that recovered his spirits.

November 6th. During the night we again heard the unearthly howls from the valley and the neighbourhood. I fully made up my mind that the Tanguts intended to lie in wait for us in the pass at the end of the valley. The dogs barked madly, and the cries of our sentries echoed unceasingly among the tents. But I was tired and slept soundly through it all. In the morning I was told, it was

only three wolves, which had crept in as far as my tent, and had a brush with the dogs.

We continued our way towards the north-east and north down the broad grassy valley. Water was entirely absent, and the region was quite uninhabited, although charred wood and ashes, marking the sites of old encampments, proved that it was visited at least occasionally. The mountains were composed of gneiss and a species of quartzite, very greatly weathered.

In the middle of the valley we came across a very curious erection. A sharply pointed fragment of rock, which stood entirely isolated, stuck up out of the ground like a colossal tooth, and against it leaned a rectangular structure, built of blocks of granite, each 2 ft. 6 in. square. The walls were about the height of an average man plus half that height again, and measured some thirty-five to forty feet in length. The floor was paved with slabs of stone, and the place was roofed in with the same materials, each slab having the inevitable Tibetan formula of prayer incised upon it. The walls were hung with tufts of wool, pieces of cloth, and fragments of bone, all marked with repetitions of the same Tibetan ideographs. Entrance to the interior was obtained through a wide gateway. The weathered condition of the stones, and the fact of the wall leaning over at an angle, pointed to a pretty considerable age. The place, which was called Ganchur, was no doubt originally a fort or watch-house, but at the present time was manifestly regarded as an obo, or religious monument, by the inhabitants of the neighbourhood. From the interior there was access to a long and lofty grotto, evidently of natural origin, for the sides were extremely rugged and worn by weathering. They were scribbled all over with Chinese letter-signs.

Khulans (wild asses) were common again in this neighbourhood. We saw one troop of a score, and a little after that another of about eighty, who galloped over the pass in a compact squadron. The valley gradually ascended over soft grassy ground towards the pass, which bore the name of Nökköten-köttel (the Hollow Pass). The summit

A TANGUT BOY

was crowned by a small plain obo, erected to the deities of the Southern Koko-nor Mountains. From the top of the pass, we looked, towards the north-west, down into the broad open valley of the Bukhain-gol, shut in on the north by a range of low hills. The view was very extensive, and the country equally as open as the region of the lake-basins we travelled through in Northern Tibet.

On the other side of the pass we descended the glen of the Nökköten-gol, a brook almost dry, and after a march of nearly sixteen miles pitched our tents beside it. The only fuel we could get was the dung of the wild ass; on the other hand there was plenty of good herbage. At that place we met a caravan of fifty Tanguts from the valley of Dulan. They were greatly surprised to see us, but manifested no sign of hostility. They were all on horseback, and had with them a number of yaks loaded with sacks and other baggage. They said they had been to Ten-kar, to buy flour and other necessaries for the winter.

November 7th. During the night the Tanguts prowled round our camp again, but were unsuccessful in stealing any of our horses, and in the morning they left before we did. All day we travelled nearly due east for a distance of twenty miles. One stream we came to, the Kundelung, although but small, nevertheless occasioned us considerable difficulty to get across it. Islam Akhun from Keriya, who rode one of the pack-horses, was the first to try the soft slushy ice. But the water was so deep that the horse was nearly drowned, and its rider got a cold bath, whilst the packages which the animal carried were splashed all over with water. Parpi Bai made an attempt a little higher up, but with the same result. At length Loppsen discovered a place where the stream was relatively shallow, and the ice could be broken up with axes.

The soft level ground was very much cut up by the holes and runs of voles, and we had to keep a sharp look-out to guard against the horses coming down. Upon emerging from the glen, we turned down beside the Bukhain-gol, and rode through a series of thickets and underwoods. The stream was broad and deep, and its bed littered with

gravel. In some places it flowed in one channel; there the water was open. In other places it was divided into several arms; these were frozen. The terraces on both sides of the stream were not less than sixteen feet high. For the space of fully forty minutes we rode across a piece of ground on which, according to Loppsen, some 20,000 Dungan rebels, fleeing from Si-ning-fu, had encamped eight months previously. Signs of their encampment were abundant, for the grass was still trampled down and scorched by their innumerable camp-fires. The skulls and leg-bones of sheep which they had stolen from the Tanguts, besides rags of felt, poles, and such like things, lay scattered about all over the ground. Wherever they went the Dungans devastated the country like a swarm of locusts. In which direction they had turned their steps, Loppsen did not know. They had at any rate not gone to Tsaidam. In all probability they had marched up into the mountainous country of the upper Bukhain-gol.

All day long we met not a soul, saw not a single hut or a single flock. The land was solitary, silent. Khulans, wolves, and foxes roamed over it unhindered, without fear. We saw no wild yaks, although they were said to exist along the upper parts of the Bukhain-gol. In fact, it is from that circumstance the river derives its name of Bukhain-gol, meaning Yak River.

CHAPTER XCIII.

KOKO-NOR

NOVEMBER 8th. Winter had come, laying its icy hand upon the country. The night echoed with the melancholy howling of the wolves, for it was snowing; but as soon as the sun rose, the snow melted rapidly away. Hardly had we quitted our camping-station when a troop of wolves, in utter contempt of our dogs, sneaked into it, to see if we had left anything worth picking up. As for the dogs, they had the good sense not to approach too near to the intruders.

Our next step was to cross the Yak River, an undertaking which proved easier than I anticipated. The stream was 250 feet wide, and had a volume of 600 cubic feet in the second. Beautifully clear and bright, and gliding along without a sound, like a river of oil, the current travelled at the rate of three feet in the second. Beyond the principal stream came six other arms, but they contained nothing except frozen pools and fragments of ice. Beyond these again there was yet another arm, with a volume of 140 cubic feet in the second. Its water was muddy; in all probability it drained off the earthy slopes of the hills to the north.

Meanwhile we had travelled away from the Southern Koko-nor Range, or rather it had fallen away to the east-south-east, skirting closely the southern shore of Koko-nor. We caught occasional glimpses of the black tents of the Tanguts, and once or twice saw mounted Tanguts and their flocks of sheep. Far off in the east the horizon was marked by a straight dark blue line; it was the large lake of Koko-nor. We encamped in

a place known as Hadeh-sächi, after doing nearly twenty-one miles. The evening was still and bright, the stars glittered brilliantly, and in the hollows of the mountains around we saw the pale red gleams from the camp-fires of the Tanguts.

November 9th. Soon after starting, one of our horses gave up, and as several of the rest showed signs of exhaustion, we only travelled a short stage. The further we advanced to the east-north-east the more distinct grew the Koko-nor. The steppe sloped gently towards the shore of the lake. The Northern Koko-nor Range, which had an occasional peak capped with snow, was the only mountain-chain visible; it lay to the north-east and east-north-east. The Mongol name for this range is simply Tsun-ula (the Northern Mountains).

At length we heard the waves beating against the shore, and immediately afterwards reached the lake itself, and steered our course beside it. Near the beach the water was not quite clear; this was no doubt owing to the action of the waves. It was also much less salt than the water of the North Tibetan lakes. But the delta of the Bukhain-gol was at no great distance, and no doubt that river tended to keep the water fresh. There was no ice on the surface, and, though the temperature of the air was 35°4 Fahr. (1°9 C.), the temperature of the water was 44° Fahr. (6°7 C.).

We travelled along a rampart of gravel (clay-slate), which the waves had built up along the shore, until we came to the brook Bagha-ulan, where we encamped, and whence I got a truly magnificent view. Right away to the horizon stretched the lake like the boundless sea, its waters a deep blue, changing to green. To right, to left, in the far-off distance, the mountain-chains grew lower and fainter, until they at last faded away into a veil of haze. Their two nearer extremities did not however touch; a wide gap remained open in the south-east. It was glorious to breathe the "sea-breeze" that blew off the lake—glorious, refreshing, inspiring!

At last then we had reached the Blue Lake, the Tso-

A TANGUT

ngombo of the Tanguts, the Koko-nor (Koko-nur) of the Mongols, the Tsing-hai of the Chinese. For three days more we skirted its shores, which were situated at an altitude of 9975 feet above the level of the sea.

Loppsen told me the following legend in explanation of the origin of the lake. In the grey far-off days of old, a great lama dug a vast hole in the ground. Then he took a white root and a black root of some plant, and holding them over the chasm cut the black root into two halves, out of which the water gushed forth in streams, until it filled the lake. If he had cut the white root, the hole would have been filled with milk. It was fortunate he cut the root out of which the water flowed, for otherwise the people who lived in those parts would not have been able to keep sheep, and so would have had nothing to do. After that the lama went up into a high mountain close by, and broke out of it an enormous piece of rock, and cast it into the middle of the lake; and that was how the island was made.

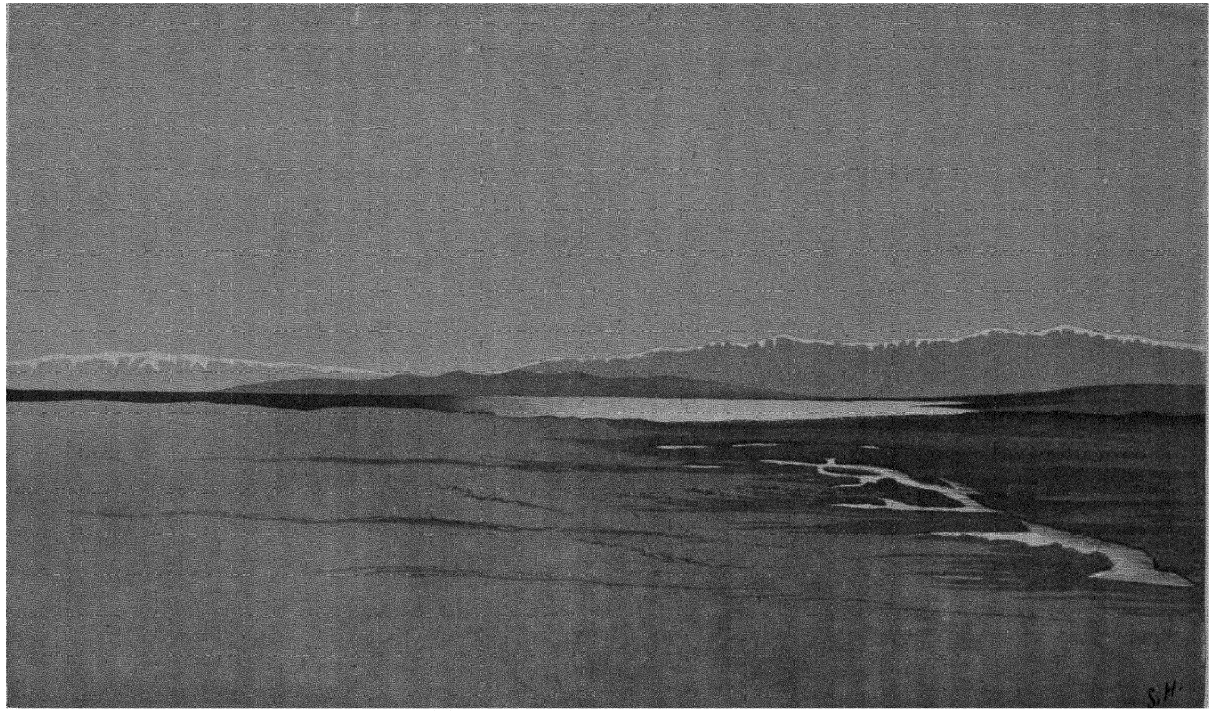
November 10th. At the camp we lost another horse. On the whole the Mongolian horses were after all only moderate animals; still they were very cheap. Most of them at the end of the first month's travel were galled on the back. The Tanguts, who seldom use their horses for anything except riding, take better care of them; but they also ask a higher price—for example, twenty liang or taels (£3 2*s.* 6*d.*) for a good average animal. It might have been expected that the Mongols, who are more dependent upon the breeding of horses than their Tangut neighbours, would produce a better race of animal, but such did not appear to be the case. As a beast of burden, the Tanguts employ the yak instead of the horse. The horses we brought from Khotan stood the fatigues of travel very much better than those we bought from the Mongols at Yikeh-tsohan-gol. It is true, they were better kept, for the Mongol horses were dependent entirely upon such grass as they picked up by the way; whereas in Northern Tibet we fed our horses to a great extent upon corn (maize).

We still continued to travel due east at about a mile or a mile and a half from the lake shore, which glittered a dazzling bright line on the south. All day we had the rocky island in view, rising above the surface of the water like a dromedary's back, and thrown up in dark relief against the scarce perceptible mountains on the south.

To-day we travelled through a less lonely region; for we passed several herds of horned cattle, guarded by women, children, and shepherds, the last invariably armed with a gun or a sword. All the mounted men we met carried a black gun, with its tall fantastic fork, across their shoulder, as well as a sword stuck through their belt and turned horizontally across the front of the body. Their sheepskins were drawn up high through their belts so as to hang over them at the sides. They also wore top-boots with turned-up toes, and close-fitting caps.

After a march of thirteen and a half miles we made our camp beside the brook of Yikeh-ulan, which contained a good deal of water. Curiously enough most of the geographical names in the locality were Mongolian, and they were even used by the Tanguts—for instance, Bagha-ulan and Yikeh-ulan or the Small and the Large Red (Tract) respectively, an allusion to the reddish tinge of the soil.

Immediately above our camp were ten Tangut tents, and we were told there were twenty more in a recess of the mountains on the north. Some of their inhabitants came to visit us, all wearing in their belts naked swords brought from Lhasa. They sold us some milk, a sheep, and a horse; but Loppsen was anxious they should not see too much money all at once. For he persisted in declaring they were all thieves and scoundrels, and that it was simply the fear of our weapons which prevented them from attacking us. The Tanguts used to ask Loppsen, who was my interpreter, whether my packing-cases contained soldiers, and he always replied with stolid gravity, "Yes; the large boxes contained two soldiers, and the small ones one each, as well as a number of guns." My tent-stove, with its strange funnel, they took for a cannon. When



THE NORTH-WESTERN CORNER OF LAKE KOKO-NOR

they inquired why we lighted a fire in it at night, Loppsen told them it was to keep it ready for action. If danger threatened, all we should have to do would be to fling in the powder and balls, and it would at once spit out a murderous rain of bullets.

The Tanguts said it was nine months since the Dungans went past Yikeh-ulan, and they stole 400 of their sheep, besides 140 horses, cattle, and yaks.

They expected the lake and streams would become frost-bound for the winter in about ten or fifteen days, and told me they usually remained frozen three months or so, but that the time varied a good deal according to the severity of the winter. The ice on the lake was however very untrustworthy, for on bright windy days numbers of cracks, "lanes," and holes were wont to be formed in it, and they remained open until calm weather set in again. All the same they said the ice was as thick as a man's arm is long.

On the rocky island in the middle of the lake there was a temple, frequented by pilgrims. But when the ice splits and cracks, the "lanes" or openings prevent the pilgrims from crossing on horseback. They are therefore obliged to walk across, and drag provisions and fuel for three days behind them on sledges, temporarily constructed out of the two wooden ribs which constitute the frame of their pack-saddles. It frequently happens that, when half-way across, they encounter gaps in the ice which they are unable to get over, and so are forced to turn back. Sometimes too they are imprisoned on the island by a thaw, and have to wait until the frost sets in again. But they never go so late in the season as to risk being detained on the island until the following winter. The lamas who live on the island lead a terribly solitary existence, and are exclusively dependent for food and other necessaries upon the offerings which the pilgrims carry to them. My Mohammedans thought that the lamas had a fine time of it, for they were inaccessible. All round the shores of the Blue Lake there was no such thing as a boat to be seen.

The level of the lake is said to vary greatly in different periods. When the lake rises high, it is looked upon as premonitory of an unlucky year; when it sinks, it portends nothing but prosperity. This year the lake rose exceptionally high. No wonder then the Dungans came and inflicted such great losses upon the Tanguts. But if the Dungans had not come, the flocks would have been visited by the plague, the Tanguts themselves by sickness, and there would have been a scanty supply of pasture. The lake, I was told, is always higher in summer than in winter. Although the actual rise and fall of the water is not very considerable, the different levels are very plainly discernible on the shore, owing to the fact that it shelves down so gradually. The year of my visit (1896) the shore-line was said to extend one and a half to two miles farther to the north than usual. It was no doubt this circumstance which led that noble and incomparable man, Father Huc, to believe that Koko-nor was subject to ebb and flow. In this connection he says: "This vast sheet of water really deserves to be called a sea rather than a lake, for, apart from its great extent, its waters are as bitter salt as the waters of the ocean, and like them, they ebb and flow."

At the west end of the lake we passed at a little distance the obo of the Koko-noruin. There was also an obo on the east shore, erected in honour of the deities of the lake, called Tsagan-yempin or Kusha-chulun. It is visited once a year by the chiefs of all the tribes in the vicinity. At other spots along the shore there were several smaller obos. In one place we passed we observed a curious affair, consisting of branches and twigs stuck into the ground, and hung all over with pieces of pelts, tufts of wool, rope-ends, and such like choice treasures. In another place there was a cylindrical stone, in which it was customary to make fires. These two obos possessed the virtue of curing sickness, provided someone interceded for the sick person, by reciting in front of them with sufficient industry the all-efficacious "On maneh padmeh hum!"

A TANGUT BOY

The Koko-nor Tanguts generally spend the winter on the steppes around the lake, the proximity of which tends of course to modify the extreme cold; but in summer they go up into the mountains that lie to the north. The principal chief among the Tanguts was the Gangtse Lama, who acted as intermediary between the governor of Si-ning-fu and the nomads, and was accordingly invested with the *huli* or prerogative of executing justice. When thieves and other criminals are caught, they are carried to Si-ning-fu, and there examined, with the result that they not seldom lose their heads. In the more important cases the Gangtse Lama writes in Tibetan to Si-ning-fu or settles the affair himself. The Chinese are, it is true, the masters of the country, but their administration of it leaves very much to be desired. Neither there nor in Tsaidam are there any Chinese officials. In that respect both regions are very differently situated from East Turkestan, where the Chinese have thoroughly established themselves and organized an excellent system of administration.

The Mongols call their thievish neighbours Khara Tanguts, or Black Tanguts, a name suggested in all probability by their intensely black tents, or by their dark skin and hair, and not, as Loppsen would make me believe, because *khara* was synonymous with *mo, i.e.* "villainous" or "bad."

The constant feeling of insecurity which accompanied us made us feel as though we were on the war-path, and any moment might expect an attack. It was a good thing for us that we had moonlight nights, so that our sentries could see well about them. Every night the dogs barked furiously, though generally it was only at the big greyish-yellow wolves, which prowled round our tents.

The Yikeh-ulan-gol is said to increase so much in the summer that it cannot be forded. But now, during the silence of the night, I could hear its crystal clear water echoing melodiously among the stones, whilst far above our heads the beacons of the sky glittered with a vivid brilliance like electric lamps.

CHAPTER XCIV.

FROM KOKO-NOR TO TEN-KAR

AFTER losing our fourth horse, I bought a mule, and on November 12th continued our journey towards the east. Soon after starting, we crossed two frozen marshes, in which reeds, with their tops broken off, pierced through the gleaming sheets of ice, and the ice when struck by the horses' hoofs flew to pieces with a sharp snapping sound. The track turned towards the east-south-east, and at the same time diverged from the lake-shore. The lake, with the dazzling sunshine falling straight upon it, glittered in the south like a brightly-polished sword-blade. Small troops of antelopes were grazing on the steppes; and in a ravine near by we saw half-a-dozen wolves lying in wait for them. But the antelopes were on the alert. The leader of the troop kept glancing keenly about him; and as soon as they scented danger, off they went with a swiftness that was fairly astounding. They cleared the ground in long rapid leaps, and so lightly that they hardly seemed to touch the earth.

We gradually approached the Northern Mountains, in which merely a summit here and there was capped with snow. In the south-east however there was a prominent snow-covered mountain-knot, and between the two, the Northern Koko-nor Range and the mountain-knot, was an indentation, which I was told was the pass of Khara-köttel. The Southern Koko-nor Range was dimly visible obliquely across the lake. But when we looked along the lake from end to end, we could no longer see the mountains on the opposite shores.

After crossing the Harguin-gol, a stream of little account, we came to the more important Hallun-ussun, which was two feet deep. It was covered with soft brashy ice, and on that account was not easy to cross. Here again two or three of the men got wet through whilst trying to find a ford, and afterwards had to dry their clothes at the camp-fire. The tribe of Hargeh-väsu Mongols dwelt beside the lake, not far from that spot. In the beginning of the year they had offered resistance to the Dungans; in retaliation for which the latter seized and beheaded their chief, an old man of ninety.

November 13th. Another twenty miles knocked off the distance from Peking; but there still remained a good thousand miles to travel. The night was cold, the minimum temperature dropping to −1°1 Fahr. (−18°4 C.). It was anything but pleasant to get out of bed at sunrise, and wash and dress, with the thermometer at 5° Fahr. (−15° C.). Our clothes were icy cold, and we did not get warm until we got our coffee down. We ascended the valley of the Ghansega, between mountains of moderate elevation. Everywhere there was an abundance of grass; and at intervals tents, flocks of sheep, and the sites of former encampments. We saw and chased two foxes, and one of them through the cleverness of the dogs was taken alive.

Khara-köttel (the Black Pass) was quite easy to cross over, even for our tired horses. On the other side we entered a broad valley, which sloped gradually to Bayin-hoshun, where we halted beside a brook. The road was now much more plainly indicated, having picked up several side-paths as it came along. The thousands upon thousands of horses and other caravan animals had trampled it into a rather deep furrow. We met a great Tangut chief, wearing a red cloak with a white border, and attended by a troop of mounted men. He told me there was a solitary "Russian" (*Oruss*) lady in Ten-kar (Donkhur), and two or three Russians in Si-ning-fu. I at once suspected they were English missionaries, for in the interior of Asia all Europeans without distinction are

called Russians. Later on we met five mounted men, leading some unsaddled horses. Loppsen of course swore that they were horse-thieves. After that again we met a caravan of sixty yaks, laden with all kinds of sacks and bags, and attended by six men on horseback, two of whom were Chinese. They were merchants from Si-ning-fu, carrying corn and flour to sell to the Tanguts of Koko-nor.

November 14th. We followed the brook beside which we had encamped, and which was called the Tsunkuk-gol, for fifteen and a half miles. After being joined by several tributaries, it swelled into a stream of some magnitude, and flowing past Ten-kar and Si-ning-fu, entered the Hwang-ho (Yellow River) immediately above Lan-chow (Lan-chau). As this stream rose on the east side of the pass of Khara-kottel, we had now definitely left the internal drainage regions of Central Asia, and once more come into contact with rivers which issued into the great oceans. The waters of the Tsunkuk-gol were on their way to the Pacific. We were therefore no longer shut up in the heart of the continent; but after a period of three years we were once again in a Peripheral region. What an indescribable feeling of relief!

The valley contracted towards the south-east, where the stream had cleft a deep gorge through the mountains. The mountains on the north were ramifications of the Nan-shan Range. Just where the valley began to narrow, there stood, by the side of the road, an animal hewn out of the granite and resting on a pediment. The place, which rejoiced in the name of Bar-khoto (Tiger Town), was said to mark the site of a former Chinese town.

A short distance further on we met an enormous caravan of Dsun-sassak Mongols, who had been ten days in Ten-kar, laying in their winter supplies; they were now returning home by the same route we had come. It was evident that the late autumn was judged the most suitable season in which to make such a long journey; in summer the road is often stopped by the Bukhain-gol, the Yikeh-ulan-gol, and other rivers. We counted close upon three

hundred riders, most of them men, many armed with guns and all with swords; but there were also numerous women in the train, wearing picturesque dresses of dark blue and red, as well as half-grown children. The caravan embraced at least a thousand horses and some three hundred camels; and they were laden with such commodities as flour, macaroni, clothes, utensils, boots, and so forth. The caravan animals marched in closely packed troops of ten abreast, so as not to be too widely spread out in case of an attack. On each flank, and evenly distributed along the whole line, rode the escort of at least 150 guns, eloquent testimony to the extreme insecurity of the roads in the country of the Tanguts. Each troop as it came along raised a light cloud of dust; the ground echoed with a dull rumbling noise, as it was beaten by the multitude of hoofs. The whole made a picture full of life and colour. As one after the other the Mongols caught sight of me, there arose reiterated cries of "*Oruss! Oruss!*" (Russian! Russian!).

Such an enormous caravan must however play havoc with the pastures all along the road; especially as they make excessively short marches and travel very slowly, their pace being regulated by the pace at which the camels travel. One other thing struck me, namely the ridiculously light burdens with which they loaded their animals. The horses carried only two small packages each, equalling in weight about one-third of the burden that would be borne by a moderately laden horse. And not only do the Mongols eat up the grass of the Tanguts whilst travelling through their country; they at the same time spare their own pastures at home.

The stream coursed down its valley through a series of abrupt windings, and as it advanced, the slopes grew steeper, a fact evidenced by the increasing number of rapids and cascades. In one place the current pressed close in against the granite cliffs of the right bank, boiling and hissing with a thunderous roar. There the road was carried across the stream on a sort of threshold or ridge of rock immediately above the foaming rapids. In

summer the river is too powerful to permit of a crossing; hence travellers follow a path up above on the cliffs. We had again entered a region inhabited by Mongols; but they used the same kind of black tents as the Tanguts. That evening we pitched our tents in an expansion of the valley, at a place called Murgutsuk, not far from the temple of Shinneh-kitt.

November 15th. The wide but stony road ran along the left bank of the river. By this we had descended a long way below the level of the Koko-nor. We passed various features of interest. For instance, the little secondary pass of Hadda-ulan (the Red Hills), from the top of which we obtained a splendid view of the entire valley, including no less than seventeen obos, planted on every commanding eminence. Then came Tsagan-tokko, a village with clay houses, surrounded by walls of clay, and inhabited for the most part by Chinese. At the temple of Brattsing-kitt the river was spanned by a rickety wooden bridge, the first we had seen for many a day. The villages came more frequently, and were shaded by poplars and birches, larches and spruces, through the branches of which the wind murmured in strangely familiar tones. The traffic too was more lively. We met numbers of horsemen, Chinese, Mongols, Tanguts; and small caravans of donkeys, carrying country produce into the towns. We also saw occasionally two-wheeled carts drawn by mules. The slopes of the mountains were full of cattle and yaks grazing; and almost every projecting crag was crowned by a temple or lonely obo. Everything indicated that we were approaching a large town. Shortly after midday the houses began to stand closer together, and the road assumed something of the appearance of a street. On we rode between the buildings, nor was it long before we saw ahead of us the stone gateway of Ten-kar.

We rode on into the town, along the main street, which was lined with houses having picturesque façades. What a bustling, noisy throng! Unaccustomed as we were to such an animated spectacle, we were well-nigh deafened

by the din. Earlier in the day I had sent Parpi Bai on in advance to take my pass to the governor of the town. That dignitary now met us at the gate, bringing a letter from the "Russian lady," with a hearty invitation to share her hospitality. I felt it was rather presumptuous to quarter myself altogether upon a solitary lady. Nevertheless I decided—perhaps it was curiosity drove me—at any rate to go and pay her a visit. When I reached the house indicated, a good Chinese house with an oblong courtyard, I was met by a bareheaded young lady wearing spectacles and dressed after the Chinese manner. She asked me, in a very friendly tone, "Do you speak English?" I told her, "Yes, I thought so"; and very soon our tongues were going at express speed. She introduced herself as Mrs. Reinhard, an American doctor of medicine. Her husband was the Dutch missionary, Mr. Reinhard, who fully a month earlier had started for Peking with Captain Wellby, who was on his way home from his journey across Tibet.

Mrs. Reinhard was the personification of hospitality and amiability. It was quite a pleasure to talk to somebody whose interests ranged beyond grass and pastures, dangerous passes, wild yaks, cattle and sheep. Her husband's courage in venturing to leave her behind alone among the rabble of Ten-kar truly astonished me. But there was not so much danger perhaps after all; for through her medical knowledge and skill Mrs. Reinhard had won several friends among the native population.

I stayed two days in Ten-kar so as to give the horses a thorough good rest. I paid a visit to the governor of the town, looked over the town itself, and had the rare fortune to make the acquaintance of the ambassador, whom every third year the Dalai Lama sends from Lhasa to the Emperor of China, carrying presents, the only tribute the Tibetans pay to the lord of the Celestial Empire. The presents generally consist of different kinds of cloth, burkhans (images of Buddha), weapons, dried fruits, objects possessing a religious significance, sandalwood, and so forth, to the aggregate value of

5000 liang (about £780). The principal lama in the *cortège*, Garbuin Losang Ghindun, told me that the embassy embraced no fewer than three hundred mounted men, and that the presents for the Emperor were carried by the same number of camels. It takes them three months to travel from Lhasa to Ten-kar; there they make a stay of an entire year, and after that resume

CUP, PRAYER-DRUM, AND PRAYER-WHEELS
Which I bought from the Dalai Lama's Ambassador in Ten-kar

the journey to Peking, which they accomplish in two months. In Peking they stay three months, and rest again four months at Ten-kar on their way home. Garbuin took me to his house and showed me the Imperial presents; and even sold me some of the cloth, idols, silver vessels, and so forth, so that this time the Emperor would not get all that was intended for him. Whilst the bargaining was in progress we drank tea brought from Lhasa near a temporarily arranged temple,

that was illuminated by flickering oil-lamps, and in front of which two men intoned prayers and beat gongs.

At Ten-kar I seized the opportunity to replenish our provision-chests, and during the next few days lived a good deal upon eggs. The governor did not take the trouble to repay my visit; whereupon I let his interpreter understand, that his master had thereby failed to observe the rules of both Chinese and European courtesy.

My hostess gave me several particulars of the revolt of the Dungans. She said the rebels invested the town of Ten-kar in the summer of 1895, and that the Chinese themselves provoked them to do so. When the insurrection broke out in the neighbourhood of Si-ning-fu, the Chinese in Ten-kar at once began active preparations for strife, by casting cannon, forging sword-blades, and preparing various other equipments of war. Perceiving this, the Huy-huy, as the Mohammedan Chinese or Dungans were called, concluded that these preparations were directed against themselves. They too revolted, and withdrew to To-ba, a strongly fortified place on the way to Si-ning-fu. There however, after an obstinate resistance extending over several months, during which they subsisted upon the half-starved animals they had in the town, they were in the end so hardly pressed by the Chinese that they were compelled to capitulate. The terms upon which they were willing to yield,—namely, that they should be free to go whither they chose—were tied to an arrow, and shot over the wall into the Chinese camp. The Chinese agreed to the conditions; but demanded that the inhabitants of the place should lay down their arms. Yet no sooner did the latter get clear of the town than they were surrounded by the Chinese, and most of them beheaded. The remnant escaped into the mountains. The number of Dungans who thus laid down their arms was stated to have been 18,000 men.

These occurrences inspired the Dungans who still remained in Ten-kar with a sense of their insecurity.

They sent a deputation to the governor, with assurances of their fidelity, and pledges that they would in no way countenance or assist their revolted co-religionists. Just at this time, when the feelings of both parties were highly strung, a Chinaman beat his wife, who was a Dungan. Thereupon in her exasperation the woman exclaimed, that on such and such a day the Dungans would come and kill all the Chinese in Ten-kar. The husband went and reported the matter to the authorities; and the consequence was, that every Dungan within the town, man, woman, and child, was massacred, till the streets ran with blood.

CHAPTER XCV.

THE TEMPLE OF TEN THOUSAND IMAGES

I SAID adieu to Mrs. Reinhard, and made a short journey to To-ba, the place mentioned in the end of the previous chapter. The road still continued to follow the course of the river Tsunkuk-gol. At first, after leaving Ten-kar, the valley was narrow, and the slopes so steep that the cliffs which overhung the stream echoed continuously with the splashing of the cataracts. In several places indeed the valley was so contracted that it would be quite easy to block it. It is not therefore difficult to understand how it was the Dungan forces were unable to approach within twenty li (six miles) of Ten-kar. Several small villages were perched picturesquely on the cliffs and elbows of rock which jutted out into the loops of the river's windings. Nearly every one of them was protected with walls and towers, their loopholes commanding the valley on both sides. Long strings of camels, with tinkling bells, moved sedately on towards Ten-kar, in which town the Chinese meet the Mongols and Tanguts, and carry on a lively traffic with them by barter.

Every village beside the road had been completely devastated during the recent war, and presented a melancholy appearance.

A man, of whom we inquired in To-ba, assured us there was not a single *deng* (rest-house or inn) left in the town. We therefore encamped in a field outside. The place was indeed simply a heap of ruins. Entire streets were choked with wreckage and *débris*. In a few places, however, but at wide intervals apart, the Chinese

had run up a new house or bath. The high rectangular wall of the fortress was riddled with cannon-balls, and from the top fluttered Chinese flags bearing inscriptions, probably some grandiloquent pæan of triumph over the capture of the fort. The courage and warlike skill of the Dungans was not to be despised, seeing that, though armed with no better weapons than lances and swords, they had yet been able to defy the overwhelming forces of the Chinese for such a long period. They were no doubt greatly favoured by the natural strength of the position, which was half encircled by precipitous mountains and protected further by the river, for they took care to destroy the bridge in time.

The walls of the fortress enclosed a handsome Chinese temple, Li-beh-ya, consisting of several small detached edifices, each with the characteristic sagging roof, turned up at the eaves, and ornamented at each corner with a dragon's head and other adornments. The most imposing was however a pagoda-like tower of four stories. All the buildings were faced with green tiles of a tasteful pattern. Heaps of broken bricks and fragments of porcelain showed that the Dungans had done their best to destroy the temple. But even in its damaged condition it presented a remarkably fine appearance, as it rose proudly above the ruins of To-ba, its enamelled plaques glittering in the rays of the setting sun. Within the temple precincts were several Chinese, loading the bricks on the backs of donkeys, to carry them away to make new houses of.

The next day I divided my caravan; sending Parpi Bai in charge of the horses and baggage direct to Si-ning-fu, whilst, with Islam Bai, Loppsen, another Mongol, and four camels, I made a circuit to Lusar (Luksor). Parpi Bai therefore continued to follow the valley of the Tsunkuk-gol; whilst we turned to the south, along a broad valley that gradually sloped upwards. Immediately after entering it, we crossed its stream, which was divided into five arms, and carried a volume of about 880 cubic feet in the second. Then for a short

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A LAMA

distance the road was simply a deep trench cut through the loess hills, until we came to a side-valley, whence issued a tributary of the main stream that brought down 210 cubic feet of water in the second. We passed several villages with cultivated fields, the principal being Yuän-sän and Ban-sa.

The fall of the stream rendered it well suited for milling. A canal was led off from the river to the edge of a ravine or hollow in the ground. Thence the water was conducted in a wooden conduit to a position from which it could fall six or seven feet directly upon the float-board of a horizontal wheel, the axle of which projected vertically upwards and supported the millstones. There were several mills of this description along the banks. We could hear the noise of the falling water and the groaning of the mills long before we reached them.

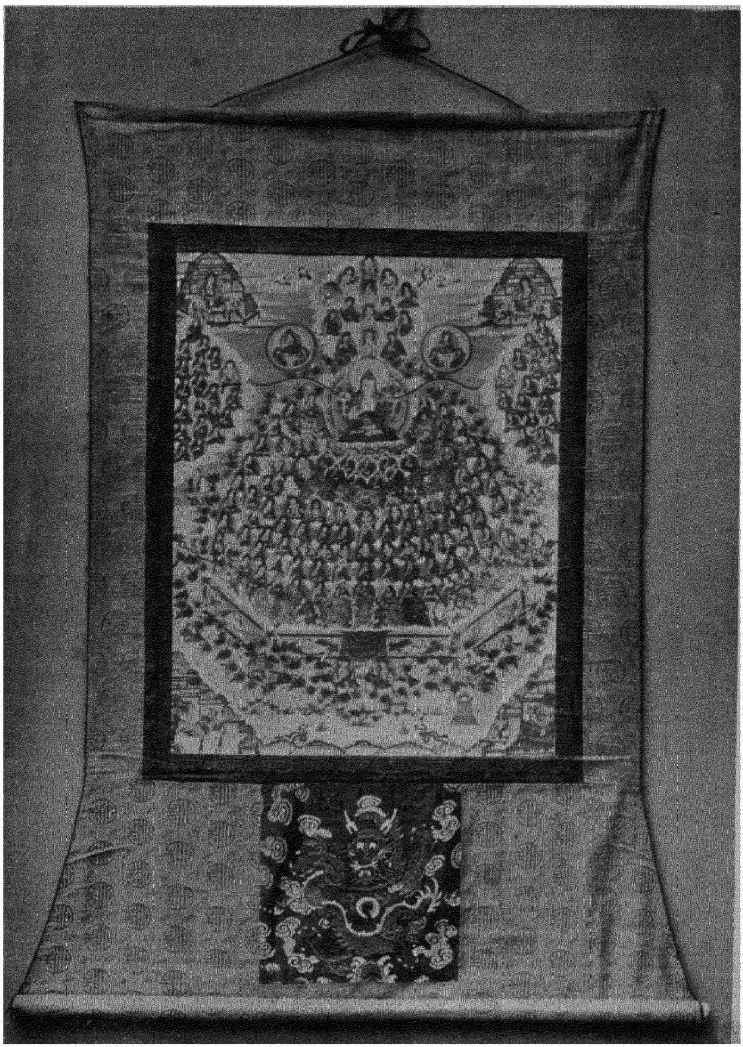
The valley curved round to the north-east. Hence, leaving the stream on our right, we ascended a road carved out of the softly contoured mountain-side, often at a great height above the valley. The town of Lusar clustered on the side of a hill, the buildings rising tier above tier like the rows of benches in an amphitheatre. At first we had the houses on our left hand only; but further on they became visible on our right, or rather their roofs did, for they were several feet below the level of the road. At length we reached a triangular market-place, on one side of which was the rest-house or inn. There I established myself in a small hut on the roof, to which my baggage was hoisted up by means of ropes. Underneath our feet lay the lanes and courtyards of the town, and on the hills to the south-east gleamed the white walls of the renowned temple complex of Kum-bum, or the temple of the Ten Thousand Images, so called from the number of idols it contains.

November 20th. In the morning I and Loppsen paid a visit to the temples. We went on foot; to have ridden along the sacred pathways would have been to expose ourselves to insult or even to stoning. The brook of Lusar flowed towards the east-north-east, that of Kum-

bum towards the north, and joined the former at the town of Lusar. Both streams flowed in deep trenches amongst softly rounded, steep-sided hills, on which the vast complex of the temple buildings was ranged in gradually ascending terraces. The path led up the left side of the Kum-bum brook to a gateway, which was topped by a sovurga or sphere, surmounted by a pyramid tapering to a sharp point, and with a stone lion at each corner. Under the gateway sat a number of Chinese petty hucksters behind their small movable stalls, covered with rosaries, gauze kerchiefs, brass bowls, and other articles that play a part in their religious worship, as well as secular objects like pipes, knives, dried fruits, etc., all intended to tempt money out of the pockets of the pilgrims.

We climbed up several steep hills and stone steps to the house of the prior, the "Living Buddha." He was a man of about thirty years of age, with his hair cropped close, but without beard, and dressed in a costume of dark brown cloth, made without sleeves, so as to leave his arms bare. The walls of the room in which he received us were adorned with innumerable idols, standing in carved and painted cabinets, and with temple flags and pennons representing various Tibetan deities. The holy man sat on a divan or bench against one of the walls, telling his beads and gabbling through the eternal "On maneh padmeh hum." Loppsen took off his cap and flung himself prone on the ground at his feet. The holy being graciously extended his hands and blessed his worshipper. Then he had tea brought in for us, and inquired about my journey, and accorded me permission to look over the temple; but warned me that I should not be allowed to make any sketches.

Accordingly we left his holiness the Living Buddha, and went the round of the temple. The heart of the monastery — or rather monkish city — consisted of a labyrinth of sacred buildings, surrounding square or irregularly shaped courtyards. The principal edifice was the temple of Sirkang, with a steep sagging roof, pro-



TEMPLE BANNER, SHOWING LHASA, KUM-BUM, TSUNG KABA, ETC.

Bought in Kum-bum

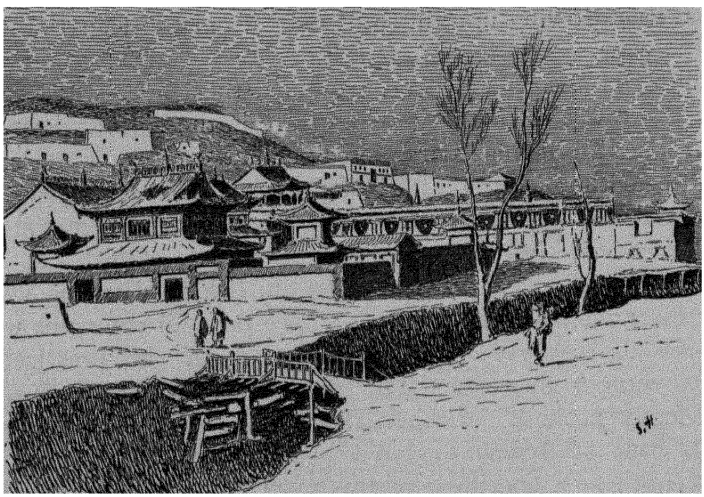
jecting and up-curving corners, and walls cased with glittering plates of gold. Immediately in front of the entrance, and protected by a wooden fence, stood a now leafless tree, with five stems. This was said every spring to put forth leaves upon which the holy words "On maneh padmeh hum" grow of themselves. The leaves are sold to pilgrims. At the time of my visit there was unfortunately not one left. Father Huc states, that it is from these inscribed leaves that the temple derives its name.

The tree I saw can hardly have been the same tree that traveller described: it seemed to me not to be old enough, and was growing in a different place from the tree Father Huc saw. As regards the inscribed signs or letters Father Huc writes,—"We examined the leaves with very careful and exact attention, and were in the highest degree surprised and amazed to perceive that each separate leaf did bear the Tibetan letters of prayer, and extremely well-formed too. The letters are always green, sometimes darker, sometimes lighter, than the leaf itself. . . . It appeared to us as though the letters belonged to the leaf as essentially as its fibres. . . . We took all the pains we could to discover any deceit that might be practised, but without success. The occurrence was every way perfectly natural." Father Huc is a credible writer; in this case he seems to have been credulous. I myself did not see a specimen of this marvellous nature-writing. When I asked Loppsen if he could account for the lettering on the leaves, he replied, that the lamas themselves printed them. Loppsen was a shrewd fellow.

Along the façade of the temple ran a verandah, its roof supported by six wooden pillars, all sculptured and painted in a way calculated to catch the eye. Some of the planks of the flooring were hollowed into narrow grooves, deep and long. These owed their origin to the worshipping Tanguts and lamas. When they throw themselves prone upon the ground in the act of worship, they let both hands slide along the floor in front of them, till they lie at full length, their forehead touching the ground. After lying in that position for a moment or so, they sit up on their

knees, bring their folded arms to their forehead and breast, mumble their prayers, and again prostrate themselves with their arms stretched out in front of them. This performance they repeated time after time, until I grew tired of watching them.

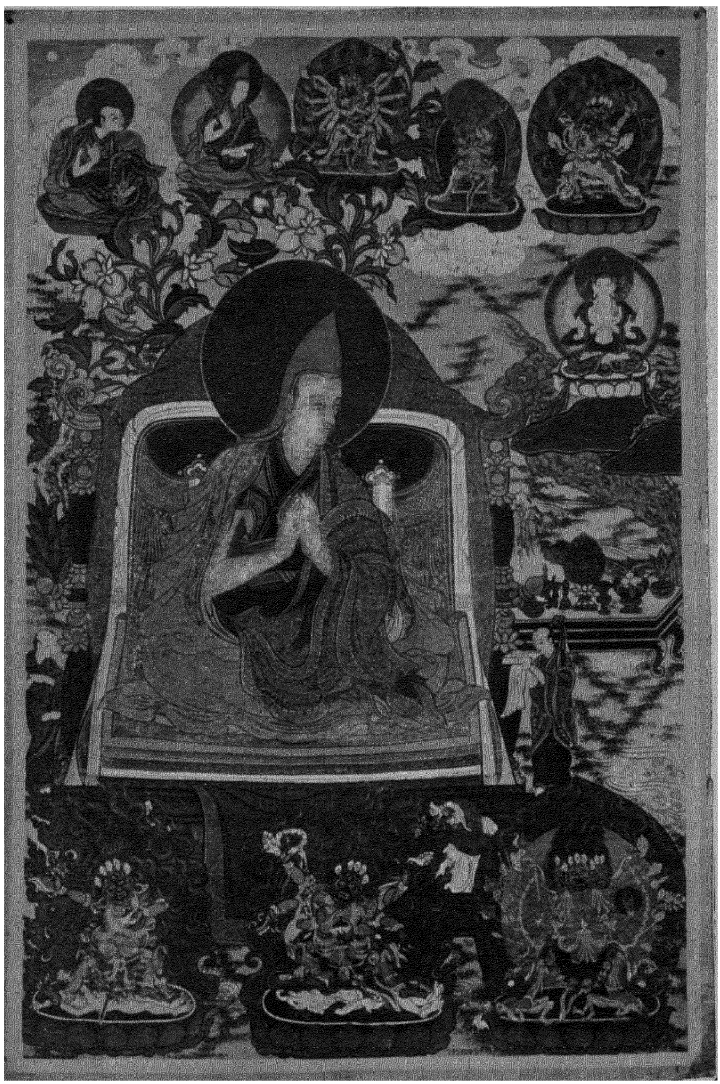
The front wall of the temple was pierced by three doors, handsome specimens of solid hammered brass. The doors stood open, but the doorways were in part closed by curtains. We entered, and found ourselves in



TEMPLE OF TSUNG KABA IN KUM-BUM

a real museum; that is to say, a noble and lofty hall, reaching up to the gilded roof, in which the light was tempered to a deep and mystic twilight, so that I was involuntarily put in mind of the Uspensky cathedral in Moscow, which contains similar gilded images, lighted candles, and a similar dim religious twilight.

In the centre of the hall was a colossal figure of the sublime Tsung Kaba, about thirty feet high, seated, and draped entirely with mantles, except his head and hands. Silently, solemnly, contemptuously the image of the god appeared to gaze down upon the pilgrims who in the sweat



TIBETAN TEMPLE BANNER

of their brows polished the boards with their hard horny hands. Around him were a number of images of less holy deities, each enshrined in his *gavo*, a sort of open cabinet or sentry-box, with ornamental panelling. Five lamps were burning immediately in front of Tsung Kaba, and in front of them again, but on the ground, stood half-a-dozen decorated *jolas*, each a yard high, *i.e.* vessels of brass, in shape resembling drinking-cups, which contained divers eatables, such as rice, flour, tsamba (mutton fat mixed with barley meal), water, tea, etc., all offerings to the god. Each jola was covered with a wooden lid, with a hole in it, so that you could see what it contained. On each of these receptacles there was a lamp burning; all which added to the mystic effect.

The image of Tsung Kaba was surrounded by rows of pillars making a square; and affixed to the capitals of the front row was a rectangular shield, slightly tilted towards the doors, and inscribed with four Chinese letter-signs in gold on a dark background. The effect was remarkably artistic. They told me the inscription signified, that that temple was the home of Edsin Khan, Emperor of China. Rows of shelves or framework, containing innumerable volumes of the Buddhist scriptures, were ranged on each side of the god and along the walls of the temple, that is to say, a vast number of narrow strips of parchment enclosed between two loose boards. The place was in fact a veritable museum; and I was astonished to find so many interesting curiosities collected out there in the wilderness, and found myself eagerly desiring to purloin the entire collection and carry it off home with me.

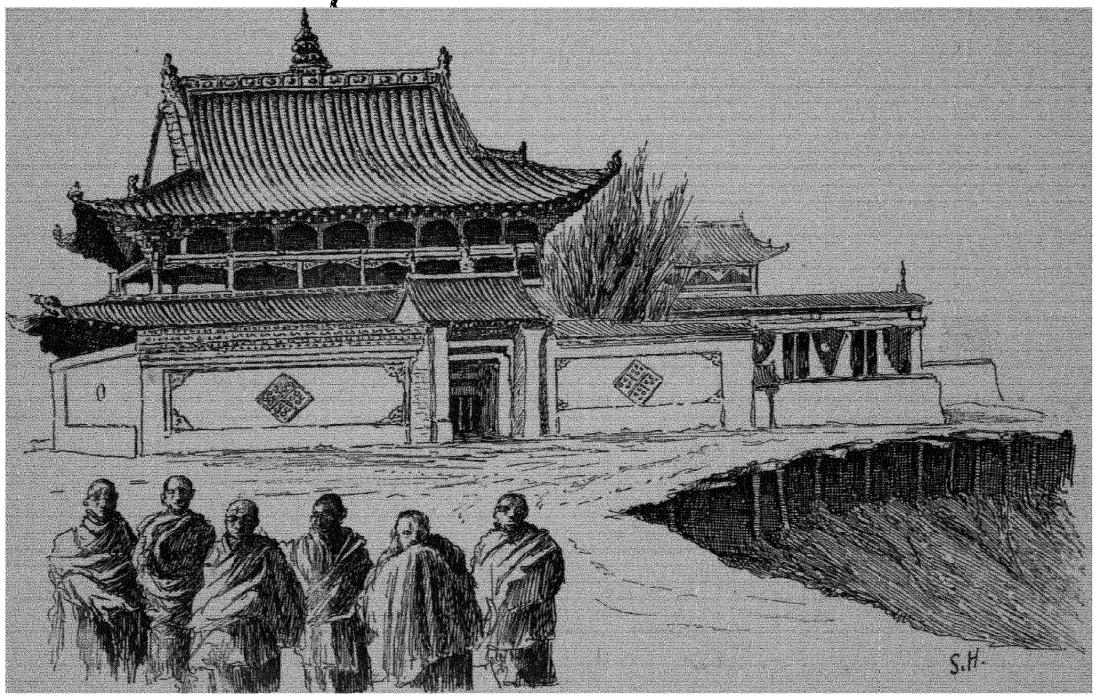
This temple of Sirkang was encircled by a multitude of similar temples, though without golden roofs. Their walls sheltered a host of more or less gigantic idols, with gilded faces and hands, dressed in handsome and costly robes, and with lamps burning in front of them.

One temple, Tsuggchin-dugun, which stood in the middle of a series of courtyards, was surrounded on every side by colonnades, under which were a number of cylindrical *korlehs* or prayer-wheels, fixed between two rows

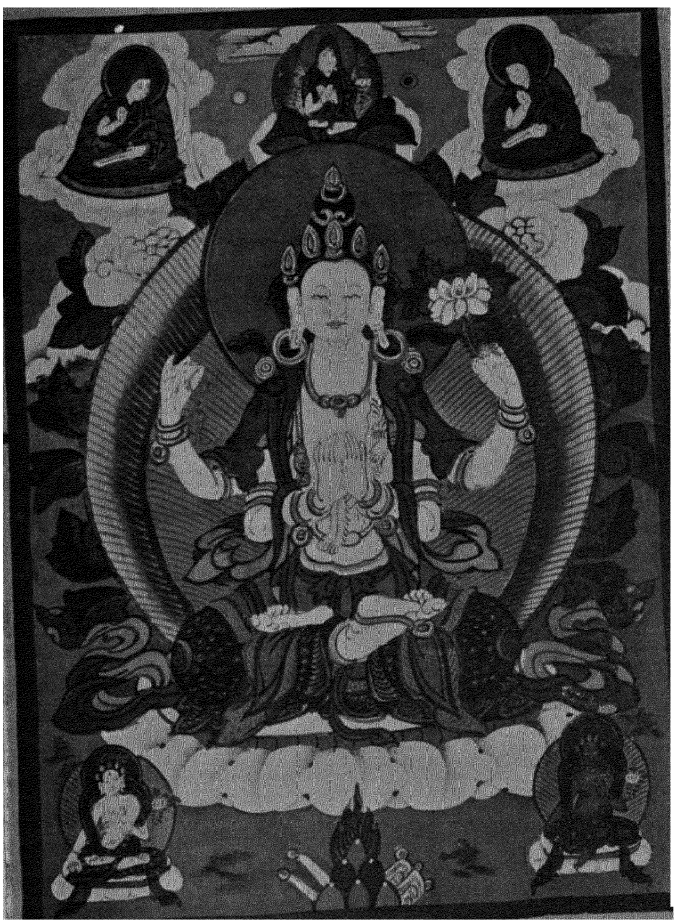
of horizontal beams, and hung on pegs in such a way that they could be whirled round by means of a handle. The outside of the wheels was beautifully decorated with gilt Tibetan lettering on a blue or green background. Certain of the lamas were appointed to the special duty of perambulating the temple to keep the prayer-wheels spinning. As we approached the spot our ears were saluted with a continuous hum. Thin strips of paper, with the holy words, "On maneh padmeh hum," printed upon them in minute and closely packed lettering, were wrapped round the axles of the wheels, so that at each revolution hundreds of thousands of prayers flew upwards to the knees of the god. Truly a labour-saving business that!

The courtyards swarmed with lamas, all bareheaded, all with their hair cropped close, all beardless—sombre and lean, dressed in a sort of red cloth plaid or toga, folded over the shoulders and twisted round the waist, with the ends hanging down to the feet. With few exceptions, the right arm was always bare. Apart from age, the only difference I could detect amongst this army of temple satellites was that some were dirtier than others. Some of them had their faces as black as sweeps or negroes. Either they belonged to a confraternity of black monks, or else it was their duty to trim the smoky wicks of the lamps. If so, they seldom or never wasted time in ablutions. It disgusted me to see those lazy fellows sauntering about among the magnificent temples doing literally nothing. They were however quite friendly and peaceably disposed; though not willing to give me any explanations. I had perforce to content myself with what Loppsen could tell me. Fortunately he had on several occasions attended the great temple-festivals at Kumbum, and knew every nook and corner of the place, and its every secret.

At the time of the great festivals, when the temples are visited by multitudes of pilgrims, tea and tsamba are prepared for them in a huge kitchen called Mantsa-häsun, in which there is a big brick fireplace with three gigantic pots hanging above it.



A GROUP OF LAMAS IN KUM-BUM



A TEMPLE BANNER

After seeing that Buddhist "kitchen," we went out into a courtyard, with cloisters all round it, and its walls painted with a whole series of pictures of the gods. Their wrinkled brows, broad noses, widely expanded nostrils, distorted mouths, screwed up moustaches, and black eyebrows put me in mind of evil spirits rather than gods. But these features were intended to depict the awful and destructive power of the gods.

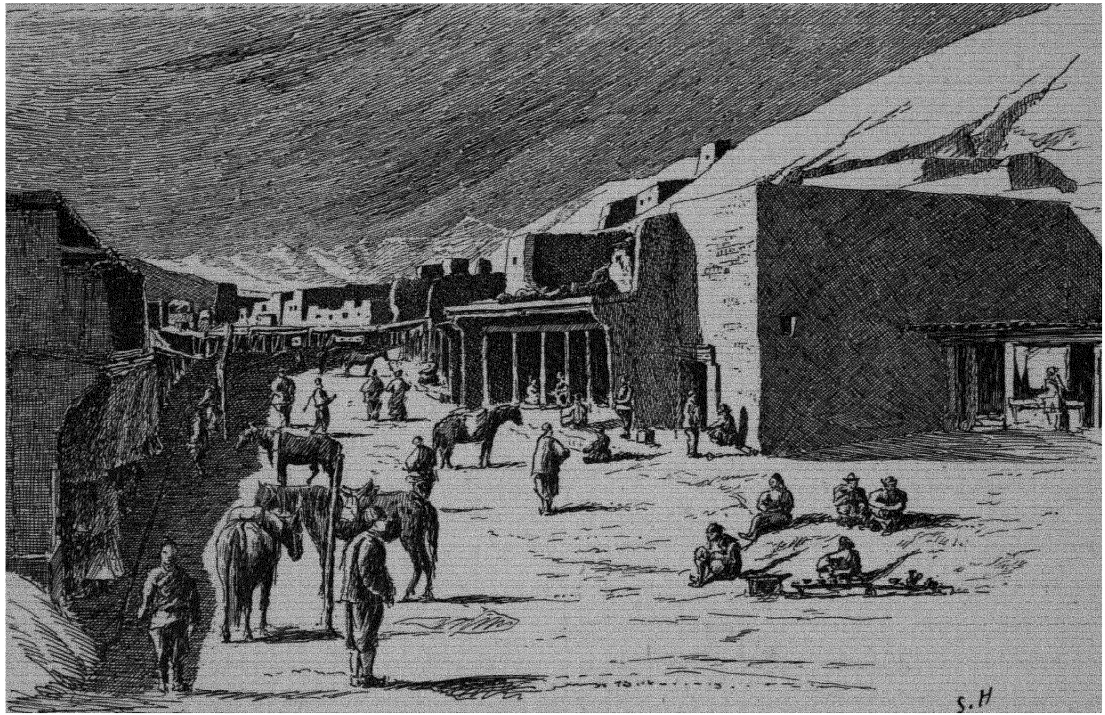
The Buddhist architecture leaves a peculiar "mythical" impression upon the mind. It conforms to the rules of Tibetan taste; but in the end it becomes wearisome to a European, who is accustomed to the sound and genuine forms of the West. In such interiors you cannot possibly experience that sense of calm serenity and well-being which you feel in a Christian temple. Your eye wanders from one upturned gable, from one florid capital, to another. Whichever way you turn, your glance encounters the same confusion of sculptural forms, the same harsh agglomerations of colour—blue, and green, and violet, all flourishing in peace and amity together. Less than that would be enough to strike you with colour-blindness. Even the legitimate effects of the sometimes imposing interiors of the temples filled me with repulsion, a feeling I never experienced in any Mohammedan mosque I ever was in.

What perhaps contributed to awaken this feeling in me in such an intense degree were the swarms of idle lamas, who did nothing all day long but grovel on their hands and knees, muttering their stupid parrot-like repetitions before those gilded blocks of wood or clay, which they or their fathers fabricated with their own hands. They sat about the cloisters, and yawned, and told their beads. Whenever I stopped to make a sketch or a drawing, they started like rats out of their holes and lurking-places, and swarmed thickly round me, infesting the very air with the ill-savour of their presence. The majority of them were boys between ten and fifteen, who had been sent to the monastery to be trained and brought up as full-fledged lamas. In one place a band

of lads were singing with clear, tuneful voices the inevitable prayer, and right pleasant indeed it sounded. All the same, it was a real relief to step outside into the fresh air, and turn my back upon the idle mummeries of idolatry. And yet there was much in all this that is common to Roman Catholicism, with its monks, its images of the saints, soft mystic lighting of its places of worship, its gilded and tinsel-decorated churches, its array of artificial lights, its choirs of singing boys.

A great many houses and walls, all whitewashed, clustered on the hills around and above this complex of temples: seen from Lusar, they looked like long lines of sheets hung out to dry. The town of Kum-bum was bigger than either Ten-kar or Lusar, especially in the seasons when throngs of pilgrims from Tibet, Tsaidam, Koko-nor, and Mongolia flock thither for the great religious festivals.

I stayed in Lusar over the 21st and 22nd November, paying two or three more visits to Kum-bum to sketch various views. After dark some of the lamas, who heard that I was buying temple flags and burkhans, came and offered to sell me some, and those that were not too dear were packed away in my boxes. I also bought several bowls for offerings made of brass, some silver gavos, and a *damaruh* or prayer-drum, made out of the crowns of a couple of human skulls.



THE MAIN STREET AND MARKET-PLACE IN LUSAR

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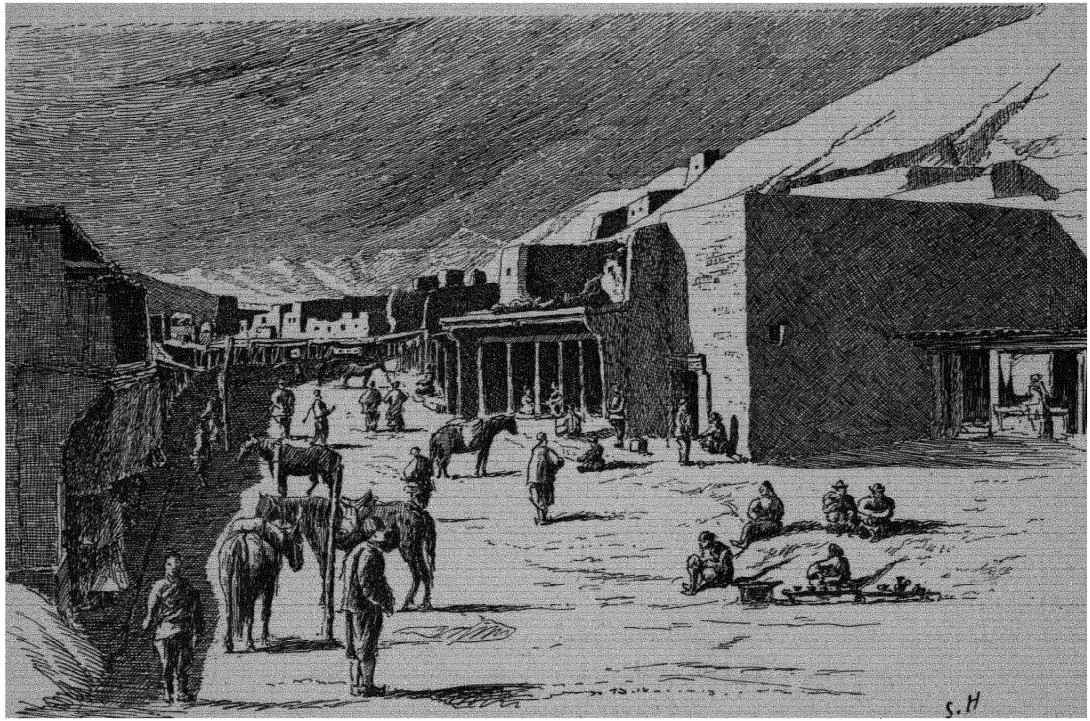


THE MAIN STREET AND MARKET-PLACE IN LUSAR

CHAPTER XCVI

SI-NING-FU AND THE DUNGAN REVOLT

ON November 23rd we packed up our baggage, a task which took a long time to do, so that it was midday before we got started for Si-ning-fu. We travelled nearly all day between soft, dusty hills of a reddish tinge, along a road worn down to a depth of twelve to twenty feet by the continuous traffic, so that all the time we were in a sort of tunnel, unable to see a vestige of the country we were journeying through. And for the most part the track was so narrow that it was impossible for two carts to pass. If two vehicles did happen to meet, one of them had to "back" until it came to a wider place. Every brook that crossed the road naturally turned down it, so that the camels repeatedly slipped and slid on the sloppy ground. As soon as the sun set, the water froze, and the road became still more slippery. Hour after hour we rode on, passing caravans, passing villages, crossing brooks. Twilight came on; it grew dark,—as dark as pitch. In fact, it was anything but pleasant to ride along a strange road without being able to see your hand before you. At last our guide stopped in front of a wall, pierced by a gigantic gate. It was Si-ning-fu.

We thundered at the gate with our riding-whips and shouted to a watchman, who was perambulating the wall, rattling a drum. The gates of the city were closed early for fear of the Dungans. I gave the watchman to understand, that if he hastened to the Dao Tai's yamen (palace), and requested permission to admit a European traveller, I would reward him well. He sent a messenger,

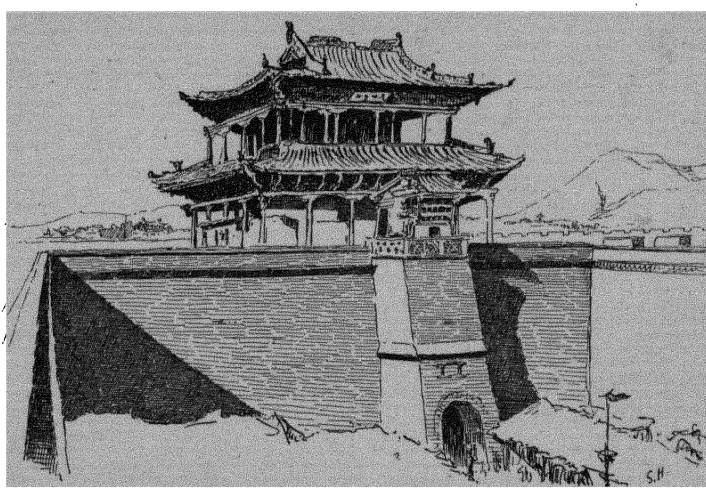
whilst we waited in the darkness outside the gate. At the end of an hour and a half the messenger came back, to say that the gate should be opened for us—in the morning! There was no help for it. We were obliged to seek out the nearest village, and there after considerable difficulty we succeeded in obtaining shelter.

I was hardly dressed next morning when I was surprised in our wretched deng (guest-house) by the visit of two Englishmen, the Rev. Mr. Ridley and the Rev. Mr. Hunter. Both were members of the China Inland Mission, and wore the Chinese attire, even to the pigtail, so that it was merely their features that betrayed they belonged to the white race. Mr. Ridley came to invite me to his house; and until November 30th he and his wife entertained me with the most generous hospitality, surrounding me with every species of European comfort. I felt quite awkward at having to sleep in an ordinary bed with mattresses and sheets; and I felt it not less awkward to sit on an ordinary chair, and like ordinary folk eat with knife and fork, for I had been accustomed to recline in my furs in my tent, and eat out of the rice dish as it stood on the floor.

Mr. and Mrs. Ridley, and the two assistant missionaries, Mr. Hunter and Mr. Hall, had fitted up a Chinese house, with a large square courtyard, in a snug and comfortable fashion; and they had won the warmest sympathies of the population of the town through the unsparing and devoted assistance they rendered during the Dungan revolt, when they organized and managed a hospital for the benefit of the wounded Chinese soldiers. This disinterested zeal and labour had no doubt paved the way to success in their evangelizing efforts. On the Sunday morning I heard Christian hymns sung in unison by a congregation of Chinese to the accompaniment of a harmonium.

I owe the greatest debt of gratitude to Mr. and Mrs. Ridley, not only for their kindness and generous hospitality, but also for the many great and valuable services they rendered me.

Si-ning-fu was a notable stopping-point on the long red line which marks my journey through Asia. It was there I proposed to dismiss my faithful attendants from East Turkestan, and send them back all the long way to their own homes. There too I intended to re-organize my caravan, so as to adapt it to Chinese conditions of travel. My first object therefore was to call upon the Dao Tai and obtain a proper pass for my men; and this was not difficult, for almost all of them were Chinese subjects. The Dao Tai gave me a pass of gigantic dimensions,



ONE OF THE GATES OF SI-NING-FU

well calculated to inspire the profoundest respect in the minds of all Chinese officials. The men travelled back along the great highroad through the heart of Asia, *viâ* Gan-chow (Gan-chau), Su-chow (Su-chau), Khami, and Korla. Before they started I called them all into my room, and we calculated how much was owing to each man; then to their unspeakable amazement, I doubled the amount that fell to each man's share. And it was by no means too much; for without them I should have accomplished but little. Further than that, I made them a present of the Mongolian horses that survived, with

the exception of two, which I and Islam Bai wanted, and sufficient provisions and money to last them the whole journey home. I also allowed three of the men whom Captain Wellby had engaged at Ladak and lost on the way, and whom we picked up at Ten-kar, to go with my men, giving them a horse and provisions. Parpi Bai, who had made the journey before, was chosen leader of the caravan, and I gave him a good revolver, together with a supply of cartridges for it. All the men were satisfied and grateful, and we parted mutually pleased with one another. Then they went their ways; and I hope and trust succeeded in reaching their homes as happily as I reached mine.

After this big hole had been made in my purse, Mr. Ridley calculated and weighed the silver pieces (Chinese coin) I had left. There were 770 liang or taels (about £120), amply sufficient to take me to Peking. There was however still a long stretch of road to travel before I should reach my goal. The post-couriers do the distance in twenty-eight days. It took me fully three months.

Want of space forbids me entering upon any detailed description of Si-ning-fu. Suffice it to say, that the city is enclosed within a square wall, which, according to Asiatic ideas, is well-nigh impregnable. It has been well and carefully built, is thick and massive, and actually affords room for a street along the top, on which the soldiers keep watch. The view from the wall was magnificent and commanding. Looking over the city, you see a rich mosaic of characteristic Chinese roofs, covered with red pantiles, and decorated with dragon arabesques. All the streets crossed each other at right angles, running exactly parallel with the town walls. The main street traversed the heart of the city, and upon it abutted the most important yamens or official dwellings and offices, with their strangely painted signs, their stone lions and dragons, their doors decorated with rich sculpture. A few edifices of a similar imposing character might be found in some of

the other streets, having generally been erected in accordance with some wealthy man's will, to perpetuate his name to posterity.

I cannot however leave Si-ning-fu without saying something about the Dungan revolt, of which Mr. Ridley gave me the following account.

The revolt, which, like the first uprising of the Dungans (1861–77), threatened to involve a vast portion of the territory of Chinese Asia in the horrors of civil war, broke out in the district of Salar in December 1894. In that district there existed a dogmatic schism between the two sects of Chinese Mohammedans, the Lao-jao and the Shin-jao, *i.e.* the adherents of the Old Religion and the adherents of the New Religion. The Dao Tai of Si-ning-fu was so imprudent as to meddle in these purely domestic religious differences. He took prisoners five of the leaders of the former, the Lao-jao sect, and had them nailed like dead vermin to the wall of his city. In retaliation the people of Salar fell upon a Chinese force and massacred every man. In reply to that the mandarins affixed proclamations to the gates of the city, saying that the inhabitants of Salar should be exterminated root and branch. The Dungans saw now the doom that impended over them, and resolved to strike the first blow. The revolt spread therefore like wildfire from one region to another. But it was not until July 1895 that the rebels approached Si-ning-fu. The country-folk flocked into the city for safety, bringing their property with them, so that the population increased suddenly from 20,000 to 50,000. Meanwhile the Chinese met their revolted subjects outside the walls, in the valleys which converge upon Si-ning-fu. The wounded soldiers were brought into the town. The temples were converted into temporary hospitals, and Mr. and Mrs. Ridley worked day and night at tending the wounded and binding up their hurts.

For five months the city was closely besieged by the Dungans, and every night four thousand men kept watch on the walls. Every tenth man carried a lantern, so as to be able to see if his comrades were awake, as well

as to see if the Dungans approached the walls with their scaling-ladders. On September 1st the large Mohammedan village of Tung-kwan, a suburb of Si-ning-fu, situated outside its eastern gate, revolted, and every Chinaman in the place was slain. Meanwhile famine began to make itself felt inside the city, and various epidemics raged amongst the overcrowded population. Then the fuel ran short. In order to procure fresh supplies of wood, the Chinese began to foray the neighbourhood, always going out in large companies and exercising the utmost caution. But the Dungans were too cunning for them. They placed themselves in ambush and slew all who ventured to leave the shelter of the walls.

The rabble of the town dragged through the streets certain of the mandarins who were suspected of looking with a too favourable eye upon the rebels, and after torturing them in every conceivable way beheaded them. It was only with the greatest difficulty that the governor of the city, the cowardly Dao Tai, managed to save his life. At the end of the revolt he was summoned to appear before the Emperor, to receive the fine silk cord which carries with it the ominous command, "Go home and hang yourself." He did not obey the summons, but put an end to himself in Lan-chow.

Meanwhile it was expected every day that the town would be taken by the Dungans. The Chinese distributed amongst their wives large doses of opium, to be taken the instant the town was invaded, so that they might not fall alive into the hands of the Dungans. But the walls were strong, and the Jen Tai or general in command was a stout-hearted man, and Si-ning managed to hold out until January 1896; when General Ho approached with a reinforcement of 2000 men, who had been fighting the Japanese. General Ho was a very worthy man. He was still in Si-ning-fu at the date of my visit, and I had the honour to make his acquaintance.

It is scarcely possible to conceive the horrors that were perpetrated on both sides. Prisoners were tortured in the most inhuman fashion, and little children were tossed on

AN ORNAMENTAL GATE IN THE INTERIOR OF SI-NING-FU

the points of spears. When General Ho's soldiers returned from a sortie, bringing in Mohammedan prisoners in chains, the populace fairly howled with delight, and swarmed round them in fiendish triumph as they were dragged through the streets to the Jen Tai's yamen to learn their doom. Thereupon they were led away outside the city gate, and their throats cut with blunt knives. After that their chests were opened, their heart and liver torn out, stuck on the points of spears, carried in ghastly procession to the nearest café, roasted, and devoured. This the Chinese did in the belief, that by eating the hearts of their enemies, their courage would pass into themselves.

It is estimated that during the revolt 50,000 Chinese perished, and the same number of Dungans. The latter made brave and capable soldiers, but were wretchedly armed. One instance will illustrate this. When Tung-kwan was stormed, there was one sentry-post on a tower that was fully exposed to the Chinese marksmen, who shot the sentries down one after the other. But as fast as each sentry fell, his place was taken by a comrade. This happened six times in succession; and when the suburb at length capitulated, the Chinese found a sentry still in the tower nailed fast to his post with an arrow.

The Chinese on the other hand were arrant cowards. A large force was besieging a Mohammedan town not far from Si-ning-fu, and for three days on end bombarded the walls, without daring to deliver an assault. When they saw no men on the walls, they feared that treachery was at work. General Ho marched upon the place at the head of several hundred men, and after he had blown up the gates, there came to meet him one blind old woman, the last surviving inhabitant of the town. She told him, all the rest of the people had retired into the mountains several days before, and she wondered what on earth the Chinese were doing outside the walls, making such a din with their cannon.

The position of the English missionaries during those five terrible months was anything but an enviable one. Like the Chinese, they expected every day that some of

the besiegers would gain entrance into the city, fling open the gates, and so let in their co-religionists like a horde of ravening wolves, to ruin and destroy everything, and massacre every living being. Amid the unbridled licence of such a time the missionaries would of course have been slain along with the rest of the inhabitants, for they always wore Chinese costumes. The entire five months were a period of painful tension throughout. Again and again when they heard the Chinese running, shouting and screaming, through the streets, they thought that the dreaded moment was come at last. Mr. Ridley would then hasten to the walls, where the sentries were marching up and down with their lanterns and whips, to waken up those who slumbered on their posts. In the daytime they often saw large bands of the Dungans scouring the country around, and the slopes of the circumjacent mountains swarmed with them to such an extent as to seem dotted all over with black spots.

Every Chinese temple outside the wall was reduced to ashes. I visited the ruins of one of these, which had been built only a few years before at the expense of the merchants of the neighbouring province of Shen-si. What a scene of desolation! Heaps of ashes and rubbish, with the mutilated remains of the temple-idols sticking up through them, humiliating memorials of human superstition!

And what awful sights met one in the streets during the period of the siege! Hunger, filth, putrefying corpses, all the concomitants of over-population, gave rise to horrid diseases, every species of privation and suffering. Little children were flung out into the street before they were really dead, to be worried by dogs and devoured by swine. The missionaries however suffered no want, because the Jen Tai kept them supplied with provisions in return for the great services they rendered his soldiers by amputating their limbs, extracting bullets, and nursing the sick and wounded. I myself saw certain ghastly evidences of the revolt. On the gates of the town there were a number of small wooden cages, each with a label

affixed, containing the bleached skulls of the leaders of the revolt who had fallen into the hands of the Chinese and been beheaded. Another skull bore an inscription, setting forth that it had belonged to the murderer of Dutreuil de Rhins; although it was impossible to tell which individual it was of the band that attacked him who slew the brave and able Frenchman.

CHAPTER XCVII.

FROM SI-NING-FU TO LIANG-CHOW-FU

ON December 1st, accompanied by my faithful attendant Islam Bai, I left Si-ning-fu and the hospitable English missionaries. As I was unable to engage a Chinese interpreter, Mr. Hall very kindly sacrificed his time and accompanied me as far as Ping-fan. Mrs. Ridley packed me up a boxful of dainties—cakes, tarts, honey, and jam. My new caravan consisted of six mules and three men, whom I engaged for the sum of fourteen taels or liang (nearly 45*s.*) to convey my baggage to Ping-fan. The packages and cases were tied once for all to a bent wooden frame, which was lifted bodily on and off the pack-saddle; so that I only kept out or easily accessible such things as I was likely to want every evening. But the mules were tricky and refractory, and one of them kicked his load off and smashed the packing-frame to pieces. The men were even worse than the mules. They clamoured and swore the whole way, so that I was glad I had not engaged them for longer than six days.

The caravan filed along the streets towards the eastern gate, through a crowd of gaping, curious Chinese, and so on through the ruins of Tung-kwan. A few new houses and shops had been built along the main street; there too we saw some miserable Mohammedans, old men whose eyes had been put out by the Chinese, sitting by the wayside begging. The only inhabitants of the ill-fated suburb were mere ruffians and soldiers. The latter had wedded the women of the Dungans, and they, it was said, accepted the change of husbands with tolerable resignation.

When we reached the open country, the traffic gradually decreased. The valley was wide and open, and bordered by gently rounded hills with a gradual slope, except for a short distance, where it contracted to a narrow defile, into which the sun never shone, and where the sides of the Si-ning, a stream of considerable size, were fringed with ice. In this narrow pass, called Shio-sha, the Dungans kept the road blocked for a long time between Si-ning-fu and Lan-chow, the capital of the province (Kan-su).

That evening it was very dark and cold. We only met one caravan, composed of an immense number of camels. In this part of Asia the camel-caravans only travel by night, for the animals graze during the day. Before reaching the large village of Ping-rung-i we crossed over two brooks, Sa-ku-fueh and Kwen-yin-tang. We had hard work to find a room in the guest-house; every corner being packed with travellers. Before spreading my sleeping-carpets in these places, I always had the bench well swept, to rid it of undesirable intimates of the last person who slept there.

December 2nd. The valley again contracted, forming the narrow gorge of Da-sha (the Great Defile), where the stream (on our left) foamed down a series of cataracts between walls of granite and black clay-slate. But on the other side of the defile the valley once more expanded, and became thickly dotted with villages and cultivated fields. After crossing the river by a ferry-boat, guided by a rope stretched from side to side, we came to the town of Nien-beh. Although it was dark, the town gates were not yet closed.

Our next day's journey took us through a region that was both thickly inhabited and excellently cultivated. The road crossed a number of frozen canals, in which the mill-wheels stood motionless in their icy fetters. Apples, pears, apricots, peaches, plums, and walnuts were grown in the orchards. The fields were being ploughed for the sowing of the next crop of seed.

The road was very deeply excavated in the loess strata,

and both their horizontal and vertical structures could be plainly made out. The roots of former species of vegetation reached down to the level of the roadway. There too the river also cut its way through a similar formation, crumbling it down a great deal at every bend. At Kao-miotsa, one of the largest villages along the road, we stopped for breakfast at an open café. We met numerous caravans of camels conveying packs of wool to Ning-sha or Tien-tsin. We halted for the night at Lo-ya.

On December 4th we still continued to push on towards the north-north-east, leaving on our right the transverse glen through which the Si-ning river made its way to the Hwang-ho, and also a rugged by-path leading to Lan-chow-fu. We ascended to a minor pass through a little glen, at the entrance of which three human skulls were suspended in cages on as many poles. They were the heads of robbers who had attacked, plundered, and slain certain travellers, but who had been afterwards seized and beheaded. Then we climbed the heights of Ping-ko-shan by a winding zigzag path, with excessively sharp turns in it. How I pitied the poor mules that should toil up those steeps with heavy loads on their backs!

Having spent the night in the solitary guest-house of Ping-ko-ko, on the east side of the relatively low ridge we had just crossed, we descended the next day into the wide open valley of the Tai-tung-ho. The river came down from the north-west and traversed the valley in three arms. We crossed the largest of the three with the help of a ferry; it was about 100 feet wide and 5 feet deep. On its left bank were numerous villages; but most of them had been ruined during the Dungan revolt. There was a great deal of traffic on the road. For instance, we met two or three huge companies of Khalkha Mongols on their way to the approaching festivals at Kum-bum; long strings of carts laden with coal, which was dug in the neighbourhood, carts and caravans carrying provisions to Si-ning-fu, to say nothing of individual travellers on horseback and on foot.

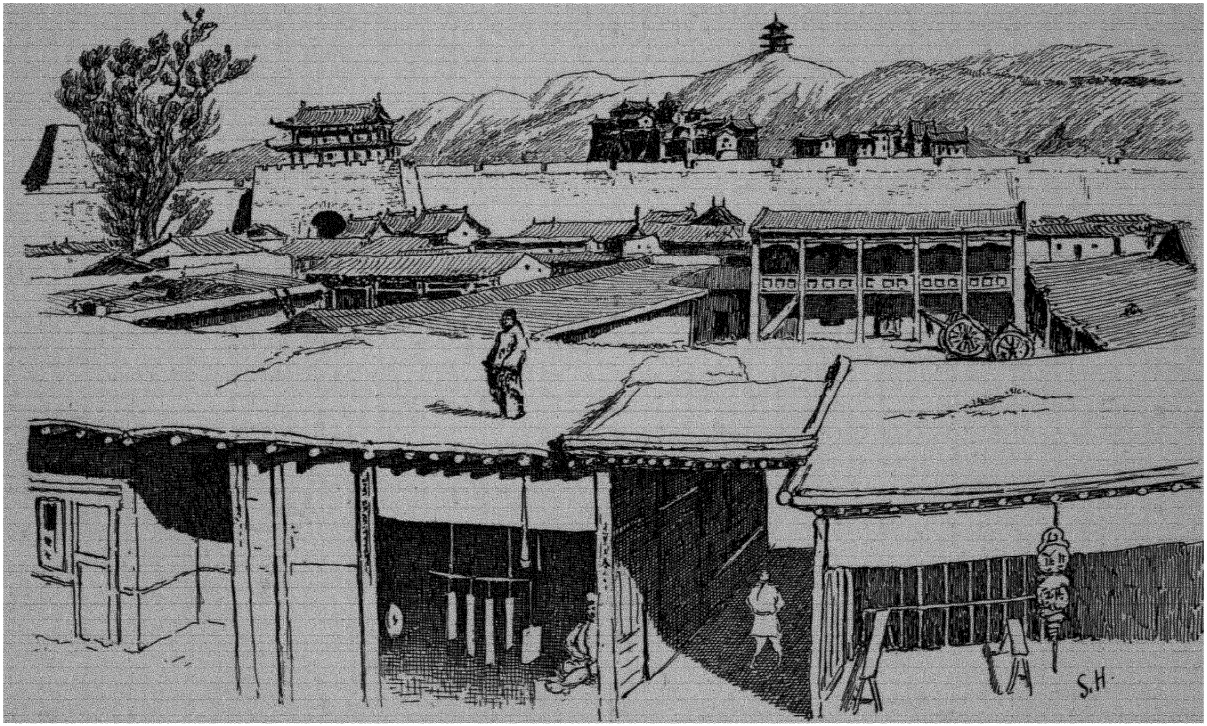
On December 6th we journeyed from the village of Shwang-nyu-po to Ping-fan by an easy bridle-path, over yet another pass. It was however a killing road for vehicles, being both steep and narrow, and so deeply excavated, that it was impossible for two carts to pass in the contracted passages. Hence some of the drivers were accustomed to hurry on ahead, uttering loud long-drawn shouts, and in that way kept the road clear till they reached a convenient place to pass. The Ping-fan-ho, which was divided into nine arms, also flowed through a wide, open valley. In summer this river brings down vast quantities of water, as was easy to see from the marks on its banks.

I will hurry over my journey from Ping-fan to Liang-chow-fu; the road is sufficiently well known, having been described by other travellers. On December 9th I said "Good-bye" to Mr. Hall, and made him a present of one of my horses as an acknowledgment of the trouble he had taken on my behalf. Once more I re-organized my caravan. I dismissed the mules and their noisy owners, and in their place engaged two carts of the same shape and appearance as the arbas of East Turkestan. Into one I stowed all my baggage; whilst the other was fitted with a covered roof, straw in the bottom, and carpets. Each vehicle was drawn by a mule between the shafts and two horses harnessed in front of the mule, and the composite teams were driven by two pleasant Chinese, whom I made to understand thoroughly that, if they got me over the ground quickly and without misadventure, I should not forget to give them a handsome tip. It was important to be on good terms with these two men, as I now had no interpreter, but was entirely dependent upon my own not very extensive acquaintance with the Chinese language.

For six days we drove up hill and down dale, over the eastern off-shoots of the Nan-shan Mountains, over rugged passes, over brooks, some frozen, some still running freely, across precarious bridges, and through dark and narrow defiles. The carts rattled and shook, rocked and lurched —it was veritable torture. The drivers went on foot; and

in every village we came to, they either had something to say to an acquaintance or they wanted to buy a piece of bread, which they subsequently ate on the way. We started very early in the morning, generally soon after midnight, and took a rest during the middle of the day, when we baited the animals; after that we did another short spell of travelling in the afternoon. It was bitterly raw and cold driving in the middle of the night; in spite of furs and felts I was always frozen through when we stopped. Islam rode on horseback, until he nearly got his feet frost-bitten; after that he preferred to walk. The drivers of the carts kept themselves beautifully warm running beside their animals; and my faithful Yolldash fared first-rate. Two or three times it snowed, and the wind blew icy-cold out of the north-west. In this way we journeyed for six days along the great highroad that skirts the Great Wall north-north-westwards to Liang-chow-fu, passing on the way the villages of Wo-shing-yi, Tha-ku-yi, Lung-go-po, Go-lan-chow, and Cho-dung-po. These were the places we stopped at for the night; between them there were strings of other villages.

We travelled in company with two Chinese, who were taking two cart-loads of miscellaneous wares to Liang-chow-fu. It is a great advantage to travel as large a company as possible on these highways of Northern China; for it is an established rule of the road, that when two parties meet in a deep narrow passage such as I have already described, the smaller party has to give way to the more numerous; also if anything goes wrong with any of the vehicles or animals, all the drivers of the party are expected to lend a hand in righting them. We experienced the advantage of these arrangements at daybreak on the morning of December 10th, when we reached the Shi-ming-ho, which flowed through a wide fertile valley and entered the Ping-fan-ho, making an acute angle with it. The river serpentined backwards and forwards in a broad stony channel, and, with the exception of a few narrow strips of water where the current ran swiftest, was sheeted with ice. But at the



PING-FAN

place where the road crossed it, the river was frozen from side to side, and the ice covered with a sprinkling of sand, so that both horses and caravans were enabled to cross over without the least difficulty.

The two Chinese went first with one of their carts, drawn by three horses. Down they went at full gallop on to the ice; but the wheels had barely made one revolution when they cut into the ice as easily as a razor shears through paper, and the cart stuck fast. The load had to be taken entirely off and carried across to the other side; then after a great deal of labour we succeeded by united effort in hauling out the cart.

The men examined the ice higher up. It was everywhere too thin to bear our heavy vehicles. Then they sought out a wider place, and broke up the ice with their axes, and so made a ford. But the water was a good three feet deep, and full of brashy ice and big floating lumps. My baggage-cart was the next to try its luck. Down it plunged into the water, and stopped—stuck fast. Two other horses were harnessed in front. From the edge of the ice all the four drivers shouted and whooped, and cracked their whips. The poor horses, who were standing up to the girths in ice-cold water, reared, stumbled, and fell, and were very nearly drowned. Then they leapt to one side, and tried to scramble on to the ice; but the men forced them back into the water. One of our two Chinese associates, a young man, who apparently did not know what nerves meant, stripped stark naked, notwithstanding there were fourteen degrees of frost Fahr. (ten Centigrade), and jumped down into the water, and pushed away the ice and stones against which the wheel was jammed, and then unravelled the reins and traces, which the horses had got into a thick tangle. It made me shiver to see him working in the freezing water; for I could actually hardly keep warm in my furs. Meanwhile Islam Bai made a fire among the bushes on the far side of the river, at which the hardy young Chinaman went and warmed himself, whilst the other men, after desperate efforts, succeeded in getting

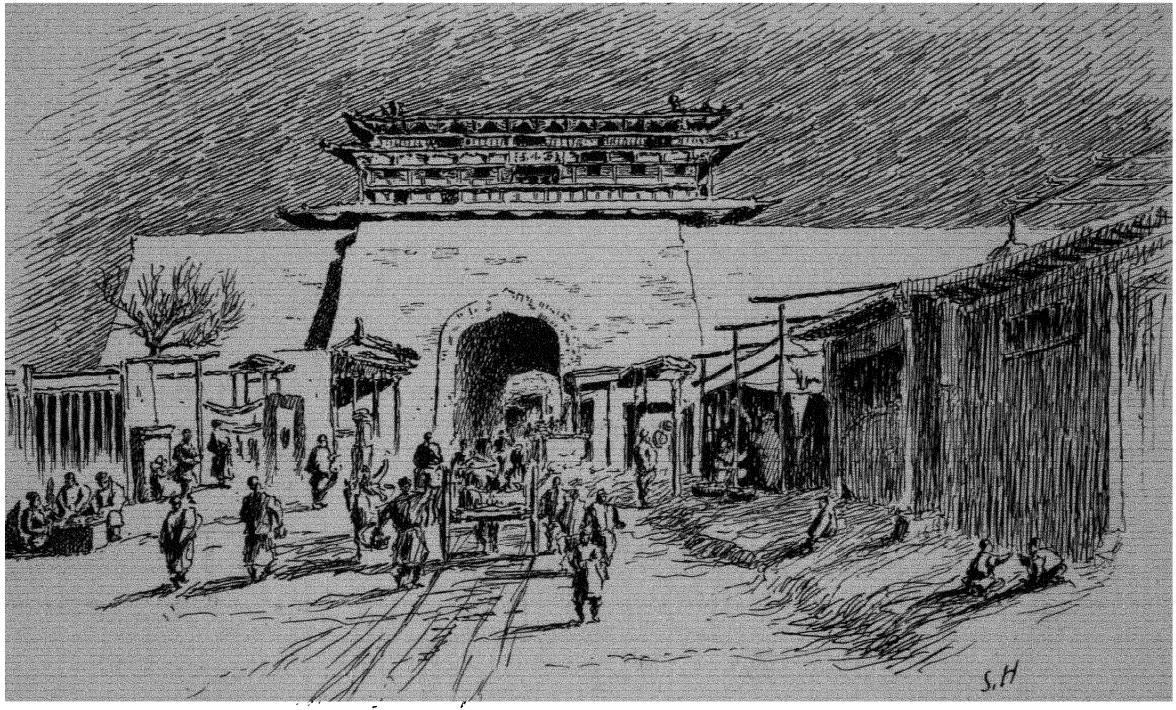
the cart across. The same procedure had to be gone through with each of the succeeding carts; so that it took us four good hours to get them all safely to the other side of the river.

The road we were travelling on was the great highway to East Turkestan, Urumchi, and Kashgar *viâ* Liang-chow. It was bordered the whole way by telegraph-posts with their humming wires, and so imparted a touch of civilization to the desert. I could not help thinking, that the labour would have been better spent, if, instead of building that gigantic wall (which indeed now lies for the greater part in ruins), the Chinese emperors had made a good road and built bridges across the rivers.

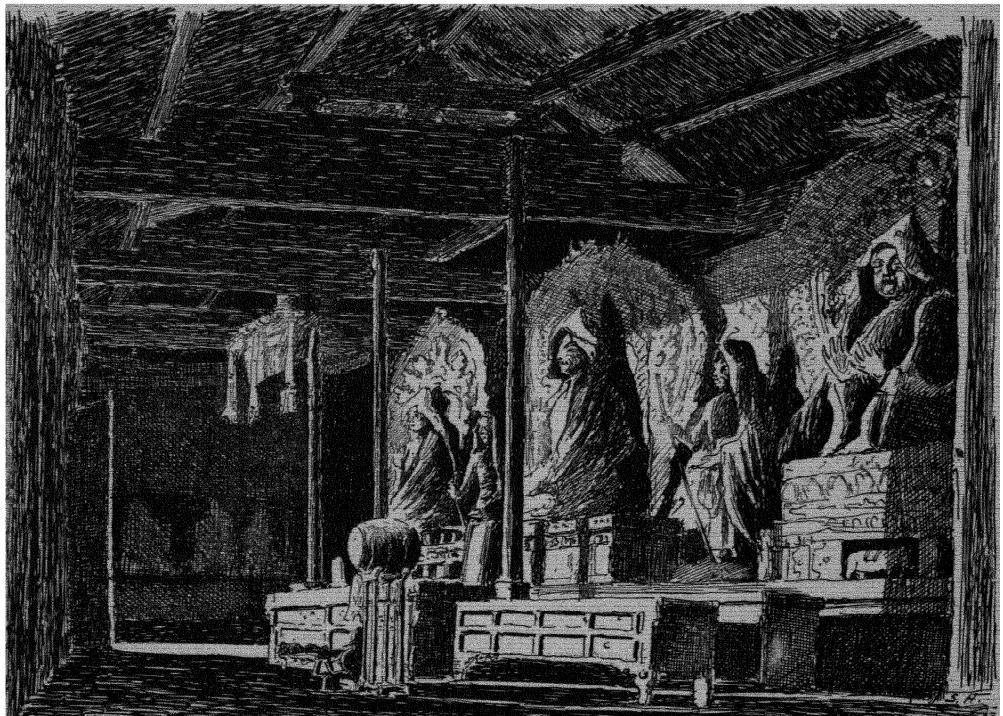
On December 12th, we emerged from the mountains into the level plains, which stretched away in every direction to the horizon; and two days later we drove through the fine entrance gateway of Liang-chow-fu. Here again it was my good fortune to be hospitably entertained by English missionaries, the Rev. Mr. and Mrs. Belcher of the China Inland Mission, and to make the acquaintance of their assistants, Miss Mellar and Miss Pickels. These two young ladies lived together in a house situated at some distance from the mission-station, and had none but Chinese servants. But neither was in the least degree apprehensive for her safety.

In Liang-chow-fu I was detained against my will for no less a period than twelve days, which severely tried my patience. The cause of this long wait was the almost absolute impossibility of hiring camels for the journey to Ning-sha. Camels there were indeed in plenty; but none of their owners was willing to hire fewer than forty at once. They refused to divide their caravans; and as Ning-sha lies aside from the great highway, they were afraid they would not be able to obtain transport back again, and consequently demanded double prices.

The days were long and tedious. Still I enjoyed the full sympathy of the missionaries; but their church, in which I was lodged, was bitterly cold. At the time I arrived, Mr. Belcher was absent in Lan-chow; but he



ONE OF THE GATES OF LIANG-CHOW-FU



THE INTERIOR OF A TEMPLE OUTSIDE LIANG-CHOW-FU

came home on the second or third day afterwards. The first day therefore I sat down to dinner with three charming young Englishwomen, dressed in pretty and tasteful Chinese costumes.

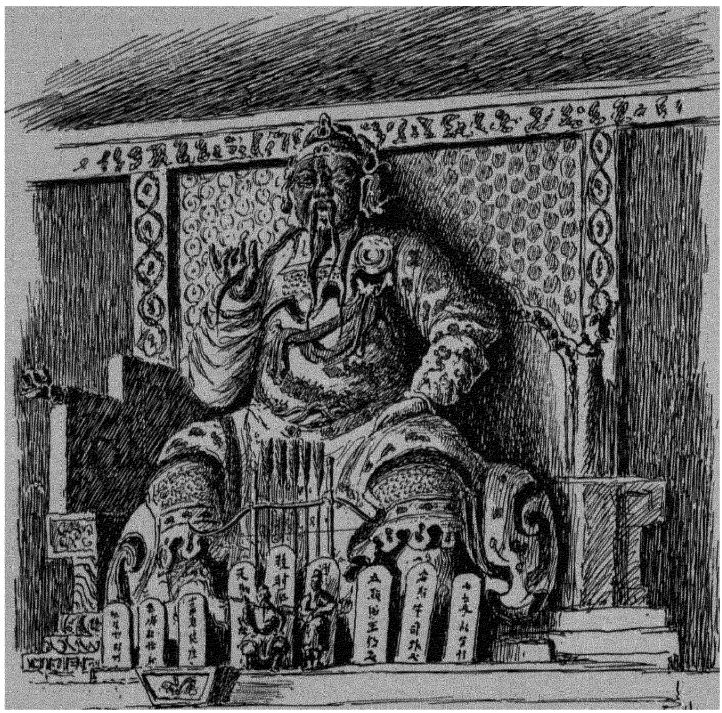
The next morning I made my way to the telegraph-office, where one of the clerks spoke English, and telegraphed home to His Majesty King Oscar *viâ* Si-ngan, Han-kow, and Shang-hai, being kindly assisted in the operation by Mr. Boch, Swedish-Norwegian Consul-General in Shang-hai. Seven days later, just right for a Christmas-box, I received a congratulatory reply from His Majesty. The Chinese look upon the telegraph with great scepticism, and have their own explanation of the way messages are carried. They believe that the paper containing the message is rolled into a tiny ball and sent at a stupendous pace along the wires, and that the insulators on the posts are stopping-places under which the pieces of paper find shelter when it rains.

Liang-chow is the second city of the province, ranking next after Lan-chow, the capital, and with its adjacent villages numbers upwards of 100,000 inhabitants. The city is built on the usual rectangular plan, and is surrounded by thick strong walls, pierced by four lofty gates. The main streets are wide, and full of life and colour—carts, caravans, and merchants at every step and turn.

Whilst waiting for a caravan, I spent my time sketching, talking to the English missionaries, who were able to give me much valuable information, visiting some of the mandarins, and making various purchases in the Tien-tsin bazaar, a sort of arcade lined with handsome shops. Amongst other things I bought two *sha-los* or hand-stoves, shaped like teapots, but with grated lids. You fill them with ashes, and put two or three pieces of red-hot charcoal in the middle of the ashes. The sha-lo will then keep warm for a good twenty-four hours. Had it not been for this appliance, I should have got my hands frozen more than once whilst on the way to Peking.

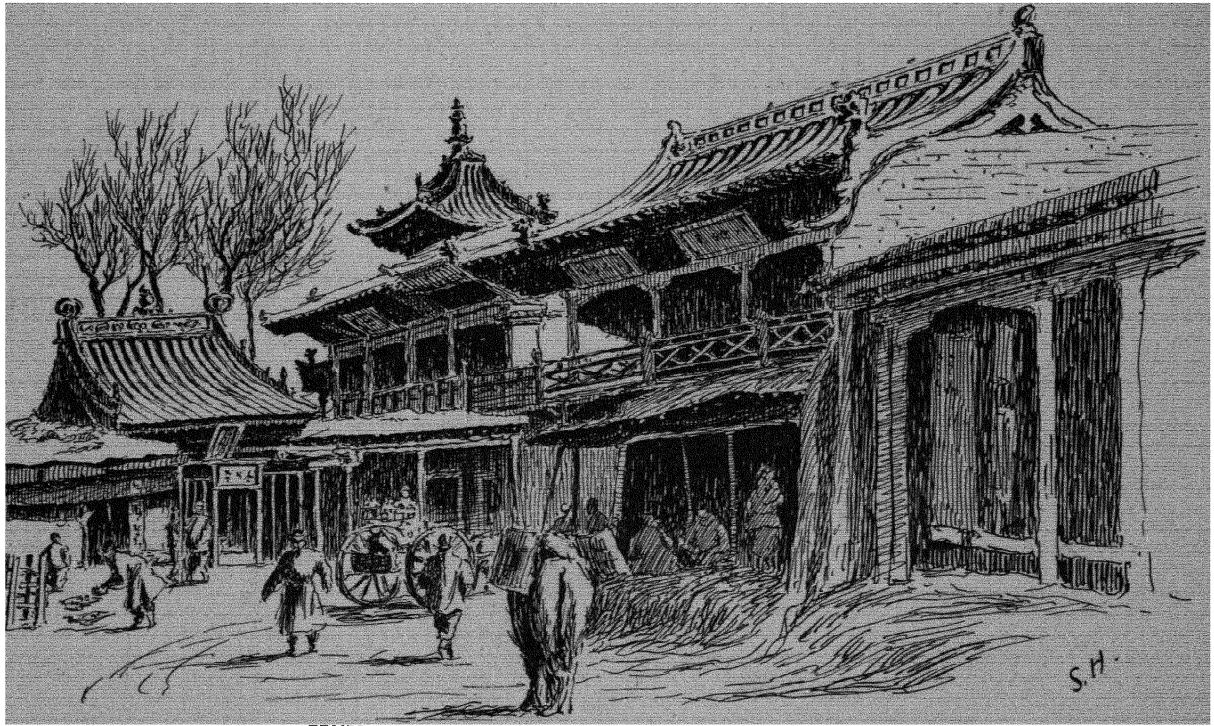
I also paid a visit to a magnificent temple outside the city walls, and took some sketches. Then I went to

the mission-station of the Belgian Catholic Brothers at the village of Sung-shu-chwang, situated twenty-five li (seven miles) east of Liang-chow-fu. The bishop had gone to Peking, but was expected home for Christmas. I was however received with great friendliness by three of the Brothers, who offered me red sparkling wine,



THE GOD OF WAR AT LIANG-CHOW-FU

cigars, and cakes. Their church, a noble building, partly constructed in the Chinese style of architecture, and with a high tower surmounted by a cross, was visible from a great distance all round the village. The large window behind the altar was filled with stained glass, and there was an image of the Virgin on the altar, with candles burning in front of it. It was a strange sight, to see a full score of Chinese rustics kneeling on the floor of the



TEMPLE OUTSIDE ONE OF THE GATES OF LIANG-CHOW-FU

nave and offering up their prayers to the God of the Christians. My Belgian cicerones told me that there were families in the place who had been Christians from father to son through seven generations, and that the community then reckoned about 300 members. The people I saw entered the church of their own free will, as they were going past, making the sign of the cross and taking off their caps, and they appeared to repeat their prayers with absolute sincerity of conviction. The Belgian Brothers also carry on schools for boys and girls. I peeped into one of the rooms, and saw a score of boys sitting at their desks, poring over the Bible and the writings of the sage Confucius. The library, which was a large and handsome apartment, was adorned with the portraits of a host of missionaries, amongst whom I recognized the portrait of my Kashgar friend, Father Hendricks. The Belgian Brothers also possess a mission-station in the city of Liang-chow-fu, which they visit to celebrate mass on the high days and festivals of their church.

I was however pained to learn that the Roman Catholic and the Evangelical missionaries do not work amicably together, in fact they ignore one another's existence. Yet it is only natural they should do so, for they preach different doctrines, and what the one body sows, the other does its best to pluck up by the roots. The Chinese may be pardoned if they get confused between the two. Fortunately there is plenty of room for both to work in Liang-chow-fu. Personally I have no complaint to make against either. The Roman Catholic Brothers were quite as hospitable and quite as kind as the Evangelical missionaries.

I spent my fourth Christmas in Asia in Liang-chow-fu, and found comfort in the hope of being able to spend the next Christmas by my own fireside, among the skerry isles of dear old Sweden. Christmas was always a trying time for me, for then, far more than on any other day in the year, I always longed intensely for home. This year too Christmas Eve passed as quietly and unevent-

fully as its three predecessors had done. I wanted to have a young fir-tree fetched down from the mountains; but the missionaries thought it was a heathenish practice. We sat and talked round the stove, and I retired early to my nest of furs in the cold church. Christmas Day was celebrated with an excellent dinner at Mr. Belcher's, with plum pudding and Christmas presents.

CHAPTER XCVIII.

THROUGH THE DESERT OF ALA-SHAN

AT length, on December 26th, I succeeded in procuring eight camels with three men, and once more had my baggage loaded up for another long stage, the 290 miles to Ning-sha. As ill-luck would have it, it was Saturday, and it was quite evening before the caravan was ready to start. Had the next day not been Sunday, I should have waited until the morning. As it was, I decided to go on to one of the nearest villages outside the walls of the city, and stay the night there. But when we reached the gate, it was already closed, and they would not open it for us. We spent a couple of hours hunting about the dark narrow lanes, and at length succeeded in finding a wretched room in an inn, for I did not of course wish to disturb the Sabbath quiet of the missionaries.

However we got started in earnest early the next morning, but had not advanced further than the open space immediately outside the northern gate of the city when two ragged Chinese came to meet us, and at once began an animated conversation with our camel-drivers. Then one of the men turned to Islam Bai, and in fluent Turki offered to guide us to Ning-sha for fifty taels (about £7 16*s.*). He said he had lived several years in Kashgar and Ak-su, and had nine camels, every way better animals than those we were starting with. An excellent interpreter in addition to baggage-animals—the opportunity was too good to be let slip. We therefore waited in the middle of the road, while the two new-comers fetched their camels, and within an hour the loads were

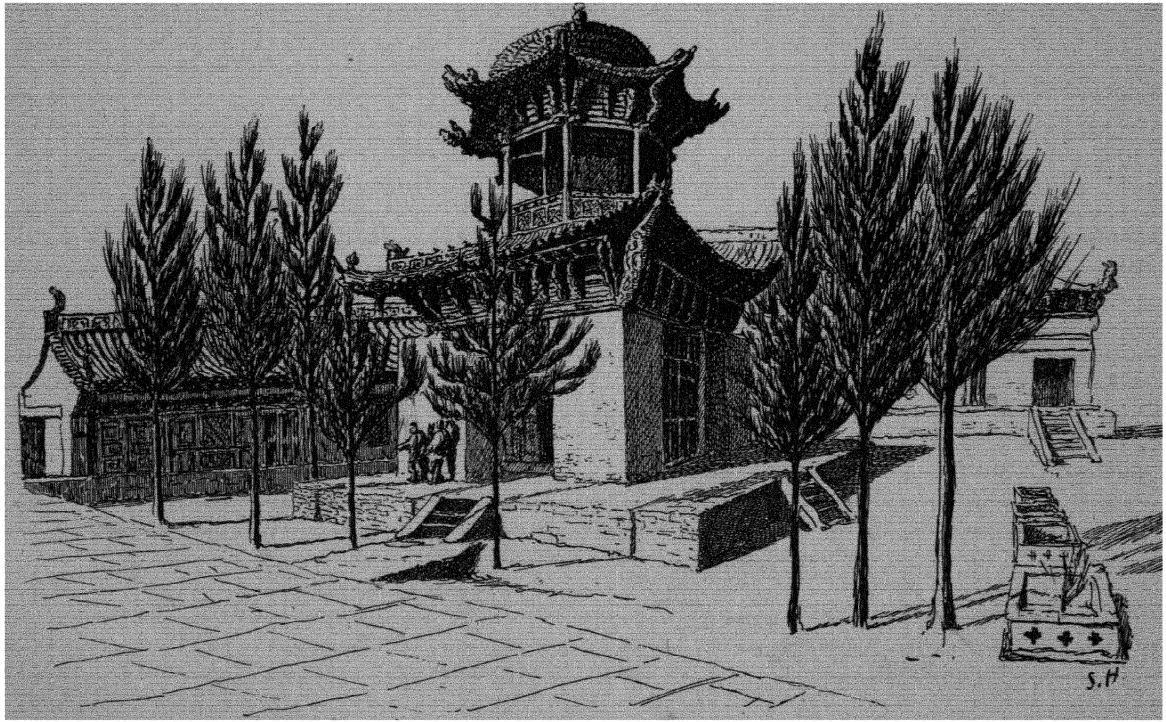
all transferred to the backs of their animals. This stroke of good luck made me forget the twelve days I had lost in Liang-chow-fu. I was not sorry to bid lasting farewell to that sunny disobliging city, and to see its walls and towers vanish from sight in the distance.

Our route to Ning-sha described a long curve through the desert of Ala-shan, first towards the north-east, afterwards towards the south-east, past the following places, wells, and camping-stations, bearing partly Chinese, partly Mongolian names.

Jung-ja-da-ming	17	miles.
Shang-ya-wa	17½	,,
Ching-fan	23¼	,,
Niu-ba-shing-na-tsa	10¾	,,
Bo-to-gai-tsa	12	,,
Lei-tsa-kho	19¾	,,
Ma-lo-ching	19¾	,,
Ka-to-khoa	10¼	,,
Lo-cha-ching	5¾	,,
Wu-geh-san	13	,,
Koko-moruk	12½	,,
Koko-burtu	11¾	,,
Arten-tollga	11½	,,
Hashato	18¼	,,
Wang-yeh-fu	18	,,
Jo-jeh-teh-shang	6	,,
Jo-wa	12¾	,,
Da-ching	23	,,
Ning-sha (the Manchu town)	20½	,,
Ning-sha (the Chinese town)	5	,,

Each of these names indicates a stopping-place at the end of a day's journey, and the figures which follow it the length of the march. We only passed through two towns—Ching-fan, on the western margin of the desert, 200 li, or 58 miles, from Liang-chow-fu, and Wang-yeh-fu, on the eastern margin of the desert.

Our first day's march took us for the most part due north, past an unending succession of villages, temples, and gardens; while the Nan-shan Mountains on the south, with the scanty patches of snow on their summits, gradually



PAGODA OUTSIDE LIANG-CHOW-FU

faded away as we advanced and left them behind us. The weather was splendid. It was however the lull before the storm, for on December 28th there blew such a tempest from the west that it was impossible to put your face out of your *fanza* (house), which for the matter of that was destitute of both doors and window-panes. The sand and dust drove in whirling clouds across the steppes and along the road, and half filled my wretched cabin.

On the 29th we continued towards the north-north-east. The camels went first-rate, sure of foot and without refractoriness. It was quite a pleasure to be once more riding on the back of one of these hardy and splendid animals. But the ground just suited them, being a hard level, grassy steppe. As we advanced, the population gradually thinned away, the villages grew fewer and fewer; but we still continued to meet caravans of donkeys and ox-carts, carrying country produce into the city. We were rapidly approaching the verge of the desert; already there were low sand-dunes on our right. South of the village of Kho-tung-shing-go we travelled for some hours beside a marsh, crossing a narrow extension of the same on the ice. Half-way across one of the camels broke through and fell into the water. Its load was however prevented from getting wet; but it cost us a good hour to get the poor beast back safe on to firm ground. The sun set among banks of mist, and it turned bitterly cold (minimum, - 1°8 Fahr. or - 18°8 C.) At length we caught sight of the walls of Ching-fan; but the gates were closed, and we were obliged to put up with a rest-house outside.

We stayed one day in the little town, that the camel-owners might provide themselves and their animals with supplies of food sufficient to last them to the other side of the desert. The governor of the place tried to persuade me to take the longer route by the south, where I should find people, towns, and inns. On the desert road I should encounter nothing but sand, besides the risk I ran of being attacked by Mongol robbers. I sent word back to him, that the only annoyance I had had to put up with throughout the whole of my more than three years of

travel in Asia had been occasioned by Chinese officials, and I preferred my tent in the desert to being cooped up within the walls of a Chinese guest-house with its undesirable parasites.

Accordingly on 1st January 1897, when I was ready to leave Ching-fan, Mr. Mandarin thought I should not escape him without some evidence of his authority. Two Chinese soldiers came to me, and said they were commanded to escort me through the desert, but they could not get their horses and provisions ready under two or three days. I answered, that I had not asked for an escort, and did not intend to wait a minute for them; and at once ordered my men to load up and get off as soon as they could.

We reached the outside of the gate, but were then stopped by a troop of men from the yamen (official residence of the governor), saying that I must wait until the next day, my Mongol pass was not ready; and if I refused to wait, they were instructed to detain me by force. Bidding the caravan wait outside the gate, I went straight to the yamen; for I was exasperated by this petty official insolence. The governor refused to see me; he was "ill." I was confronted in a filthy room by a dozen clerks, all smoking opium, and all shouting and trying to keep me back at one and the same time. As soon as I could make myself heard, I referred to the passport I had from Peking, and said that if the mandarin prevented me from travelling further, I should report his behaviour to Li Hung Shang through the Russian ambassador, and he would lose both his rank and his position. This impressed the recalcitrant official. His interpreter came back with an invitation to breakfast. I replied with the utmost contempt, that I should do no such thing, and demanded that his master should instantly send me the Mongol pass, and also the two soldiers as an escort. After this the clerks condescended to be polite. They laid aside their opium-pipes; and in a trice both pass and escort were ready. Then we continued our journey, glad that we should have nothing more to do with Chinese mandarins until we reached Ning-sha.

The sandy desert approached quite close to Ching-fan. In fact in some places the people had built short walls to check the advance of the sand-dunes, to protect the roads, their fields, and houses. According to the maps, the protecting bulwark of the famous Great Wall of China ought to have barricaded the Celestial Empire just at this place; but although I tried my utmost to perceive it, I failed, unless the ruins of certain mud walls which we saw in a few places were relics of it.

Before actually entering the desert, we passed a few solitary farms, and met numerous carts laden with dung, which had been gathered off the roads; for the country was very bare of trees, and the people had no other fuel. They dry the stuff in the sun, and in that way get the material for the *kangs* or benches on which they sleep.

On January 3rd we traversed a district that was unusually well cultivated. I was astonished to find that the river of Liang-chow-fu extended so far towards the north-east; it was however at that place called Niu-ning-ho. From it were drawn several canals, which watered a long string of villages, and when it gave out the people had two or three wells to fall back upon.

On January 4th we travelled for the most part across a barren waste, the road bending round towards the east. On our left we had the stream I have just mentioned, but it had now dwindled to a mere ribbon, not of water, but of ice, for it had frozen and the water had flowed away from underneath the crust of ice. Here Yolldash cleverly caught a young antelope as it was endeavouring to escape across the ice. The ice broke under it, and before it could recover its feet, Yolldash seized it and gave it its quietus. Here again we met carts and caravans laden with fuel, not of the same character as before, but various species of steppe plants. On the left too we saw in the distance a low spur of hills, but I was unable to find the lake which is shown on the maps. I was told however, that at its period of summer high water the river forms a temporary lake near the point where it comes to an end. Our camping-station for that day, Ma-lo-ching, consisted

of three small huts, which were surrounded by a ring of fuel-carts. The well was 6 feet deep, the water salt, and its temperature 37°4 Fahr. (3° C.).

Next day the country was alternately high sand-dunes, with their steep faces towards the east, steppes, level expanses of salt, and marshes. At dusk we came across two or three Chinese squatting round a fire. They told us it was fifty li (fourteen miles) to the next well and high sand all the way. We therefore halted where we were at Ka-to-khoa, where the well was four and a half feet deep, and its water sweet and good, with a temperature of 33°1 Fahr. (0°6 C.).

On January 6th we got well into the heart of the barren sands, where the dunes were thirty to thirty-five feet high, and the only sign of vegetation an occasional thistle or withered prickly bush. The landscape was such as awakened both joyful and painful recollections of the past two years. When Yolldash ran to the top of a dune and looking towards the east saw nothing but sand, he barked pitifully; no doubt he recollected our toilsome marches beside the shores of Lop-nor. The Desert of Ala-shan was not however so dangerous as the Takla-makan. It did not form one continuous unbroken expanse, like the Desert of Gobi, but consisted of several separate belts of sand, with steppes and marshes between them. All the same, the road was frequently difficult and heavy; the camel is the only animal that could have traversed it. Yet despite its drawbacks we had evidence every day that it was a good deal used. For instance, we met a Chinese caravan of fifty camels conveying divers commodities from Bao-to (on the north of Ordos) to sell to the Mongols of Ala-shan; it had been travelling for forty days. Our two Chinese camel-drivers were both of them first-rate fellows; they looked after their camels and my baggage with zeal and energy, and kept travelling steadily on without a single murmur or complaint.

The country presented the same characteristics during the three following days. The lee side of the dunes still continued to look towards the east, proving that the

prevailing winds came from the west. Indeed, every day the wind blew from that quarter, or else from the north-west, with more or less violence. We now began to come across Mongol camps and to see solitary nomads guarding their flocks of sheep. The well of Wu-geh-sän was quite close to the "Five Hills," which had for some days been visible in the distance.

On January 8th the caravan-track wound in and out between the sand-dunes. Sometimes it was not altogether easy to keep it, for the wind had blotted out every trace of the road. But a worse evil was, that the daylight began to fade, and we had not yet succeeded in discovering the well. The twilight deepened rapidly. But at length we reached a small steppe, whereupon our Chinese camel-drivers said they believed we were not very far from the well. They looked for it in every direction, whilst I and Islam stayed with the camels, and made a fire, to serve as a guide to the two searchers. In the east we heard the bells of a caravan quite distinctly; the sound came nearer and nearer, then died away in the west. It was evident we had somehow got off the track. So we waited nearly three hours before the Chinese came back; they had not found the well. During their absence I witnessed the most brilliant display of shooting stars I have ever seen anywhere. A train of meteors of an intensely light green colour shot through the belt of Orion, and for some seconds lit up the steppe so brightly that the fire actually paled before it. Then it seemed to be darker than ever. But after a while the moon rose over the silent waste, and enabled us to see where we were going to. After travelling due east for about a couple of hours, we caught sight of a fire, and thoroughly wearied out, we crept to the well of Koko-möruk, which the Chinese call Cheh-sheh-geh-nian.

Beside the well we found some Mongols, wearing pigtails and speaking Chinese. Strange to say, they had never heard the name of Ala-shan, nor did I succeed in finding out the meaning of the word. They called the sandy desert Ulan-älesu, or the Red Sand, which

put me in mind of the Kizil-kum of the Kirghiz, for the words mean the same thing.

The next day we reached, across an absolutely barren desert, the most northerly point of the route, namely Koko-burtu. During that day's march we met only one solitary Mongol, dressed in neat blue furs, a dagger at his side in a silver-mounted sheath, riding a magnificent long-haired male camel, which went along at a grand pace. During the night we again heard the tinkle of camels' bells, and a large caravan came and encamped round the well. The bales and pack-saddles were piled up in heaps, the camels were turned loose to graze, tents were pitched, fires made, and the Chinese shouted and squabbled—on the whole quite a picturesque scene in the midst of the desert and the darkness of the night.

The camel-caravans travelling between Ning-sha and Liang-chow-fu prefer this long route through the desert to the far shorter road on the south, principally to escape the toll-houses, the rest-house (inn) expenses, and other disbursements which are associated with a journey through inhabited regions. Along the more northerly route they are exempt from all these expenses, for they carry provisions with them for the whole of the journey, chiefly large bread-cakes, while the camels provide their own sustenance, browsing upon the hard dry desert plants. As a rule the caravans start about three o'clock in the afternoon, so as to allow the camels to feed as long as it is light; then they travel all night. The men prepare their suppers when they reach the wells; it consisted of tea and *mien*, a kind of soup made of dried meat and vegetables, with bread crumbled into it. During the stage to Arten-tollga across a gently undulating steppe, we caught the first glimpses of the Ala-shan Mountains in the east. Each well on the route was provided with a wooden trough for the animals to drink out of, and each caravan carried a bucket, made of woven withes, to fill the trough with.

Then we had a broad hard road, winding like a yellow ribbon across the steppe, all the way to Wang-yeh-fu, which we reached *viâ* the well of Hashato on January 12th.

CHAPTER XCIX.

WANG-YEH-FU AND NING-SHA

WE gave the camels a day's rest. I had also other business to do in the little town. First I sent back the two men who had escorted me from Ching-fan: for two others were to accompany me from Wang-yeh-fu to Ning-sha. Then I replenished my stock of provisions, and bought some specimens of Mongol jewellery. Lastly I paid a visit to the Mongol prince Norvo, who was at the time chief of the town, and dwelt in an ordinary Chinese yamen (official residence) inside the walls. He was a *wang* or vassal prince under the Emperor of China. He received me in a very friendly manner in a large plain room with bare walls, in the midst of a group of Mongol notables, dressed in the Chinese manner and wearing pigtails. Norvo was an old man, with a white moustache, and wore a light grey blouse. We had an animated talk together, for I managed to get along pretty well without an interpreter. He was particularly anxious to know what country I came from; and to satisfy him I drew on a large sheet of paper a map showing how Sweden lay with regard to China, whilst one of his secretaries wrote down on the map all the names that were essential to give the true position of my mother-land. But the geographical knowledge of these Mongols was not very extensive. They were only acquainted with the names of two places at a distance, Lhasa and Khotań; and none of those who were present had been to either place, though most of them had paid visits to Kum-bum and Urga. Norvo wondered if the King of Sweden was as powerful as the Tsagan Khan (White Tsar). He

remembered Przhevalsky quite well, and called him Nikola (Nikolai Mikhailovitch). He said Nikola had visited him many years ago.

Wang-yeh-fu boasts of a plethora of names. The Chinese also call it Fu-ma-fu and Ding-yuan-ying. The Mongol names for it are Noyin, Ala-shä, Ala-sha-wang, and Yamen-dolo; the last two indicating that it is the residence of the prince. The town lay about a dozen miles from the foot of the Ala-shan Mountains, which stretched from north to south, though they were scarcely visible owing to the clouds and the dust. There was a by-path over them to Ning-sha, but we thought it better for the camels to make the circuit round their southern extremity. The little town was said to have between 2000 and 3000 inhabitants, one-half Chinese, the other half Mongols; but it is not without importance, being the principal emporium of the Ala-shan Mongols, the place where they barter their raw produce for household appurtenances, clothes, jewellery, flour, etc., brought thither by the Chinese.

In the neighbourhood of Wang-yeh-fu the country was rather broken. A stream winding through the hills supplied the town with water, and in the season of flood was said to terminate in a lake. Nobody knew anything about a permanent lake in that part of the desert. The nomads were encamped beside the streams which crossed the steppes in the vicinity of the town. Most of the Mongols I saw in Wang-yeh-fu wore a half-Chinese, half-Mongol costume, that is to say, over their furs they wore coloured Chinese waistcoats, with gilt-plated buttons. The town possessed a handsome Chinese temple built in the usual style. Its pagoda and tower rivalled in height the larches that were planted round about it. The fact of their embowering their temples amid larches says a good deal for the artistic sense of the Chinese, for the broad sweeping branches harmonize well with the hollow upcurving roofs and consequently make an agreeable background.

On January 14th we did a short stage, past several

villages and cultivated fields, to the lonely guest-house of Jo-jeh-teh-shang, which the Mongols call Yikeh-bashingto. During the night I was awakened by the house creaking fearfully, whilst showers of sand and rubbish rained down all over me, and the dust whirled in giddy eddies round the hut. It was blowing a violent gale from the south. Nevertheless the two Mongols whom Norvo sent me from his yamen, to act as my escort, voted for making a start. They rode mules, and were both pleasant fellows, in spite of their decidedly cut-throat appearance, for one of them had a nose like a potato, whilst the other had no nose at all. We travelled south with the storm dead in our faces. At two o'clock the weather underwent an extraordinary change. The wind suddenly moved round to the north, and we were enveloped in a thick blinding snowstorm. I was very glad to have my sha-lo to warm my hands in, perched as I was high up on the back of a camel. When we reached Jo-wa (the Mongol Törgön) camels, riders, and packages—all were smothered with snow.

Beyond that point the road curved gradually to the south-east, keeping alongside the brook of Toli. Then we entered a wide gap in the Ala-shan Mountains, and ascended by long easy gradients to the insignificant pass of Tömur-öden, and descended on the other side down an equally gentle slope to the guest-house of Da-ching. Thence the country fell away at the same easy slope all the way to the Hwang-ho (Yellow River), whilst the road inclined towards the north-east, so that we now had the Ala-shan Mountains on our left hand. After spending the night in the Manchu town of Ning-sha, which was just like any ordinary Chinese town, except that the women were somewhat differently dressed, and had their feet undistorted, we went on, on January 18th, to the Chinese town of Ning-sha, where I steered my course straight for the house of the Swedish missionaries.

It was a real pleasure to meet my own countrymen—Mr. and Mrs. Pilqvist, and three assistants, two of them young men, the other a young lady, as well as to rest two

whole days in their hospitable house. What a luxury to sleep in a well warmed room, and actually in a bed! No need that night to cover myself with a heap of furs, to prevent myself from being frozen to death. It was not hard to think I was resting on a piece of Swedish soil in a far distant land.

Missionary enterprise is carried on in Ning-sha with energy and success. There was a community of thirty Christian Chinese, and Bible readings were held both morning and afternoon. The Evangelical Scriptures written in Chinese characters were scattered broadcast, in the shape of fly-leaves, through the streets, and these had tempted many Chinese to the mission-house, in most cases no doubt simply to gratify their curiosity. Mr. Pilqvist rented a hall in one of the principal thoroughfares, and there held services, which passers-by used to stop and listen to. It was grand to watch Mr. Pilqvist preaching of an evening in his own house in the purest Chinese. The congregation were ranged on narrow benches in front of the table at which the missionary sat; and preach he did, with such energy that the very walls shook at the thunder of his voice and the banging of his fist on the table. The Chinese sat like statues, hardly daring to breathe—no fear of *them* dropping off to sleep and not hearing what was said!

Mrs. Pilqvist told me she very seldom met a Chinese woman of twenty who was unmarried. They frequently marry at twelve or fifteen; and even when they are tiny children they beg their parents to cramp their feet, and look forward with eagerness to the time when it can be done. They know perfectly well that no youth will look at them unless they have tiny feet. The operation takes place as a rule when they are five or six years old. An incision is made in the foot between the big toe and its nearest neighbour. Then by sheer strength of hand the four smaller toes are forced back underneath the foot, and there they are kept by strong bandages. The shoes are always made separately for each foot; it is for this reason you never see ready-made shoes in the bootmakers' shops

GATE AT NING-SHA

in China. When a Chinese woman walks, she balances the weight of her body on her big toe, which is driven right into the point of the shoe, and upon the upper sides of her toes turned in underneath her foot, whilst her heel is a long way off the ground. It is impossible to form the faintest conception of the torture which such a monstrous fashion occasions. In some cases for years after the completion of the operation the poor girl is unable to leave her bed, whilst during the night the unhappy victims moan and weep with pain, which becomes ten times worse every time they move. More than that, the nails very often grow right into the flesh; no wonder then the gait of a Chinese lady is the exact reverse of graceful. She waddles like a duck, or rather like a barefooted person walking over pins or stinging-nettles. In consequence of the excessively small amount of exercise they take, the limbs of the Chinese women grow as thin as rods. And all this torture, all this indescribable suffering, simply to get married!

There is another custom which is far more widely spread amongst the Chinese than is commonly believed, that is the exposure of newly-born infants by their parents, when they consider their means will not allow them to rear them. The tiny creatures are usually left in some corner outside the town-wall, where they are devoured by dogs or swine, though it is true they are sometimes drowned. This cruel practice is all the more astonishing, seeing that the Chinese generally treat their children with the most touching tenderness as soon as they are able to walk and talk. Previous to that stage they are looked upon as animals that possess no soul; and if they die, they are not buried in a coffin, but simply put in the ground rolled up in grass.

The missionaries at another Swedish mission-station, which I subsequently visited, were once able to save a newly-born infant immediately after it had been deposited in the moat outside the wall. There lay the tiny creature, crying bitterly. The missionaries picked it up, nursed it, and took care of it, and in the course

of two or three years it grew into a very dear little thing. Then came the parents, and begged and prayed the missionaries to give them their little one again; their prayer was of course granted.

In another case an old female servant in a Swedish missionary s family exposed nine of her children one after the other as soon as they were born, and did not keep a single one alive. Possibly this inhuman and barbarous custom is a result of the peculiar social circumstances.

In addition to sowing the seed of the Christian faith, the missionaries tramp many a mile on errands of pure benevolence. An infant life or two saved, and a few young women persuaded to loosen the bandages which so horribly distort their feet, so that they may grow back into their natural position—what are they amid all the vast multitudes of the yellow race? We may reply: "To say the least, the example is ennobling."

How many a time too did I not hear of missionaries using the stomach-pump, and so saving the lives of would-be suicides who had taken an over-dose of opium! More than once, whilst resting in the mission-stations, I have been awakened in the middle of the night by a loud knocking at the gate. In such and such a house a man lay dying. He had just taken a dose of opium. Off went the missionary in hot haste with the stomach-pump, and so saved the man's life. Sometimes the victims were grateful for having been snatched from the jaws of death; but in general gratitude is a virtue which the Chinese do not manifest to any exuberant extent. Suicide by opium is commonest amongst women who are unhappy in their marriage. Sometimes if a man beats his wife or speaks an unkind word to her, it is sufficient to send her to the opium, almost out of sheer spite as it were. The habit of opium-smoking is fearfully common, and quite as much practised by women as by men. The number of children who have died from having crept up on their parents' opium sofa and sucked at their pipes is little short of appalling.

Previous to the first Dungan revolt Ning-sha was a

large town of some 60,000 inhabitants; but the revolt was a serious blow to it, a blow from which it has not even yet recovered, for its present population is only between 12,000 and 15,000. It is only the middle of the town that is occupied; the outer quarters next the city walls are deserted—no inhabitants, no shops, no traffic. The revolt broke out in Ning-sha in consequence of the imprudence of a mandarin. At the time when a large Mohammedan force lay encamped outside the town, a mandarin told his Dungan servant, that on the following day the Chinese intended to slay all the Dungans within the town. When night came, the servant stole out to the camp, and told the Dungan chiefs what he had heard, and then stole back again into the town the same way he had gone out. Then he and his co-religionists inside burst open the gate, and let in the host of the rebels from the camp outside. The invaders found entry through "the little northern gate," which is now walled up to prevent any Dungan from storming Ning-sha that way in future.

The same gate perpetuated another ghastly memory. When the Dungans got inside the town, they raged like wild beasts, slaying every creature they met. Out of the total population not more than two thousand Chinese were left alive; and most of these only saved their lives because they went over to the side of the rebels. The numerous ruins still existing in Ning-sha witness to the destruction that was wrought on that fatal day.

At the present time the feeling between the Chinese and Dungans is, at any rate outwardly, a feeling of repressed hatred. In Ning-sha the Chinese are entirely in the power of the Dungans; for the latter, owing to their capacity and enterprise, have not only possessed themselves of the most profitable occupations, they have got also all the cultivable soil into their hands. It reads like the irony of fate, that the Dungans, who are Mohammedans, should keep vast herds of swine, and grow opium on a more than usually extensive scale, and thus produce two of the standard commodities without which the Chinese can scarcely exist, namely bacon

and opium, while they themselves never touch either the one or the other. But then their coffers are full of silver pieces, and they suck the Chinese as dry as oranges.

The district of Ning-sha also yields in great abundance rice, wheat, millet, beans, pease, vegetables, apricots, apples, pears, grapes, melons, and peaches. The gardens are watered by long irrigation-canals, drawn from the left bank of the river. Ning-sha is also an important centre in the lively traffic in wool that is carried on between the interior and the coast. In summer, however, the wool is transported down the Hwang-ho in boats.

CHAPTER C.

TO PEKING AND HOME

THE remaining portion of my long journeyings, namely from Ning-sha to the coast, lay through a country that is tolerably well known. Hence I will merely touch upon one or two incidents, and hasten on to the close. Before reaching China proper I still had another desert to cross. Throughout the whole of my travels in Asia the passage across Ordos was one of the hardest pieces of work I did. I was weary of my loneliness, and of the hardships and fatigues of travel. The 740 miles which still remained to be traversed were done in forced marches: I was going back to civilization, I was going back to rest!

There are several routes from Ning-sha to Bao-to. In summer the most convenient way is to go down the Hwang-ho by boat. During the colder seasons the traveller has the choice between the "longer road," which follows the left bank of the river, and one of the several tracks which cross Ordos, or the region between the northern loop of the Hwang-ho and the Great Wall, a region inhabited by Mongols. The shortest of the routes across Ordos effects a saving of five days, but exposes the traveller to all the inconveniences of a difficult desert journey. The subjoined list of stations and distances indicates the direction and rate of my journey from Ning-sha.

To Li-ngan-fu	14½ miles
„ Ping-lo	18 „
„ Hwang-chu-cho . . .	9¼ „
„ Shi-tsueh-tsa . . .	17½ „
„ Camp No. 1 in Ordos . .	8 „

To San-yueh-fing	. . .	13½ miles
„ Camp No. III.	. . .	16¼ „
„ Bao-yeh-ching	. . .	16 „
„ Camp No. V.	. . .	21 „
„ Khara-moreh	. .	8½ „
„ Borot-chitteh	. .	13 „
„ Camp No. VIII.	. . .	15 „
„ Da-ya-kheh	. . .	20 „
„ Shwan-shin-gun	. . .	17¼ „
„ Wä-ta-shian	. .	13¾ „
„ Ho-jeh-to .	. .	21 „
„ Ha-ching-yo-tsa	. .	16 „
„ Bao-to .	. . .	7¾ „

Or in all 267 miles in eighteen days.

I started on January 21st, and was accompanied a portion of my first day's journey by the missionaries. The first four days we passed through a string of villages, all standing beside irrigation-canals led from the Yellow River. I still had the nine camels which conveyed me and my belongings all the way from Liang-chow-fu. We crossed the Hwang-ho at Shi-tsueh-tsa, on ice so strong that it never once cracked under the weight of the heavy camels. The river was 374 yards wide, and when we were in the middle of it appeared to be of vast size; but it flowed through an extremely desolate and barren region. For some distance the right bank was bordered by a low chain of hills, the summit of which afforded an unbounded view towards the east.

Our very first stop in Ordos was made in a howling wilderness, where there was no well and not a drop of water to be had; only fortunately we had taken the advice of our Dungan guide, and brought two or three sacks of river ice with us. At nearly every other halting-station however there was a well of excellent water; the wells being bricked round and very deep. For instance, on January 28th we rested at the well of Bao-yeh-ching, 134 feet deep, which contained water with a temperature of 42°3 Fahr. (5°7 C.), though it was no doubt cooled a trifle during the long process of being hauled to the surface. Certain Mongols, who were also staying the

night in the same place, affirmed that the well was four thousand years old.

The road was first-rate all the way—hard and smooth and straight, the surface being almost as dead level as the ocean. It bore every indication of being much used, although we met very few caravans; but then, most of the Chinese were at that season at their own homes for the New Year's festivals. Besides, the route we had chosen was by no means the only road across Ordos. One route, somewhat longer than that by which we travelled, was principally used by carts; the others chiefly by camel-caravans.

The northern parts of the country were excessively thinly populated by Mongol nomads. We did not pass more than two or three encampments in districts where there was a little herbage. Northern Ordos is to a great extent desert, and a barren desolation characterized the major portion of the country we travelled through.

It was not however the absence of inhabited and cultivated regions—for of such we were pretty well independent, having brought ample supplies of rice, bread, and mutton with us—it was not this that made the journey across Ordos so extremely trying; it was the abominable weather we experienced. Almost every day without exception a storm raged out of the north-west, and this, combined with the great cold, froze us to the marrow. I do not mean mere gales in the ordinary acceptation of the term; I mean veritable hurricanes, which swept across the wide unprotected plains of Ordos with almost irresistible violence. I frequently felt as though every moment I should be lifted clean out of my saddle, or as though the camel would be blown bodily over. Furs and wrappings afforded very little protection; the wind pierced through everything. Many a time when we came across a few dry steppe plants, we stopped for a few minutes to set a light to them, and in that way thawed our numbed and frozen limbs.

On January 31st it blew the hardest from the west of any hurricane we had yet experienced. Travelling was

absolutely out of the question. We happened to be encamped beside the well of Khara-moreh (the Black Horse), in the middle of the open steppe, with not so much as a foot of cover to protect us from the fury of the tempest. My tent blew over; and I feared it would be rent to tatters. The men made a kind of circular rampart of packing-cases covered with felt carpets, and there they sat crouched together all day long. It was impossible to keep warm. Everything was icy cold. If you spilled a few drops of tea down your furs, they instantly froze and became like stearine. My ink was a solid lump; so that I was obliged to enter my notes with a pencil. A violent wind like that we had on February 1st, in conjunction with thirty-one degrees Fahr. of frost (– 17° C.), may easily be dangerous. You have to be careful you do not get frost-bitten. Had it not been for the Chinese hand-stove I have mentioned, I do not know in what condition my hands would have been. In the daytime I carried the stove on my knee on the camel's back; and at night, when I lay down to sleep, I took it in bed beside me. Nor is it any pleasure to wash yourself when the very water freezes on your skin unless you are remarkably quick over it.

The severest cold occurred in the beginning of February. During the night between February 1st and 2nd the minimum was – 22° Fahr. (– 30° C.), and on the following night –27°4 Fahr. (–33° C.); at the same time the minimum inside the tent was – 16°2 Fahr. (– 26°8 C.).

On February 6th we reached Ho-jeh-to, the first village on the northern edge of the desert; and on the following day we crossed the Hwang-ho, at a spot where the river measured 420 yards from side to side. On February 8th we arrived at Bao-to, where I met with a friendly welcome from the Swedish missionaries, Mr. and Mrs. Helleberg. They had gathered round them a little community of ten baptized Chinese and kept a school for boys, and were devoted heart and soul to their work. I never met pleasanter people anywhere. Along with sixty other Swedish missionaries, they belonged to the

American Society of the Christian Alliance, which maintains a chain of mission-stations all the way from Peking to Bao-to.

But now my patience was utterly at an end; and I fear my readers' too. Leaving my caravan and Islam Bai in trusty hands, I started on February 12th alone, with one Chinese driver, in a little two-wheeled cart drawn by mules, and travelled east through the towns of Sa-la-chi, Dör-chi, and Beh-sia-chi, until I came to Kwei-hwa-chung or Koko-khoto. In each of these places I had the great pleasure of meeting my own countrymen; indeed, in the last-named I found no less than eighteen Swedes, one Norwegian, and one Dane, all members of the American Christian Alliance. Kwei-hwa-chung is the centre of the society, where new aspirants to mission labour learn Chinese before being sent to their several stations.

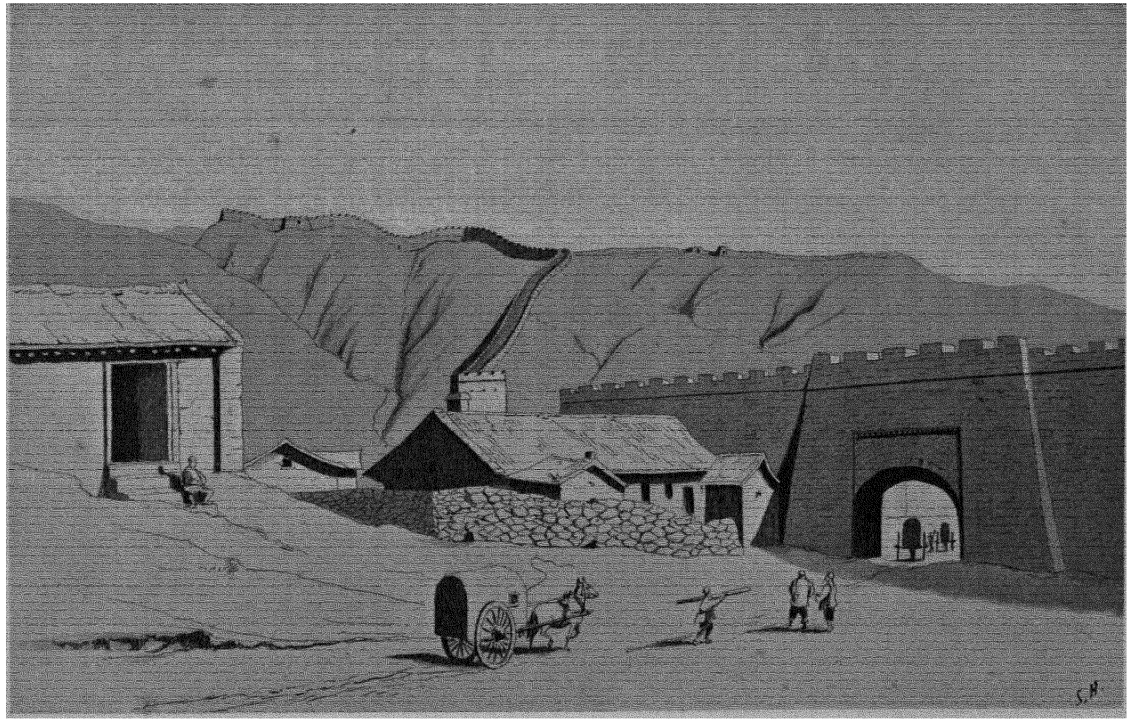
From Kwei-hwa-chung I drove in eight days through Mei-dar, Cha-kha-bu-lo, No-bo-sha, To-do-go, Wo-ja-wa, and Jo-jeh-chong to Jan-ja-khu or Kalgan, where the Great Wall winds up and down the crests of the hills that shut in the town on both sides. In Kalgan too there were Swedish and American missionaries; but I had no time to stay, I was now within four days of Peking.

At Kalgan I hired a *to-jo* (palanquin or sedan-chair) and two mules to carry it. Then, accompanied by my servant, I travelled through Shwen-hwa-fu, Do-mo, and Nan-kho, halting for the night at each of these places. After that we descended from the Mongolian plateau to the plains which stretch right away to the walls of Peking, threading the border mountains through the valley of Nan-kho. Once down in the lowlands (March 2nd), we passed innumerable villages and temples, crossed over innumerable canals, and met crowds of travellers along every part of the road. I was not insensitive to the peculiar solemnity of that day, the last of my long journeying through Asia. The time dragged with painful slowness; the mules had never moved so sluggishly. "We shall soon be there!" cried my Chinese servant again and again. But fresh

villages, fresh temples, fresh gardens kept continually coming into view, and we were constantly losing our way in the long crooked lanes. For more than a thousand days I had been travelling through Asia; but that last day seemed to me longer than all the preceding days put together. At last—at last I caught a glimpse of something between two groups of trees looking out grey in the distance. "Peking!" cried my servant. He was right. It was the great city wall of Peking—the goal and object of my long journey across Asia!

The feelings with which I rode in through the southern gate of the city were such as my pen refuses to describe. For over an hour my mules trotted along the stone-paved road which runs round the western and southern sides of Peh-jin-ching or the Northern Capital, skirting the city walls. Grey and of imposing strength, they reached the height of over forty feet, and compassed the city about four-square. But at length we entered the Chinese town, and approached the "Gate of Heaven," with its massive square projecting tower, and long tunnelled archway, through which a swarm of people, carriages, and animals were going backwards and forwards like ants in an ant-hill.

It was only a short distance from the "Gate of Heaven" to the street of the European Ambassadors, in which I knew there was a French hotel. Owing to the long journey, my clothes showed terrible signs of wear, and my outer man was altogether so unkempt, that I thought it would be wiser to stay in the hotel *incognito* for a few days, until I got myself made presentable. But my palanquin had not advanced very far down the street of the ambassadors, when my eye fell upon a large white-washed gateway, outside which stood a couple of Cossack sentries. I called to them, asking whose house that was. They told me, it was the Russian legation. These words had such an effect upon my ears that I instantly jumped out of the palanquin and went in. At that moment I cared not one jot about my appearance, and that the Cossacks were incomparably better dressed than I was.



THE GREAT WALL BETWEEN **KALGAN** AND PEKING

I passed my hand hurriedly over my disordered beard, shook off the thickest of the dust, and passed between the astonished sentries. To reach the Russian ambassador's dwelling, I had to cross a garden by a stone-paved path. I rang the bell. A Chinese servant came and opened the door, and asked in Russian: "Whom do you want?" I inquired if Mr. Pavloff, the *chargé d'affaires*, would receive visitors, for I knew that the ambassador, Count Cassini, had recently left Peking. Mr. Pavloff did receive visitors. He received me at once, and with the greatest possible cordiality. He had been expecting me a long time, having been instructed from St. Petersburg, that I was on my way to the Chinese capital. A couple of rooms had been got ready for me, and had been at my disposal for a month past.

This then was my *incognito*—a handsome room, furnished with all the refinements of European luxury—costly carpets on the floor, Chinese silk embroideries on the walls, antique vases standing in niches and on pedestals, and—glorious sight!—actually a bed, in which I did not even dream of the wretched guest-houses in which I had spent the last few nights of my journey. The table in the middle of the room contained a perfect mountain of letters and newspapers from home, the oldest dated fully thirteen months back. How I devoured their precious contents, whilst the English-speaking Chinese tailor measured me for a new suit of clothes!

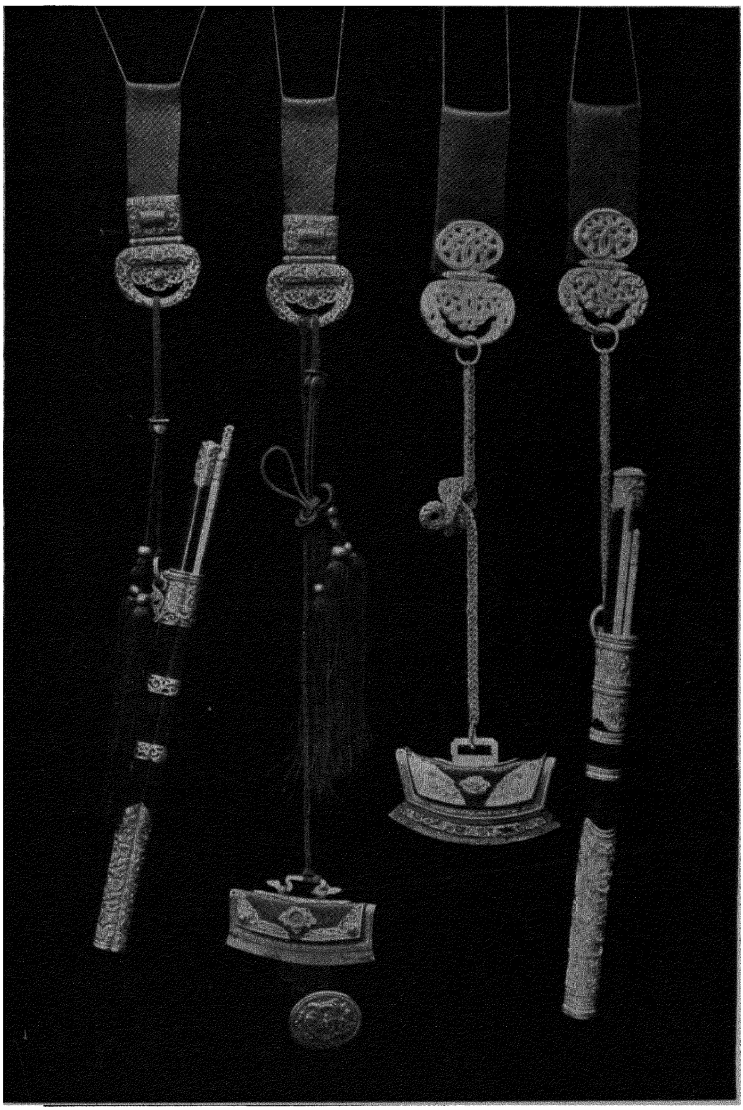
I subsequently called at the various embassies, and was everywhere received with flattering hospitality. England's representative, Sir Claude MacDonald, the French ambassador M. Gérard, and his secretary the Comte de Sercey, Baron von Heyking, the German ambassador, the American, Mr. Demby, and Mr. Knobel, the Netherlands envoy, whom I had previously met in Teheran—all gave me the friendliest welcome, and congratulated me upon the successful accomplishment of my journey. I also received a congratulatory telegram from King Oscar.

But years of lonely wandering among the savage and semi-savage tribes of Asia cannot fail to have some effect

upon a European. I soon grew weary of the gay feastings, and felt awkward and out of place amid the splendid throng. The change from the lonely deserts of Tibet, of Tsaidam, of Gobi was too sudden to suit me.

After a rest of twelve days I said adieu to my many new friends and turned my face homewards. Mr. Pavloff very kindly undertook to look after my baggage, and have it transported right across Siberia free of expense. I had three routes to Europe to choose between. The shortest was *viâ* Vancouver and New York; the most comfortable by the mail-boats touching at India and going through the Suez Canal; the third, the longest and most fatiguing, was the overland route through Mongolia and Siberia. This was nevertheless the route I selected, so that once more I travelled across Asia, though this time it was under very different conditions. I rode in a two-wheeled Chinese cart, at express speed, across the endless plains, deserts, and steppes of Gobi, through Sair-ussu and Urga, to Kiakhta.

The cart was drawn by four mounted Mongols, by means of two ropes fastened to the ends of the cart-shafts. A cross-bar, thrust through loops in the rope near the shaft-ends, was held by two of the men on their knees; whilst the other two men tied the ends of the ropes round their waists; and away we went at full gallop across the steppes, the cart rattling and jolting so that I was almost shaken to a mummy. You can only travel at this express speed under the authorization of a special pass from the Tsung Li Yamen. Couriers are sent on in advance at each stage, so that you always find horses waiting for you. There are twenty mounted men to each stage. As soon as one set of four are tired, another set take their places; and the change is made so swiftly and so deftly that the traveller scarcely notices it, unless he happens to be looking out of the front window at the time. There is no well-defined track, and there are no stations, except the tent-villages of the Mongols. This circumstance, that we were dependent upon the nomads for horses, explains why we were unable to follow any well-known path. Each relay of Mongols rode straight for the next encampment,



MONGOL DAGGERS FROM KALGAN

across steppes, over ravines, up and down hills. On some of the stages in northern Mongolia the ground was covered with deep snow, so that camels were used instead of horses.

At Urga I paid a visit to the temple of Maidari, the future Buddha. There too I parted from my ever-faithful attendant, Islam Bai, who had travelled across Mongolia in my wake in a second cart. He was very anxious to go home with me to Sweden; but that could not be. It was however hard to part from him. Mr. Luba, the Russian consul in Urga, took charge of him, and for his own safety's sake sent him in the capacity of a Russian post-courier to Uliassutai; thence he travelled *viâ* Urumchi to Kashgar, and thence to Osh in Fergana, where, as I subsequently learned from Captain Saitseff, he arrived safely, and was warmly welcomed by his wife and family.

Thanks to the kind courtesy of Mr. Pavloff, I had an escort of Cossacks all the way from Peking to Kiakhta. From Kiakhta I travelled by tarantass, sledge, and telega through Baikal and Irkutsk as far as Kansk; and from Kansk a nine days' journey by rail took me to St. Petersburg.

It was on the 10th of May 1897 that I at last saw the spires and houses of Stockholm peeping between the islands of the Skärgård. What a thrill of pure, unalloyed pleasure to plant my foot once more on Swedish soil, after travelling for three years and seven months in the heart of the vast continent of Asia!

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