CHAPTER XXVIII

MY SECOND ATTEMPT TO ASCEND MUS-TAGH-ATA

The whole time we had been at this considerable elevation, an elevation not exceeded by many of the Alpine peaks, I had kept an eye on the Mus-tagh-ata, watching for a suitable opportunity to make an ascent; but the weather had invariably rendered it impossible. At one time it snowed and hailed; at another there was an icy north wind, which took away all desire to ascend to still higher regions, where the wind whirled up the fine snow in thick clouds like dust. At yet another time the clear sky and bright sunshine would tempt us to make a start; but suddenly bad weather would set in and upset all our plans for the day. Two or three times we actually had the yaks ready, and the loads distributed among their bearers, and were about to start, when a storm delayed us; and in order not to waste the day entirely, we gave up the Mus-tagh-ata and went some shorter excursion to the glaciers.

By this it was the 5th of August, and, as we had already discovered, to our cost, that winter was an early guest in those altitudes and that we had not much time to spare, we determined to be ready for a campaign the following day. The 5th was given up to rest. Solemn silence reigned in the yurt, and I was the prey of a presentiment that we should soon be hovering between heaven and earth. Our yaks, which had been worked very hard of late, were discharged, and returned home with their owners; while Mollah Islam procured fresh ones in excellent condition in their stead. Saddles, alpen-stocks, rope, provisions, and instruments were collected and packed in the evening. The day had been fine; but at dusk the usual hail-storm came on, accompanied
by a gale of wind. The mountain, with its snowy wastes and white ice-fields, which a while ago had glittered in the still, bright evening air, was again enveloped in thick clouds, and towards evening the wind-gods whirled in a frantic dance round one of their loftiest thrones.

Leaving Islam Bai to take care of the camp, I set off, on August 6th, at half-past six in the morning, accompanied by Yehim Bai, Mollah Islam, and three other Kirghiz, and a train of seven splendid yaks.

The day was brilliantly fine; so absolutely clear was the atmosphere that the smallest details of the mountain could be distinguished even from its foot, and the summit seemed quite near, although the declivities deceptively hid the highest parts. Not a breath of wind stirred the air; not a cloud marred the serene purity of the heavens. At first we rode slowly, in the light of the rising sun, up the gradually ascending slopes of the Yam-bulak-bashi, then up the steeps in the shade of the rock, till the sun got so high that it beat full in our faces.

We made good progress, and by ten minutes past seven had reached the height of 14,760 feet. The steep declivities were now littered with gravelly material, of the same varieties as the solid rock higher up. The gravel was so closely packed that no vegetation was able to insinuate its roots. Two of the yaks had already “struck,” and as they delayed us very much we left them behind. The Kirghiz preferred to walk, and took it in turns to lead the big, handsome yak I was riding, which climbed up the sloping débris without any apparent effort. By eight o’clock we had reached the altitude of Mont Blanc, and a short distance above that, at 16,250 feet, we reached the snow-line. At first the snow lay in smallish patches, with the débris exposed between them, then in a continuous sheet, through which individual fragments of rock protruded here and there. The snow was compact and coarse-grained, but had no hard crust. After we had ascended another six or seven hundred feet, the snow was caked with a thin crust, and lay so solidly packed that the men’s soft leather boots left no footprint behind; but then, it
is true, they were not provided with wooden soles. The snow crunched under the yaks’ pointed hoofs; but the animals never once stumbled. The higher we went the deeper grew the snow, though it never formed drifts worthy of the name. From a quarter of an inch its depth increased to four or five, and at the highest point we reached it was just under fourteen inches. The continual wind, the excessive evaporation, and the dome-like shape of the underlying surface which exposed the snow to the action of the wind, made it difficult for snow-drifts to accumulate. The snow crystals glittered in the sun with a thousand dazzling facets, and although I wore double snow-spectacles, I suffered somewhat from snow-blindness. The men, who had no glasses, complained that everything seemed to be going round, and that sometimes the landscape appeared to be quite black.

We stopped to rest more and more frequently. I employed the time in making sketches, and in taking our bearings with the compass. We followed the edge of the rocky wall on the right-hand side of the glacier, and therefore had a glorious view over its entire surface, which glittered below us. Up in the couloir, where the rocky walls gradually became lower, according as the surface of the glacier rose higher, and where they diverged somewhat from each other, until they finally merged into the rounded ridge which connected the two culminating summits of the mountain, there was a splendid view of the distant trough-shaped depression.

In the middle part of the glacier longitudinal crevasses predominated, the largest ran exactly midway between the walls of rock, and stretched down towards the tip of the glacier’s tongue. At three places in particular, where the ice glided over a natural depression, they were intersected by transverse crevasses; and the chequered system, with ice cubes and ice pillars, was the result. In one place the crevasses appeared to start from a common centre and radiate in all directions, as they were broad and gaping in the middle, but grew narrower towards their extremities. The glacier was probably about five-eighths of a mile broad, and its breadth everywhere tolerably equal. It appeared to be considerably
steeper than it really was; but in this it was the eye that was at fault. The mountain summit was high above us, while the tongue of the glacier stretched a long way below us; and in the clear, attenuated mountain air the distance between these two points appeared to be quite short. No traces of striation or glacial scratches were perceptible on the perpendicular rocks, which towered 1300 feet above the surface of the glacier. This negative testimony does not, however, count for much; as if at any time such indications did exist, they would long ago have been obliterated by the weathering of the rocks, a process which is ceaselessly going on in these parts, mainly because of the enormous and sudden changes of temperature. The part of the mountain on which we then were had consequently a ragged, serrated edge, consisting of an unbroken series of rocky projections and undulations which had nothing whatever to do with the glacier, as they were exclusively the result of weathering.

The side of the mountain sloped here at an angle of twenty-two degrees towards the plain of Su-bashi, a gradient which was easily perceptible in the rarefied air. The snow became purer and more dazzling, and the icy crust cracked audibly. We advanced slowly, doubling one rocky projection after another, and skirting the bays or recesses between them, faithfully following the outline of the edge of the rocks; while new perspectives of exactly the same kind continued to appear one after the other the higher we ascended. At an altitude of 16,700 feet Mollah Islam and two of the other Kirghiz left their yaks in the snow, declaring that it would be better to walk. However, they did not get more than six hundred feet higher when they fell down from exhaustion and headache, and were soon dead asleep in the snow-drifts.

I went on with the two remaining Kirghiz and the two yaks. My beast was always led by one of them; the other yak they rode turn and turn about. They, too, complained of splitting headache, and were ready to drop from breathlessness. I did not suffer much from either of these symptoms, though I had a slight headache, which increased when we got higher up; but I was only attacked with breathless-
THE VAKS TAKING A REST ON THE LOWER SLOPES OF THE MUS-TAGH-AT
ness when I got off the yak to make observations. The slight exertion of remounting the animal gave me violent palpitation of the heart, and I was almost choked by breathlessness. On the other hand, the yak’s movements, which were now much more labored, did not affect me in the least. I had suffered much more at a far lower altitude on Mount Demavend, in Persia, but on that occasion I was on foot. The secret lies in avoiding bodily exertion as far as possible; for instance, you can ride up to a very considerable altitude without suffering much from that species of discomfort. In this ascent, however, all the Kirghiz were ill, a couple of them even declared they were going to die; while I, on the contrary, kept comparatively brisk the whole time. But the Kirghiz, in spite of my remonstrances, persisted in leaving their yaks behind, and what with struggling through the snow and climbing up the steep declivities, they exhausted the strength which they so greatly needed to withstand the enervation caused by the rarefaction of the air.

Meanwhile, a fresh wind sprang up from the southwest, driving the snow, which was as fine as flour, and without a crust, into eddies; while the sky became hidden by thick clouds. As we were all now rather done up, we determined to halt and take observations. Bread and tea were brought out, and fuel to boil the water for the latter; but we had only to look at the food, and we were seized with such a choking sensation that none of us would touch it. We suffered only from thirst, and looked longingly at the snow, which the yaks licked up in large mouthfuls.

The view which presented itself from this point (20,660 feet) was inconceivably grand. We could see right across the Sarik-kol chain far away to the picturesque snow-decked mountains of Trans-alaï and the Murghab. Only a few summits in the nearer parts of the Sarik-kol mountains seemed to exceed 16,500 feet in height. But in the Mus-tagh chain, which is a continuation of Mus-tagh-ata, there were on the north a couple of peaks which did not fall far short of the “Ice Mountains’ Father” himself in altitude. The whole of the Sarik-kol valley was spread out like a map under our
feet, clearly visible from Ullug-rabat to Bulun-kul. Every lake, except the Upper Bassyk-kul, which was hidden by intervening rocks, shone blue-green in the prevalent gray of the moraine landscape, but from our position looked like insignificant pools. The Yam-bulak glacier pointed its icy finger down the valley, and far beyond its outer extremity we were able to distinguish the concentric semicircles of its former terminal moraine, long since dead. We could not have obtained a better view anywhere of the glacier streams and their beds between the out-stretched arms of the mountain than from the spot where we stood.

The large rivers of the Yam-bulak and Chum-kar-kashka glaciers ran parallel to the very end of the valley, which was as gray as steel from their alluvium.

There still remained four other rocky buttresses above us, and behind them the northern summit of the mountain, now appearing quite near. The parts between it and the farthest visible point of the mountain had a flatter perspective.

We now held a council of war. The day was drawing to an end, and it was beginning to be cold in the wind (33.3° Fahr. or 0.7° C. at 4 P.M.). Moreover, the Kirghiz were so done up that they could go no farther; the yaks stood panting, with their tongues hanging out. We had reached the foot of a dome-shaped elevation, which gradually merged into the flat crown of the summit. On its slopes the snow lay in more massive and more compact layers; and there were cracks and displacements in it which pointed to a tendency to avalanches. The Kirghiz warned me against attempting this precipitous snow-slope. They declared it was ready to fall; and that the yaks, owing to their weight, might easily be the cause of an avalanche, in which case we should reach the foot of the mountain quicker than we bargained for, although in a mutilated condition. They furthermore told me that from the valley below avalanches were sometimes seen falling on this very slope. The snow then soared up in enormous clouds, rolled together, and slipped over the precipices, smothering them in clouds of fine powder, and when it finally reached the valley it was partially turned to ice.
At the level which we had then attained the snow rested chiefly on a rock and gravel foundation, which was often exposed in the tracks made by the yaks. It only rested on ice close along the edge of the rocks, from which depended long icicles pointing straight down upon the surface of the glacier. On the top of the opposite or south wall, on the other hand, there was a thick sheet of pure blue ice, clothing the mountain as with a supple coat of mail and conforming to its every irregularity.

Though sorely against the grain, I now determined to turn back. We rapidly descended in our own footsteps and soon reached a more clement region, picking up the deserters and the yaks, which were still standing where we had left them, and reaching the camp at seven o'clock in the evening. There we found visitors awaiting us with gifts of provisions.

Apart from the splendid opportunity it afforded for taking our bearings, and apart from the observations I had made, this expedition convinced me that the northern summit of the Mus-tagh-ata could hardly be reached in a single day's climb. It would be better, therefore, on a future occasion to allow two days, camping the first night at a considerable height, and continuing the next day with our yaks well rested and with only a light equipment. The Kirghiz and Islam Bai were very keen to make another attempt, so soon as a good opportunity presented itself.

But we had still three large glaciers to examine farther east, and therefore struck camp on August 8th, and moved to Terghen-bulak. Mollah Islam and I made a detour round the western foot of the mountain. I wanted to see the Yam-bulak glacier-stream at the spot where it received its contributaries. Where we crossed it, it was 33\(\frac{3}{4}\) feet broad, 13\(\frac{3}{4}\) inches deep (maximum), and had a velocity of 7\(\frac{1}{4}\) feet in the second, and a temperature of 42.3° Fahr. (5.7° C.). On both sides of it there were gigantic moraines of gneiss and crystalline schist, in pieces varying from 5000 cubic feet to small fragments, with binding material of glacial clay, though without any signs of stratification. Along the path of the stream the soil was washed away from between the big blocks, so
that they encumbered its bed, causing waterfalls and cataracts. It was therefore no easy matter to get across the stream with the yaks, as the water was so muddy they could not see where to put their feet; and often I felt my animal disappearing, so to speak, from under me, when it stepped between two deceptive bowlders, round which the current was foaming and eddying. It was a decided relief to find myself riding up the opposite bank. A magnificent view unfolded itself to the east, where the white glacier-tongue lay embedded between its gigantic moraines at the foot of the mountain.

We rode from the tongue of the glacier, up along the left lateral moraine, to the place where the ice issued from its rock-bound cradle. The marginal moraine consisted entirely of huge gneiss bowlders, most of them measuring about 3500 cubic feet each; while the rock itself was a hard, dark crystalline schist, falling at an angle of twenty-one degrees towards the north-northwest. The moraine, then, received its material from higher regions. It was evident from other circumstances that the lower rocks could not contribute to its formation; for between them and it there were a bergschrund or fissure and a gravel-strewn declivity, which prevented the ice from coming into contact with the wall of rock.

It was no easy matter to make our way through this labyrinth of gneiss bowlders. They were too big for the yaks to clamber over; hence there was nothing for it but to dismount, and let Mollah Islam go round with the animals, and meet me at the base of the moraine. Alone, and followed by my faithful Yolldash, I made my way as best I could, sometimes crawling over the rocks, sometimes balancing on them. They were separated from each other by dark, chilly fissures, in whose depths the water gurgled against the stones at the bottom. At one time I managed to toboggan down the side of a bowlder so successfully that I jammed my foot in between it and another rock, and had to take off my boot to set myself at liberty. In other places I found it better to wade through the water, under, and between, the blocks; and it was with a feeling of intense relief that I at last succeeded in
extricating myself from that dangerous and gloomy labyrinth where I might easily have got lost if I had not had a compass. After many adventures I reached the slope at the foot of the moraine. Then looking back, to my dismay I beheld Yolldash on a huge bowlder, whining and howling dismally, and not able to move either backward or forward. Then he disappeared behind the bowlder. I heard him splash into the water, and finally he emerged from underneath the moraine, evidently elated, though slightly lame of one paw. At the same time he was annoyed with me for having decoyed him into such an awkward predicament.

After traversing a sloping piece of greensward, down which a fresh stream was flowing, we reached the tongue of the Chal-tumak glacier, which had the considerable inclination of $24.9^\circ$. Its surface was black with gravel, through which solitary white pyramids stuck up; but the side of the glacier was polished like steel.

It was twilight when we reached the new camp, where everything was in order. Not far off lay the aghil (aul or tent village) of Chal-tumak, consisting of four uys (tents). The chief, Togda Bai Beg, a handsome, refined-looking Tajik, came at once to pay his respects. He told me that the village had altogether twenty-five inhabitants, and that one tent was inhabited by Tajiks (Aryans, speaking a Persian dialect), and the other three by Naiman Kirghiz. He said that they lived in the neighborhood the whole year round, but wandered from yeylau (summer grazing-ground) to yeylau, stopping one or two months at each place. In winter it was terribly cold, and there were heavy falls of snow, making it difficult for the sheep to find pasture. After a continuous snowfall enormous avalanches were frequent, carrying down bowlders and débris with them.

The kind old beg gave us a sheep and a bowl of yak's milk, and was only sorry, he said, that his great age prevented him from coming with us on our mountaineering trips. He told us the old story of the sheikh, who went up Mus-tagh-ata and saw a white-bearded man and a white camel, and brought down from the top an enormous iron pot, which is
now kept at a masar (tomb) in the Shindeh valley. We talked for a long time, chiefly about my plans; and it was late in the evening before the old man went back to his lonely home among the moraines.

The air was milder than usual. The night was bright and still; and the snow-fields gleamed silvery white in the moonlight. The moraines flung out their deep shadows, and underneath gaped the dark abyss of the valley through the weird stillness of the night. Every now and again the distant bleating of the beg's flocks, or the tinkle of running water, penetrated to our ears.

On August 9th we explored the left side of the Chal-tumak glacier, riding up the moraine to a point on the flank of the mountain which gave us a splendid view over the glacier. It was quite regular in shape, and was intersected by a double system of crevasses, one transverse, the other longitudinal. This resulted in a series of ice-pyramids, and gave the glacier a chequered appearance. The stones and fragments of rock which fell from the moraine into the crevasses caused the intersecting lines to look like black stripes.

At the place where we were standing, the gneiss cavities had been some time or other polished by the ice of a former branch of the ice-sheet. This ice-sheet still covers immense areas on the side of Mus-tagh-ata, wrapping the body of the giant like a tattered mantle, hanging down the declivities in points and folds; while its edge is often broken off so abruptly that the beautiful, blue-green ice seen underneath the white snow with which it is capped produces quite a dazzling effect. It is of course only on the convex parts of the mountain that this glacial formation, which resembles the Norwegian glaciers, can be developed; for in the concave parts we found the usual Alpine glacial structure—a bowl-shaped névé-basin and a deep, narrow glacier-bed.

On the return journey we kept between the ice-pyramids and the lateral moraine, where a stream glided noiselessly along like oil flowing in a well-greased metal pipe. It had undermined the base of one of the pyramids so much that every minute it threatened to topple over.
Finally we paid a visit to Togda Bai Beg, who called together the elders of the village and offered us dastarkhan (refreshment). His aul lay on the bank of the glacier-stream, and was surrounded by pastures on which the camels, yaks, and horses of the aul were grazing; and where the women were at work milking the sheep. Several of these Tajik women were pretty, and looked happy and good-natured in their picturesque but slovenly dress. They seemed to have frequent errands to the tent, and generally took the opportunity to have a good look at the strangers.

The view to the east was one of the grandest I have ever seen. In front of us the colossal mountain mass soaring up to a giddy height—to the ethereal workshops in which the eternal snow spins the delicate webs which it sends down the slopes of the mountain as offerings to the sun; where the winds gambol at their will; and where the stillness of death divides sovereignty with the bitter cold. Calmly and majestically the glacier moved from between its mountain portals like a king issuing from his royal hall; and the moraines towered above it like ramparts fencing round an impregnable castle. The turbid glacier-stream danced joyously down its stony bed, as glad as a school-boy off for a holiday, happy at escaping from the thraldom of the ice, and at reaching warmer and more genial regions.

On August 10th we rode up beside the glacier-stream, on whose banks we were then encamped. It led to the right side of the neighboring Terghen-bulak glacier, from which, indeed, it derived the greater part of its waters; but it also received several affluents from the ice-sheet. The erosive power of the stream is enormous, and its bed was filled with round, polished stones. At one o’clock it carried 210 cubic feet of water in the second.

The right lateral moraine was about 100 feet high, and hid the glacier, except for a few detached pyramids nearly fifty feet high. The yaks toiled on cautiously and with their accustomed phlegmatic unconcern up the deep gully between the moraines and an enormous gravel slope, which had accumulated at the foot of the perpendicular wall of rock to the
north, and which was crowned by the massive ice-sheet. Its edge partly overhung, and was in part broken off; and from it the icicles hung down their dripping tips to a distance of more than 30 feet. From the sharp edge of the rock, immediately underneath the ice, the glacier water spouted forth in innumerable cascades, large and small—crystal-bright jets which fell to such a depth that they were shattered to pearl-seed or powdered into a mist of rainbow-colored spray before they reached the bottom. The stronger gusts of wind dashed the spray against the rocks, down which the water then trickled, and finally found its way to the stream under and over the gravel slope in a thousand tiny rills and rivulets.

The Terghen-bulak was a triple glacier fed from three sides. The middle ice-stream was much larger than the other two, and occupied much the greater area. A smaller arm joined it from the right; and its bed was sunk deeper in the mountain, so that the surface of the main glacier was considerably higher than the surface of the branch. Between the two rose a huge shoulder of the mountain; and in the angle between the two ice-streams, below the outermost point of the rocky shoulder, there was a triangular hollow, forming, as it were, an eddy or backwater, such as may be seen at the bottom of the pier of a bridge in a river. On the left there was a broad, clean offshoot from the ice-sheet, but it was overpowered to such an extent by the bigger mass of the main glacier that it was pressed in like a narrow wedge between it and the rocky mountain-arms.

The ice groaned and cracked; stones and bowlders rattled down into the crevasses; and there were glacier-tables on their pedestals. From every direction came the sound of trickling, dropping water. The surface of the ice was soft and rotten. Everything, in fact, tended to denote that this glacier also was in a condition of great activity.

As we were riding back down the mountain we saw a couple of big gray wolves, which took to their heels among the moraines. The animals seemed to be very common in that region, and now and then were said to carry off a yak
calf, so that Togda Bai Beg was right to guard his flocks with a pack of savage dogs.

The same evening that chieftain prepared a little make-shift yurt, and other necessaries, for a two days' ascent of Mus-tagh-ata, which we thought of trying again the next day, August 11th.
CHAPTER XXIX

MY THIRD ATTEMPT TO ASCEND MUS-TAGH-ATA

When we rose betimes the next morning, prepared to make a fresh attack upon the giant, the chill, night air was sweeping down off the mountain, and the minimum thermometer showed a reading of 23.4° Fahr. (—4.8° C.). Along the banks of the stream, and between the stones in its bed, there were pieces of ice, against which the water lapped and gurgled. On the whole, however, the stream had dwindled to an insignificant rill, muddier than usual, probably because the clear, glacial water had frozen in the higher regions. The weather was particularly favorable for an ascent; not a cloud was to be seen, and the slight breeze there was soon dropped. We intended climbing to a height of 20,000 feet, spending the night there, and continuing as high as we could possibly get the following day. For this reason we took with us the little tent, four large bundles of teresken for fuel, alpenstocks, ropes, ice-axes, fur coats, and provisions—all carried by nine strong yaks.

"Bismillah!" (In God's name!) cried the half-dozen Mohammedans, when we were ready, and we started leisurely up the mountain. I intended to exert myself as little as possible in order to save my strength for the following day, when the real climbing, with a light equipment, and only three men, would begin. My yak was therefore treated as a beast of burden from the very outset. A Kirghiz, riding or on foot, led him by his nose-ropes the whole time, while another cudgelled him behind. For whenever the animal thought my plans were unduly ambitious, he stopped to cogitate, wondering what this perpetual scrambling was going to lead to. By this arrangement it was not even necessary for me to goad
the yak, an occupation which in itself is very exhausting, and I could sit quietly with my hands in my pockets, only taking them out every now and again to look at the aneroids. The needles of these instruments had very little peace during the days we were vainly trying to scale the "Ice Mountains' Father."

Our little caravan struggled leisurely zigzag up the mountain-side, which terminated in a long level ridge on the left side of the Chal-tumak glacier. The yaks grunted and panted, and their blue tongues hung out of their mouths dripping.

The ridge was the same gravel-covered backbone we had reached on August 9th, and we took our first rest at the point where we halted then. Immediately south of this the ice-mantle threw out a projection with steep walls, and at its base the fallen pieces melted together into a sheet of ice. By one o'clock we had reached the altitude of 17,000 feet above the level of the sea. Here the snow lay in scanty patches in the crevices; it was only in the larger depressions and in the clefts at the edge of the gorge that it was heaped up in any considerable quantity. It was soft, sticky snow, which melted in the sun, and the ground was consequently wet where it had lain. The naked ridge finally tapered off and disappeared under the ice-mantle. The latter was not broken off abruptly, but was quite thin at the edge, so that we had no difficulty in getting upon it, and was covered with a thin layer of snow, which the yaks occasionally slipped through. But we soon got on deeper snow, and then they went as steadily as they had gone before over the gravel and débris.

Suddenly we heard a deafening crash and roar from the right-hand rocky wall on the other side of the Chal-tumak glacier. It was an avalanche which had slipped from the ice-mantle. Large blocks of blue ice were hurled from the edge, clashing together, and crumbling into fine white powder as they struck against the outjutting rocks; then they fell like flour upon the surface of the main glacier. The sound reverberated like thunder near at hand, the first echo being flung backward and forward many times between the
rocky walls before it finally died away, and was succeeded by the usual silence. But a mist of powdered ice-needles hung a long time in front of the glacier. Meanwhile we had a splendid opportunity of observing how the glacier worked. The ice-mantle kept slipping, slipping, ponderous and massive, over the edge of the rocks. Again and again it broke off at the crevasses and ice-falls, great blocks of ice being precipitated into the depths below, and reaching the main glacier in powder as fine as flour. This, nevertheless, melted into its surface, and in that way built up a regenerated parasitic glacier.

From the same considerable altitude we also saw plainly how the Chal-tumak glacier was fed from every side by fractures from the ice-mantle.

Where the small patches of crystalline débris underlay the snow, the latter was longer in melting; but about mid-day the radiation increased to 112.8° Fahr. (44.9° C.), and the atmosphere was brilliantly clear and pure. The gravel was succeeded by a layer of snow three to six inches thick, which prevented the yaks from slipping, although the angle was as much as twenty-four degrees.

Here we saw the tracks of four kiyick (wild goats). The animals fled up the mountain in the direction of two swellings of the ice; and in another place we found the skeleton of an animal of the same species lying among the snow.

The naked ice-mantle stretched up before us in all its dazzling whiteness. We knew, of course, quite well that it would bear us; all the same, we felt as if we were venturing out on thin ice when we stepped upon this unknown tract, never before trodden by the foot of man, and where perhaps the many dangers inseparable from a glacial landscape threatened us.

We soon found ourselves in a labyrinth of intersecting crevasses, which, however, were as a rule not more than a foot broad. We were obliged to steer a zigzag course in order to evade them, since they generally widened out in both directions. Sometimes we crossed them on snow-bridges; in other places the yaks stepped across them with-
THE TERGHEN-BULAK GLACIER
out difficulty. The Kirghiz declared that for safety's sake we had better follow the track of the kiyick; and we did so. The bridges along their track sometimes held, but as often as not the yaks went through, for although the snow had supported the light weight of the swift-footed wild goats, it was not strong enough to bear the solid burden of the yak.

Farther on we spent a whole hour in getting over a part of the ice which was terribly cut up by transverse crevasses, and where we had several nasty falls in consequence. As usual, we had the yaks to thank that matters went as well as they did. When a yak put his fore-legs through the deceptive snow and fell into a hidden crevasse, he carefully lodged his muzzle on the other side, and so scrambled up again.

The ice was now covered with a layer of snow eight inches deep; but it soon increased to fifteen and twenty inches, so that the animals had hard work to shuffle and wade through the hindering drifts; on the other hand, the crevasses were less frequent. Then for a long time the "going" was better. The ice-mantle seemed to be evenly rounded off above us; but we hoped to find a passage between the lofty ice-swellings, with their blue glistening edges, and the snow-sheathed surfaces.

In several places the ice-mantle bulged up into bosses and hills, and we went from the one to the other. We were just on the comparatively level summit of one of these up-swellings when Mollah Islam's yak, which was being led by its owner at the head of the procession, suddenly disappeared, with the exception of its hind-legs and horns, and the teresken fagots. These still remained visible above the snow. The animal had fallen into a crevasse a yard wide, which had been completely snowed over, and was suspended over a yawning abyss in the ice. There it lay, grunting and puffing like a creature doomed; but by its immovability it showed that it fully realized the danger it was in. If it had moved ever so little it would have been precipitated into the crevasse, which grew narrower as it descended.
A long delay ensued in consequence. The Kirghiz twisted ropes round the yak's body and horns, and made them fast to the other yaks. Then both animals and men hauled as hard as they could, and the heavy beast was successfully hoisted up. A little farther on we nearly had a repetition of the same performance; only the yak stopped in time to save himself. Next it was one of the men who went through, and remained hanging at his armpits. After that we thought it was about time to call a halt, and make a reconnaissance of the ice, which was crossed and recrossed in every direction by pitfalls.

We found that the ice-cap on which we were standing was chequered throughout by crevasses running in all directions, intersecting each other and cutting off our advance on every side. Then, to make matters worse, we discovered a crevasse nine to twelve feet broad and eighteen feet deep, and at the bottom of it great masses of snow were piled up. We peeped cautiously over the edge and saw that the chasm extended in both directions, like an enormous trench. Northward it ran as far as the trough of the Chal-tumak glacier, and south-westward to the foot of one of the highest of the ice-swellings. To get over it or round it seemed equally impossible; so we stopped and held a council of war.

The layer of snow which sheathed the ice-mantle was ten inches thick, and stretched across the crevasses like a tarpaulin. It was only across the broader chasms that it was cracked or had fallen in. Where the yaks broke through they left gaping holes, which on our first looking into them appeared to be pitch-dark. But when our eyes became used to the darkness we saw that it was only a blue glimmer, and that the bottom of the chasm was buried in snow. The icy walls were of the clearest blue, and the glacier-water trickling down them froze into rows of long icicles hanging down the abyss. The deepest of these crevasses was twenty-two feet three inches deep.

Evening was coming on, and I was again constrained to beat a retreat, for it would have been useless to wait till the next day and then try to find another passage. It was
THE CHAL-TUMAK GLACIER

Solid ice impassable

Large crevasses.

Network of crevasses.

Continuous ice-sheet

Small crevasses.

Continuous ice-sheet

Chal-tumak Glacier
plainly impossible to venture upon an ascent of Mus-tagh-ata from this side without special appliances, which were not at our disposal. Above us towered the loftiest summit of the mountain, and down its precipitous sides glided the eternal ice, streaming in part to the collecting-basin of the glacier; and where the declivities were convex and the ice-mantle was checked by the relief of the underlying ground, it built itself up into veritable terraces, walls, towers, and solid blocks of enormous dimensions. To get past these seemed, so far as we could judge from the spot where we stood, altogether beyond the reach of human power.

Our first two ascents up beside the right wall of the Yambulak glacier had taken us over incomparably more favorable ground; we determined to try that route once more before we finally abandoned the project as hopeless.

We had only reached an altitude of 18,500 feet, it is true; but, as a set-off, the trip had been attended with important cartographical results. We had got a splendid insight into the disposition of the higher regions—the cylindrical shape of the mountain, and its covering of ice, which is so difficult of interpretation, and of the relation of the ice-mantle to the several glaciers. The latter, which are in reality colossal ice-streams, looked like insignificant white bands from that altitude, of no magnitude at all in comparison with the stupendous volume of the ice-mantle.

On Sunday, August 12th, we rested; and, as was my wont, I read the Bible lessons for the day during the quiet forenoon, and afterwards studied Heim's *Gletscherkunde*. The weather was anything but inviting for an excursion. The atmosphere was thick; it was blowing hard; and the mountains were wreathed in thick clouds. All my men were away on leave, having been invited to a festivity of some kind by Togda Bai Beg. Only Yolldash and I were at home, enjoying our rest, which never was more delightful than when the weather was bad, and the wind whistled and howled among the rocks outside. I never felt lonely amid those distant glaciers, where one day was, on the whole, so like another—why, I shall not say, as I might lay myself open to being
thought sentimental; but, anyhow, I had not much time to think about it, having more than enough to do. The only thing which disturbed me was that the summer was passing so quickly that I did not see any possibility of being able to carry out the whole of my programme. The days were always too short. As soon as I got my clothes on in the morning, the first thing was to read the meteorological instruments, while Islam Bai prepared breakfast. Our fare never varied, and consisted of the following courses: *chisslick* (mutton roasted over the fire on a spit), *ash* (rice pudding), and bread, which we sometimes procured from the Kirghiz and sometimes baked ourselves; and the whole was washed down with tea. I soon grew so tired of the chisslick that I could not bear the sight of it, and lived on rice and bread. And our fare was to be precisely the same for two years and a half, all the way to Peking. Occasionally I opened a tin of preserved food; but the supply was small, and the time long, and I had to be chary of these delicacies. Happily I never tired of rice and tea, and thrived on the simple diet. There was always plenty of yak’s milk and cream for the tea, so that we had no need to economize in these products. I had brought a good supply of tobacco with me from Tashkend, chiefly consisting of pipe and cigarette tobacco, but also a few cigars; and I must confess that I felt very sorry for myself if I had not a pipe in my mouth while we were about our glacier work.

When the weather compelled us to remain “indoors,” I always had plenty of work to do, such as sketch-maps, section or profile drawings, notes, etc., to work out. The inside of the yurt was so comfortable that it felt quite like home. In the middle of the “floor” there was a little fire, fed with teresken fagots and yak-dung; otherwise the ground was covered with felt rugs. Immediately opposite the entrance was my bed. The packages, generally, were arranged round the sides, and there, too, were the tins and boxes of provisions, guns, saddles, instruments, etc. I had only two meals a day: breakfast was served again at supper-time. When I got into bed I generally read, by the light of a dying candle,
one of the Swedish newspapers of which I have already spoken. And then I turned over and slept like a log—no matter how boisterously the wind blew outside, or how desperately Yolldash howled at the wolves in the mountains—till Islam Bai woke me up in the morning.
CHAPTER XXX

MOONLIGHT ON MUS-TAGH-ATA

I hope I am not tiring the reader with these, perhaps, rather monotonous descriptions of glaciers; but I have thought it proper to treat this subject somewhat exhaustively, as it is virgin soil, and every step I took was new. Only the Yam-bulak glacier had been visited before—viz., by Bogdanovitch, in 1889; but I made up my mind I would not leave the mountain before I had mapped and examined them all. There are only two or three left, and those I will describe as briefly as possible.

We set apart August 13th for an expedition to the Chum-kar-kashka glacier, riding thither up the side of the enormous lateral and terminal moraines of the Terghen-bulak glacier, and over very rugged country, covered sometimes with gravel, sometimes with sparse vegetation. A swelling of the ground, starting from the vicinity of the former glacier, dipped down into the Sarik-kol valley, where it was continued in the pass of Ullug-rabat. This serves as an important water-shed, in that the glacier-waters from the Chum-kar-kashka glacier flow to the left, to the Little Kara-kul, while the streams from the ice-mantle farther south drain into the little lake of Gallchö-töck, and thence, southward, to the Yarkand-daria. Beside the lake stood an aul of six yurts, subject to the begs of Tagharma.

This glacier resembled the Kamper-kishlak glacier, and, like it, trended towards the right. The right lateral moraine was of relatively small size; the left of tolerable dimensions. The tongue of the glacier was level and rounded, with no crevasses worth mentioning; the only fissures that seemed to be at all developed were those at the sides. Towards them,
and generally falling into them, ran a number of little streams of the clearest glacier-water. The largest was as much as 35½ inches broad and 9 deep, and had a temperature of 32° Fahr. (0.02° C.). The ice along its channel, in which the water ran noiselessly, was polished and gloriously blue. Otherwise the whole surface was excessively soft and rotten, all the stones had sunk deeply into it, making gaping holes. The surface of the ice resembled a maze of upstanding needles or leaves, and we were able to walk on it without slipping, as easily as on snow.

Getting on to the glacier was easy enough. But getting down again from the left side was a very different matter; for the glacier was very much swollen, and the side abrupt and steep, forming a couple of high steps down to terra firma. We found innumerable small pools on the ice, a yard in diameter and about eight inches deep; they were covered with a thin crust of ice even during the daytime, so that we got an occasional foot-bath. Here also we put in measuring-rods, to find out the rate at which the ice was moving.

On August 14th we rode up along the left lateral moraine of the Terghen-bulak glacier, and then out on to the moraine which is carried on the back of the glacier. This we afterwards followed down to its face. The two lateral moraines were very large; but only began in the lower part of the glacier’s course, where they appeared on the surface of the ice like small black wedges. Gradually, however, they became broader and broader, and finally, at the lower end of the glacier tongue, formed a stupendous mass of stones and débris.

The Terghen-bulak was hard at work. Rumbling and rattling sounds were heard continually. Large blocks of ice were precipitated with a deafening crash into the crevasses. New fissures appeared in all directions; and swift streams, abounding with water, flowed between the ice and the lateral moraine. The latter was 400 yards in breadth at the lower part of the glacier, and was at first wonderfully level, and easy to travel over. Afterwards it rose considerably above the
surface of the ice: but as the stones lay in a single thin stratum, the ice projected through them in fine needles, "razor-backs," and pinnacles. This was due to the stones having gradually sunk into the ice, imparting to the surface a peculiar knotted and rugged appearance.

We managed to get entangled in a labyrinth of moraine-ridges, pyramids, and ice-clefts. After crossing the moraine, we went on over the middle of the glacier; and we had many adventures in the twilight, which quickly turned to darkness. The travelling was so bad that we preferred to walk, jumping over the crevasses and streams. The Kirghiz drove the yaks before them, and it was a pleasure to see with what agility the animals scrambled up icy slopes several feet in height, in which they were sometimes obliged to scrape out a step before they could get foothold. At last we reached the right lateral moraine. There we discovered several small glacier-lakes on the ice. Owing to the sluggish movement of the ice-masses they were always convex at their lower end. The two lateral moraines stretched a good way farther down than the middle of the glacier; for the ice they covered was sheltered from the sun, and consequently slower in melting.

Below the glacier-tongue we had to pass a succession of old terminal moraines, built up in front of it like ramparts, and broken through by the united stream. It was now become quite dark, and I was obliged to follow closely in the footsteps of one of the Kirghiz, in order to see where I was going. Another man goaded on the yaks; while a third was looking for one of the beasts, which had gone astray on its own account among the moraines, and was not recovered until the following day. After much trouble and many detours we managed to make our way back to camp without further adventure.

One of the points in my summer programme was to ride into the Pamirs; and as some of our stores showed signs of giving out, particularly the tea and sugar, I decided to combine this expedition with some "shopping" at Fort Pamir.

But, as a journey of this nature would probably occupy a whole month, and we could not be back at Mus-tagh-ata
before the autumn, I wished, before starting, to try another ascent, divided, as I mentioned before, into two days' marches.

Accordingly, on August 15th, we wended our way back along the well-known path to our old camp; and although it blew and hailed in the evening, we made everything ready for a last attempt the following day.

Fully equipped for a two days' march, and accompanied by six Kirghiz, my faithful attendant Islam Bai, and ten yaks, I made a fourth attempt, on August 16th, to climb Mus-tagh-ata from the same point whence we had tried it previously, on April 18th and August 6th.

After reaching the snow-line, we followed our old trail, which was, at any rate, a guarantee against accidents. The path could be seen quite plainly, winding zigzag up the mountain by the edge of the rocks which fenced in the glacier-gorge on the right. The snow, not being deep, had melted away in large round patches in our former footsteps, exposing the bare gravel underneath. Higher up every footmark was filled with bluish green ice, and highest of all covered with a sprinkling of snow as thin as paper. In some places, indeed, the track was partly obliterated, though not so much but that we could see it; and naturally we followed it, as we knew by so doing we were safe from danger. It had actually never snowed here for ten days.

With Islam Bai and one of the Kirghiz I reached, at four o'clock, the point we had stopped at on the 6th. The other men followed more slowly, Yehim Bai riding at their head. As soon as we were all together again we held a consultation, and decided to spend the night where we were, as there a few small islands of rock protruded through the sea of snow. The ten yaks were tied to loose bowlders of schist, and the Kirghiz swept away the snow as well as they could from the sharp gravel beneath, and so cleared a place on which to put up the yurt. This was small, and very rough and ready, providing sleeping-room for three only. It had no tunduk or smoke-vent, as the poles met at the apex, and were simply thrust through a bundle of rope and rags to keep them in
place. Although we tried to level the ground as much as possible with a spade, the yurt still stood on a slope; and we had therefore to anchor it with strong arkhans (camel's-hair ropes) to a couple of bowlders. A slight breeze sprang up in the evening and blew for an hour, driving clouds of fine snow through the many cracks and crevices; so the Kirghiz banked up a wall of snow all round the tent on the outside.

At first everything went well. We made a big fire of teresken fagots and yak-dung, which warmed us and thawed our stiffened joints; but, unhappily, the yurt was filled with suffocating smoke, which made our eyes smart, and only found its way out leisurely through the open entrance. The snow inside the tent melted, it is true; but when the fire slackened it all turned into a mass of ice.

Meanwhile the Kirghiz began to complain, one after the other, of headache; and two of them were so bad that they asked to be allowed to turn back, to which I consented the more readily as they were manifestly in no condition for further fatigue. As night approached other symptoms developed, such as continual singing in the ears, slight deafness, a quickened pulse, and lower temperature than is normal, combined with persistent sleeplessness, probably the result of the headache, which towards morning became unendurable. Besides all this we suffered from slight attacks of breathlessness. The Mohammedans complained bitterly the whole night. Our furs were oppressively heavy. A recumbent position only increased the breathlessness; and I could plainly feel my heart beating violently. When the tea was ready there was no demand for it. And as the shades of night came on, the depression of the Kirghiz grew very evident; for they were as little used as I to a night spent more than twenty thousand feet above the level of the sea.

A grander camping-ground, however, I have never pitched tent on than the snow-clad slopes of this, one of the loftiest mountains in the world, at whose foot the glacier-tongues, streams, and lakes were already wrapped in darkness, and on the edge, too, of one of the most fantastic of glaciers—a few steps to the south and we should have fallen down an abyss.
twelve hundred feet deep on to blue ice that sparkled as bright as steel.

I had expected a picturesque sunset; but that evening it was nothing out of the common. The sun sank into clouds illumined by a fiery yellow flare, which glowed for a long time after the sun had set, and threw up the mountains of

the Pamirs in sharp relief. The whole Sarik-kol valley lay for some time in darkness, while the sun was still shedding its last rays over the top of Mus-tagh-ata. But soon even our camp was shrouded in cold, dark shades. The top of the mountain glittered for a moment like the ruddy crater of a volcano, and then the light of the day was swallowed up in endless space.

I stepped out to see the full moon rise, and watch it dim the stars, which only just before had glittered so brightly in the deep-blue heavens. It was not far to the boundless realms of space; and the sovereign of the night rose with a splendor so dazzling that it was only by an effort of will that I.—24
I was able to keep my eyes upon her. I seemed to be regarding a burnished silver shield suspended in the sunshine, or a gigantic electric lamp. Serenely yet majestically the moon sailed above the opposite wall of the glacier defile, with its grand, black, perpendicular rocks, the glacier itself being still in shadow in the depths below. Every now and again I heard the dull crack of a new crevasse forming, or the crash of an avalanche falling from the ice-mantle. The moon shed her silver light over our camping-ground in lavish measure, conjuring forth the most entrancing effects. The yaks were thrown up in dark, sharply defined relief against the white snow, their heads drooping low, silent as the stones they were bound to; every now and then they ground their teeth against the fibrous pad of their upper jaw, or crunched the snow under their feet as they changed position. The tent looked like some weird figure of a seated giant; the ring at the top of the poles being his head, and the frame hung with felt mats his body. The three Kirghiz who could not be accommodated inside the yurt made a fire between a couple of large rocks. When this died out they doubled themselves up in a kneeling posture with their heads on the ground, enveloped in their fur coats, and crowded together round the dying embers like bats in winter. From the yurt and the yaks long narrow shadows, intensely dark, streamed out across the northwest slope, in sharp contrast with the sparkling snow-fields, on which myriads of small ice-crystals glittered like fire-flies. All round the tent, where the snow had been trampled down, the light and shade alternated in small patches. On the steep slopes in the northwest the beautiful curves and noble outlines of the vast snow-fields, modelled by the capricious winds, were lit up with a magic glamour. But I looked in vain for the marvellous tints called forth on the snow-fields by the sun. The only alternation was of black and white—the silver of the moon, the gloom of the shadows, at once barren and monotonous like those on the surface of the moon herself, but at the same time grand, inthralling.

Although the Sarik-kol valley was vividly illuminated by
the moonshine, it was not easy to recognize the landmarks in the prevailing gray of the gravel detritus. It was only with difficulty that I could distinguish the darker yeylaus (summer camps) of Kamper-kishlak, Yam-bulak, and Su-bashi, their pasturages watered by the glacier-streams. The outline of Little Kara-kul lake was but slightly marked. The

![Image of the highest part of the Yam-Bulak Glacier]

entire landscape, in this direction, right up to the crests of the mountains of the Pamirs, was an inextricable chaos, without any point to arrest the eye.

The scenery was most beautiful in the quarter of the moon. I stood as though chained to the spot in the crackling snow, and could do nothing but look, and look, and admire. A magic scene so grand that neither pen nor brush could depict it adequately! The architecture of Nature was conceived here on a bold and masterful plan—the blue glacier sunk between its black walls of rock, sheathed in mail of ice and snow—the five-headed mountain giant towering above
the low valleys of the earth. The rocky wall immediately in front of me lay in such deep shadow that I could barely distinguish where its transparent ice-mantle ended and the black mountain-wall began. To the left, and a few hundred yards above me, the outermost parts of the glacier were bathed in the moonlight. The dark crest in the southeast was alive with white-veiled figures, dancing a perilous elf-dance past the giddy precipices, across the icy surface of the glacier, away over the northern summit of the "Ice Mountains' Father." These light clouds, dancing before the gentle southern breeze, formed in rapid succession concentric rings, halos, and the like, in all the colors of the rainbow. It required no great stretch of fancy to transform the clouds into any conceivable shapes—ghosts in white draperies chasing each other, dancing fairies, sportive ogres, a procession of the mountain king with his sons, the souls of the departed being led by their white-robed guardian-angels from earth to happier places. I seemed to see the white camel which brought the dervish down from Mus-tagh-ata; the forty horsemen who supported Khan Khoja against the Chinese, the blessed ones of Janaidar, the city of perfect happiness. In spite of the cold I remained standing in the snow fascinated, entranced, following with mingled wonder and surprise the hurrying train of thousands of fantastic shapes.

A dead silence everywhere—not an echo from the opposite wall of rock. The attenuated air was inert; it needed an avalanche to make it vibrate. The breathing of the yaks was visible, but not audible. The animals stood silent and motionless, as if they, too, were under the witching spell of the night. The clouds flitted noiselessly by. The moon seemed to be gazing down fixedly upon the insignificant mortal who had had the audacity to defy one of the mountain-giants of the world. A curious feeling of being at a vast distance from the earth took possession of me. It was difficult to realize that the four continents lay actually below my feet; and that a girdle drawn round the earth at the level where I then stood would cut off only the tops of a very few mountains in Asia and South America. I realized
MOONLIGHT ON MUS-TAGH-ATA

more forcibly than ever man's littleness as compared with the inconceivable magnitude of creation. I seemed to be standing on the confines of space—cold, silent, boundless.

The inside of the tent showed the reverse of the medal. Islam Bai and Yehim Bai were sitting in their fur coats as near to the dying embers as they could get, uttering never a word. We all froze, so that our teeth chattered; and, to add to our discomfort, when we made up the fire the tent became filled with stifling smoke. After the evening's observations had been taken, each man crept into his fur coat and blankets, the fire was allowed to die out, and the moon peeped inquisitively in through every slit and crevice of the tent.

The aneroid showed 14½ inches pressure, at a temperature of 25.5° Fahr. (−3.6° C.). Water boiled at 176.9° (80.5° C.); and the minimum temperature sank to 10.4° Fahr. (−12° C.).

It was a long, wearisome night, which seemed as if it would never end. No matter how closely we drew our knees up to our chins or crept together in our endeavor to keep warm, it was impossible for mere physical heat to do battle against the penetrating cold from outside; and we felt it the more in that the southeasterly wind increased hour by hour during the night. None of us could get a moment's sleep; at last, towards morning, I fell into a sort of doze, but was awakened by want of air. The men moaned and groaned as though they were being stretched on the rack; not so much on account of the cold, however, as from the constantly increasing headache.

At last the sun rose upon our misery; but the day that dawned was anything but favorable. A southwest wind, almost violent enough to be called a hurricane, swept along the sides of the mountain, smothering us in clouds of fine powdery snow. The three Kirghiz, having passed the night in the open air, were half dead with cold, and could scarcely drag themselves into the yurt, where a large fire was burning. We all felt ill and depressed. Nobody spoke; nobody would eat anything; and when the tea, which was not even properly hot, was ready, I was so exhausted I could hardly lift it to my lips. The yaks were still standing where we left them
the previous evening, motionless as statues. The top of the mountain was shrouded in impenetrable clouds of blinding snow; and to have continued the ascent on such a day, and over ice probably seamed with crevasses, in the teeth of that terrible buran, finally perhaps to lose our bearings in those inhospitable regions, would have been to tempt providence and court certain destruction.

I at once realized the folly of setting the mountain at defiance. But as I wanted to see what sort of stuff my men were made of, I ordered them to prepare for a start. Not one of them uttered a word of grumbling. All rose at once, and began to strike camp; but they were manifestly greatly relieved when the order was countermanded.

One peep through the tent-opening made us glad to creep back again inside. There, at any rate, we had shelter from the wind—a wind which penetrated furs, felts, and felt boots. I earnestly hoped that by mid-day the gale would abate, and we might continue our work. But, on the contrary, the storm waxed more violent, and by twelve o'clock it was evident the
day was lost. I therefore left the three Kirghiz behind to strike the tent and load the yaks, while I and Islam Bai and Yehim Bai, wrapping everything round us we could lay our hands on, mounted our animals, and down the snow-drifts we raced at a spanking pace. The yaks literally flung themselves headlong down the declivities, diving like otters through the snow, and in spite of their clumsy, heavy bodies never stumbling or slipping a step. To sit in the saddle was something like riding a high sea in a rocking, pitching skiff. Under such circumstances a man who was not sure of his seat was likely to have a pretty bad time of it. Often I was obliged to fling myself backward till my back touched the back of the yak, and I had constantly to adjust my balance to his unexpected, but agile and dexterous, movements.

How glorious it was, when we had left the clouds of blinding snow behind us up above, and saw our camping-ground far down below our feet, on a level with the top of the Finsteraarhorn!

We ate our dinner, of which we stood much in need, washing it down with steaming tea. Then, our vital energies restored, we were soon sleeping the sleep of the just, each in his corner. But the whole of the following day we felt like convalescents recovering from a long illness.

I had now attempted the ascent of Mus-tagh-ata four times, but each time without success. I do not say, however, that an ascent to the summit is an absolute impossibility. To reach it up the face by which we forced a passage on August 11th is impossible—impossible, that is, without extraordinary appliances, such as it would be absurd to think of using in such a place. But by the route we followed on April 18th, and again on August 6th and 16th, there were, as far as I could make out with my field-glass, no insurmountable physical obstacles in the way; and any climber possessed of sufficiently strong lungs ought to be able to work his way up to the northern summit. And although that is not the higher of the twin peaks, it is connected with its loftier brother by a slightly depressed col. Between and below the two extends the névé or firn of the great Yam-bulak glacier; but how far
it admits of being traversed is another question. In all probability it is cut up with crevasses and covered with deep snow, so that it would require some days to effect a passage across. The barriers behind which the eternally Happy of the legendary city of Janaidar have intrenched themselves are indeed insurmountable!

Man’s physical functions are influenced in no small degree by the rarefaction of the air; and in order to ascertain in what way this acted, I registered in different altitudes the temperature of the body and the pulse in myself (29 years old), in Islam Bai, a native of Osh in Fergana (43 years old), and in the Kipchak Kirghiz Yehim Bai, from Shugnan (40 years old).

The following table shows the results of my investigations:

<table>
<thead>
<tr>
<th>Date and Hour</th>
<th>Temperature</th>
<th>Pulse</th>
<th>Altitude</th>
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<tbody>
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<td>Fahr.</td>
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<tr>
<td>July 28, 10 P.M.</td>
<td>Myself</td>
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<td></td>
<td>Islam</td>
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<td></td>
<td>Yehim</td>
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<td>Myself</td>
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<td>Islam</td>
<td>97.3°</td>
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<td>Yehim</td>
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<td></td>
<td>Myself</td>
<td>96.8°</td>
<td>36°</td>
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<td>August 5, 9 P.M.</td>
<td>Islam</td>
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<td></td>
<td>Yehim</td>
<td>97.9°</td>
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<td>August 6, 12 NOON.</td>
<td>Myself</td>
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<td>Yehim</td>
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<td>Myself</td>
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<td>Yehim</td>
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<td>Myself</td>
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<td>August 16, 8 P.M.</td>
<td>Islam</td>
<td>97.9°</td>
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<td>Yehim</td>
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<td>Myself</td>
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<td>August 17, 9 P.M.</td>
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<td>Yehim</td>
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<td>36.7°</td>
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* The altitudes given in the paper I sent to the Royal Geographical Society are those repeated here in parentheses. They are not quite accurate, as in Kashgar I had not the means of applying the necessary corrections to my calculations. The figures which are not in parentheses give the corrected altitudes.
Although this table contains a number of exceptions, it would certainly seem to indicate that the temperature decreases, while the pulse quickens, according as the altitude increases. There would also appear to ensue a moment of sluggishness; for on descending from a considerable height the pulse continued for some time to beat more quickly than the normal rate. In my own case the temperature varied, as a rule, not much more than a degree, and my pulse remained fairly regular. This was probably due to the fact that I carefully avoided all unnecessary physical exertion, while my men, on the contrary, often walked. The greatest variation of the pulse was in the case of the Kirghiz, Yehim Bai. At 13,450 feet his pulse was 66, and at 20,660 feet it was 116; that is to say, it quickened at the rate of fifty beats in a little over 7200 feet. The irregularity in the figures of the table is no doubt attributable to several other causes, such as, for instance, greater or less physical exertion, greater or less susceptibility to the rarefaction of the air, accidental indisposition, and the like. Nevertheless, I always made a point of taking these observations after a rest of suitable length, so as to eliminate the effects of breathlessness, violent perspiration, and undue acceleration of the heart’s action, as also to allow of recovery from the worst feelings of fatigue.

Our experience demonstrated, on the one hand, that it was impossible to reach the summit in one day, the horizontal distance of which from the western foot of the mountain is very considerable; and on the other hand, that it is not prudent to sleep at the height of 20,000 feet, because a night spent at such an altitude impairs the physical strength and induces a feeling of lassitude and depression. The best way to reach the top would, without doubt, be to wait for a clear, calm day in the beginning of July, to break up camp early from a depot situated 15,000 feet up; and from there make the final ascent in a single day. Should any such attempt be made, the yaks ought to be taken as high as they can possibly be got, and when they cannot be got any farther the ascent should be continued on foot. Unfortunately, I had no time to make a new attempt, partly on account of the advanced
season of the year, partly on account of the stormy character of the autumn.

In any case, the western foot of the mountain is the best point of departure for making the ascent, because it is at an altitude of from 12,000 to 13,000 feet to start with, and the slope on that side is less steep. From the east, south, and north the mountain is inaccessible.

A bold Alpine climber in good training, and accompanied by a couple of hardy and experienced Swiss guides, would probably reach a considerable height, and possibly the northern summit itself. But even a Swiss guide, however well trained, would find himself in quite an unknown world, for the summit of the Mu-stagh-ata is directly exposed to the full force of the sun's rays, and exceeds the highest mountain in Europe by fully 9,000 feet.

Farewell, then, Father of the Ice Mountains! Thou didst suffer me to kneel before thy snow-white footstool; but didst not permit me to behold thy august presence face to face and eye to eye. Farewell, thou mighty sovereign of the giants of the Pamirs, at once a corner-stone of the earth's loftiest mountain-range and the topmost pinnacle of the Roof of the World! At thy knees thy mighty children, the Kwen-lun, Kara-korum, Hindu-kush, and Tian-shan, kneel together hand in hand. Farewell, again, thou beauty-spot on the venerable face of our Mother Earth, whose cheek is furrowed with such deep and unfathomable wrinkles around thee! In my memory I still hear the rippling of thy mountain-brooks, bringing strange messages from those sublime regions which no mortal foot hath ever trod. Like the holy Dalailama, thou permittest none but thy chosen children to approach the sacred precincts of thy temple. Shed, then, thy saving light as from a lofty beacon-tower across the desert ocean which stretches to a boundless distance from thy eastern flank. Let the gleam of thy silver brow scatter the dust-haze of the desert hurricane—let the cool, refreshing airs of thy palace of eternal snows be wafted towards the weary traveller toiling through the burning heats of sun and sand—let the life-giving streams which flow from thy mighty heart abound in strength for thousands
of years to come, and for thousands of years to come still maintain their fight against the all-devouring, all-devastating desert sands! Among the lights of Asia thou art, and always wilt be, one of the brightest, as thou art among the mountains of the earth one of the noblest, one of the most sublime!
CHAPTER XXXI

TO FORT PAMIR AND BACK

On August 18th I paid a last visit to the Yam-bulak glacier, to take out the sticks which I put in on August 3d for the purpose of measuring at what rate the glacier moved. The advance during the interval of fifteen days was scarcely perceptible. There was, however, a slight movement, most marked towards the median line of the glacier, where it amounted to close upon one foot a day. I made an interesting observation in the neighborhood of the lateral moraine. The glacier there spread out, giving rise to a back current near the edge of the ice, resembling in its origin and effects the backwater at the side of a river, although the time required for the movement to become perceptible must, in comparison with its extent, be very long indeed. The ice, which might be expected to pile itself up above the eddy, is easily kept down by the agents of dissolution.

The appearance of the ice had very much changed in the interval. On the occasion of our first visit it was covered with snow and hail. Now, on the contrary, it was fully exposed, with edges as sharp as knives, while all the stones had sunk into deep holes; and the ice was, as a rule, slippery and dangerous to walk upon.

On our return we observed a phenomenon which we had not remarked before. The pool beside the right lateral moraine was situated in a fissure, caused by an earthquake, which stretched all the way from the tongue of the great Kamperkishlak glacier to the immediate vicinity of the scene of our measurements. For the most part it was single, but occasionally double, resembling a trench or dike, about sixteen feet deep and fifty to seventy feet across, with the bottom encumbered
with gravel, sand, and earth, which had gradually fallen into it. Both edges were continuous and maintained the same uniform level. Now the moraine showed a decided subsidence at the point where the earthquake fissure penetrated beneath it. The Kirghiz told me that the fissure was caused by a violent earthquake eighteen years ago (i.e., 1876), when Yakub Beg was still alive. It affected Tagharma, Tur-bu-lung, and the whole of the west side of the Mus-tagh-ata, but was not felt at either Su-bashi or Kara-tash-davan. The lateral moraine had thus undergone no change for fully eighteen years. The fact that the earthquake was not felt at Su-bashi, only two hours distant, shows that it was probably a tectonic or fundamental shock of purely local extent. How far it affected the glaciers, the Kirghiz were unable to tell me. On the surface of the glacier itself there was naturally no trace of any subsidence, since any rift that might be made would necessarily soon be filled up. It would, however, have furnished an ideal opportunity for the investigation of the thickness of the ice and its inner structure. Earthquakes are not relatively frequent in the vicinity of the Mus-tagha-ata; slight shocks only being felt from every third to every fifth year.

When I left Kashgar in June it was my intention to remain only two months in the neighborhood of the Mus-tagha-ata. But I had rather under-calculated the time I should require, so that, when the two months expired, only half my work was done, and I had no provisions left. I was compelled, therefore, to travel to Fort Pamir to procure a fresh supply. As, however, I knew that the Chinese were watching me, and almost looked upon me as a spy, and as I did not wish to fan their suspicions unnecessarily, I resolved to cross the frontier during the night through an unguarded pass, and return subsequently in the same manner, without their having any idea of the excursion. I only took with me two of the Kirghiz and my ever faithful Islam Bai; the rest were dismissed. Then, with the assistance of Togdasin Beg, we spread abroad the report that I had gone to Kara-korum, on the southern flank of the Mus-tagha-ata.
On the evening of August 19th I carried all my baggage and my scientific collections to the tent of one of my Kirghiz friends, old Yehim Bai, who hid them safely behind his carpets and felts. After our return from Fort Pamir we learned that the Chinese, who were greatly astonished at my disappearance, had instituted a search after me. Hereupon Yehim Bai thought it advisable to transfer my baggage to a safer hiding-place, and concealed it under an enormous boulder lying in front of the Kamper-kishlak glacier, at the same time taking the precaution to wrap the boxes in felts to protect them from the weather.

We made our preparations for the journey in Yehim Bai's tent. We had four capital horses. Having packed up carpets, felts, instruments, and other necessary equipments, and prepared provisions for three days, for we were going to ride through a wholly uninhabited district—a distance of about eighty miles—we sat a couple of hours round the fire, talking and drinking tea, and getting a good meal of the old, inevitable fare, mutton and yak's cream. But as soon as the moon broke through the driving clouds sufficiently to light up the silent country, we lashed the loads on the men's horses; and, at eleven o'clock of a windy night, rode, well wrapped in furs, in single file, down between the ancient moraines of the Mus-tagh-ata.

A ride of two or three hours brought us to the Sarik-kol valley; thence our path wound up the opposite side, and through the Mus-kurau glen to the pass of the same name situated in the Sarik-kol chain, the boundary mountains on the east side of the Pamir plateau. In this glen was the critical point of the journey—namely, a Chinese karaol (watch-house), or sentry aul (camp), placed there for the purpose of guarding the frontier next the Russian possessions in the Pamirs. We rode past it in deep silence and at a slow pace, so near, indeed, that the Kirghiz with their eagle eyes were able to see the tents. But none of the guard challenged us; the dogs even did not bark, although we had Yolldash with us. My men were terribly alarmed, and their spirits only revived after we left the aul behind us; for they knew that, if
they were caught, two or three hundred lashes on the bare back certainly awaited them.

At four o'clock on the morning of August 20th we safely reached the Mus-kurau pass. There I took some scientific observations; and there, too, we were overtaken by a furious snow-storm. From that point the surface gradually inclined towards the west. We rode through the broad valley of Nagara-kum (the Drum-Sand), the bottom of which was covered with fine yellow drift-sand; while over the slopes on either side it assumed the form of well-shaped dunes. The sand was brought thither by the west and southwest winds,
the winds which nearly always prevail in the Pamirs. But as they are unable to surmount the plateau-rim of the Sarik-kol Mountains, they drop their sand in the valley and heap it up along the foot of the mountains. As the tract is entirely destitute of water, it is uninhabited in summer; but the Kirghiz visit it during those winters in which there is a sufficient fall of snow to provide them with water. We only saw water at one spot, Sarik-bulak (the Yellow Spring), where a tiny spring bubbled up out of the ground, affording nourishment to verdure of a fairly good quality. In that place we rested from 10 A.M. to 1 P.M.

Towards evening we emerged upon the broad plains of Kosh-aghil, plains as hard and as level as a pavement. The vegetation consisted of nothing but scattered teresken bushes, which in the gleam of the setting sun cast their shadows a long way across the ground. Our route led through the characteristic landscape of the Pamirs—broad, level, waterless valleys, bounded by low mountain-chains, rounded and greatly worn.

We reached the Murghab at dusk, now in the season of the summer floods swollen to a majestic river. We encamped on a little patch of meadow on the right bank, and spent the night in the open air.

One word more about my faithful Yolldash. He accompanied me again on this journey across the Pamirs. The hardest day's travel never drew from him so much as a growl. At night he kept the most vigilant watch over our camp, and was always in excellent spirits. Nor could he be counted among the cowardly ones of the earth. Whenever we approached an aul, off he would dash ahead like a flash of lightning, and pick a quarrel with the dogs of the place. Although he set on to right and left with a determination worthy of all praise, he was, of course, always beaten; yet he never displayed the slightest fear, even when outnumbered by half a score. Now, however, having to foot it all the way to Fort Pamir, he galled his hind-paws. The men therefore made him a pair of skin boots, which gave him a ridiculous likeness to Puss in Boots. It was irresistibly comical to see the
extravagant care with which he first made trial of his won­
derful foot-gear. At the outset he only used his fore legs, and dragged himself along in a highly ungraceful sitting posture; then he tried running on three legs, lifting each hind leg in turn; but finally he found out that the boots were practical, and were meant to protect his paws from further hurt.

The following morning we crossed over to the other side of the Murghab, and continued down its left bank—i.e., westward. At length, after we had passed a succession of spurs which projected into the valley en échelon, like the side scenes of a theatre, the valley suddenly opened out before us into the expansion through which it receives its tributary, the Ak-baital, and in which Fort Pamir is situated. We rode hard all day. About five o’clock we perceived the light blue smoke slowly curling up against the darker background of the mountains, and an hour later rode into the court-yard of the fort.

All was silent and still; there were no officers about. But a Cossack sentry challenged, "Who goes there?" I made myself at home in the solitary fortress, and soon discovered the reason of its being deserted. It appeared that a young lieutenant from St. Petersburg had been a guest at the fort since the previous day, and in his honor a picnic was being given by the officers in the neighborhood. It was not long before the whole party returned, my old friend, Captain Sait­seff, at their head. The younger officers who had been under him the previous winter were now in the field, engaged in active operations under General Yonnoff against the Afghans in Shugnan; and their places had been filled by others, who were to spend the winter at the fort under the command of Captain Skersky, an officer of the general staff.

Two other changes had been made since my former visit. The lonely fort, which one of my friends in Fergana called a paradise, because there were no women within its walls, was now honored with the presence of the young wife of the new commandant, Madame Skersky. German by birth, and a lady of an exceptionally sweet and amiable disposition, she did the
honors at table with exquisite charm. Tastes, as we know, differ; but in my opinion the fort was now infinitely more like paradise than it had been before. Threadbare tunics and dusty boots had given place to a more becoming exterior, while linen cuffs, blacking, and the little arts of the toilet-table afforded evidence of their existence; everything, in fact, bore witness to the ennobling presence of woman.

In addition, the fort had also started a band of twelve men, which played during dinner every day outside the windows of the mess-room. The mess-room itself had been rechristened. It now bore the name of vayenny sobranie, or "the military club," and its walls were papered with maps of the Pamirs and plans of the fort.

Fort Pamir is overlooked on the south by the latitudinal chain of mountains which divides the valley of the Murghab from the Alichur Pamirs, known as the Bazar-darah. Just at this point it makes a bend to the left, forcing the Murghab close in under the rocks, so that the river almost describes a semicircle, and in places sweeps along with great velocity.

The Cossacks had rigged up a boat by stretching oiled canvas over a light frame-work; and with it they used to lay their nets and cross the river to the fishing-grounds under the opposite bank. One day Captain Saitseff and I tried our luck in this improvised craft. We embarked a good way up the river, each taking an oar; then we let the boat drift with the current round the elbow, taking care to steer clear of some treacherous sand-banks near the corner. In certain places, where the water was forced through deep, narrow channels, the boat sped along at a giddy pace close to the cliffs. The panorama changed continually, and, owing to the numerous short twists and turns of the river, gave rise to the most curious optical illusions. Although the boat kept gliding onward all the time, the horizon seemed to keep moving backward and forward, so that while at one moment we had the opening of the Ak-baital valley on the one side of us and at another straight in front of us, at yet another time we had to look well about us before we could perceive it at all. One moment the fort was on our right; shortly afterwards it
had moved over to the left, until we were perfectly bewildered. The lapping of the water against the banks was barely audible, for the main current glided like oil along its bed, and the boat was carried on like an unresisting nutshell by the irresistible flood. Once or twice the frail craft scraped against the stones at the bottom, but no harm came of it, and after an hour's exciting work we landed, as wet as a couple of water-spaniels, in still water, a good way down the river, at a spot where it again widened out for a short distance.

On the other side of Shah-jan (the King's Soul), the place where the first Russian fort was erected a few years ago, 2½ miles below the present fortress, the valley of the Murghab contracts; at the same time the river becomes narrower and deeper, and increases in velocity. At that point stood a Kirghiz aul of six uys (tents), and there was the last safe ford, a passage that is always used by those going to the Western Pamirs.

When, on August 27th, I started for Yeshil-kul, I was escorted the whole of the first day's march (twenty-five miles) by Captain Saitseff and a young lieutenant. The Kirghiz misled us at Shah-jan by advising us to cross the river 6½ miles farther on, because, they said, the road on the right bank was the better, and the flood had gone down. When we arrived at the spot which they indicated as a safe ford, one of the Kirghiz was sent across first to show the way. But the river was four feet deep in the middle, and the man's horse lost its footing and was carried down stream. Fortunately it managed to touch the bottom again, and so reached the other side, but its rider was dripping wet up to the waist. After one or two more Kirghiz had ridden over, Captain Saitseff set his horse at the stream, and reached the opposite side in safety, but so wet that he deemed it prudent to take off his boots, which were full of water, and to strip wellnigh to the skin, and spread out his clothes to dry on a hill-side facing the sun. As I had no inordinate desire for a bath, I waited until the three camels came up, which were carrying our baggage, and, climbing on to the tallest of them, managed to reach the opposite bank without getting a stitch wet.
As soon as Captain Saitseff's clothes were dry we continued our journey, reaching the entrance to the valley of Ak-alkhar at dusk. There we encamped in the shelter of a huge isolated rock that stuck up out of the ground. Captain Saitseff had brought a good dinner with him, including a couple of bottles of claret; and by the light of colored Chinese lanterns and a blazing camp-fire we made a right good feast. Speeches were made on various topics, songs were sung without end, but to very halting melodies; in fact, the echoes of entire operas struck against the cliff walls, but, I must confess, in such inharmonious tones that had an oper-
atic singer heard us he would have been tempted to use his legs rather than his voice. Happily our only audience were the Kirghiz, who stood round us in a ring, looking very much astonished, apparently under the impression that we had taken leave of our senses on the way. Midnight was approaching when our musical entertainment came to an end, and we were overcome by the sound sleep which was invariably ours.

The next day we halted at Ak-alkhar, for there Captain Saitseff had sowed some barley and wheat, turnips and radishes; and all had succeeded beyond expectation, although it was at an altitude of 11,000 feet. During the course of the day I mapped part of the river towards the west, and afterwards we spent another jolly evening together, parting early on the morning of the 29th, the Russians to return to Fort Pamir, and I and my men to continue our ride up the valley of Ak-alkhar.

In two days' marches we crossed the Bazar-darah chain and discovered a new pass (15,970 feet), to which I gave the name of Saitseff. It was only of secondary importance, as it was difficult to cross, the incline being very steep and the declivities covered with fine schistose gravel, in which the horses had hard work to keep their footing. A barely visible path showed that the sole frequenters of this pass were kiyick, tekkes, and arkharis—that is to say, wild goats and wild sheep.

On the southern side of the pass the country dipped gradually down through the defile of Mus-yilga to the broad valley of Alichur, inhabited by the population of 120 Kirghiz uys (tents). This valley, in the longitude of Ak-alkhar, lay about 2000 feet higher than the valley of the Murghab. Two more days brought us to Sumeh, at the east end of the Yeshilkul (the Green Lake); on the way we passed Ak-balik (the White Fish), or, as the place is also called, Balik-masar (the Shrine of the Fish). Several springs gushed out of the ground on the northern side of the valley, and converged upon a small pool about ten feet deep and twenty yards or so in diameter. The water was a deep blue color, constantly
varying its tints, but always crystal clear, and with a tempera-
ture of 39.2° Fahr. (4° C.). Up and down it swam a number
of fat fish, about a foot long and with black backs. From
the culinary point of view they looked particularly tempting;
we therefore made a long halt beside the pool for the pur-
pose of catching some of them. We had neither rod nor
tackle. Still, what mattered that? With the help of some
pack-thread and the hook of a Swedish watch-chain, and a
piece of mutton for a bait, we soon hauled up three “beau-
ties.” After we reached camp the men fried them in yak
butter for supper, and anticipated a splendid dish. But, alas!
our hopes were dashed; the fish were uneatable, having a
rank, disagreeable flavor. Yolldash, however, relished them;
though he apparently regretted his excesses later on, to judge
by the dismal howling he kept up all night.

On the left bank of the Alichur river we rode past a
simple grave, surrounded by a stone wall. It was the burial-
place of seven Afghan soldiers, who fell two years previously
in a skirmish with the Russians. Some rags of felt and the
poles of the tent they had lived in still remained. We took
some of the latter to make our fire of, in spite of Yehim Bai’s
protests that it was sacrilege to plunder a grave.

The night of September 2d we spent at the rabat (rest-
house) of Sumeh, which consisted of three gumbez (hive-
shaped towers), built by Abdullah Khan of Bokhara; and on
the following morning we visited a hot sulphurous spring
which issued from the ground in the neighborhood, with a
temperature of 141.1° Fahr. (60.6° C.). In the same place we
also inspected a cube-shaped Chinese tamga-tash (seal-stone)
or inscribed stone, showing that there was a time when the
Chinese considered themselves masters of the Pamirs. On
its upper face there was a hollow space, in which a stone
tablet bearing an inscription was originally inserted; but it
has been removed to St. Petersburg.

We then continued our way westward along the northern
shore of the Yeshil-kul, over the vast gravel slopes which
have rolled down from the disintegrated hills above and
stretch down to the lake at an angle of thirty-three degrees.
At this point the Alichur valley became so contracted that the lake was barely two miles across, while its length was as much as fourteen. The lake was undoubtedly very deep, for the water was a greenish blue color, and it had a temperature of 64.4° Fahr. (18° C.), though it was not so limpid as the water of the Little Kara-kul. Its altitude was 12,460 feet.

Several side-valleys, with streams flowing through them, reached the lake along both shores. The largest was known as Chong-marjanay; and although its volume, at the time we saw it, was not more than 105 cubic feet in the second, it had nevertheless formed a delta that projected some distance into the lake.

We halted on a small spit of low-lying land, Kamper-chick, close by the side of the lake, spreading out our felt carpets on the ground in a thick clump of bushes, which were already dry and bare of leaves. Having made tea and eaten a very simple supper, I jotted down the experiences of the day in my diary by the light of an enormous fire, which lighted up the whole neighborhood; then, having wrapped myself in my furs, I fell asleep to the monotonous murmur of the waves.

On September 3d and 4th we explored the western end of the Yeshil-kul, a particularly interesting spot. The south shore was overhung by a branch of the vast range of mountains which divides the Yeshil-kul from the country of Shugnan, and which bears in that region the common name of Kara-korum (the Black Stony Tract). Its summit, near the western end of the lake, where the river Ghunt issued, was covered with snow; and we could even discern a rudimentary glacier, which in former times must have been very much larger, and, together with its moraines, must have completely shut in the valley in that quarter. The Yeshil-kul was thus formed in the same way as the Little Kara-kul. That is to say, it is the reservoir or collecting basin of the drainage of the Alichur valley, which afterwards passes out of it across, if I may so say, the moraine threshold; then, under the name of the Ghunt, it cuts its way through a narrow glen, steep and wild, and finally joins the river Panj. The moraine was composed of huge blocks of granite, and was excessively diffi-
cult to get across. I was at first astonished to find that the river Ghunt, which has the name of being as large as the Murghab, was but an inconsiderable stream, with a volume of scarcely more than 280 cubic feet of water in the second. But the mystery was soon explained: the greater portion of the current found its way *underneath* the moraine, where it was plainly audible as it hurtled along.

We returned to Fort Pamir through the Alichur Pamirs and over the pass of Naisa-tash. There the report reached us that Togdasin Beg had been punished with three hundred lashes on the bare back for not having informed Jan Darin that I had crossed the frontier, and that the beg was lying half dead in his tent. As I was afraid that the Chinese might get hold of my possessions and the collections which I had left behind, we took cordial leave of the hospitable Russians and hurried back to the Mus-tagh-ata, *via* the Sarik-kol pass (14,540 feet). Arriving there unobserved on September 16th, we were met by the information that, after all, the report was false. Togdasin Beg was safe and sound, and came to see me that very evening; nor had the Chinese discov-
ered my possessions, although they ransacked everything belonging to the Kirghiz who had been in my employ. The things were still safe in their hiding-place under the rocks.

While we were away winter had advanced with giant strides. The snows had crept farther down the mountains, and the whole of the Sarik-kol chain was covered with a thin white veil. The streams had shrunk into rivulets, and Nature seemed to be fully prepared for her long winter sleep. The Mus-tagh-ata towered above us, icy-cold and uninviting, so that we had not the slightest wish to molest him further.

Instead of making any further attempt to storm the citadel of the Father of the Ice Mountains, we travelled southward along the foot of the mountain, my object being to finish my cartographical work of the summer. On September 20th I made a fresh trip over the Chum-kar-kashka glacier in quest of the rods we put in on August 13th. The change in their situation indicated only the very slightest movement; in the middle of the glacier the greatest velocity amounted to slightly under $1\frac{1}{2}$ inches a day. This slow advance is probably characteristic of all the glaciers of the Mus-tagh-ata, and is
consequent chiefly upon the long winter, the great amount of radiation, and the heavy evaporation. The movement due to gravity is to some extent neutralized, owing to the diminution in the mass and weight of the glacier through the agencies just mentioned.

The Chum-kar-kashka glacier is an important landmark. All its streams seek the Little Kara-kul, and finally the Kashgar-daria; while the drainage of the region to the south of it flows into the Yarkand-daria. All the streams which we crossed in the further course of our journey had eroded fairly deep channels in the lower slopes of the mountain; the which slopes consisted of detritus and old moraines, rounded and levelled down, strewn with occasional blocks of gneiss, and sometimes embellished with tiny meadows. On our left the rocky mountain-walls dipped abruptly under the detritus slopes, and were crowned by several sharp crests. On the same side, too, the Kok-sel glacier issued from an enormous couloir. The moraine was of an extraordinary size, and was strewn with gigantic bowlders of gneiss; while its stream was fed from several directions. We now found that the farther we went in a westerly direction the smaller were the glaciers and the larger the old moraines. This is no doubt due to the greater energy of the agents of dissolution on the southern than on the northern versant.

On September 21st we made a long circuit round the base of the mountain towards the east-southeast and east, as far as the glacier-stream of the Sar-aghil glaciers, and on the 22d we passed the Shevar-aghil and Gherdumbeh glaciers. Both these were inaccessible, owing to the insurmountable moraine-walls which surrounded them; not even the yaks could climb them. The conformation of the mountain was in that quarter extremely rugged; in fact, it was a sheer wall, with craggy contours and irregular ridges and cols, and the glaciers were so short that they seldom emerged from between the arms of the mountain. Its lower slopes presented the characteristics of an ancient moraine landscape, with cirques, ridges, erratic blocks, and pools; and farther on they gradually merged into the plains of Tagh arma. The next two fundamental rifts in
the central mass of the mountain were called Kara-korum. They possessed no glaciers; but the ancient moraines at their base were deeply excavated by running water, and the entire region was strewn with gigantic fragments of a beautiful gray gneiss and smaller pieces of crystalline schist, among which a number of hares were hopping about.

Finally we branched off to the northeast, entering the glen of the Tegherman-su. There we halted by the side of the brook, in a pleasant camping-ground among the grass and bushes; and there we rested over September 23d. The minimum thermometer gave a reading of 41° Fahr. (5° C.), showing that we had descended to lower regions. At 4 p.m. the temperature of the water in the brook was 46.9° Fahr. (8.3° C.), and it was pure and bright, and good to drink. The volume of the stream was 70 cubic feet in the second.

It had been my intention to make the entire circuit of the Mus-tagh-ata, from the Tegherman-su, in a north and north-
westerly direction till I came to the Little Kara-kul. Unfortunately the Kirghiz declared this project to be impracticable, owing to the east side of the mountain being a labyrinth of precipitous and jagged crests, which it was impossible to surmount even on foot. In order to convince myself of this, I made a reconnaissance to the source of the brook, and found that the Kirghiz were quite right. There was nothing for it, therefore, but to go round the mountain by the old way, via Gedyäck and Ullug-rabat, and on September 30th, 1894, we reached our old haunts on the east shore of the Little Kara-kul.
CHAPTER XXXII

BOATING ADVENTURES ON THE LITTLE KARA-KUL

This time we encamped beside the Little Kara-kul from the last day of September until October 9th, partly because we needed rest, and because it was unwise to pass directly from the higher-lying regions down into the warm valleys; and partly because I wished to take soundings of the lake, which would, I hoped, verify the observations I had made during our first visit in that region regarding the formation of the lake. Quite near our camp there was an aul of six yurts; and the first day after our arrival I consulted with its inhabitants, and with Togdasin Beg and some of my own men, as to the best way of taking the soundings. There were, of course, no boats. One of the Kirghiz had indeed seen a boat on the upper Amu-daria; the others had not the faintest idea what a boat was like, and could not even conceive how such a thing was made. Throughout the whole of the broad valley of Sarik-kol there were only six small birches, growing on the saint's grave of Kayindeh-masar; but to touch them would have been looked upon as sacrilege. Apart from those trees, there was not a bush within a hundred miles.

The only things to be found in our immediate neighborhood were raw hides and oks, or the slightly bent poles which support the cupola-shaped felt roof of the Kirghiz yurt. But how these materials could be turned into a boat the cleverest of the Kirghiz was unable to form a conjecture. I set to work and made a little model of a boat out of some oiled linen, with a mast, sail, rudder, and keel, and very well she sailed, greatly to the amazement of the Kirghiz. Togdasin Beg said bluntly that a thing of that kind on a large scale
would cost me my life, and I had better wait till the lake froze, which he thought would happen in about six weeks' time. The temperature at night had already fallen to 14° Fahr. (−10° C.), and every morning the small lagoons on the lake shore were covered with a thin coating of ice, which, however, melted as the day advanced. The lake itself was too rough to allow of ice being formed. During the whole of the ten days we spent on its shores, full-fledged gales flew from the south with swift, strong wings, racing one another across the lake as if consumed with impatience to get to the Bulun-kul; just as though there were not a single molecule in the atmosphere, and the great Jan Darin, with the whole of his lanza (garrison), sat in the vacuum gasping for breath. But I was not dismayed. I had heard the sea-waves boil and break before then, and preferred braving vigorous Æolus to waiting till the ice formed.

I had the tent pitched barely two yards from the shore, so that I might lie and listen to the music of the waves; and the "dock-yard," where the boat-building was to take place, was close beside the tent. Here we lay down the keel and lashed the tough ribs to it with ropes, and in less than a couple of hours the frame was ready; it was only six feet long and three feet broad. A horse which had been so considerate as to die the day before contributed his skin, and a sheep also gave us materials. Thus things were beginning to look more ship-shape. The finishing touches were added in the form of a mast and a sail of scarlet cotton stuff. To each side we fastened two inflated goat-skins, and another was lashed at the stern, which somehow pointed suspiciously downward. Our oars were made out of oks split at one end, and a piece of goat-skin stretched across the fork. For our rudder we took a spade, pure and simple, and fastened it firmly to her stern.

It was a very queer craft which left the slip on October 3d. Honestly speaking, she scarcely did credit to Swedish boat-building, being entirely wanting in the noble lines and beautiful proportions for which our cutters are famous. On the contrary, she was everywhere as warped and angular as an
empty sardine-box. As our brave craft, in which I was going to navigate the Kara-kul for a whole week, lay bobbing up and down near the shore on her inflated goat-skins, she put me strangely in mind of some unknown antediluvian creature hatching its eggs.

Togdasin Beg turned up early the next morning to inspect the monster. He pulled up at a respectful distance. His expression was indescribably comical, and seemed to say: “Why, you don’t mean to tell me a boat looks like that? I never could have imagined such a thing!” Then, the next moment, an ironical smile crossed his lips, and he seemed to be thinking to himself—“What a crazy looking affair!” But he had the tact not to say anything, and I bit my lip to keep a straight countenance. Meanwhile I invited him to go for a sail later in the day. After some demur, he accepted the invitation. When it came to the point, he was far less afraid than his fellow-tribesmen.

On the day our boat was launched, the Kirghiz assembled from far and near; and there were even a score or so of women, with their big white turban-shaped head-dresses, peeping from behind a moraine-mound. I asked the old men if they thought Jan Darin would be able to keep from laughing if we put him on board, and sent him out on the lake. The idea tickled them so, they were ready to split with laughter.

In a word, the whole thing was a sensational event, a very uncommon tamashah (spectacle); and reports of it spread like wildfire over the whole of the eastern Pamirs. On our way back to Kashgar, we used to be asked at the Kirghiz auls where we halted for the night, even at great distances from the Little Kara-kul, if it were true that a stranger with wings had flown up Mus-tagh-ata, and later had flitted backward and forward across the lake? Mollah Islam even went so far as to compose a song, which was afterwards sung of an evening to the music of a gedyäck (violin), and no doubt will be handed down to posterity in the form of a legend.

It really was a supreme moment in my existence when the boat was launched. The Kirghiz followed its move-
ments with bated breath, and were astounded at my temerity when I stepped in and went for a short sail in her, for it was blowing hard. But the little craft, with her five goat-skin bags, rode the water gayly, and Togdasin Beg was so encouraged by the sight that on my next trial-trip he willingly accompanied me.

Never did bluer, purer, fresher waves rock a more ramshackle contrivance than ours: she seemed to feel about as much at home on the water as a hen or a cat. No pride at being the first to ride the waves of the Kara-kul; no exultation at being at such a sublime altitude above the level of the sea! Anxiously she swayed on the crisp curling waves; which seemed as if they took a malicious pleasure in playing with her fears. Oh what a boat that was! A perfect menagerie of a boat! Her carcass compounded of horse and sheep and goat; in character a mule; in her movements recalling the graceful gambollings of a cow. And yet she did full honor to her descent: for she was as obstinate as a mule, and when she dropped into the trough of the waves, she kicked and plunged like a mustang. Oh that Irish pig of a boat! She never understood when you called to her "Starboard" or "Larboard." "Right" and "left" were words that meant to her the exact opposite of what ordinary folk understand by them. To all the rules of navigation she was perfectly indifferent, and you might labor at her tiller like a galley-slave: she just deluged you with water and went her own way. No matter whether we wanted to go south or wanted to go north, she always imagined we had a headwind to face; and if we tried to tack ever so little, she was bound to fall off, till she got wind and wave behind her. In a word, she was every bit as stubborn as a yak!

As the wind blew constantly from the south, every time we wanted to use our precious boat we had to tow her round to the south shore, and then let her drift with the wind across the lake, taking soundings as we went. This method was inaugurated on October 4th, when the boat was towed by a horse through the shallow water to the middle of the southern shore. Then I and one of the Kirghiz, Mohammed Tur-
ON THE LITTLE KARA-KUL

du, got into her. There was not much wind; but it was cold, so that I was well wrapped up in my furs. Before we had got very far from the shore, one of those hurricane-like squalls from the south swept over the lake, ploughing up the water furiously before it. We lowered the sail and held fast to the sides, for the boat was plunging like a restive horse. Our situation was critical—the boat was drifting out to the middle of the lake, and it was a long way to either shore. I was steering, when all of a sudden she dipped astern, and a sea broke over us, half filling the boat and wetting us to the skin. The goat-skin bag which held up the stern had got adrift, and was floating off over the water on its own account. Every wave that reached us broke right over us, although I tried to take the sting out of them with the oar, while the Kirghiz Mohammed baled away for dear life.

Our position was really serious; particularly when both the starboard goat-skins began to collapse, the wind oozing out of them with a shrill hissing sound, and the boat took a list to starboard. The seas broke over us from all sides, leaping upon us like malevolent sea-trolls, with wild dishevelled hair.

Thus we drifted, tossing on the angry waves over unknown depths. I was afraid the other goat-skin bags would part company with us, or would lose their buoyancy before we reached the shore, and kept calculating whether or not I should be able to swim the intervening distance. Nor were my spirits raised by Mohammed Turdu becoming dismally sea-sick; he would assuredly have been as white as a sheet had he not already been as sunburned as any gypsy. He baled the whole time, and baled double measure: on the one side water and on the other—Poor fellow! he had never been in a boat in his life before, and had never heard of seasickness. He fully believed his last hour had come.

The Kirghiz crowded the nearest shore on horseback and on foot, expecting every moment to see the boat go down. But, happily, we succeeded in keeping her afloat; and it was with a feeling of indescribable relief that we at last saw she was gliding over shallow water. Safe and sound, but wet
through, we finally reached the shore, hurried to camp, and kindled a huge fire, at which we slowly dried our clothes.

Our first sounding expedition was thus a complete fiasco. The only discovery we made was that the drift-sand contributed, in as great a degree, perhaps, as the glacial mud, to the levelling up of the lake-basin; for, while the glacier-streams only develop energy during the summer, sand-storms are a common occurrence all the year round. In the night, however, the drift-sand which drops from the passing storms is blown away across the slippery surface of the ice. Several times on the lake we were enveloped in clouds of sand so thick that we could hardly make out the shore-line; and in the evening, after the storm had subsided, the water was still muddy. The everlasting mutton broth actually crunched between our teeth when we took it at supper.

The following day we accomplished three good lines of sounding without any further adventure; and on the 8th set out from the western end of the southern shore. We began work late in the day, so as to let the wind settle a little first, and drifted gently across the lake, dispensing with the sail so as not to disturb the accuracy of the soundings. Hour after hour passed; then dusk came on, and it was quite dark when we reached shallow water. We were only a couple of hundred yards from the northern shore when suddenly a dead calm set in, and the next moment a violent gale from the north, which tossed the boat back into the lake as though it had been a mere nutshell. We felt that now we had the whole lake before us, and the night. Row as we might, we could make no head-way: the wind was too strong for us, and pitilessly drove us out to the very middle of the lake. It was pitch-dark until the moon rose and comforted us a little; while Islam Bai, who was uneasy at our non-appearance, made a large fire at the camp, which served us for a light-house. The north gale was, however, of short duration, and by dint of hard rowing we managed to reach camp about midnight.

One great advantage in navigating those waters was that we did not fear meeting other craft or being run down by careless roisterers returning home late of an evening. We
MY HOME-SKIN BOAT IN A HEAVY STORM ON THE LITTLE KARA-KUL
were the unquestioned masters of the Little Kara-kul, and had plenty of sea-room to turn our boat in; for the lake was about two miles long, two miles broad at the south end, rather more than half a mile at the north end, and a mile in the middle.

I have made fun of our noble craft. Let me now say a word in its praise, as a sort of memorial on its grave. The completion of my soundings and the continuance of unfavorable weather put an end to our trips on the lake. I was sorry to have to take our pleasure-yacht to pieces, and return the various materials to their respective purveyors, instead of sending it to the Ethnographical Museum at Stockholm; for beyond a doubt it would have been one of the stars of the collection. It had, indeed, served to show the Kirghiz what sort of thing a boat is; but it is doubtful whether it impressed them with any exaggerated admiration of Swedish navigation.

Meanwhile we had ascertained the bathymetrical or depth relations of the Kara-kul, having taken 103 soundings altogether. All these I marked on an enlarged map, on which I afterwards drew out the curves of depth. The maximum depth was 79 feet in the southern half of the lake; in the middle it varied between 50 and 70 feet. Along the whole of the southern shore, where the glacial streams entered the lake, there was a fairly steep deposit of mud; whereas on the north the moraine sank down to the lake level at a gentle inclination. At the northwest corner, where the Kara-kul stream issued from the lake, numerous small erratic blocks of gneiss projected above the surface of the water. Close to the southeastern shore, under the steeper cliffs, the sounding-line touched bottom after uncoiling about 5 or 6 feet; whereas everywhere in the northern half of the lake it ran out to 1000 feet or more. Near the middle of the west shore there was a small island, Kindick-masar, every spring the breeding-place of innumerable wild geese. In the same quarter, too, we discovered two large shallow creeks, and some submarine dunes of drift-sand, formed in the shelter of certain projecting rocks.
With regard to the changes of color in the lake, the deeper parts were a deep blue, the shallow parts light green, and the strips along which algae grew dark violet.

The Kirghiz were very decided in their statements that there were no fish in Little Kara-kul; and in point of fact I only found one, a small one, floating dead on the water. It was of the same species as those of which I collected specimens from the neighboring Bassyk-kul, and was probably dropped in Little Kara-kul by a bird.

The water was fresh, and good to drink. During our stay the temperature near the shore varied between 53.6° Fahr. (12° C.) and 37.4° Fahr. (3° C.), and in the middle of the lake, at the bottom, it was 46.4° Fahr. (8° C.).

In several places numerous small springs entered the lake in different parts; and in all such places there were open holes in the ice nearly the whole winter. Little Kara-kul freezes in the middle of November, and the ice begins to break up in the middle of April. The Kirghiz described the ice as resembling a sheet of looking-glass, so smooth that the wind sweeps away every particle of snow. They also told me that they could see broad woods and pastures (algae) at the bottom of the lake through the ice, and that on winter nights the images of the stars twinkled as brightly as the actual stars did in the sky above.

Now that we had work to do every day, our life passed as quietly and peacefully as it did during our former stay beside the lake. Sometimes, when the day's work was done, and it was blowing hard, I used to go and sit on a rock by the shore, and imagine that the waves which came rolling in to my feet were beating against the wooded isles of the Skärgård at home; and a thousand memories of my native land would crowd in upon my mind, lighting up as with torches the dark night of my loneliness. I imagined myself a pilgrim resting in one of the most beautiful of Nature's temples, at the threshold of which the snow-capped mountain-giants kept watch and ward. At their feet lay the lake wonderful, set like a jewel of the purest water, its bright placid surface making a glorious mirror for them to behold their own stern features in.
It would be unjust to call the Little Kara-kul a lifeless lake. In the course of my topographical labors I many a time disturbed thriving broods of wild duck or wild geese contentedly feeding among the rushes by the shore. On our approach they would fly out into the lake, with legs drooping and necks out-stretched. At night, too, I often heard the wild geese calling to their young, or heard their hoarse honking as they sailed away over the tent in large flocks. Occasionally there were gaps made in one or other of the broods; for we were not averse to vary the deadly monotony of our daily fare.

Most beautiful of all, however, were the atmospheric effects. With a master-hand were painted the most inthralling and gorgeous pictures—scenes so utterly unlike each other that I sometimes fancied myself transported to two or three different parts of the world all within the space of a few minutes. For instance, the sun would rise in a sky of purest blue, the atmosphere being still and warm, Mustagh-ata standing out in clear and sharp-cut relief, with the most delicate details of its blue shimmering snow-fields, and every varying tint of its rounded and precipitous altitudes traced in lines of matchless beauty. The dark mountain-sides would be reflected in the ever-changing mirror of the lake, now a light lovely green, now a deep intense blue, while the hush of a perfect Sabbath day brooded over the whole scene. Then, all of a sudden, white clouds, immediately followed by dark ones, would rustle up over the northern horizon. The sky above the Pamirs would put on a steel-gray wintry aspect: in a moment the entire vault of heaven would be packed with clouds. The wind would whistle in sudden gusts, then would blow with unmitigated fury. The lake immediately under the shore became as green as the deep sea, but farther out glowed a dusky violet. From end to end it would be streaked with running lines of white spray; while the waves dashed themselves with headlong violence against the shores, which they have been crumbling down and eating at for thousands of years. But within an hour the storm would be all gone. Then would come a shower of hail; and then a heavy down-
pour of rain. The wind would die away. The lake would lose its brightness, and become gray from the splashing of the raindrops.

But this spell of bad weather seldom lasted long, and left no traces behind it. Every afternoon, as regular as clockwork, the east wind came piping over the pass of Kara-tash

KENG-SHEVÄR (THE PLACE WHERE THE IKE-BEL-SU ISSUES FROM THE MUS-TAGH RANGE) SHROUDED IN MIST

and down the valley of the Ike-bel-su, wreathing the landscape in a misty haze. With the exception of our immediate surroundings, every object became lost to sight. The shore faded away in both directions. Right before me sky and water melted together. Not a glimpse of the mountains that overhung the lake met my searching eye. I could easily have imagined I was standing on the brink of the boundless ocean.

On one occasion the mist caught up the artist's brush, and used it with magnificent effects, or rather contrasts. We
were returning from an expedition to the Ike-bel-su. Its valley was filled with murky mist, which surged up the lower slopes of the Mus-tagh range, darkening every hollow in their flanks. And so swiftly, so silently, did it boil up and up, that the mountains speedily vanished from sight, like the image on an unfixed photographic plate when exposed to the light. While the lower regions were thus enshrouded in thick gloom, the towering summits of the Mus-tagh-ata shone out brilliant and vivid, like electric lamps streaming across the billows of the onrolling mist. The sun sank behind the mountains; instantly it was twilight. Higher and higher crept the mist up the mountain-sides. The topmost peaks of the great mountain, and the snow-fields glancing like silver mail on its shoulders, were bathed in a scarlet glow, shading away to a glorious fiery yellow. Less and less grew the sunlit altitudes. With ill-omened ease and haste the envious shadows mounted up the faces of the precipices. One moment the crowning summit glittered out over the deluge of mist; then paled—a pyramid faintly, indistinctly outlined against the dark background of the sky; then, at the end of a few swift-ebb-
ing moments, it, too, was engulfed in the unfathomable ocean of mist.

And then came the beautiful pictures of the night. The mist vanished. The moon floated up above the mountain-tops, pale and cold, moving with frigid majesty through the dark-blue sky, strewn with its glittering stars. The hollow flanks of the mountains were draped with long scarf-like shadows, showing all the blacker by reason of the rocky promontories being bathed in the silver moonlight. A silence as of the grave held the mountains awe-struck in its spell. I could hear my own heart beat.

It was not without regret that I left this glorious little Alpine lake, which I had come to look upon almost as my own possession, and on whose hospitable shores we had spent so many peaceful, refreshing, and profitable days. But all the same we left it on October 9th. A furious gale was blowing from the south. The waves sang their melancholy, but soothing, song, to which I never grew tired of listening —sang in honor of our departure. But the echoes soon died away in the distance, as we once more shaped our course upward, towards the untrodden realms of the mighty glaciers.
CHAPTER XXXIII

LIFE AMONG THE KIRGHIZ

Before we leave the highlands of the Pamirs, and return to Kashgar, I should like to say a few words about the Kirghiz, the people among whom I had now so long sojourned. I have already described their baigas or mounted games, and the important part they play in their otherwise monotonous life. The predominant interests of the Kirghiz are the care of their flocks, and the periodic migrations which depend upon them. They spend the summers on the yeylaus (summer pasture-grounds), on the higher slopes of the Mus-tagh-ata and the Pamir mountains; and in winter, when the cold and snow drive them down from the mountains, they seek the pastures (kishlaks) in the valleys. The members of the same aul are, as a rule, kinsmen, and always graze the same yeylaus and the same kishlaks. No other aul is permitted to encroach upon pastures thus appropriated without previous agreement.

When a child is born, the kinsmen come the day afterwards to offer their congratulations. A sheep is slaughtered and a feast held, and prayers are said. On the third day the child receives its name, which the mollah looks up in a book, every day having its own name, and by that the child is known. To this is added the word Ogli (son), together with the father's name; for example, Kencheh Sattovaldi Ogli.

When a young Kirghiz wishes to marry, his parents choose him a suitable wife, whom he is obliged to take; if, on the other hand, the bride-elect is not willing, the marriage may be abandoned, though the girl, too, is in most cases dependent on the will of her parents. If the youth has no parents, he chooses a bride for himself; but he must always pay kalim
(dowry) to her parents. A rich Kirghiz pays as much as ten or twelve jambaus (one jambau equals £9 to £10); a poor one pays a couple of horses or yaks. The girl's parents, therefore, always endeavor to secure her a bai (rich man) for a husband; the young man's a plain and poor daughter-in-law, who will be content with a modest kalim. If the girl be young and pretty, a very large dowry is always asked.

Near the Mus-tagh-ata there lived in 1894 an unusually pretty Kirghiz girl, Nevra Khan, who had suitors from far and near; but her father asked such an unconscionably high kalim, that she had reached her twenty-fifth year without being married. A young Kirghiz, who was head over ears in love with her, begged me to "lend" him the sum demanded; and even the parents of the young people tried to get round me, though naturally without success.

After the contract is made, the betrothal may last an indefinite period; but as soon as the entire kalim is paid, the marriage takes place. A new yurt is pitched, and within it the wedding is celebrated in the presence of as many guests as like to come. Dastarkhan (refreshments) of mutton, rice, and tea are served; then the mollah reads out aloud the duties of the young couple towards each other. Baigas are held. Everybody wears their best khalat (coat). The bride is dressed in all her finery and ornaments. If the man belongs to another aul, the ceremony is performed at the girl's aul, whence the newly married couple are escorted to their future domicile by all the guests.

When a Kirghiz dies, the body is well washed, and dressed in clean white clothes; then, having been wrapped in linen and felts, it is carried with as little delay as possible to the grave. The ground is dug out to the depth of three feet, and at the bottom of the hole, but at the side, another horizontal trench is excavated, and in that the body is laid. Then the outer grave is filled up, and the place covered with a stone; or if the dead man were a bai, his grave is marked by a small dome standing on a rectangular base. For forty days after the interment the grave is visited by the mourners.
KIRGHIZ GIRL FROM TUR-BULUNG
The household goods of a Kirghiz family are not many. When they flit, two or three yaks generally suffice to transport all their belongings. The yurt (uy) itself, with its wooden pole and thick felt covering, the saddles, horse-cloths, "bed-clothes," and loose carpets, are the most bulky. Next come the household utensils, among which the kazan, a large iron cooking-pot, is the most important; furthermore, china basins (chinneh and pialeh), flat wooden dishes (tabak), iron or copper cans with handles and lids (kungan and chugun). A number of other things, such as a loom, a kneading-trough, a corn-sieve, hatchets, sacks for keeping corn and flour in, a cradle, a fiddle, and a guitar, an iron stand for the cooking-pot, pokers, etc., are never wanting in a well-appointed uy. Most of these articles are bought at Kashgar, Yanghi-hissar, or Yarkand, though there are native blacksmiths and carpenters in the Sarik-kol valley. The wood for their yurts is procured from the valleys on the east side of the Mus-tagh-ata, as no trees grow in the Sarik-kol valley.

In every tent there is always a place set apart, the ash-khaneh (larder), in which they keep milk and cream in many forms, as well as other kinds of food. The drink chiefly in favor is ayran (boiled milk diluted with water, and left to become sour), a particularly refreshing drink in the summer. Kaimak is yak's cream of the most delicious description, thick and sweet and yellow, with a flavor of almonds. Ordinary milk is called sut. All these various kinds of milk are kept in goat-skin bags.

The Kirghiz live chiefly on yak's milk and mutton. A sheep is slaughtered once or twice a week; and the inhabitants of the aul then enjoy a good square meal. They crowd into the tent, round the fire, where the meat is boiling in the kazan. The portions are distributed among those who are present. Then each pulls out his knife, and eats away till nothing is left but the bare bone; and even that is cracked in order to extract the marrow, which is considered a great dainty. Both before and after the meal the hands are washed, and when it is finished they are carried to the beard, while all cry together "Allahu akbar!" (God is Great!) The five
daily prayers of Islam are said punctually by the oldest man of each aul.

In daily life the women drag the heavier load. They pitch and strike the tents, weave carpets and ribbons, wind ropes and yarn, milk the yak-cows and the goats, tend the sheep, the children, and the household. Their flocks are guarded by a number of savage sheep-dogs, which live on what is left over at meal-times.

The men may be said to do nothing. As a rule they sit round the fire all day long, or at most drive the yaks to and from the higher pastures. But they often visit their neighbors to buy or sell or barter their stock. In the winter they generally spend the whole day inside the yurt, sitting round the fire (which is fed with tesek or yak's dung) talking, while the storm howls outside and the snow swirls in dense clouds round the yurt.

Thus the Kirghiz passes his life, peacefully and monotonously, one year being exactly like another, with the same occupations, the same recurring migrations. As time passes he grows older. He sees his children leave him and make new homes for themselves. His beard grows white, and finally he is carried to the nearest saint's grave, at the foot of the snow-covered mountains, among which he and his forefathers have struggled through an existence which, though scant of joys, has yet been free from serious cares.

For this reason, then, they looked upon my long sojourn among them as an interesting episode. They had never before had an opportunity to see a Ferenghi (European) at close quarters, or to observe him going about all his mysterious occupations. They could never understand why I insisted upon visiting every single glacier, why I sketched everything, and actually went the length of hacking pieces of stone off the rocks and filling my boxes with them; for to them they were as commonplace and uninteresting as possible.

Their knowledge of the outer world is very limited. They only know the district they live in, but that they do know extraordinarily well; as also the routes across the Pamirs,
and to the principal towns in the west of East Turkestan. But anything beyond that is a sealed book. They have heard of Russia, England, China, Persia, Kanjut, Kashmir, Tibet, Hindustan, the Great Kara-kul, Lop-nor, and Peking. Their sole knowledge of the busy places of the world is derived from the towns in that part of Asia, or from itinerant merchants; but they seldom pay much heed to what they learn from these sources, for it is mostly matter that is foreign to their own concerns, and the echoes of the peacock "maddening crowd" never reach them. To them the world is flat, and girdled by the sea, while the sun circles round it every day. Try how I would to make them comprehend the real facts, they were never able to grasp them; they only answered with imperturbable assurance that at any rate the place in which they themselves lived stood still and never moved.

The old men often told me the story of their lives, and it was always interesting and instructive to listen to, not least for the sake of the language. Among the older Kirghiz, Beg Bulat, of Rang-kul, had had a varied and adventurous life. In the days of Yakub Beg he served for twelve years as a yuz-bashi (chief of a hundred men) in Tagharma. After the death of Yakub Beg, in 1877, the Chinese took Kashgar. Two years later Hakim Khan Tura marched with a thousand men from Margelan to Tash-kurgan, where he was joined by Beg Bulat and his brother, and five hundred Sarik-kol Kirghiz. For an entire week they besieged the Tajik population of Tash-kurgan, but were unable to conquer them. A large Chinese force then entered the mountains for the purpose of quelling the revolt; and the Kirghiz Abdurrahman Dacha was sent by Hakim to Tash-kurgan to make terms of peace, but was killed by the Tajiks. Hakim Khan Tura then led his force to Chakker-aghil, at the opening of the Ghez valley. While waiting there, Kurushi Dacha, Beg Bulat's brother, learned that the Chinese intended to put to death all who had participated in the revolt, unless they gave up Hakim. Kurushi thereupon deserted his leader and went to the Little Kara-kul. He was then ordered by the Chinese to attack Hakim at Muji, and did so. Hakim fled across the Kizil-art
pass, and many of his men fell. Beg Bulat continued to
command the remnant of the Kirghiz forces. But they, too,
were scattered, and Beg Bulat retired to Rang-kul, while his
brother was taken prisoner by the Chinese and beheaded in
Kashgar. Beg Bulat, fearing a similar fate, fled to Ak-baital,
but was followed by fifty Chinese horsemen, who came up
with him at that place and captured him, and took him and
his family through Kashgar to Turfan. There he lived in
exile for nine years; but the beg of Turfan, who was a Mo­
hammedan, let him be at large, and allowed him to engage in
trade undisturbed. As he invariably conducted himself well,
the Chinese authorities eventually not only permitted him to
return to his own country, but, valuing his abilities, offered
him the appointment of beg of the eastern Pamirs. But he
refused it, saying that he would not serve a people who had
killed his brother. After that the Russians entered the
Pamirs. At the time of my visit old Beg Bulat was living
at Rang-kul in poverty and obscurity.

Thus we used to talk, often till late in the night, while the
blue flames played about the glowing embers of the camp-fire,
dimly lighting the interior of the tent, so that the rugged
features of the bearded men seated round on the carpets
could hardly be distinguished. I do not know whether the
Kirghiz parted from me with regret, for living amid a cold,
niggardly, unyielding climate, the hearts that beat in their
breasts are hard and unsympathetic, and unresponsive to the
warmer feelings. Yet many a friendly “Hosh!” (Farewell!)“Khoda yoll versun!” (God prepare the way!), and “Allahu
akhbar!” (God is Great!) followed me when I went away;
and they stood a long time on the shore of Little Kara-kul
watching my caravan with wondering eyes; and when I left
their hospitable country for the last time, no doubt many of
them thought within themselves: “Whence cometh he? and
whither goeth he? and what wanted he here?”
A YOUNG WIFE OF THE KARA-TEIT TRIBE OF KIRGHIZ
CHAPTER XXXIV

RETURN TO KASHGAR

On October 9th we marched to the aul of Tuya-kuyruk (12,740 feet), and the next day continued up the valley of the Ike-bel-su, whose volume was now reduced to 70 or 80 cubic feet in the second, very different from the foaming river we saw during the summer. Upon reaching the enormous and imposing glacier of Kok-sel we struck off to the left, pursuing a zigzag course up the steep slopes on the right side of the valley, which consisted partly of solid gneiss and partly of fragments of rock fallen from the heights above. That evening we reached the aul of Tur-bulung, the inhabitants of which were on the point of changing their quarters to the Little Kara-kul; for the winters are extremely raw and severe at Tur-bulung, and snow-storms of daily occurrence. Wolves, foxes, and bears were common in the same locality.

On the night of October 11th, when we stopped at the aul, there was an unusually high wind, and the Kirghiz continually lighted torches and held them up to the smoke-vent, crying "Allahu akhbar!" in order to ward off the wind. Every time an extra violent gust came, they all leaped up and laid hold of the tent, although it was already well secured with ropes and stones. All the same, we managed to make an excursion to the Kara-yilga, where the luxuriant pasture attracted numbers of wild goats and arkharis or wild sheep (Ovis Poli). Islam Bai shot one of the latter on a glacier; but unfortunately the animal fell down a crevasse and could not be got up again.

On the 12th we rode across the Merkeh-bel pass, of evil repute. The incline from the west was not particularly steep; but the snow was nearly 16 inches deep. It was a curious
pass; the summit broad and dome-shaped, covered with a thin glacier tongue, over which we rode for a mile and a quarter. The adjacent mountains were relatively low; those to the right (the south) entirely sheathed in ice, those to the north being either bare crystalline rocks of a black color or sprinkled with thin patches of snow. The east side, however, was inconceivably steep, consisting of a moraine littered with fairly large fragments of rock and layers of schist with sharp points and edges. There I found it advisable to walk, for the horses continually threatened to come down on their knees. Fortunately, this time we had hired yaks to carry our baggage. By degrees the declivity became less steep, and we got down to the valley of Merkeh without further incident, and encamped in a solitary yurt at an altitude of 11,780 feet.

The following days we travelled at a good speed down towards the plains of East Turkestan. In the glens on the east side it was snowing steadily; and on October 13th there was a high wind into the bargain, so that we rode through driving snow the whole day. The stream that traversed the Merkeh valley, being augmented by a number of tributaries from a series of small side-glens, had excavated a deep channel through the conglomerate terraces, along which we were often obliged to ride.

The bottom of the stream was encumbered with large fragments of gneiss and clay-slate. At Sughet (9890 feet), which derives its name from the willows that grow there, the tents were deeply embedded in the snow; but the chief Togda Mohammed Bai had a friendly reception for us.

On October 14th we marched to Chatt, the camp of Mohammed Togda Beg, chief of the Eastern Kirghiz. On the way thither we passed the Kara-tash-yilga, traversed by the stream that comes down from the pass of Kara-tash. The following day's march took us over a secondary pass, Ged-yäck-belez (13,040 feet), with a soft rounded summit, composed of slippery yellow clay or fine schistose gravel. Through the adjacent glens floated detached clouds of impenetrable mist.
Our camping-station for the night bore the curious name of Sarik-kiss (the Yellow Maiden).

After leaving, on the 16th, the entrance to the glen of Keng-kol on our right, we were once more in a well-known district, and that evening put up at Ighiz-yar, in the same caravanserai in which we had stayed before. I was very pleased to lay aside my cumbrous, heavy winter clothing, which the mild air now made superfluous. And how good were the fruit and the Kashgar bread and eggs which we had for dinner!

On October 19th I once more took possession of my room at the consulate at Kashgar, delighted to see the pile of newspapers and letters which had accumulated during the course of the summer.

I now settled down at the house of my old friend Consul-General Petrovsky, and was able to enjoy a period of much-needed rest. We spent the long autumn evenings, as before, by the fireside, discussing many an important Asiatic problem. I will not dwell upon my reminiscences of Kashgar, except a couple of incidents which I must mention. My first care was to arrange and label my geological specimens from the Mus-tagh-ata, and to develop the photographs I had taken. After that I wrote a few scientific papers on the work of the summer.

In the beginning of November a breath of air from Europe penetrated to our lonely colony in the far east. Mr. Kobeko, a privy councillor, who was making a tour of inspection through Russian Turkestan, arrived in Kashgar. He was a pleasant, refined, and well-read man, and during the week he stayed with us the days flew past more quickly than usual. I shall never forget the evening of November 6th, the anniversary of the day on which the great Gustavus Adolphus died. We were all sitting round the large drawing-room table, tea-glass in hand, talking politics, and discussing the future of East Turkestan, to the crackling of the fire and the singing of the samovar—when a breathless Cossack courier entered the room without knocking, and going up to Mr. Kobeko handed him a telegram from Gulja, the last station
of the Russian telegraph system. It contained news of the death of the Emperor Alexander III. All present rose to their feet, and the Orthodox Russians made the sign of the cross. Deep sorrow was depicted on every countenance, and for a long time there was a dead silence in the room. It had only taken the short space of five days for the sad news to penetrate into the very heart of Asia.

The day after the arrival of the telegram the Dao Tai and Tsen Daloi came to offer their condolences to Consul Petrovsky. With their many-colored ceremonial costumes, their gongs and drums, their parasols and standards, and with all their pomp and state, they presented a strange contrast to the silent sorrow of the Russians.

The result of the violent changes of climate that I had been exposed to was an attack of fever, which came on in the middle of November, and kept me a prisoner in bed for a month.

Another misfortune overtook me in the Russian bath, to which I went accompanied by two Cossacks and Islam Bai. The bath was heated and everything arranged; but after I had been in a considerable time, the Cossacks imagined that I ought to have had enough of it, and came to see what I was doing. On their entrance they found that I had fainted. Some pipe in the heating apparatus had sprung a leak, and the fumes nearly did for me. The men took me to my room at once, and I gradually came round; but for two days afterwards I had a splitting headache.

Then came Christmas. Christmas! What a host of memories, of regrets, of hopes, lie in that one word! Yes, it was Christmas in Kashgar. The snow fell softly, but evaporated immediately in the arid atmosphere, so that it did not even make the ground white. There was a sound of bells in the streets and market-place; but they were caravan bells and rang all the year round. The stars shone brightly in the sky; but not with the same magic brilliance as those of our northern winter nights. A light twinkled here and there in the windows of the houses; but they were not Christmas candles swinging on the fir branches, only lamps fed with Kanjut oil, as simple as in the time of Christ Himself.
RETURN TO KASHGAR

Could there be a more suitable person to pay a visit to on this holy-tide than the Swedish missionary, Mr. Högberg, who had come to Kashgar with his family during the summer? Mr. Macartney, the English agent, and Father Hendricks went with me, and we took a few small presents for Mr. Högberg’s little girl. The time-worn lessons for the day were read, and the Christmas psalm was sung to an accompaniment on the harmonium. Then in the darkness of Christmas Eve Father Hendricks and I strolled round to Mr. Macartney’s house, where mulled wine and Christmas cheer awaited us. But shortly before midnight Father Hendricks went away; nor could we persuade him to stay longer. He was going home to his lonely cabin in the Hindu caravanserai, and on the stroke of twelve would read the Christmas mass, alone, alone, always alone!

On January 5th, 1895, Mr. St. George Littledale, with his undaunted wife, and a relative, Mr. Fletcher, arrived at Kashgar, and I spent many a pleasant hour in their company. Mr. Littledale was unusually genial, manly, and unassuming in character, and I esteemed it a great privilege thus to make the acquaintance of one of the most intrepid and able of living Asiatic travellers. He himself regarded his own travels with a critical eye, was always modest, and had no pretensions. He said that he travelled simply for pleasure, for sport, and because the active, changing life was more to his taste than the gayeties of London. But with the journey he began in the year 1895 he has written his name indelibly in the annals of Asiatic exploration, by the side of those of his distinguished countrymen, Younghusband and Bower.

In the middle of January our English friends left Kashgar in four large arbas (carts) draped with carpets; and an imposing sight they made as they drove out of Mr. Macartney’s yard. They equipped their large caravan in Cherchen, and thence crossed Tibet from north to south.

At the same time we heard with dismay of Dutreuil de Rhins’s sad end. He was attacked and murdered in the summer of the same year at Tam-buddha. The news was brought by four of his men, who had returned to Kashgar.
Then came the Russian Christmas, twelve days after ours, and the consulate became busy and animated again. Cossack waits woke me up with plaintive songs on Christmas morning, and in the consul’s house there were great festivities.

It was a great pleasure to me, on my return to Kashgar, to meet a fellow-countryman in the person of the missionary, Mr. Högberg, who had come there with his wife and little girl, a Swedish lady missionary, and a converted Persian, one Mirza Joseph. In the first place, coming there at all with two ladies had been an imprudence; for the Mohammedans could not be brought to believe other than that Mr. Högberg had two wives. But when, later on, Mirza Joseph married the Swedish lady missionary, the prospects of the mission in that town were destroyed for many a year to come; for in the eyes of the people of Kashgar Mirza Joseph was still a Mohammedan, and such, according to the Koran, are forbidden to choose their wives from among an unbelieving people. I gladly pass over the construction put upon this marriage and the unpleasantness it caused, but to many in Kashgar it afforded a painful illustration of the way in which missionary work is often mismanaged, and how lightly missionaries take the grave responsibilities which they have voluntarily incurred.

When Mr. Högberg found that it would be dangerous to begin an active propaganda at once, he wisely restricted his energies to the manufacture of various common household articles, such as the people of Kashgar would find useful, and such as they made themselves in a very primitive fashion. For instance, he constructed a capital machine for the treatment of raw silk, to say nothing of spinning-wheels, bellows, etc.—all extremely well made and a source of admiration and astonishment to the natives.

It was always a pleasure to meet him and his wife; for, like all the other missionaries with whom I have come in contact, they were kind and hospitable people, and looked at the future from the bright side. One cannot but respect people who labor for their faith in the light of honest conviction, despite the errors of judgment they may fall into.
ACROSS THE TAKLA-MAKAN DESERT
CHAPTER XXXV

TO MARAL-BASHI

At eleven o'clock on the morning of February 17th, 1895, I, together with Islam Bai, the missionary Johannes, and Hashim Akhun, set off to travel eastward to Maral-bashi.

Our caravan consisted of two large arbas or arabas on high iron-rimmed wheels, each drawn by four horses. The straw roof of the first, in which I drove with Johannes, was lined on the inside with a kighiz (felt carpet), and the opening at the back was also closed with felts, to keep out the dust as much as possible. The bottom of the arba was covered with felts, cushions, and furs, to make a soft, comfortable seat; but over the bad roads the vehicle jolted to such an extent that we might as well have been on a rough sea, and the noise it made was deafening. The owner of the vehicles accompanied us; and each team had its own driver, with a long whip, who sometimes walked by the side, sometimes sat on one of the shafts, and whistled. In the other arba were Islam and Hashim, together with all my baggage; and our two dogs, Yolldash and Hamrah, were tied under my cart. The two arbas creaked and groaned along the highway, by the side of the west wall of the town, till we came to Kum-därvaseh (the Sand Gate), whence it was nearly two hours to Yanghi-shahr, the Chinese quarter of Kashgar. There we had a ridiculous adventure.

A Chinese soldier rushed out on us, stopped the horses, and declared that Hamrah was his dog. A large crowd quickly gathered round the carts. I gave orders to drive on. But the man shouted and gesticulated, and finally threw himself on the ground under the wheels, declaring that the dog was his, and demanding that he should be given up to
him. To pacify the fellow, I agreed that Hamrah should be let loose and kept back. If he then followed the Chinaman, the dog was his; but if he followed us, he was ours. No sooner was the dog untied, than he set off as fast as his legs could carry him along the road, and disappeared in a cloud of dust. The valorous Chinaman looked very much crestfallen, and slunk away amid roars of laughter from the crowd.

The day was dull and cold and disagreeable; the sky gloomy; the air still, but filled with a thick dust-haze, which obscured the view. A dense cloud of dust, caused by the great amount of traffic which passed up and down, hung in the willows that lined the road.

At this season of the year the Kizil-su had hardly any current; what little there was was frozen under the double bridge. After passing it we turned to the east, and thus had the river on our left. It was nine o'clock at night when we reached the village of Yaman-yar (the Miserable Place), having driven the last two or three hours in pitch darkness. We ourselves turned in in a rest-house, but the two araba-keshes (arba drivers) slept each in his own vehicle, so as to protect my baggage against thieves.

On February 18th we drove through a number of small villages as far as Faizabad (the Abode of Blessedness), the chief town on the road between Maral-bashi and Kashgar. It happened to be bazaar-day, and the narrow streets were thronged with an unusually busy crowd, resplendent in color. The inhabitants of the neighboring villages resort to the place once a week to lay in a supply of provisions. On the way thither we met or overtook numbers of wayfarers, some on foot, some on horseback, conveying to market various kinds of country produce, such as sheep, goats, poultry, fruit, hay, fuel, wooden household utensils, etc. The long bazaar echoed with the shouting and din of the multitude, as they pushed their way up and down it, squabbling with the stallkeepers, while the vendors vociferously cried up their wares. Every now and again we met women, in large round caps and white veils, Chinamen dressed from top to toe in blue,
donkey caravans slowly forcing their way through the throng. The place was as lively as an ant-heap.

At each end of the bazaar there was a gate closed with wooden doors; but the town was unwalled. Counting the outlying farms, the place numbered between 700 and 800 houses or families. The greater part of the population were Sarts (Jagatai Turks); though Dungans were also numerous, and there were a few Chinese colonists. The town produced rice, cotton, wheat, and other cereals, melons, apples, pears, grapes, cucumbers, and various species of vegetables.

February 19th. After leaving Faizabad we entered a dead level plain, grayish yellow, and of a monotonously barren appearance, covered with dry, finely powdered dust, which blew up at the slightest breath of wind. The dust penetrated everywhere, searching into our furs, into everything we had inside the cart, and collected in thick layers on the roof. We covered the cart with the tent-felts, to try and protect ourselves a little, letting the folds hang down in front as far as was possible without shutting out the view. The dust was so thick and deep that it was like driving over a vast feather-bed, and the wheels of the arbas were almost sucked down into it. Our progress, heavily laden as we were, was necessarily very slow. When walking, the whole foot sank into the dust at every step, and the track you left behind you was nothing more than a series of "caved in" dimples. The unfortunate horses strained at their traces with all their might, till the sweat ran down their sides; they, too, were smothered with dust, and were all of the same dirty-gray color. Three of them were harnessed side by side in front and pulled by means of long traces; the fourth was between the shafts. The shaft-horse balanced the cart, which had to be properly packed, so as not to press upon him with too great a strain. If he stumbled, we might expect a shaking.

Shortly after noon we rested the horses for four hours at the caravanserai of Yanghi-abad (the New Town). In the court-yard there were a number of other arbas, loaded with fuel from the nearest yangal (forest). Then we drove the whole night, from five in the evening to five next morning,
through the pitchy darkness. The road was wretched in the extreme; the arbas lurched and swayed miserably. But, being softly bedded, we were soon rocked to sleep in our cushions, furs, and felts.

February 20th. During the night we managed to lose ourselves, for the arabakeshes seized the opportunity to take an occasional nap. After a good deal of hunting about, in the course of which we were overturned, we eventually got back into the right track. At the village of Kara-yulgun (the Black Tamarisk) we crossed the Kashgar-daria by a wooden bridge. Soon after that we passed through the village of Yaz-bulak (the Summer Spring), which derives its name from the fact that in summer the river overflows its banks and inundates large expanses of the low, flat country on each side of it. Even at that season of the year there were sheets of flood-water still remaining, although frozen over, and in them grew an abundance of kamish (reeds). During the warm season of the year the great road makes a considerable detour to avoid these inundated parts. About five o'clock we arrived at a place of this kind, where a frozen branch of the river stretched right across the road. We were going at full speed, till down went the leaders on the slippery ice. There was a tremendous crackling and splintering. The ice broke, and the wheels of the arba went through to the axle. There it stuck, as if fixed in a vice. All the horses were taken out and harnessed to the back of the vehicle; but it cost us an hour's hard tugging and hauling before we succeeded in righting the cart. After that we tried another place. My arba got over without mishap; but one wheel of the second cut like a sharp knife into the ice, making it hum and whine like a steam-saw. We were obliged to unload the baggage and carry it across. As the weather was cold and disagreeable, Islam Bai made me a huge fire on the bank, while the others were working away to get the arba across. At half past one in the morning we reached the village of Ordeklik (the Dutch Village), and there baited a while.

February 21st. Just beyond the station we entered a thin
poplar forest, which, however, gradually became thicker. The road was in some places rather deeply trenched in the loess, and often ran between low conical hills, crowned with tamarisk and other bushes. The court-yard of the rest-house of Tungan-masar (the Grave of the Dungan Saint) was surrounded by cart-sheds on piles, with a roof made of twigs and branches. The saint's grave was indicated merely by a pole hung with tughs or offerings of rags. We encamped for the night at Kara-kurchin, a good way from the river.

February 22d. We drove the whole day through a forest, which was said to be the haunt of tigers, wolves, foxes, deer, antelopes, and hares. The station of Chyrgeh was rather more than four miles from the Kashgar-daria.

These station-houses, with their stacks of hay and fuel, their sheds and carts, were often very picturesque and full of life—cattle, sheep, cats, dogs, and poultry. Eggs, milk, and bread were obtainable everywhere. The traffic was mostly carried on by means of donkey caravans, conveying cotton, tea, carpets, hides, etc., between Kashgar and Ak-su.

The distance between the two places is about 340 miles, and is divided into eighteen örlüng (i.e., stages), each a day's march for an arba or a caravan. The Chinese mails, on the other hand, are carried in three and a half days, especially if they contain documents of importance. At every station there is a Chinese post-superintendent and three Mohammedan assistants, one of whom acts as servant to the Chinese postmaster, while the other two carry the mails. The mail-bags are only taken to the next station, whence they are immediately conveyed another stage by another man on horseback. Every station keeps ten horses, and the mails are carried quickly and punctually. Since the Chinese Government, at the suggestion of the British Government, introduced telegraphic communication, the old postal service no longer possesses the importance it used to have, particularly between Kashgar and Ak-su, and from thence to Kara-shahr, Urumchi, Khami, Su-chow (Su-chau), and Liang-chow-fu. It was strange to see telegraph-posts so far in the interior of
Asia. They were put in as straight a line as possible and with scrupulous care. When the Chinese were working at them, they were accompanied by an army of Sarts, with arbas, who provided them with victuals and tools.

February 23d. The forest ceased some distance before reaching Maral-bashi. From the point where it did cease the road was bad, and the country bare and uninteresting. We crossed the Kashgar-daria a second time, at a spot where it was dry, by a small wooden bridge, and drove past the Chinese fort of Maral-bashi, with its battlemented walls of kiln-made bricks and small towers at the corners. It was said to have a garrison of 300 men. The chief bazaar of the town, which ran from west to east, was very long, very straight, and very dirty, and was lined with the shops of the Chinese and Sarts. Off it opened the gates of the caravanserais. We were allowed a couple of rooms for ourselves and our paraphernalia in a miserable hovel.

February 24th. Maral-bashi, together with the neighboring kishlaks, was said to amount to a thousand households. The town is also called Dolon, and in certain parts of East Turkestan—for instance, in Yarkand—this name is the only one in use. The word dolon signifies "a wild wooded tract, without villages," and is used here in contrast with Kashgar and Ak-su. The inhabitants, who are proud of being called Dolons, have the same language, customs, and religion as the rest of the population of East Turkestan, but seem to be somewhat differentiated from them, in that they approach more nearly to the pure Uigur type.

I took a walk through the little town, which is not of much importance, though, like Faizabad, it has two small gates, here also situated at each end of the bazaar, and called Kashgar-därvasah and Ak-su-därvasah (the Kashgar gate and the Ak-su gate). There were two principal mosques, called Dolon and Mussafir, with simple façades of gray clay, and wooded balconies inside the court-yard. The former was situated near the Ak-su-därvasah, and outside of it there was a burial-ground (gabristan). Here we came upon the Kashgar-daria, containing a little water almost stagnant; and from
it ran ariks (irrigation canals), which were used for driving mills situated near the banks.

We went to look at one of these mills; it was simply a thatched shed resting on piles. The corn was ground in a corner of the shed between horizontal millstones, brought from Kashgar at the cost of 100 tengeh (22s. 6d.) each. They can be used for about five years before being worn out. Just at that time maize (konak) and wheat (bogdai) were being ground. The miller’s perquisite was one-sixteenth of the flour ground, and he could grind from 32 to 40 chärecks (= 16 jings or 24 lbs. avoirdupois) in a day. In another place rice was being husked. Raw rice before being husked (paddy) is called shall; whereas pure white rice, freed from its awns, is called grytch. The husking-mill consisted of a water-wheel running on a horizontal crank and driving a couple of wooden hammers, which fitted into two hollow slanting grooves, in which the raw rice, or paddy, was poured. The rice was freed from its husks and awns by repeated beatings of the hammers, the refuse being afterwards sifted away. Every sackful of rice was put three times through the mill. For this the miller got a tithe of the husked rice, and he could finish 15 chärecks in the day. As a chäreck of rice costs 4 tengeh in Maral-bashi, the man thus earned 6 tengeh (1s. 3d.) a day. Large quantities of rice, maize, and wheat are grown in the neighborhood.

In the morning a Chinese official and four begs came to welcome me in the name of the amban (governor of the town). The begs were extremely civil and communicative, and considered that my plan of crossing the Takla-makan Desert was feasible. They told me that there once existed a large town called Takla-makan in the desert midway between the Yarkand-daria and the Khotan-daria, but for ages it had been buried in the sand. The whole of the desert was now known by this name, although it was sometimes shortened to Takan. They reported further that the interior of the desert was under the ban of telesmat (an Arabic word, meaning “witchcraft,” “supernatural powers”); and that there were towers and walls and houses, and heaps of gold tacks and silver
jambaus (tack and jambau being Chinese coins). If a man went there with a caravan and loaded his camels with gold, he would never get out of the desert again, but be kept there by the spirits. In that case there was only one way by which he could save his life, and that was by throwing away the treasure. The begs thought that if I followed the Masar-tagh as far as I possibly could, and took a supply of water with me, it would be possible to cross the desert. But under no circumstances could horses cross it; they would certainly die.
CHAPTER XXXVI

AN EXCURSION TO THE MASAR-TAGH

FEBRUARY 25TH. From Maral-bashi I made an excursion to the Masar-tagh, a mountain-range a day's journey to the east of the town. Only one driver, Islam Bai, and Yolldash were of the party, and the lightly laden arba carried us swiftly along the road. After a couple of hours' driving the mountain became visible through the dust-haze, as a somewhat darker background, with a serrated crest. We turned off to the right from the high-road to Ak-su and struck across a hard, barren steppe with thinly scattered tussocks of grass. Then we passed between two spurs of the mountain. The one on the right, which was larger than the other, was a wild, rugged highland region, exhibiting proofs of severe weathering and of the erosive power of the wind. Its rock was a species of light-green crystalline schist. At the base of the mountains there was sufficient grass for a few small kishlaks (winter pasture).

Not far from the northeast foot of the mountain stood the Ullug-masar (the Great Tomb), surrounded by a gray wall of sun-dried bricks. The first place we entered was a large square court-yard, in which a ring of long sticks were thrust into the ground round a bush. Both sticks and bush were hung with flags and pennons, some white with red edges, others entirely red or blue; others again were three-tongued, with vandyked edges, and so on. Thence a door led into a khanekeh, or prayer-house, the floor of which was covered with carpets. At the far end there was an open wood-work screen, and behind it the tomb of the saint, marked by an ordinary tombstone, in a square, dark room decorated with flags, tughs (rags), deers' antlers, and the horns of wild sheep.
The shrine, together with its gumbez (dome), was built of kiln-burnt bricks, and was visited every Friday by pilgrims from the neighborhood. In the outer court there was an ashbazinghahweh, or kitchen, where they cook their food.

We took up our quarters in a hospitable house in the kishlak of Masar-alldi (in front of the Saint’s Tomb), and were at once visited by the dignitaries of the place. I got a good deal of valuable information out of them. For instance, they told me that in that part of its course the Yarkand-daria was divided into two arms, and went on to describe three very large lakes situated in the neighborhood, which not only increased in size when the river was in flood, but also abounded in fish. I was especially interested to learn that the Masar-tagh continued in a southeasterly direction through the desert as far as the Khotan-daria, though the information seemed, on the whole, to be doubtful, as none of the men had themselves seen how far the mountains extended into the desert.

Some of them called the desert Dekken-dekka, because a thousand and one towns are said to be buried under its wastes of sand. Moreover, vast stores of silver and gold might be found in them. It was possible to reach them with camels; and probably water would be found in the depressions.

February 26th. It was now my object to obtain a general idea of the Masar-tagh. Accordingly we took a guide and drove along their eastern foot in the arba, having on our left a marsh shut in by barren sand-hills. After a three hours’ drive we reached the Kodai-daria (the Swan River), the northern branch of the Yarkand-daria, a good hundred and twenty yards broad, and covered with soft ice, which bore men on foot but broke under the weight of the arba. The boat which the Dolons used when the river was high was frozen fast in the ice. In summer, when the river is in flood, enormous volumes of water flow through both branches, causing them to overflow and unite into a lake-like expansion, while at the same time considerable stretches of the woods on the right bank of the river become half inundated.
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In the beginning of April a large number of Dolons resort thither with their flocks, and there spend half the year in the woods, dwelling in reed huts erected in situations where they are safe from inundation. These summer camps, some of which still remained in situ, are called yeyliks. Thus the Dolons may be said to be semi-nomads.

When I could get no farther with the arba, I mounted a horse, and taking one man with me, rode over the Masar-tagh by a very difficult pass, and then proceeded along the western foot of the mountain, till I came to the reedy Shor-kul (Salt Lake), which, however, contained perfectly fresh water and swarmed with wild geese. The mountain was built of a species of coarse-grained eruptive rock, encumbered all along its base with fallen fragments of stone, which were polished and carved by the wind into grotesque, saucer-like hollows, overtopped by rounded masses poised on narrow stalks or pedestals. The Shor-kul, which lay parallel to the left bank of the Yarkand-daria, was a typical fluvial lagoon. It owed its origin to the gradual deposit of sediment in the bed of the river, lifting the current above its banks until it overflowed on to the lower lying country on each side.

We returned to camp by way of the Ullug-masar. The Masar-tagh we found consists of crystalline schist, porphyry, and a species of rock resembling sienite. It stands like a ruin in the angle between the Kashgar-daria and the Yarkand-daria, and is itself looked upon as a masar or saint's tomb.

February 27th. We now returned, in a north-northeast direction, to the great Ak-su road, which we struck at Charbagh (the Four Gardens). Once more we crossed the Kashgar-daria, or rather the numerous branches into which it was there divided, each spanned by a small wooden bridge. Soon after that the hill of Akhur-masar-tagh loomed out through the dust-laden atmosphere, one of its projecting spurs crowned with the masar Hazrett-Ali. There had been some wind in the morning from the east; but towards mid-day it came on to blow rather strongly, enveloping everything in an impene-trable dust-haze, while clouds of dust hung along the road in
the track of our arbas. Every now and then we caught a
glimpse of trees and bushes, of houses and villages, looking
as though they were covered with dirty water. There were
but few travellers on the road in such weather.

Mount Tumshuk, which sent out four spurs towards the
north, now came into view. On its steep slopes, built up like
the seats in an amphitheatre, but clinging to the naked rock
like swallows' nests, were a number of ruined houses and
walls, ascending as high as 60 to 80 feet above the level
ground. Two different periods of architecture were plainly
distinguishable. The houses of the older period were built
of burned bricks, while those of the later period were con­
structed of sun-dried clay. On the level ground, at the foot
of the mountain, there were also a great many ruins. All
these are the remains of an old city, which was no doubt pro­
tected by a citadel crowning the mountain behind. The
region is now sterile and uninhabited; changes in the chan­
nel of the Kashgar-daria having in all probability led to the
desertion of the town.

February 28th. One hour northwest of the station Tum­
shuk lay another collection of ruins known as Eski-shahr (the
Old City). These, too, I visited. The best-preserved building
was a square structure, each of its sides ten yards long, built
true to the four cardinal points, and with a doorway to the
east. It was constructed of hard-burned bricks, and had prob­
ably been a mosque. The corners in the interior were dec­
orated with friezes in relief. The doorway, too, was embel­
lished with ornamental brick-work, and perhaps in its day had
been covered with tiles.

There was a hill in the vicinity, from which two parallel
ridges projected towards the northwest; there we discovered
the ruins of former stone walls. The style of architecture
was Mohammedan; accordingly these archaeolog.ical remains
could not date back more than 1150 years.

The storm still continued. About mid-day the sun was
darkened, as when a thunder-storm threatens; sand and dust
whirled along the ground, and rose in spinning columns into
the air. Thinking discretion the better part of valor, we
hastened to return to the rest-house at Char-bagh, and a disagreeable drive it was. Every breath we inhaled was charged with choking dust; even the horses in front of the arba disappeared from view every now and then, so that, when we reached our destination, we were absolutely smothered with dust.

March 1st. The storm subsided, and we had good weather for the return journey to Maral-bashi, where to my delight I found letters awaiting me from home. The post-jighit (courier) who brought them was a capable fellow, an old Sart from Osh in Fergana, whom I had seen before on the Murghab. I took him for the time being into my service.

An old man of eighty, who heard that we were going to try and cross the Takla-makan Desert, came to my house, and told me that in his youth he had known a man who, while going from Khotan to Ak-su, lost his way in the desert, and came to an ancient city, where he found innumerable pairs of Chinese shoes in the houses; but directly he touched them they crumbled to dust. Another man started out into the desert from Aksak-maral, and by pure chance stumbled upon a town, amid the ruins of which he unearthed a quantity of gold and silver jambaus (Chinese coins). He filled his pockets with them, as well as a sack he had with him. As he was going off with his booty a pack of wild-cats rushed out upon him and frightened him so much that he threw everything away and took to flight; when, sometime afterwards, he plucked up courage to venture his luck a second time, he was unable to find the place again. The mysterious town was completely swallowed up in the sand.

A mollah from Khotan was more successful. He had fallen into debt, and went into the desert to die. But instead of dying he discovered a treasure of gold and silver, and was now an exceedingly rich man. The number of those who had gone into the desert with the same design, and never returned, was legion. The old man solemnly assured me that the evil spirits must be exorcised before the hidden treasure could be sought for with any likelihood of success. The spirits bewitch the unhappy beings who venture thither, so
that they become confused and bewildered, and without knowing what they are doing they go round and round in a circle, retracing their own footsteps, and go and go until they fall down from sheer exhaustion, and die of thirst.

There is a tribe of ne'er-do-wells hanging about the places round the outskirts of the desert, who firmly believe that sooner or later they will discover the hidden treasures which lie buried among its sands. These gold-seekers are always looked at askance by their neighbors, and should be avoided. They will not work; but live on the hope of making their fortune at a single stroke. They are parasites, a burden upon their neighbors, who in their "spare time" occupy themselves with thieving and robbery. For, needless to say, they never find any hidden treasure.

But whence do all these legends come? How explain all these confirmatory accounts of buried cities, and these vary-
ing traditions of the great city of former times, Takla-makan, which was swallowed up in the sand? Is it merely by accident that these legends fly from mouth to mouth in Khotan and Yarkand, Maral-bashi and Ak-su? Is it merely by accident that this ancient city is always known by the same name? Is it merely for the sake of making themselves interesting that the natives describe these deserted houses in detail, which they say they have seen, and where, they say, in former times there were great forests, the home of the musk-deer and other big game? No, it cannot be by chance; these legends must have a foundation and a cause. Deep under them there must verily be some reality for them to rest on; they ought not to be scorned, they ought not to be despised and neglected.

To these fabulous, these adventurous tales I gave the eager ear of a child. Every day added to the allurements of the perilous journey I contemplated. I was fascinated by all these romantic legends. I became blind to danger. I had fallen under the spell of the weird witchery of the desert. Even the sand-storms, those terrible scourges of Central Asia, which have their cradle in the heart of that sand-heated furnace—even they were in my eyes beautiful, even they enchanted me. Over there, on the verge of the horizon, were the noble, rounded forms of the sand-dunes, which I never grew tired of watching; and beyond them, amid the grave-like silence, stretched the unknown, enchanted land, of whose existence not even the oldest records make mention, the land that I was going to be the first to tread.

March 2d. Having paid and settled up, we left Maral-bashi, and drove southwest towards the village of Khamal (the Wind), situated on the left bank of the Yarkand-daria. The road led across a slightly broken steppe country, with scanty herbage, tussocks of grass, and bushes. Khamal was inhabited by thirty families, who cultivated wheat and maize; their fields being irrigated by an arik (irrigation canal) led from the river. During the summer, when the river is in flood, it overflows and inundates wide tracts along the banks. The spring floods, caused by the melting of the winter ice,
likewise bring down considerable quantities of water, as we witnessed every day.

March 3d. Through jungle and reeds, through poplar groves, across small belts of sand, and through marshes, where the ice was just on the point of breaking up, our creaking carts ploughed their way along the western bank of the Yarkand-daria. Wild boar abound in the jungle, and do much damage to the crops in the villages around. To prevent this the natives put up sheds here and there about the fields; and there they live and keep watch when harvest time is approaching.

The amban (Chinese governor) of Maral-bashi had given orders beforehand to the on-bashis (chiefs over ten men) of the various villages that they should receive me in a fitting manner; and as a matter of fact his words were carried out to the letter. At every place we stopped at we found rooms ready prepared, and everything we needed in the way of food for ourselves and for our animals was provided for us.

Aksak-maral (the Lame Deer), where we made our next stop, consisted of thirty houses, most of them occupied by Dolons, who reared cattle and sheep, and grew wheat and maize. The winters there are cold, but the snowfall is inconsiderable. The springs are windy. The small amount of rain which falls generally comes in the autumn, often to the detriment of the crops.

During the night, when the air was still and cold, and the currents set up by the active radiation of the daytime ceased to rise, the atmosphere generally cleared. So it did to-day. During the morning and afternoon the sky was an ashen gray; but in the evening the moon and stars shone fairly bright in the zenith, although near the horizon they were swallowed up in the dust-haze. In the morning again the blue sky was only visible at the zenith, but gradually merged into gray towards the horizon.

March 4th. Our day's march took us across a very extensive marsh, through which the Chinese authorities had built a road some seven years previously. As it was built to withstand the encroachment of the floods, it was constructed
of piles, stakes, fascines, and earth. It wound through the marsh like a narrow ribbon; and in certain places was carried over bridges, so as not to check the free flow of the water. In spite of this, however, the road is frequently inundated during the months of June, July, and August, compelling travellers to go all the way round by Kashgar. The marsh is in reality a low-lying lagoon, and is said to have existed from time immemorial. It is called Cheraylik-tograktasi-köll (the Fair Poplar Lake).

Ala-ayghir (the Dappled Mare) was the name of the next station, a kishlak of twenty-five Dolon families. The same conditions of life and climate obtained there as in the foregoing villages. There, too, east winds prevail during the spring. Between Maral-bashi and Yarkand there was Chinese postal communication, as well as in general a very lively traffic, carried on chiefly by means of arbas (carts) and donkey caravans. Camels are very seldom used.

Ala-ayghir was situated rather more than half a mile from the Yarkand-daria; but when the river rises in the summer, the water reaches the village. Two years ago even the winter shore-line ran just below the village; but I was told that, more particularly during the last few years, the river has shown a tendency to shift its channel somewhat to the east.

March 5th. We drove ten hours to day, often over heavy roads, soaked in water, so that the wheels of the arbas cut deeply into the sandy mud. We passed three villages; and at the fourth, Meynet, we turned in at an unusually comfortable caravanserai. On the wall was posted a large yellow placard, in Chinese and Turki characters, conveying the following paternal announcement: “Whereas I (the Emperor of China) have heard that certain begs have imposed unlawful taxes on my people, and have furthermore monopolized their rights of fishing, it is my will and desire that all such infringements be forthwith reported to the nearest Dao Tai, and if the latter will not listen to and remedy the same, the people shall address themselves direct to me.—Kwang Tsü.” Poor Kwang Tsü! He has never even heard of the village of Meynet, and what cares he for the fishing in the Yarkand-
daria? Meynet boasts of fifteen Dolon households. The belt of river-forest was at that point only a few miles broad, and soon thinned and died away in the desert. Wolves were common, and preyed upon the flocks. On the other hand, there have been no tigers for many years, except that a couple of years ago a single tiger showed himself at Ala-ayghir.

March 6th. The first few miles ran through luxuriant poplar woods, until we came to the river. It was there divided into two principal branches and many smaller ones, still sheeted with soft ice, except that there was a belt of open water close under the banks.

Our stopping-place for the day was Lailik (the Dirty Clayey Place), the last village in this direction subject to the amban of Maral-bashi. On the south it adjoined the Yarkand district. Its population consisted of fifteen Dolon families. Fishing was carried on in the river, the maximum height of which at the season of high flood was said to approximate the added statures of five men. The velocity of the current was pretty considerable, though not so swift as the pace of a mounted man. It takes a man on horseback four days to reach Maral-bashi, whereas the river wants as much as ten days to do the distance.

March 7th. Lailik was for some time our headquarters, as considerable preparations had to be made for our expedition across the desert. The most important difficulty was the procuring of camels. I had been rather misled by the merchants in Kashgar, who told me that Maral-bashi was the best place to get good camels. We hardly ever saw a camel there. I had no resource except to try and procure some from Kashgar. This mission I intrusted to Mohammed Yakub, who, in any case, had to go there to post letters and bring others back. A fairly good camel cost 500 tengeh (£5 15s.) in Yarkand; but in Kashgar only 400 (£4 12s.). Yakub took with him letters to Consul Petrovsky, and to the aksakal, asking them to assist him in the transactions, and within ten days he was to be back again, bringing with him eight fine camels and two men.
Our arabakeshes were now dismissed, being paid 200 tengehs (£2 6s.) for the journey from Maral-bashi. They thought of going to Yarkand to try to get work there, and meant to fill their two arbas with firewood from the last patch of forest along the road. A donkey-load of firewood was worth three tengeh (8d.) in Yarkand, and an arba would hold ten such loads, so that the men hoped to make an extra sixty tengeh (13s. 9d.) by the return journey.

Islam Bai was despatched to Yarkand on horseback to buy several things that were required for our desert expedition—for example, iron tanks for water, bread, rice, ropes, and a number of tools, such as spades and hatchets. I also instructed him to bring a supply of sesame oil (yagh), and the chaff from the crushed seeds of the same plant (kynchyr), etc. The oil was intended to feed the camels on in the desert. A jing (not quite one pint) of oil will sustain a camel for a month without other food; though it is always a great advantage to find supplies of herbage during the march, so that the animals may to some extent freshen up and recover from their exertions. In March and April they cannot well go longer than three days without water; but in the winter, and on level ground, they can last out six or seven days if necessary.

My party had vanished like chaff before the wind. The missionary Johannes was the only one now left.

March 8th. I walked through the young forest as far as the river in order to take some observations; and found a ferry-boat, which was puntet across in seventy seconds, and which could carry seven horses, six donkeys, and twenty men at once.

The two banks were very dissimilar. The left bank was low, flat, and bare, with many sand-banks. The right bank was worn perpendicularly by the current, which ran immediately underneath it; and was luxuriantly wooded with poplars and tamarisks, whose roots stuck out of the fine alluvial soil of which it was composed. The river thus showed a marked tendency to press against the right bank, and eat it away. But the current meandered so much that in other places it
was the left bank which was eroded, although on the whole to a much less extent than the right bank.

The forest on the right bank was six feet above the level of the stream; nevertheless it is overflowed in July. The breadth of the river was 200 feet, the maximum depth six feet three inches, velocity of the current two feet eight inches in the second, and its volume 3060 cubic feet in the second—a volume which must be inconsiderable when compared with the masses of water which in the height of summer pour down towards Lop-nor. The temperature was 46.9° Fahr. (8.3° C.), and there was no ice anywhere. The water was, however, only transparent to a depth of barely two inches.
CHAPTER XXXVII

THE SHRINE OF ORDAN PADSHAH

March 9th. With the view of employing profitably the time while my men were away, I decided to visit the shrine of Ordan Padshah in the desert, two days' journey west of Lailik. I got hold of a man who knew the way; and at eight in the morning we were in the saddle, riding at a smart pace west-nor'west, first through forest, which gradually passed over into brushwood, then across steppe-land, which in its turn gave place to the desert. The sand, however, was not deep, nor the sand-dunes high; but the latter had their steep slopes facing westward, indicating the prevalence of easterly winds at that season of the year.

It was an interesting excursion; for the region had never before been visited by a European. After leaving the large village of Mogal (Mongol) on our right, we came to Terem, where the beg placed his house at my disposal. I required little room, however, for I had nothing with me beyond the barest necessaries, and only had two horses.

The villages of Terem and Mogal consisted of 200 households each, and were governed by a beg and eight on-bashis; though a Chinese tax-collector also lived there. The word Terem means a "cultivated place," and the inhabitants told me that in point of fact Terem was in former times famous for its good harvests and abundant water-supply. People came thither from all parts to buy corn. The change which has taken place must unquestionably be attributed to the alteration in the course of the river. The place now gets its water-supply from the great irrigation canal of Khan-arik, which issues like a main artery from the Ghez-daria, and, passing through the villages of Tazgun and Khan-arik,
stretches its last net-work of arterioles as far as Terem. But the supply is insufficient, irregular, and uncertain, and consequently the harvest often fails.

In the case of the Khan-arik there exist special regulations, made by the Chinese authorities, by which each village is only allowed the use of the water for a certain time. Terem had now been furnished with water for three months past; but in twelve days' time the supply would be cut off, and for four whole months not a drop would reach it from the irrigation system. The inhabitants would be obliged to content themselves with what their wells would yield. Late in the summer they would again have the use of the life-giving waters for the space of thirty-four days.

On March 10th we left Terem, and rode in a westerly direction through steppe, desert, and marsh. Here I made the important discovery of four ancient river-beds, now, however, dried up, but still very plainly marked, each from one hundred to a hundred and ten yards broad, and running towards the north-northeast. They could not possibly be anything but deserted channels of the Yarkand-daria. In Bai-khan-köll (the Rich Khan's Lake), a salt and shallow sheet of water, with marshy shores overgrown with kamish (reeds), we nearly stuck fast altogether. The lake is largest in winter, when it becomes frozen; but in summer the water evaporates almost entirely, despite the fact that the lake receives the overflow of the ariks of the Yanghi-hissar. In the district of Kizil-ji we crossed by a bridge another prolongation of the ariks of the Yanghi-hissar. In that neighborhood there was a saint's tomb called Kizil-ji-khanem, an interesting fact, for the name occurs in the map of Edrisi, the famous Arab geographer of the twelfth century.

At the point where the desert proper began, and where the sand-dunes were about twenty-five feet high, stood the insignificant village of Lengher (the Rest-Station). There a dervish resides during the great annual religious festivals, to take charge of the pilgrims' horses, which are left to graze on the grass and kamish which abound in the neighborhood. He also sells maize to the pilgrims, and supplies the shrine
with fuel. Beyond this place the sand-dunes were fairly continuous; but as they ran south-southwest to north-northeast, and we were riding south-southwest, we were generally able to take advantage of the intervening hollows, where the soil was hard clay.

An hour's ride short of the shrine we caught up a party of forty-five pilgrims—men, women, and children—who were on their way thither from Lengher to pray at the tomb of the saint. Fifteen of the men carried tughs—i.e., long sticks with white and colored pennons fluttering from the ends. At the head of the procession rode a flute-player, and on each side of him was a man banging away at a drum as hard as hands and arms could move. Every now and then the whole concourse shouted "Allah!" at the full pitch of their voices. When they drew near to the shrine they greeted the sheikh who had charge of it with wild howls of "Allah! Allah!" while the standard-bearers performed a religious dance.

It was dusk when we reached the khanekah (prayer-house), adjoining the shrine, and standing in a village of twenty-five households. Most of the people only sojourn there for a short time; but four families remain the whole year round to take care of the saint's tomb. The principal sheikh, who also has control over the Hazrett Begim's tomb, was for the time being absent at Yanghi-hissar. He constantly travels backward and forward between the two shrines, spending some time at each, and for this reason has a wife at each. One of the resident custodians informed me that every winter 10,000 to 12,000 pilgrims visit the shrine of Ordan Padshah; but in the summer there are usually not more than 5,000, as at that season of the year the heat and scarcity of water render travelling irksome. The pilgrims who came from Lengher at the same time we did brought with them two sacks of maize as an offering, and placed them in a bronze vessel in the prayer-house. Then they made a thorough good meal off it, in which they were joined by the custodians of the shrine. The tribute was, however, a prayer for a fruitful year.

There were eight houses in the village, standing in two
rows, with a street running east to west between them. To the north two or three more houses were half buried in the sand-dunes, which were threatening the village itself.

I was assigned an exceptionally comfortable room in the upper story of the guest-house, with latticed windows, looking out upon the dreary desert on the south. In spite of the hideous din that was kept up in the street below all night long, by the pilgrims marching in procession backward and forward, playing flutes, singing, beating drums, and waving flags, I slept soundly till morning. When I awoke I found a furious sand-storm blowing, and clouds of dust whirling in through the latticed window and dancing in giddy eddies round the room.

March 11th was devoted to making a nearer acquaintance with this curious place of pilgrimage, which has only been visited once before by a European—namely, by Major Bellew, in April, 1874. He reached it from the west, I approached it from the east; our investigations, therefore, supplement each other.

In addition to the principal sheikh, the permanent personnel of the shrine consisted of an imam or reader of prayers, a mulevelleh or steward of the shrine properties, and twenty stipehs or men-servants. All these are fed and maintained at the exclusive expense of the pilgrims. These, according to their circumstances, bring horses, sheep, cows, poultry, eggs, seed-corn, fruit, khalats (coats), and other useful articles. With the exception of the live-stock, everything goes into the largest of the metal vessels set apart for receiving the pilgrims' offerings. Of these there were five, all built into a brick fireplace, in the walls of the kazan-khaneh, or "caldron-house." The Altyn-dash, or Gold Stone, as the largest of the five vessels is called, was about five feet in diameter, and was made of bronze; it is said to date back eight hundred years, from the time of Ordan Padshah himself. Next came a handsome copper vessel, 3 feet 4 inches in diameter, a present to the shrine by Yakub Beg of Kashgar, who himself made three pilgrimages to the place. The other three were smaller and of various sizes. When there is a great influx of pilgrims,
the custodians of the shrine make *ash* or pillau (mutton with rice and spices) in the biggest vessel for everybody at once. At other times the smaller vessels are used, according to the number of the pilgrims. The “caldron-house” was built two years ago. The old one is now half buried in a sand-dune, which already threatens to enclose the new structure within the horns of its hollow crescent. The winds which determine the movement of the sand-dunes in this region blow from the northwest.

On the windward side of the nearest sand-dune was a half-buried grave-mound decorated with tughs. It contained the dust of Shah Yakub Sheikh, and was said to be 710 years old. According to the direction in which the dunes are at present moving, the tomb will soon be entirely exposed again. The maximum breadth of the sand-dune was nearly 400 feet, and its height about 16 feet, so that it overtopped the roofs of the houses. The little village stands in the clay hollow between the leeward side of this sand-dune and its nearest neighbor on the southeast, on a space some 170 yards broad. In violent storms the sand is blown right across from the one dune to the other.

The khanekah, or prayer-house, contained an oratory, and a balcony, with an eastern aspect, supported by sixteen pillars. Immediately north of the village the fresh-water spring, Chevätt-khanem, bubbled up out of the ground, filling a round pool surrounded by a wooden railing. The water was tolerably clear, considering that the sand was only cleaned out once a year; but it issues so slowly that it is insufficient on festival days. On such occasions the pilgrims have to fall back upon another spring, Cheshmeh (a Persian word meaning “a spring”), which yields saltish water, and is ten minutes farther away.

At a distance of twenty minutes towards the northwest stood the saint's masar or tomb, a truly extraordinary structure. It was composed of a sheaf of two or three thousand tughs, each with a pennon attached, stacked up in the shape of an Eifel tower. Standing forty feet high, on the top of a sand-dune, it was visible to a great distance. An attempt has
been made to render the dune stationary by planting sheaves of kamish (reeds) in the sand round the masar; and the expedient has been to some extent successful, for the portion of the sand-dune upon which the masar stands projects so far towards the northwest — *i.e.*, to windward — that it is now threatened by the dune which comes next on that side.

The sand-storm raged with undiminished violence, so that the hundreds and hundreds of pennons flapped and fluttered furiously, with an endless series of small reports. These tughs are brought there year after year by the pilgrims, so that the curious sheaf goes on increasing in size. To prevent the whole structure from being blown over, the sticks are secured at the top by a couple of square wooden cross-pieces. A number of smaller bundles of tughs form a fence, thirty yards square, all round the tomb.

The imam told me something of the story of Ordan Padshah. His real name was Sultan Ali Arslan Khan; and eight hundred years ago he was at enmity with the tribe of Togdarashid-Noktarashid, among whom he was endeavoring to propagate Islam. In the midst of the strife he was overtaken by a kara-buran, or black sand-storm, from Kharesm (Khiva), which buried him and the whole of his army. Hence to this day he plays an important part in the martyrology of East Turkestan.

In the afternoon we rode through the villages of Dostbulak (the Friend’s Spring), Khorasan, and Psänn due north to Achick (Bitter), the yuz-bashi of which received me in a friendly spirit, telling me a good deal about the climate and the roads in the vicinity.

March 12th. Having an eight hours’ ride to Terem, we started early, and rode through a strong nor’westerly gale. The district between the two places was chiefly of a marshy, steppe-like character, with occasional thickets of tamarisk, thistles, and tussocks of grass; which, when they get thoroughly dry, are often uprooted, curled into balls by the wind, and so swept along the ground. The surface was covered with fine loose dust, which was driven up like smoke before the gale. We often rode through swamps of stagnant arik-
water, and were sometimes constrained to make détours to avoid the more sodden places. In so doing we managed to lose our way several times, but were put right by shepherds, who with the help of their dogs were guarding their flocks of goats and sheep.

Not a glint of the sun was discernible. The sky was a ruddy yellow, sometimes turning to murky gray. When we eventually reached Terem, by way of Kötteklik (the Dead Forest), both horses and riders were smothered in ash-gray dust.

March 13th. The gale still continued unabated. To-day, however, the wind veered round to the north and northeast. It was thus a three days' storm, what the natives call a sarik-buran (yellow storm), because it just tinges the sky yellow.

From Terem we rode southeast to the village of Terek-lengher (the Poplar Rest-house), on the Yarkand-daria. It was nine hours' smart riding through a country known by the name of ala-kum—i.e., alternating steppe and sandy desert. In the vicinity of the river we crossed a bridge spanning the Khandi-arik, an important irrigation canal, which takes its rise a day's journey above Yarkand, and supplies a great number of villages with water. Nine years ago it was repaired by command of the Chinese, a task which is said to have given employment to eleven thousand men. This vast undertaking seems to have been considerably simplified in the first instance by the utilization for long distances of a former bed of the Yarkand-daria. Between the canal and the river several former river levels were clearly distinguishable. The villagers declared that at one time the river flowed close past their village, although it was now situated two miles from it. They expressed themselves as well satisfied with this caprice of nature, for it had allowed them to extend their fields over the alluvial soil of the former river-bed.

March 14th. The wind subsided a little to-day, and shifted right round to the east. I noticed that the storms often began in the west, and later veered round by way of north to the east. We kept along the river in a northeasterly direction till we reached Lailik. For some distance the river-bank was very much eroded, rising like a vertical wall to the height of 13 feet, and
disclosing a horizontal stratum of fine yellow soil, sand and alluvium, riddled by numberless roots, which sometimes hung swaying over the water. The first half of the journey took us through a series of villages; then the country was barren until we reached the woods near Lailik, where we arrived just after mid-day, and found everything in good order under Johannes' care.
CHAPTER XXXVIII

ON THE THRESHOLD OF THE DESERT

MARCH 15th. This day marked the beginning of a long period of waiting, extremely trying to my patience. Day after day went by, but no camels arrived. I would gladly pass over these twenty-five days altogether, but find in my notebook certain incidents and facts that are not without interest. I made it my business to gather all the information I could about the desert that stretched to the east. For instance, today I heard of two men who, a few years ago, started from the village of Yantak, on the right bank of the Yarkand-daria, taking with them provisions for twelve days. After three days they reached a disused river-bed, deep and stony, with a wooden bridge across it, but so dilapidated that it would not bear them to walk on it. They thought at first of following up the course of the river; but as they found no water in that direction they retraced their steps, and went down stream, and there discovered quantities of nephrite or jade. After another seven days they reached the mountain of Masar-tagh, where they found kamish and obtained water by digging.

Shahr-i-katak, as a rule curtailed to Ktak, is another legendary town which haunts the same part of the great Asiatic desert. Its reputed situation varies a good deal. At Lailik I was told it lay five potais (twelve and a half miles) west of the village, and that many years ago a man found the ruins there; but when it was searched for afterwards, it could not be found. The people say that none but Allah can lead a man thither. No matter how perseveringly he may search himself, he will never find the place unless God wills he should. I heard also that twelve men were just about to set
out from Yarkand into the desert in quest of gold. They generally choose the spring for these expeditions, as they say that the sand-storms are then more likely to expose the gold. A month previously a man had gone into the desert, and had not returned. At Yarkand the people believe that the traveller through the desert often hears voices calling him by name, but that if he follows them he goes astray and dies of thirst. It is interesting to compare this with what Marco Polo has to say of the great Lop desert: "But there is a marvellous thing related of this desert, which is, that when travellers are on the move by night, and one of them chances to lag behind, or to fall asleep, or the like, when he tries to gain his company again he will hear spirits talking, and will suppose them to be his comrades. Sometimes the spirits will call him by name, and thus shall a traveller oftentimes be led astray, so that he never finds his party. And in this way many have perished."*

To-day Islam Bai returned from Yarkand, bringing with him four chelleks (iron tanks) for water, six tulums (goat-skins for water), sesame oil and seed-husks for the camels, petroleum, bread, talkan (toasted flour), gauman (macaroni), honey, sacks, spades, whips, bridle-bits, bowls, cups, and divers other requisites.

March 18th. During these days I had frequent opportunity of observing how closely the radiation was dependent upon the amount of dust with which the atmosphere was charged. When the atmosphere was nearly clear, the radiation went up to 114.8° Fahr. (46° C.); but after a violent buran it sank to 69° Fahr. (20.6° C.). This was on March 16th; after that the air gradually cleared, so that the radiation on March 17th went up to 81.7° Fahr. (27.6° C.), and the following day it was 97.9° Fahr. (36.6° C.). Concurrently with this the minimum temperature during the night sank after the buran had ceased, while the atmosphere gradually cleared. For example, before the buran the minimum thermometer read 21.2° Fahr. (—6° C.); during the last day of the buran it

rose to 31.3° Fahr. (−0.4° C.), but again fell to 28.4° Fahr. (−2° C.), and yesterday to 25.7° Fahr. (−3.5° C.). In other words, the radiation increased in proportion as the dust dropped back to the earth and was blown away. In the same way the temperature of the air rose in the shade at mid-day in proportion as the atmosphere cleared; thus on March 16th, 17th, and 18th respectively I got readings of 41.7° Fahr. (5.4° C.), 45.3° Fahr. (7.4° C.), and 51.8° Fahr. (11° C.). The quantity of dust with which the atmosphere was charged thus exercised considerable influence upon the readings of the meteorological instruments.

On March 19th we moved over to the large village of Merket, on the right bank of the Yarkand-daria, whence the caravan was to make its start for the desert. In the morning a number of the inhabitants of Merket came to escort us to their village. The beg, Mehemed Niaz Beg, arrived with a present of chickens, eggs, and dastarkhan (light refreshments). He was a tall man, with a thin white beard, and looked energetic and severe. Transport horses were employed to carry over our baggage, and after the on-bashi of Lailik and his pretty wife, who had both been very kind and hospitable during my stay in their house, had been well rewarded with money and cloth, we marched down to the ferry, which conveyed us and our large caravan across in four trips. The ice had evidently ceased to melt farther to the south, for the river had fallen eleven inches since March 8th; and from this time onward it would continue to sink until the summer floods came down from the mountains.

After a quarter of an hour's ride in a southeasterly direction we passed the village of Anghetlik, which received its irrigation water from an eastern branch of the Yarkand-daria. At the end of an hour we reached the village of Chamgurluk, and after another three-quarters of an hour were in Merket. The beg placed his own house at my disposal, and I was soon installed in a large and pleasant room covered with carpets and with niches in the walls.

Counting in the surrounding kishlaks (winter villages) Merket numbered a thousand dwellings, of which 250 were
in the immediate vicinity of the bazaar. The village of Yantak, a short distance farther north, had 300 houses. Yantak, together with Anghetlik and Chamgurluk, constitute a beklik or beglik (administrative division under a beg), while Merket has its own beg. In the latter place dwelt two tax-collectors, two Chinese merchants, and four Hindu money-lenders from Shikarpur. It was a fruitful region, producing wheat, maize, barley, beans, turnips, cucumbers, melons, beet-root, grapes, apricots, peaches, mulberries, apples, pears, and cotton. In good years the crops are so plentiful that large quantities of seed-corn are exported to Kashgar and Yarkand, but in bad years the reverse is the case, and grain is imported from Yarkand.

Although Merket is so close to the banks of the Yarkand-daria, it does not derive its irrigation water from it, but from the Tisnab-daria, the river of Kargalik, which flows parallel with the Yarkand-daria. When the current is low this river does not reach farther than Yantak, but at other times it advances a considerable distance farther north, and forms two small lakes, which, however, are dry at all other seasons. Its right bank, too, is bordered by a belt of forest, but not more than twelve and a half miles broad at the outside. The winters are cold, though the fall of snow is small, and the snow melts directly; the summers, on the contrary, are hot. The rainfall is distributed equally over the whole of the warm season, and sometimes is so heavy that it destroys the flat roots of the houses. Northeasterly winds prevail, and the storms last from two to four days, loading the atmosphere with dust and occasioning a "rain" of dust, which settles on the vegetation in the form of a thick grayish-yellow down.

Strange to say, Merket has never before been visited by any European. The name appears for the first time, though in the form Meket, in General Pievtsoff's account of his travels; but he could not visit it while the Yarkand-daria was in flood. The Chinese, however, have long known the place, for it is mentioned under the name of Mai-ghe-teh in the Si-yi-shuy-dao-tsi, a work published in 1823. According to Chinese transcription, Yantak, or Yantaklik, becomes
Yan-va-li-ke, and Tisnab becomes Tin-tsa-bu. The author of the work in question states that this river unites with the Yarkand-daria, and that certainly would be the case if the water were not employed for irrigation, and did not become dissipated in the small lakes already mentioned. His description, however, may have been correct enough eighty years ago.

In Merket, too, there were some of the loafing gold-seekers I have mentioned. One man told me that, along with some companions, he had travelled for twenty days on foot through the desert, carrying with them supplies of food and water on donkeys. After going seven days east-northeast by the side of gigantic sand-dunes, they reached a long, straggling mountain. They had occasionally seen a few tamarisks, and in some places had obtained water after digging. My informant, besides many others, was in the habit of going out every year into the desert to look for gold, but as yet had found nothing. They called the desert Takla-makan; and the general consensus of opinion was that, given strong
camels, we ought to be able to cross right over it to the Khotan-daria.

In the evening I held a levee. Niaz Beg and the on-bashi of Anghetlik, Togda Khodia, each presented me with a sheep, while the Hindus gave me a goodly supply of potatoes and butter, both exceedingly welcome. Afterwards we were entertained for a long time with the music of a setar (zither) and a ghalin (small harp), which, played in a slow time, sounded very well together, although the music was rather melancholy.

March 20th. Togda Khodia was a thorough gentleman. He often came to see me, and would sit talking in my room by the hour together. When I began to grow impatient at receiving no news of the camels, he always exhorted me to patience, saying with unruffled composure, and with a conviction which allowed of no demur, "Kelladi! Kelladi!" (They will come! They will come!) But nothing was heard of them; and precious time was being wasted. I felt that we were heaping glowing coals on our heads, for spring was upon us, and during the hot season of the year the desert is simply a furnace.

Meanwhile Togda Khodia gave me much valuable information. To-day, for example, he told me that the inhabitants of Merket are Dolons, and that in their own opinion they are in nowise different from the people of Kashgar. They possess a few slight dialectical differences of speech, that is all. But Togda Khodia himself considered them very different from their neighbors. Their natures were hard and cold, and they were so unforgiving that trifling disputes would linger on for years.

The observances of Islam were jealously kept at Merket. On the last bazaar-day, in the middle of the fast, a man ate before the sun set. He was immediately seized, flogged, and with his hands tied behind his back was led in a rope through the bazaar, from every corner of which the following questions and answers were re-echoed as the offender passed:

"Did you eat?"

"Yes."
“Do you mean to do it again?”
“Never.”

It is also customary to blacken the culprit’s face before he makes his penitential promenade through the bazaar.

On March 21st I visited the bazaar. It was very spacious, and every trade and calling had a special alley allotted to it. Nevertheless, there was no trading done except once a week—namely, on the bazaar-day, when stalls and wares are brought out of the houses and arranged on platforms built in front of them. At the time of my visit there were a number of women sitting on the platforms sewing. The women were always unveiled, generally bareheaded, and wore their thick black hair in two long plaits. Sometimes, however, their heads were covered with a small round coif or calotte. A particularly popular occupation with them seemed to be the extermination of certain undesirable parasites, and it was a by no means rare thing to see one woman with her head resting in her neighbor’s lap.

Immediately outside the village there was a sand-dune 25 to 30 feet in height, running south-southwest to north-northeast as regularly constructed as though it had been built of set purpose. Its summit, which was crowned by the masar (tomb) of Chimdereh Khan, commanded a fine view over the village, with its flat-roofed houses surrounding small square court-yards.

At last, on March 22d, Mohammed Yakub came back from Kashgar, bringing a bulky mail-bag, but no camels! I was thus left precisely where I had been at the beginning of the month. Now I fell back upon my excellent Islam Bai, and on the next day sent him off to Yarkand post-haste with peremptory orders not to come back again without camels. Happily I had my meteorological and astronomical observations, to say nothing of the letters I had just received and of old Togda Khodia, to help me pass the time. I did not find Johannes, the missionary, much of a resource. He was one of those morbidly religious people who imagine that true Christianity is incompatible with a sober joy in life, as well as with good spirits. This was no doubt partly due to his
being a converted Mohammedan: such proselytes are often ten times worse than their teachers. However, he was good-natured and helpful, though he always seemed to be depressed and in dull spirits.

A few days afterwards I fell a victim to a very bad and painful sore throat, known by the name of gorkak, very prevalent thereabouts. After I had tried the beg's prescription, which was to gargle my throat with warm milk, but to no purpose, he proposed that I should give the peri-bakshis or spirit-exorcisers a trial. I told him that I did not believe in such nonsense; but that the peri-bakshis were welcome all the same.

After dark, when there was no light in the room save what came from the glowing coals on the hearth, the peri-bakshis were introduced—three big, bearded men, in long white chapans (cloaks). Each carried a drum (doff) of extremely tightly stretched calf-skin, and on these they proceeded to perform by tapping them with their fingers, beating them with the flat of the hand, and thumping them with their fists. The drums gave out such a volume of sound that it might have been heard at Lailik, six or seven miles off. The performers beat the instruments at an incredible speed, and all three in exactly the same time. After tapping the drums with their finger-tips for some time, all three would give a bang at one and the same moment, and then follow it up with half a dozen hollow whacks with their fists. Then the finger tapping would begin again, and the whole process be repeated without a moment's cessation. Sometimes they sat still; sometimes they were so carried away by their peculiar music that they got up and danced; and sometimes again they tossed their drums into the air and caught them with a bang. At every round, which lasted five minutes, the beating recurred in a certain order, which explained the fact that all three were able to keep time so well together. The full measure of rounds for putting evil spirits to flight is nine; and once the exorcisers have begun, it is impossible to stop them until the "full tale of bricks is told!"

The peri-bakshis are called in mostly at births and by sick
women; for the women are much more superstitious than the men. The exorcisers enter the sick-room, and gaze attentively into the flame of the oil-lamp, where they say they can see that the woman is possessed of an evil spirit. Then the drums begin at once, while the invalid's friends and acquaintances gather inside and outside the room. But the performance does not end there. When the last thundering roll of the drum has died away, the assembly withdraws, and the peri-bakshi, and the sick woman are left alone in the room together. In the middle of the floor the sorcerer drives a rod with great force, having a rope tied to the top of it, while its other end is fastened to the ceiling. The woman pulls and tugs at the rope until she succeeds in getting it loose, while the peri-bakshi bangs at his drum. The moment the rope breaks loose from the roof, the spirit departs from the woman.

The hunting falcon, too, is credited with similar powers of exorcism, and is therefore called ghush-bakshi (the falcon exorciser). The peris or evil spirits are supposed to fear her greatly. During the pangs of childbirth the woman sees evil spirits flitting about the room, though they are invisible to other people. The falcon, however, sees them, and is let loose in the room to chase them out. It is very evident that the falcon, the drums, and the rope and stick all tend to the same end—namely, to distract the woman's attention to a certain extent, and so make her forget herself.

March 26th. Niaz Beg administered justice at his own house every day. His usual seat was beside one of the columns which supported the roof of the veranda, and so long as the proceedings lasted he assumed a very severe expression of countenance. On the platform by his side sat his mirza or secretary, who entered the proceedings in a protocol. Round about him stood his men and the officers of the law, and before him the culprit.

Today there was a very curious case. A man had five wives. The fifth, a handsome, stalwart young woman, had run away to Kashgar with another man. The beg had given information to the authorities there, and they found the wom-
an and sent her back to Merket, where she was now to answer for her transgressions. After she had been convicted of unfaithfulness, the beg gave her a slap on either cheek, and she began to weep. The only thing she had to say in her own defence was that life with the other four wives was altogether unbearable. She had a knife on her person, and when the beg asked her what she was going to do with it, she answered that she meant to kill herself if she were compelled to return to her husband. Her punishment was that for a time she should go and dwell with the mollahs, till she should be in a better frame of mind, and then should quietly return home to her husband.

After that another young woman was brought forward, her face bleeding and lacerated, and followed by her mother and her husband. She also had left her husband; but in this case the man had taken the law into his own hands, and had cruelly kicked and mishandled her. Several witnesses confirmed the statement that he had made use of a razor; this, however, the defendant denied. To make him confess, the beg gave orders for his hands to be tied behind his back, and then had him strung up to the branch of a tree. He did not hang there long before the device produced the desired effect. The man was taken down, and forty strokes of the rod were administered on that part of the body which seems to have been providentially provided for castigation. Meanwhile he declared that his wife had beaten him on the back. Forthwith he was stripped; but as no marks were visible, a second whipping was the result.

In these distant regions the sense of justice is somewhat elastic. If the accused has a well-lined purse he gets off scot-free, and in any case the beg receives certain tengeh for his trouble. If the plaintiff is not satisfied with the verdict, he can appeal to a higher authority—the nearest Chinese mandarin—and to him the beg must answer in his turn. The Chinese administration is admirable. One prudent feature in it is that they allow the natives to retain the same system of local self-government which obtained in the time of Yakub Beg of Kashgar.
Cases of conjugal infidelity are not on the whole uncommon, nor are they punished with particular severity. As a rule, the woman has her face blacked, is placed backward on a male ass, and with her hands tied behind her is taken through the streets and bazaar of the village. Monogamy is the rule; it is very seldom that a man has four or five wives. If a woman marries a Chinaman or a European she is considered impure; and when she dies is not interred in the general burial-ground of the place, because she has consorted with "one who eats swine's flesh," so that her body would pollute the graves of the faithful.

With regard to kalim, or the dower of a bride, the customs of these people are much the same as those of the Kirghiz. The kalim is paid to the bride's parents, and varies according to the man's circumstances and means. A bai, or rich man, gives as much as two jambaus (£9 to £10 each). As a rule everything is paid in kind; but the bride's trousseau is compulsory kalim. A poor man offers merely a measure of food and clothes. The amount depends entirely upon the demands of the parents; but beauty and physical charms are of less importance than among the Kirghiz. If a young couple cannot obtain the consent of their parents, it is not unusual for them to run away. They generally come back, however, after a few months, and invite the old people to a feast, when all misunderstandings are cleared up.

On another occasion the beg gave judgment on two men who had been gambling. One of them had a deep gash in his ear, and the whole of his face and chest were covered with blood. He had lost seven tengeh (1s. 6d.), and promised to procure the money in the bazaar. The winner, however, demanded his winnings on the spot, whereupon the loser drew his knife and slashed himself on the ear, crying, "You shall have that instead of your money." The beg ordered the winner to be publicly whipped. The other man was to be whipped as soon as his hurt was cured. The winnings, needless to say, found their way into the beg's pocket.
ISLAM and Yakub came back on April 8th. After a great deal of haggling and trouble, they had succeeded in getting at Kargalik eight splendid male camels for a trifle over £6 10s. apiece. It had somehow got wind among the inhabitants that we absolutely must have camels for our desert journey; and in consequence they put up their prices to double or three times what they usually were. A further difficulty arose out of the fact that the only animals which would serve our purpose must be such as were accustomed to the level plains, and to travelling in desert regions—animals which were used to moving over sand and could endure heat and other privations. These qualities were of much more consequence than the appearance of the beasts, and their condition of flesh.

During the morning we christened the camels, and measured their girths between the humps, with the view of ascertaining how they would compare in that respect at the end of the journey. Here are the names and measurements of the several animals:

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Girth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ak-tuya (The White Camel)</td>
<td>8</td>
<td>7ft. 9in.</td>
</tr>
<tr>
<td>Boghra (The Male)</td>
<td>4</td>
<td>7ft. 8½in.</td>
</tr>
<tr>
<td>Nāhr (The Tall)</td>
<td>2</td>
<td>7ft. 4¼in.</td>
</tr>
<tr>
<td>Babai (The Old)</td>
<td>15</td>
<td>7ft. 5¾in.</td>
</tr>
<tr>
<td>Chong-kara (The Big Black)</td>
<td>3</td>
<td>7ft. 3½in.</td>
</tr>
<tr>
<td>Kityick-kara (The Little Black)</td>
<td>2</td>
<td>7ft. 3in.</td>
</tr>
<tr>
<td>Chong-sarik (The Big Yellow)</td>
<td>2</td>
<td>7ft. 6¼in.</td>
</tr>
<tr>
<td>Kityick-sarik (The Little Yellow)</td>
<td>1½</td>
<td>7ft.</td>
</tr>
</tbody>
</table>

How little we foresaw that only one camel—namely, Chong-
kara—would survive the journey! Ak-tuya, a handsome white camel, which led the string, with a big copper bell provided with a heavy iron tongue, did get to the other side of the desert; but he died soon afterwards from the fatigues of the march. Bohgra was an exceptionally well-proportioned animal, patient and good-tempered; I chose him to ride upon. Nähr was a vicious beast, always trying to bite and kick the moment anybody went near him. Babai, the oldest in the troop, and of a gray color, was the first to succumb. The other three were young, lively things; having had a long rest, they were always ready to march, and took real pleasure in being on the move.

They chanced to be just "moulting" when they arrived. Every day big shaggy cots of their thick, warm winter hair fell off, so that they had a patched, shabby appearance so long as the process of shedding lasted. Each camel was provided with a good soft pack-saddle, stuffed with hay and straw. Islam brought also a whole armful of arkhans (ropes of camel's hair) to tie on the baggage with, and three large camel-bells.

The animals were tethered in a large court-yard immediately opposite Niaz Beg's house, and were given their fill of good hay, a luxury they enjoyed for the last time. It was very pleasant to stand and watch my own splendid camels crouched on the ground, eagerly munching the fragrant hay, and see how their big brown eyes shone with placid enjoyment. Our two dogs—Yolldash and Hamrah—were, however,
of a different opinion. The former in particular could not tolerate the camels. He barked at them till he was hoarse; and was visibly well pleased with himself when he could get near enough to snatch a tuft of hair out of one or the other of them.

Islam Bai had further engaged two trustworthy men in Yarkand. One, Mohammed Shah, was a graybeard of fifty-five. He was accustomed to looking after camels, and was the only person who could go near the refractory Nahr without being bitten. Although he had left wife and children behind in Yarkand, the desert had no terrors for him. He was a capital fellow, as honest as the day. I can see him now as plainly as though it were only yesterday we parted. His philosophic serenity never deserted him. When the clouds of misfortune gathered thick round our ill-fated caravan, his good humor never failed; there was always a smile on his face. Even when he lay in the delirium of death, a gleam of triumphant serenity shone in his eyes, and the light of an inward peace spread over his withered, copper-brown countenance.

The second man, who was to help in the management of the camels, was Kasim Akhun, a native of Ak-su, but at that time an inhabitant of Yarkand, forty-eight years of age, unmarried, and a caravan-leader by profession. Of medium height and strongly built, with a black beard, he was of a serious disposition, and never laughed, though always friendly and pleasant; but he had very often to be reminded of his duties.

We wanted yet another man. Him Niaz Beg found for us in another Kasim Akhun from Yanghi-hissar. He was of
the same age as Mohammed Shah, and every spring, for six years past, had gone a ten to fourteen days' journey into the desert in quest of gold, taking his food on the back of an ass, but not venturing farther in than he was able to get water by digging. During our journey, in order to distinguish him from the other Kasim, we called him sometimes Yollchi (the pointer out of the road), sometimes Kumchi (the man of the desert). A few years previously he had flitted to Merket, and now left wife and grown-up children there behind him. His subsequent fate was in part of his own causing. He was brutal and of a violent temper; and the other men, whom he attempted to tyrannize over, soon came to hate him. He conceived that his experience of the desert warranted him in assuming a domineering tone; and he entertained an especial grudge against Islam Bai, because Islam was appointed kara-van-bashi, or caravan-leader, and the other three men were bidden obey him. Some of the inhabitants of Merket warned us against this man, telling us that he had been more than once punished for theft; but the warning came too late. When I engaged him I thought we had lighted upon a treasure-trove, for he was the only man in the place who knew anything of the desert.

Our menagerie of live-stock also embraced three sheep, which we intended to kill one after the other, half a score hens and a cock, which woke us up in the morning. These last travelled in a basket perched on the top of a camel's-load of baggage. The first few days the hens laid two or three eggs; but as soon as the water began to fail, they stopped laying. The cock was an eccentric animal; he entertained a rooted objection to riding on a camel's back. Every now and again he used to wriggle through the covering of the basket; and, after balancing himself a while on his elevated perch, flew down to the ground with a noisy cackle. Every time we pitched camp the poultry were let out for a run. They imparted a little life to the otherwise desolate surroundings; and a few handfuls of corn were thrown down among the sand, to keep them employed and in motion.

On April 9th we made our final preparations; we packed
the two or three bags of bread which had been ordered beforehand, and filled the four iron tanks with fresh water from the river. They held $17\frac{1}{3}$, 19, 19, and 27 gallons respectively; add to this $17\frac{1}{3}$ gallons in a goat-skin, and we get a total of 100 gallons, amply sufficient for a 25 days' march. The tanks, which were oblong in shape, were specially made for conveying honey from India to Yarkand, being surrounded by a wooden grating to protect the thin iron plates against damage from knocks. Grass and weeds were packed in between the tank and the grating to prevent the sun's rays from beating directly upon the iron.

A few words about the plan of my journey. Przhevalsky, and Carey and Dalgleish, were the first Europeans who ever saw (1885) the mountains of Masar-tagh on the left bank of the Khotan-daria. The first mentioned wrote in this connection: "After three short day's marches (from Tavek-kel) we arrived at that part of the Khotan-daria where the Masar-tagh chain overlooks its left bank. The eastern portion of the range does not exceed 1½ miles in breadth, and rises to a height of some 500 feet above the surrounding country. It consists of two parallel ridges strikingly dissimilar. The southern ridge is composed of red argillaceous slates, interspersed with numerous beds of gypsum. The other, or northern ridge, is a homogeneous mass of white alabaster. Flints are obtained from the Masar-tagh at a distance of 16 miles from the Khotan-daria, and taken to Khotan to be sold. Beyond that point we lost sight of the mountains, which became blended with the sandy desert. But they bent round towards the northwest, and, increasing in height in the middle, stretched, the natives told me, as far as the fortified post of Maral-bashi on the river of Kashgar. Of vegetation there was not a trace. The slopes of the mountains were buried in drift-sand half way up from the foot."

Relying upon the data thus given him by the natives, Przhevalsky indicated on his map a chain of mountains stretching at an oblique angle across the desert. His mistake was natural enough; for he was told that at Maral-bashi, too, there is a mountain known by the name of Masar-tagh;
and what more natural than to suppose that it was simply the 
continuation of the Masar-tagh of the Khotan-daria? Carey 
was more cautious. His map shows only so much of the 
range as he was able to see from the river.

I reasoned, therefore, that if from Merket we steered our 
course eastward, or rather towards the east-northeast, we were 
bound, sooner or later, to come in contact with the Masar-
tagh; and, like the natives, I was convinced that we should 
find a lee side to the range, where the drift-sand would not be 
blown together, but we should be able to make long, easy 
day’s marches on firm ground, and possibly might even dis-
cover springs and vegetation, and perchance light upon traces 
of an ancient civilization. On the maps which I had at hand 
the distance through the desert, as the crow flies, measured 
180 miles; and if we did only 12 miles a day the entire journey 
ought not to take us more than fifteen days. Our supply of 
water was therefore, by every calculation, more than sufficient. 
I was quite satisfied with my estimate, and thought we had an 
easy task before us. As an actual fact the journey took 26 
days, or nearly twice as long as I anticipated.

April 10th. Long before sunrise the court-yard was all 
alive. Our various boxes, bales, and other impedimenta were 
carried out and weighed so that the camel’s burdens might 
be suitably adjusted, and the several packages properly roped. 
These preliminaries over, they were placed along the ground 
two by two, at such distances apart that a camel could just 
get between them, and be made to kneel down while his load 
was fastened to his pack-saddle. After he got up on his feet, 
a big rope was lashed criss-cross right round the whole, and 
fastened to the horizontal bars in the framework of the pack-
saddle. We took with us an extensive equipment, provisions 
for several months, particularly rice and bread, preserved foods, 
sugar, tea, vegetables, flour, and so forth. In addition, we 
had a large supply of winter clothing, felts, and carpets; for, 
after leaving the Khotan-daria, I intended making for Tibet. 
Then I had my scientific instruments, photographic apparatus, 
with close upon a thousand plates, some books, a year’s issue 
of a Swedish journal, of which I purposed reading one num-

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ber every evening, a cooking-stove with its appurtenances, metal utensils, crockery, three rifles, six revolvers, a supply of ammunition packed in two heavy boxes, together with a multitude of other things. Add to all this water supplies for 25 days, and it will be clear that each camel had a pretty heavy load to carry.

While the animals were being loaded, I measured my first base-line of 400 meters (close upon a quarter of a mile). Boghra walked it in five and a half minutes. This was a daily recurring task, for the contours of the ground varied a good deal; and the depth of the sand made a very appreciable difference in the time the camels took to do the same distance.

The 10th of April, 1895, was a great day in the annals of Merket. The court-yard, every alley, every house-roof in the neighborhood, was crowded with people, all anxious to see us off. "They will never come back again—never!" we heard them cry one to another. "The camels are too heavily laden; they will never get through the deep sand." These croakings did not disturb me in the least. The ground burned under my feet to get off. And we had an antidote to their ill-omened prophecies in the action of the Hindus, who, just as I put my camel in motion, flung a few handfuls of da-tien (Chinese bronze money with a square hole in the middle) over my head, crying, "Good-luck go with you!"

The camels were tied together in two strings of four each. A piece of stick was thrust through the cartilage of the animal's nose. A rope, fastened to one end of the stick, was loosely knotted to the tail of the camel in front in such wise that if the second camel fell the knot would come undone of itself.

The other end of the piece of stick terminated in a knob, which prevented it from slipping out of the animal's nose. The four young camels went in the first string. After them followed Boghra, with me on his back, and behind him Babai, Ak-tuya, and Nähr. Mohammed Shah never left hold of Boghra's bridle, so that I had no need to trouble myself in the least about my camel, but gave my attention wholly and undivided to my compass and watch, by which I steered our
THE START FROM MERKET

course and measured the length of our day's march, and to the observation of the country we were travelling through. Islam Bai had shown much ingenuity in arranging my load for me. It consisted of the two boxes which held my most delicate instruments, and such things as I generally needed when we encamped for the night. On the top of the boxes and between the camel's hump he spread pelts, carpets, and cushions, so that with one leg on each side of the front hump I rode as comfortably as though I were sitting in an easy-chair. When all was quite ready I said good-bye to Niaz Beg, whom I rewarded handsomely, as well as to the missionary Johannes and Hashim. The former had already said at Lailik that he did not really mean to go with me through Takla-makan. Now, when he saw the caravan ready to start, his courage completely failed him, and for the second time he deserted me in the moment when danger had really to be faced. I despised the fellow. Notwithstanding his pretended piety, he utterly lacked the courage which makes a man place all his reliance upon God. What a strange contrast to Islam Bai, the Mohammedan, the beau-ideal of a good and faithful servant, who throughout the days and months that followed never once hesitated to follow his master, no matter where I went, even when I rushed into dangers which prudence should properly have guarded me against!

Spring had come. Signs of the change manifested themselves more and more every day. The temperature rose slowly but steadily, the minimum remaining permanently above freezing-point. The sun began to have some power. The spring breezes murmured in our ears. The fields were being sown with corn, the rice-grounds put under water. The air was alive with the flittings and buzzings of flies and other insects. It was with this beautiful Asiatic spring-time all about us—the season of perennial hope—that we set out on our journey to the country where all things are gripped in the deathly embrace of a thousand years' torpor, where every sand-dune is a grave—a country whose climate is such that, compared with it, the sternest winter would be a smiling spring.

On through the narrow lanes of the town, crowded with
people, strode the long string of camels, with a grave and majestic mien, holding their heads high. It was a solemn moment. Every spectator was impressed. A dead silence reigned throughout the crowd. When my mind goes back to that moment I am involuntarily reminded of a funeral procession. I can hear the dull, monotonous clang of the caravan-bells still ringing in my ears; and of a truth their slow, mournful cadences were the virtual passing-bell of most of us who set forth on that eventful day for the sand-wastes of the terrible desert. A sad and peacefull grave amid the eternal ocean of sand—such was to be their melancholy end!

The environs of the town were level, the town itself scattered about among the old tograks (poplars), fields, groves, orchards, and irrigation canals. For half an hour or so we marched on quietly through these pleasant surroundings; then all of a sudden there arose a fearful uproar. The two youngest camels, being full of spirit, broke loose from their halters, shook off their loads, and, frisky as two playful puppies, began to race round the fields till the dust rose in clouds behind them. One had been loaded with a couple of water-tanks. Upon being thrown off, one tank sprang a leak, but, luckily, near the top corner, so that but little real damage was done. The runaways were soon caught and their burdens lashed on again. After that each was led separately, for we had plenty of help, fully a hundred mounted men accompanying us to the outskirts of the village. An hour later two other camels broke loose. Several things were chafed and bruised, and the ammunition-box was trailed on the ground. Mohammed Shah said that “camels always get refractory after a spell of rest. They wanted to stretch their limbs; but a few days’ steady tramping would make them as quiet as lambs.” After that, as a precaution, each camel was led by a single man.

But even then, as so often happens during the first day or two after starting on an expedition, we had several unforeseen hinderances to contend against. For example, the left-hand side of a camel’s load would be heavier than that on the right-hand, and so had to be adjusted; or a bag of rice was on the point of slipping off, and had to be tied faster; and so on.
CHAPTER XL
SKIRTING THE DESERT

The second day's march passed off more quietly, and in a much more orderly manner. Profiting from our first day's experiences, we weighed and distributed the packages more successfully, and loaded our most precious possessions—first among them the water—on the quietest camels. I myself sat perched at a pretty good height above the ground, and had a splendid view in every direction. At first the motion made me feel somewhat giddy; but I soon became accustomed to the monotonous and unceasing jolting backward and forward, combined with the peculiar swaying motion from side to side, and suffered no ill effects from it whatever. But I can readily believe it would be very disagreeable to anybody subject to sea-sickness.

Having left behind us the last house and field belonging to Merket, we struck into a level steppe (dāsht), where thickets and tangled bushes grew pretty well everywhere, and there were even clumps of poplars in a few places. The wind blew in gusts from the west-northwest, and grayish-yellow "sandspouts" drifted eastward at a great altitude, their upper ends slightly bent over in the direction of the wind. The surface of the ground was partly covered with fine, soft dust, partly with deposits of salt; but we soon passed into a region of nothing but sand, blown up into small low dunes or ridges. However, it proved to be only a narrow belt, for on the other side we once more came upon plenteous plant-life, chiefly kamish (reeds) and poplars; and there on the brink of the ravine we pitched our camp for the night.

Half an hour later the loads were all off the camels, and the animals themselves were tied together in a ring to pre-
vent them from lying down and getting stiff-legged. After standing a couple of hours, they were let loose to browse upon the thickets of reeds. Our camp, with its many packages and animals, made a very picturesque appearance; and it gave me a feeling of deep satisfaction to think that all those things were mine. My tent, a neat Indian officer's tent which Mr. Macartney had given me, was pitched underneath a poplar-tree. Within it young Lieutenant Davison had died during his journey across the Pamirs to Kashgar. But it had been well disinfected, and I was not superstitious. The ground inside was covered with variegated carpet, and all round its sides were ranged my boxes, instrument-cases, photographic camera, and my plain, simple bedstead. The other boxes and packages, together with the water-tanks, were left outside in the open air. My men kindled a fire, and crouched around it to prepare dinner—rice pudding and eggs, for of these last we had brought a good supply. The sheep were turned out to graze, and the poultry made themselves quite at home among the scraps from the cooking-pot. The dogs, having swallowed the pieces of meat that were thrown to them, began to chase one another over the sand-dunes. In a word, we made quite a rural picture.

As soon as the camp was settled, my first care was to examine the ravine which had stopped us. It ran from north to south, and had undoubtedly been formed by a branch of the Tisnab-daria, but was now dry. It was 20 feet wide and 5 feet deep; and when I bade the men dig a hole in the bottom, the water began to trickle up as soon as they got 3 feet 6 inches down. The temperature of the water was 49.8° Fahr. (9.9° C.), while that of the air at the same time—viz., two o'clock in the afternoon—was 76.6° Fahr. (24.8° C.). Although tasting bitter and nauseous, it was greedily drunk by both dogs and sheep. The camels were not allowed any water until nearly an hour before the start next morning.

From the very outset we were obliged to exercise the most rigid economy with our supplies of fresh water; and therefore used the water from the ravine for boiling our eggs in, for washing the dishes, and for personal ablutions. Mo-
hammed Yakub, who had followed us all the way to camp, brought us the very welcome present of a couple of copper vessels, filled with fresh river-water; so that every member of the caravan was able to quench his thirst to the full without our having to open the water-tanks.

It had been a warm day; but no sooner did the sun set than we felt it cool, and put on our extra coats. In the evening it was a dead calm. The tent flap was thrown back, but the flame from the candle never quivered. Our "Desert Man" gave us a taste of his knowledge. He advised us at first to keep for some days to the right bank of the Yarkand-daria, till we came to a mountain called Chackmak, and to a large lake, which was connected with a river that flowed to the north. To reach that place would take us eighteen days, and from there one day more would bring us to the Masartagh, the loftiest mountain in all that region. From the Masartagh to the Khotan-daria on the east was no great distance. North of Mount Chackmak there was a track which the gold-seekers were accustomed to use, and which led to a *yagatch-nishan* or sign-post. Beyond that mark the desert was known by the name of Kirk-kishlak or the Forty Towns, because of the numerous ruins of ancient cities which it contained.

April 11th. After a quiet and refreshing night's sleep I awoke before sunrise, and found the weather the reverse of agreeable. A violent nor'easter whistled through the camp, and the air was thick with dust, so that, except in the immediate vicinity of the tent, the whole landscape was shrouded in a uniform gray haze.

Unloading the baggage and putting up the tent took next to no time at all; but to get everything loaded up again, and all started, required a good two hours, although that included the preparations for breakfast. The camels objected to be loaded; but afterwards, during the remainder of the march, behaved very well. All vegetation gradually ceased, and we lost ourselves in a labyrinth of sand-dunes, 15 to 20 feet high, and of irregular formation, though they had for the most part a north-south strike. We tried to skirt round them as
much as possible; still there were a few difficult ridges which we were compelled to go over. On one or other of these the camels which carried the water fell; luckily it was only the fore legs which gave way in each case. But we could not get the animals up until after we had taken off their loads: and then we had to pack them on again. The camels were very clever at sliding down the sandy slopes, making use of their hind legs as a brake in doing so. In the middle of the day we got entangled in sand-dunes so high that we were obliged to make a long détour to the north to get out of them. Yollchi asserted that it was no use going east, for we should only be forced to turn back, there being nothing in that direction but chong-kum (big sand). Our route that day was a sinuous line along the edge of the "big sand." The dunes dropped again to only 10 feet in height, and occasionally we travelled over soft dust, with a tolerably level surface. And not a few times we rode into a kind of cul-de-sac between the horns of the crescent-shaped dunes, and were compelled to turn back. Every now and again we passed a few solitary poplars and shrivelled reeds, at which the camels snatched as they rolled on past them.

The nor'easter blew all day long; the sky was clouded and gray; and it was raw and cold. We halted at dusk, after doing about 13½ miles, pitched our camp on the top of a hard, level dune, where we had comfortably dry ground under our feet. Close by were some withered poplars, from which we obtained fuel for our fire, and clumps of reeds, which furnished fodder for the camels. These last were warm after their long tramp, and were led about for a time to cool, to prevent them from taking cold.

We found a spot between two dunes where the sand was already damp. There we dug our well, and came upon water at a depth of 2½ feet: its temperature was 49.1° Fahr. (9.5° C.), and it had the same brackish flavor as the water in the ravine the day before.

April 12th. We travelled nearly fifteen miles, still along the edge of the great sandy desert, which sent out promontories to the north. Several of these we were obliged to
cross over. In other respects barren desert alternated with narrow belts of steppe, upon which grew scanty tussocks of grass, withered and hard as glass, and which snapped off with a crackling sound at the least touch. The easiest ground to travel over was firm, level sand; but in several places the earth was covered with a coating of dust, in which every footmark of the flat-footed camels was sharply outlined. The dust was as soft as wool, and in two or three places so deep that the animals dropped in it up to the knees. Sometimes a thin crust of salt, which crunched under the camels' hoofs, was spread over the horizontal portions of the sand. Solemnly and slowly the ungainly beasts strode on one after the other, stretching down their long necks to pluck the tussocks of grass which grew within their reach, as though they had a premonition of the hard times in store for them.

At camp No. III. two of the men as usual dug a well; but could not get down lower than six feet. Still there was no water. We then left the well to itself for a couple of hours, and the water percolated through and gathered in a little pool at the bottom of the hole. The dogs and poultry were always deeply interested spectators of the digging. They knew perfectly well what it was for, and were always fearfully thirsty. So far all was going well: our precious stores were as yet untouched. The stock of camel's provender was likewise undiminished, the animals having to content themselves with kamish (reeds) and brackish water. The dogs were fed on bread, the poultry on corn and egg-shells. The first day the hens laid three eggs, the second day two, the third one. However, we had a good supply without that, packed away in chaff in a basket.

During the course of the day we came across the track of herds of antelopes going towards the southeast. Yollchi told us there was a large lake in that direction called Yeshil-kul (the Green Lake). But neither he nor any other person known to him had ever seen it; he had only heard speak of it, so that the information must be accepted for what it is worth. He added that it was fed by natural springs, for no stream ran into it. It is, however, remarkable that the older
maps show a lake of that name; but it is given a different situation—namely, south-southwest from our camp No. III.

April 13th. By the morning there were seven inches of water in the bottom of the well. All day long, during a march of 12.4 miles, we travelled continuously among the sand-dunes. They were all crescent-shaped, with their convex side towards the east, and the horns or wings and the steeper face looking towards the west or southwest; proving that at that season of the year the prevailing winds blew from the east and northeast.

Poplar-trees were common everywhere throughout the day's march. On some of them the leaf-buds were already beginning to burst; and the fresh green tufts made the camels' mouths water. In most cases the dunes seemed to shun the poplars, but formed a circular wall round them, leaving the trees in the middle of the hollow. There, too, finding shelter from the wind, dried branches and withered leaves lay in little heaps.

It was a warm day. The dogs hunted vainly for water, eagerly running towards every little depression which looked at all like the places in which we dug our desert wells. For lack of better protection from the sun, they lay down in the shade of every poplar we passed, having first scratched away the top layer of hot sand, till they came to the stratum that still retained some of the coolness of the night.

Islam Bai rode on the first camel, which was also led by Yollchi, our guide. But as Islam commanded the better view, he often corrected Yollchi, and suggested taking other directions. That gave umbrage to the ill-natured "Desert Man"; so that two or three times he flung down the rope, threw himself on the sand, and challenged Islam to guide the caravan himself. When we came to camp, a violent quarrel broke out between the two men. Yollchi came to my tent, and said that if he was to be interfered with by Islam he had better go back; and he also accused Islam of being close-fisted with the bread. He was considerably taken aback when I quietly remarked, "Yes, he had better go back;" but added that "before he did so he must repay me
MARCHING IN A SAND-STORM
the 100 tengeh (22s. 6d.) which he had received in advance as his first month's wages." That brought him to his senses, and in the most earnest tones he begged to be allowed to remain with me. I allowed him to do so; but on the distinct understanding that henceforward he was to obey Islam. I had my misgivings, however, that when we came to face the loneliness and monotony of life in the desert, the differences between the two men would break out again. But there were no more quarrels. Although Yollchi nourished a growing spite against Islam, he wisely held his tongue. He always kept himself to himself, never talked to the other men, and slept apart, a little distance from the rest; nor did he ever go near the camp-fire until after Islam and his comrades had gone to bed. Were they right, I wonder, in suggesting that Yollchi purposely led us in the wrong direction? If so, he paid the penalty; for he died of thirst in the desert.

At the depth of about 3½ feet we came upon water, with a temperature of 50.7° Fahr. (10.4° C.). The dogs were so thirsty that they tried to fling themselves in the hole, and we were obliged to tie them up to prevent them from doing so.

April 14th, Easter Day, we only travelled 11½ miles. In one place the dunes on their sheltered side were a steel-gray color. Upon examination I found that they were coated with a thin crust of mica. I also made the discovery that the green poplars only grew among the dunes. Where the dunes came to an end, there the poplars ceased also. Possibly the trees or their roots help in the formation of the dunes.

We then came to a belt of desert absolutely barren, the ground being a hard, level plain of a variety of brown colors, crossed by low dunes of yellow sand that looked like logs of wood lying on the earth. Many small pebbles were scattered over the plain. During this day's march we came across the first traces of the wild camel; at least, Yollchi said it was a wild camel, but I was not at all sure of it. Farther on the camel-tracks became numerous. But, on the other side of the argument, it was not very likely that tame camels would have run away into the desert by themselves. We also observed
the droppings and footmarks of horses; and Yollchi swore that the wild horse ranged that part of the desert. On the top of one of these dunes I halted a moment in order to observe through my field-glass a troop of animals grazing on a bed of reeds a long way off towards the north. But before I could make out whether they were horses or antelopes they disappeared, going off northward. The dry gray clay was built up into small terraces and ridges, so strangely like the gray clay houses in the towns that I could not rest until I went and examined them at close quarters.

That day the dogs were very restless, and several times went off a long way from the caravan. Once they were absent a quarter of an hour, and when they came back they were wet underneath. Evidently they had discovered water somewhere. After going about 11½ miles we stumbled by chance upon a pool. I bade Kasim try what it tasted like. “Sweet as honey,” he replied, after swallowing a good mouthful. The consequence was that we pitched the tent and made our camp by the side of the pool. Men, dogs, sheep, poultry—all hastened to quench their thirst; and, as the day was hot, we were all properly thirsty. The water was as clear as crystal and perfectly sweet, and bubbled up out of a spring, afterwards running into a hollow of the ground some eighty or ninety yards long by about four wide; so that the water stood at about the same general level below the surface that it did in the wells we had dug. All the same, it was not more than four feet down. The temperature was 71.4° Fahr. (21.9° C.) at five o'clock in the afternoon; at the same hour the temperature of the air was 77.9° Fahr. (25.5° C.). Water-spiders and beetles were very numerous. The latter hummed about over the plain, and off went the hens in chase of them. The first of the sheep was slaughtered here with the usual ceremonies; and the dogs got a good meal out of the blood and offal. In a word, considering it was the desert, the place was quite idyllic. The sun disappeared from sight in the dust-haze while still twenty degrees above the horizon; thereupon the heat decreased with marvellous rapidity. By nine o’clock at night the temperature of the spring-water
A HALT IN THE DESERT, TO WATER THE ANIMALS — NOON
had fallen to 59.4° Fahr. (15.2° C.), proving that its temperature varied directly with the temperature of the air.

This pleasant camping-ground tempted us to give up a day to rest, which was equally welcome to us human beings as to the animals. We all enjoyed a good long sleep, and spent the next day in putting several things in order: the water-tanks were filled up, clothes were washed, saddles and straps mended. The day turned out hot, the sand becoming heated to 112.3° Fahr. (44.6° C.). But two or three whirlwinds came up out of the north-northeast, and cooled the air splendidly; while without any reproach of conscience we could drink as much water as ever we liked. As for the camels and dogs, they drank so much that you could actually see their skins swelling out. The rest also suited the hens: they managed to lay four eggs. During the night the dogs barked incessantly, and kept running back along the route by which we had come, and on which we had seen the tracks of the wild camels. No doubt the denizens of the desert were accustomed to frequent the springs during the night; but finding us in possession of the place they kept themselves at a safe distance for that night.

On April 16th we did 16½ miles, through a country where sand-dunes fifteen or sixteen feet high alternated with steppes of withered reeds, which “crunched” under the camels’ feet and sent up little clouds of dust when trodden upon. Tamarisks and poplars occurred in sporadic clumps. We passed two pools of water, like the one we left in the morning. All three lay along the same line, stretching east-northeast; in all probability they mark the course of a former affluent of the Yarkand-daria.

We put out farther and farther into the unknown ocean of sandy desert. Not a sign of life to be seen; not a sound to be heard, except the monotonous ding-dong of the bells tinkling in time to the soft tramping of the camels. Every now and again we made a short halt, whenever, in fact, we were at all uncertain of the course we ought to steer—opportunities which the men seized upon to eat their simple breakfast, consisting of a few handfuls of talkan (toasted flour)
steeped in water, which they supped out of wooden bowls. The water in the tanks became tepid during the course of the day. For my own part, I always missed our breakfast, and contented myself with two meals a day.

April 17th. To-day there was a fresh westerly breeze; but the sky remained perfectly clear. On several occasions I noticed that the dust-storms were only raised by the easterly and northeasterly winds; while no matter how strongly it blew from the west, the sky always remained pure and clear.

Before we had gone very far we perceived in the north a tolerably high mountain, like a cloud or slight thickening of the atmosphere, fringing the horizon. Hour after hour we rode towards it; but the mountain grew no plainer to the eye, nor did we seem to approach any nearer to it. The dunes reached sixteen feet in height, and were often very difficult to get over. Between them the reed steppes became more frequent and the reeds ranker in growth. A few hares leaped out from among them as the caravan drew near. This day, too, we passed some small pools; but they were surrounded by saline incrustations, and the water in them was brackish. Away towards the east-northeast a former river had cut its sinuous way through the desert; the channel, which was half choked with sand, and contained only a few disconnected pools of water, was forty-five yards wide and six and a half feet deep. Another river-bed, quite dry, was twenty-two yards wide. In the north there were a few dark flocculent clouds, like smoke drifting up from the ground. Yolchi's explanation was as follows: The mountains we saw were the southeastern continuation of Masar-tagh, stretching down to the right or southern bank of the Yarkand-daria. The two dried up river-beds had been affluents of the Yarkand-daria, which used to receive a portion of their waters during the height of the summer. The clouds we saw in the north were columns of steam or evaporation from the Yarkand-daria, reflected against the pure blue sky. In all these explanations he was unquestionably right; at a later period I was able to test two or three of his statements, and found things to be exactly as he had said.
For a whole hour we travelled between two parallel ridges of sand, which stretched north by fifteen degrees east. The one on our right was more than thirty feet high, and both had rounded outlines. The level steppe between them was overgrown with exuberant thistles and poplars. We crossed the ridge on our right, and then passed along a second valley running parallel to the first. At the end of seventeen and a half miles we pitched camp No. VII. under the shade of a couple of leafy poplars. We had no need to dig for water; there were several indications that a lake or running stream could not be far off. North of us was a thick forest of poplars. Mosquitoes, flies, and moths were abundant. At night the last-mentioned fluttered round my candle in hundreds.
CHAPTER XLI

AN EARTHLY PARADISE

APRIL 18TH. The new day dawned with a fresh nor'easter blowing. The tent threatened to go over, although we had anchored it during the night. The sky preserved its uniform gray tint, and the mid-day heat remained absent. We decided to march straight for the highest point of the mountains ahead, being persuaded we could reach it before evening. But it was not to be—we lost our way in the poplar wood, and the mountains disappeared from view in the dust-laden atmosphere.

The sand-dunes were all round us, branching away irregularly in every direction, and growing all over them was a large forest of poplars. The ground was littered with heaps of withered leaves, dried tree-trunks, branches, and sticks. Of the desert there was not a trace. In and out among the trees we wound a hundred, a thousand times; and it was as much as I could do to see for the branches I was riding under. We came to an extensive marsh, around which the poplars were already wearing their full mantles of spring-time greenery. To our amazement we perceived traces of human beings and of horses, as well as ashes and charred wood, showing that a fire had been lighted. It was clear we had reached the districts to which the Dolons are accustomed to drive their flocks to graze in the spring, and from which the inhabitants of Maral-bashi fetch their fuel.

Our path was soon stopped by several long narrow creeks running out from the marsh. But we were obliged to cross them; so one of the men went into them barefooted and sounded their depth. The bottom consisted of hard clay, strong enough to bear the camels. Advancing a short dis-
tance farther, we found the marsh terminated in a long lake extending towards the north. We skirted its eastern side, keeping along the flanks of the tolerably high sand-dunes which sloped down to the edge of the pure blue water. The forest was still dense, in many places so tangled with thickets that we were compelled to make détours so as to get out into more open ground. But, as I said, for the most part we kept close to the shore of the lake, getting many a picturesque glimpse of it through the trees. The fresh green of the leaves contrasted strikingly with the deep blue water, and both against the gray haze in the background.

The lake, which was nearly a couple of miles wide in its widest part, although it narrowed greatly towards its northern and southern extremities, has no doubt been formed by a branch of the Yarkand-daria, and fills during the season of the summer overflows. In the winter a large portion of the water remains, freezes, thaws again in the spring, and dwindles on till the summer brings it the usual increase. On the edge of the dunes I observed a higher shore-line, indicating that in the previous summer the level of the lake had been half a yard higher than it was at the time of our visit.

At length we left the lake on our left, and soon became lost in a tangle of reed-beds of unprecedented thickness and the height of a man. As the camels forced their way onward among the dry, brittle reed-stalks, there was quite an orchestra of crackling, rustling sounds. Only we who were riding had a free outlook.

The reed-beds passed, we plunged into another forest, so thick that, after one or two narrow escapes of being swept off my camel by the branches, I was obliged to get down and go on foot. In a part of the forest where all the trees, although young, were dead, we literally stuck fast. The men were forced to get out their axes and hew a path. This occasioned a great loss of time; but after considerable labor we managed to struggle out once more on to the level steppe. There, on the summit of an isolated dune, whose horns pointed to the south and southwest, we pitched our camp.

With the idea of making our presence known, in case there
was anybody in the vicinity who could give us a little topographical information, we set fire to a dry poplar thicket at the foot of the sand-dune. The flames shot out their ruddy reflection to a long distance, but never a human being showed himself. We were all tired after our toilsome day's march of sixteen miles, and went early to bed. The camels, however, were best off; every day they got full rations of both water and food.

April 19th. When the tent was struck we found a scorpion under the carpet, an inch and a half long. Upon being disturbed he made violent efforts to use his tail. We were all tired with our exertions of the day before, and it was after nine o'clock when we got started. The little mountain-chain towards which we were now steering our course loomed up on the east and ran towards the southeast, where it became lower, and finally was lost in the haze. There was another mountain in the north. According to the itinerary I had mapped out for our journey, the latter ought to be the Masar-alldi. Between the two ranges winds the Yarkand-daria; but we were unable to see the river.

This day we covered only 7½ miles, for although our route lay across a steppe, the steppe was excessively cut up by ravines and marshes. But the mountain became gradually more and more distinct. Its weathered, rugged outlines were easy to make out. The sand-dunes climbed up its northern slopes to a pretty considerable height. Along their foot was a chain of small fresh-water lakes, separated from one another by low isthmuses. A channel entering into the largest of the group revealed the fact that they drew their supplies of water from the river. During the summer they no doubt shrink together and form only a single lake. Keeping between the lakes and the mountain, we steered at first towards the east; afterwards, in order to get round a spur of the range, we altered our course towards the northeast. We pitched our camp on the shore of the lake under the shade of some leafy poplars. The mountain appeared to stand quite alone, unconnected with any other and without continuation in any direction.
Our second sheep was killed, and the dogs, which for several days had been without meat, being fed on bread alone, were given a good meal. A hawk began to hover above the poultry, but was frightened off by a rifle-shot, which missed it.

April 20th. Our camp was so pleasantly situated that we could not resist the temptation to indulge ourselves with another day’s rest. It turned out a broiling hot day, despite a fresh breeze from the northeast all night and all the morning. The radiation rose to 146.3° Fahr. (63.5° C.), and at two o’clock in the afternoon the sand was heated to 126.9° Fahr. (52.7° C.). We had an incessant craving for drink, and flew to water at least every half-hour. We had hard work to keep the water in the iron tanks even tolerably cool, but we did what we could by wrapping a damp cloth round them and hanging them on a bough in the shade, where they could catch the breeze.

Islam Bai went out in quest of wild geese. He shot a couple, but they fell into the lake and he was unable to get them. The other men spent the day sleeping. For my own part, I walked to the top of the nearest hill and discovered a vein of porphyry piercing the same species of rocks that I had observed in the mountain system of the Masar-alldi. I had a magnificent view. In the west-southwest the two limpid sheets of water which we had passed the day before reflected their environing mountains, with their sand-coated sides, as in a mirror. Mount Masar-alldi lay northwest of us, and between it and our camp, and stretching round to the northeast, was a steppe of moist, luxuriant grass, thickly studded with glittering pools and marshes. In the east, too, I saw a mountain-crest, and in the south a maze of small weathered peaks belonging to the same system which overhung our camp. The poplar groves and reed-beds on the north tinted the steppe green and gold; the mountains were softened into violet shades; the sheets of water glanced dark-blue.

While I sat admiring the scene from the top of the hill in the cool of the afternoon, the wind gradually died away, the
sun set, steppe and lakes became enveloped in a light mist, stillness and peace reigned over the scene. The only sounds my ear could catch were the gentle hum of the mosquitoes and midges, the croaking of a frog or two in the marsh, the distant scream of a wild goose, and every now and again the tinkle of the camels' bells among the reeds. It was a glorious spot. I enjoyed its soothing beauty to the fill. How different from the days which followed! How often during the next two weeks did my mind fly back to that idyllic scene as to an earthly paradise!

But in those regions the twilight is very short, and I hastened to get back to camp. The men were already fast asleep, except Islam Bai, who was busy getting my dinner ready—mutton broth, fried potatoes, and tea. The thermometer read 68° Fahr. (20° C.), but during the night it fell to 50.7° Fahr. (10.4° C.), and I felt it actually cold. Near these lakes we again came upon traces of human beings. There were one or two deserted reed huts on the shore; and next day, April 21st, when we continued our journey between the lakes and the mountain, we came, on the other side of some high dunes, upon the wheel tracks of arbas (high wooden carts) going through a poplar wood. The discovery vastly surprised us all. My men at once set them down as marking the road which they had heard speak of as following the left bank of the Khotan-daria. But I surmised it was some hitherto unknown track, which skirted the base of the Masar-tagh as far as the stream just mentioned. To clear up the mystery we resolved to follow the trail as far as it went, no matter where it led us to; but we had only advanced a little way when the wheel-tracks disappeared and the path came to an end. Shortly afterwards the poplar wood came to an end also.

After that we continued to move towards the southeast, keeping between the mountains which overhung our last camping-place and an isolated ridge which lay to the east. Our route lay across a hard level steppe, thinly overgrown with grass, where travelling was unusually easy. The camels marched in regular time, and their bells tinkled in strict
accord with their paces. At the foot of the eastern ridge there was another lake, and to our amazement we perceived three horses grazing on its banks. It was now plain there were people in the neighborhood. Who were they? How were we to find them? I told off two of my men to follow a fresh trail, which led between the sand-dunes and up the slopes of the mountain in the west. Ere long they returned, bringing with them a man from Maral-bashi, who occasionally came to that spot to fetch salt, of which, he said, there was a large deposit in the mountain. I saw some of what he had gathered. It appeared to be of excellent quality. He took it to Maral-bashi, where he said he made a first-rate price of it in the bazaars. When I asked him in which direction the town lay, he pointed towards the northwest, and told me it was two short days’ journey to it. The mountain we had seen in that quarter was, as we supposed, the system of the Masar-alldi. About the country to the southeast, and the distances to the Khotan-daria, he knew nothing; he was only able to add that he had heard there was nothing but sand to the south, with not a single drop of water anywhere, and he knew that the desert was called Takla-makan.

We said adieu to the lonely salt-gatherer, and continued south-southeast across the hard, barren, trackless plain. As we advanced, the mountain on our right gradually decreased in height until it merged in a sand-ridge, which eventually became lost in the desert. This mountain, therefore, had no continuation. We could only surmise that it was the eastern range which was connected with the Masar-tagh that Przhevalsky marked on his map as terminating near the Khotan-daria.

The ground we were now travelling over consisted of hard, dry clay, cracked in thousands of directions, plainly proving that it was under water during the summer. We kept close to the shore of the lake all along until it began to narrow, and we were compelled to make détours round the marshes which extended some distance from it. From the southern end of the lake several long, narrow creeks stretched out like fingers into the gradually rising ground. It is worthy
of remark that all these desert lakes were situated at the foot of the mountains.

At length we reached the eastern shore of the lake by a long roundabout way, and there pitched our camp. Believing that this was the last place in which we were likely to obtain fresh water, we gave up the following day, April 22d, to rest. The camels and sheep were given their last good meal off the reeds which grew beside the lake. I climbed to the top of the mountain, and thencefrom gained a commanding view of the surrounding country. The mountain itself jutted out in a southeasterly direction like a cape into the desert ocean, and only showed one solitary peak of no great altitude. Except for the range on which I stood, there was not a glimpse of a hill to be seen. We had reached the southeastern extremity of the Masar-tagh of Maral-bashi; consequently it had no connection with the Masar-tagh of the Khotan-daria. To the southeast, south, and southwest, as far as eye could reach, there was nothing but the dreary desert ocean! The horizon on that side was a straight line. When, during the days that followed, we went on and on towards the east-southeast and east without discerning a single trace of a mountain-chain, I could not help thinking that the continuation of the Masar-tagh of Maral-bashi would crop out again farther on in the desert, and that we had left it on our right; and yet, again, that was hardly likely.

Before the day came to an end, we took counsel together. Yollchi assured me that the Khotan-daria was only four days distant to the east. The best Russian maps I had made the distance about 78 miles, and at the rate of about 12½ miles a day we should reach the river in six days; but at two days' march from its bank we ought to be able to get water by digging, as we had done near the Yarkand-daria. However, I bade the men take sufficient water to last ten days—that is, to fill the tanks half full, so as not to overstrain the camels in the deep sand. With such a margin I felt perfectly safe against all risks; indeed there would be a sufficient supply to water the camels twice during the six days. Yoll-
chi and Kasim were told off to fill the tanks. They were at it a long spell in the evening, and all the time I heard the precious fluid pouring into the iron vessels. All the loads were got ready that night, so that we might start early in the morning.
CHAPTER XLII

IN THE BAN OF THE DESERT

April 23d. It proved to be a warm day; but the camels had profited from their rest, and we did 17 miles before halting. At first our route lay across the thinly grassed dusty steppe, which stretched away southeastward from the lake, and was dotted all over with small mounds and terraces of clay, that bore a striking resemblance to houses. After we had gone about an hour and a half, the sand began to take the form of low furrowed ridges. Then ten minutes farther on and we were in the midst of a regular chaos of sand-dunes, all linked together, running without break one into another. Their prevailing direction was from northeast to southwest, and their steeper faces all fronted towards the south, southwest, and west. They were 20 to 25 feet high, and often extremely difficult to get over. My men called them yaman-kum (hateful sand), chong-kum (big sand), and ighiz-kum (high sand); to their crests or summits they gave the name of beles (pass). Already we perceived several peculiar sand formations. When two systems of sea-waves clash together, they mount on the top of one another up to double their original height. In like manner some of these gigantic sand-waves were piled up in pyramidal masses overtopping the level of the rest. This was where two separate dunes were driven one across the other by the ever-varying winds.

Right across our path, running from north-northeast to south-southwest, was a ridge of gigantic dunes, exceeding in altitude all others we could see; they were probably formed over uneven ground. It was wonderful to see with what surety of foot the camels clambered up the steep inclines, which the men only climbed with the utmost exertion, slip-
ping back at every step they took. The ridge rose to relatively but an inconsiderable height above the general level; all the same, it afforded a wide view. Why did I not pale with horror when my gaze swept eastward over that unending ocean of fine yellow sand, and its gigantic billows peeping up one behind the other for miles upon miles? I can only suggest, it was because I believed that the star of my fortunes, which had always shone so clear above my head, would not become extinct now. On the contrary, to my eyes the desert ocean was invested with a fascinating beauty. Its silence, its unbroken stillness, exercised a magic charm over me. It was a grand, a majestic sight. The wizard power of the desiderium incogniti was drawing me on with an irresistible spell to enter the castle of the desert king, where I was to unseal the revelations of bygone centuries, and discover the buried treasures of old-world legend and story. My motto was "Win or lose." I knew nothing of hesitation, nothing of fear. "Onward! Onward!" whispered the desert wind. "Onward! Onward!" vibrated the camels' bells. A thousand times a thousand steps to reach my object; yet accursed be the first step I take backward!

The dunes increased rapidly in height, the maximum being some 60 to 70 feet. It was terrible work getting over them. The camels slid cleverly down the steep slopes. Only one of them fell, one of the two that carried the water-tanks, and had to be unloaded and reloaded. Sometimes, when our path was stopped by abrupt declivities, we were obliged to stand still, while the men dug out and trampled down a path for the animals. By this the dunes had increased to a height of 80 to 100 feet. When I stood at the base of one of them, and looked up at the caravan creeping along its brink, I thought how little it looked. As far as possible we kept to the same curving line of summits, so as to escape going up and down more than we could help. As a consequence of this, our track was very zigzag. We took all the advantage we could of the softer, rounded summits, going from the one to the other; nevertheless we were very often obliged to go down a steep slope which we found it impossible to get 1—33
round. When, after some little hesitation, the camels began to slide down the loose sand, every man's utmost watchfulness was needed, for the sand poured down after them in a torrent, covering them to the knees.

We missed the small patches of hard clay soil of which we had passed so many during the first few days of our desert journey. We were now entirely among the sand. The last of the tamarisks, which still defied the visitation of death, was left behind. There was not a blade, not a leaf, to be seen; nothing but sand, sand, sand—fine yellow sand—whole mountains of it, stretching over boundless spaces, as far as the eye, with the field-glass to help it, was able to reach. No bird gave animation to the expanses of the sky. All traces of gazelle and deer had long since ceased. Even the very last promontory of the Masar-tagh had vanished from sight in the dust-haze that obscured the atmosphere.

The poor dogs! How they suffered from the heat, in their thick hairy coats! Hamrah in particular whined and howled, and lagged behind time after time. We spent a whole hour vainly looking for a suitable camping-ground, and at last, about dusk, found a very small patch of hard clay, where the last two tamarisks grew. Both trees were instantly peeled by the camels. Other green food there was of course none. We gave the animals oil and sesamum husks. We set about digging a well; but, as the sand still remained dry at a depth of 2½ feet, we abandoned the attempt. Then we missed Hamrah. We whistled; we shouted. The dog did not appear; nor did we ever see him again. Half-way from our last camp Mohammed Shah saw him scratch up the sand underneath one of the very last tamarisks we passed, and then lie down in it. The men believed the dog had died of sunstroke. With greater probability the sagacious animal had grown tired of running through the sand, had scented out that there was nothing but the terrible desert before us, and wisely judged that evil was in store for him if he followed us. Having, therefore, turned the matter well over in his mind, he made his choice, and turned back to the last lake we had left; then, having drunk and cooled his coat with a
good bath, he would no doubt make his way to Maral-bashi, although to get there he would have to swim over the Yarkand-daria. When I got back to Kashgar I made inquiries after the dog; but I could learn nothing of him. Yolldash stuck to us faithfully; but, poor beast! his fidelity cost him his life.

A strange and inexplicable feeling came over me when I encamped for the first time in the dreariest desert there is on the face of the earth. The men spoke but little; not one of them laughed. An unwonted silence reigned around the little fire of tamarisk roots. We tethered the camels for the night close to our sleeping-place, to prevent them breaking loose and going back to the lake, where they had their last good browse. A death-like silence held us all under its spell; even the camels' bells were frequently silent. The only sound to be heard was the heavy, long-drawn, measured breathing of the camels. Two or three stray moths fluttered around my candle inside the tent; but no doubt they had travelled with our caravan.

April 24th. I was awakened at half-past three in the morning by a hurricane-like wind from the west. Clouds of sand were swept into the tent. The storm whistled and rattled among the tent-ropes and tent-peggs, and the tent itself shook to such an extent that I expected every moment it would be blown away. The wind struck us from every quarter, for our camp was pitched in a sort of hollow, surrounded on all sides by dunes of drift-sand. There was one gigantic ridge on the north of us, another on the east, and yet another on the west, this last inclining one degree to the south. The surface of the dunes was corrugated all over, the lines of corrugation running from north to south. On the south there was a fourth dune, lying almost parallel to the third, and with an inclination of ten degrees towards the north. The steep faces of the sand-ridges in that part of the desert were turned towards the south and the west, the flatter, easier declivities towards the east and the north—an arrangement which was the exact contrary of what we should have preferred.

Notwithstanding the violent gale, the sky was perfectly
clear. But then the wind came from the west; while it is only the easterly winds which bring the dust-storms. It turned out a hot day, although the air was somewhat cooled by the wind. Clouds and columns of sand whirled in a mad dance across the desert, so that every now and again we became entirely swallowed up in them. But, as they seldom exceeded a dozen feet in height, the zenith retained all the while its fresh blue color, and the sun's rays beat down upon us with undiminished fierceness. The horizon was veiled in an unbroken yellowish-red haze. The fine drift-sand penetrated everywhere—into mouth, nose, ears; even our clothes became impregnated with it, so that we experienced a disagreeable grittiness of the skin, to which, however, we soon grew accustomed. The haze on the horizon was very embarrassing; for we often found it difficult to decide which way to go. It would have suited us very much better had things been reversed—namely, the zenith been clouded, but the horizon clear. Meanwhile the top of every dune afforded us an opportunity to observe how the drift-sand stood over like a plume or inverted tassel on the brink that faced the direction of the wind; how one moment the minute grains of sand were whirling round and round in a frenzied dance on the windward side of the dune, then the next moment quietly settled down on the lee side in fine crumpled folds, as though some mighty master-hand were weaving them together after a tastefully designed pattern. But when our heads rose up to the same level as the sand-storm, which came whistling between the summits of the dunes, the effect absolutely baffles description. We shut our eyes and mouths tight; we lowered our heads against the fierce blast, which shrieked and moaned about our ears. But, the whirlwind passed, we stood still and literally shook the dust off our clothes by the pound. I had brought with me a good stock of snow-spectacles, with a fine mesh-work of black wire across them; these now proved invaluable, although the fine sand partly forced itself in between the tiny meshes.

There was, however, one advantage attending a westerly gale. It tended to level down the abrupt faces of the sand-
IN THE BAN OF THE DESERT

dunes, and hurl them over on to the eastern sides. And yet what can one hurricane effect as against the labor of centuries?

My men set out in the morning full of hope that before evening we should reach a part of the desert where the dunes were lower, and where we should be able to find water, and, maybe, pasture for the camels, and fuel for a fire as well. But no such thing. The sand-hills grew higher and higher, and we drifted farther and farther into the unknown terrors of the desert. Only once during the day did the dunes become really lower—namely, forty to fifty feet. In that solitary spot we caught a glimpse of a few patches of bare level soil, partly clay, partly sheeted with saline incrustations.

At first it had been my intention to keep steadily on towards the southeast, in order to find out how far it was before the Masar-tagh cropped up again out of the sand of the Takla-makan Desert. But we saw no glimpse of a mountain, and so gradually bent our course round to the east, under the belief that that was the shortest way to the Khotandaria. Islam Bai was our pilot now, and excellently well he did the work. He went on a good distance ahead, picking out the easiest path, and holding the compass in his hand all the time. Down he went behind a dune, and became lost to sight; but he soon reappeared on the crest of the next ridge, then down again; and so it went on, time after time. The caravan followed slowly in his footsteps. Our line of march thus formed an undulating curve, winding across the troughs of the desert waves, and over the saddles of the dunes—\textit{i.e.}, the lower transverse ridges which connected the loftier crests—and thus afforded relatively easy passages from one depression to another. But when Islam stopped, and stepped aside up a pyramidal peak, and putting his hand to his brow to shade his eyes, gazed fixedly eastward, I confess I did not feel very comfortable. The action would bear only one interpretation: the road was growing still more difficult. Sometimes he came back quite discouraged, crying \textit{“Hetch yoll yock”} (Perfectly impassable), \textit{“Her taraf yaman kum”} (Hateful sand everywhere), or simply \textit{“Kum-tagh”} (Mountains of
When that happened, we were forced to make a wide détour to the north or south, so as to get past the hindrances which blocked the direct line of advance.

All the men walked barefooted, the perspiration rolling off them, all alike silent, weary, and downcast at finding their hopes of easier sand so bitterly and so constantly deceived. Time after time they stopped to drink; but the water itself was hot, its temperature being 86° Fahr. (30° C.); for it was incessantly washed backward and forward against the heated sides of the iron tanks, which we were no longer able to shade with bundles of reeds, for the camels had eaten them all up to the last stalk. Anyway, we all drank excessive quantities of water, in order to increase the transpiration, for the wind struck cool upon our skin.

The caravan crept slowly on at a snail's pace. We always took a general look-round from the top of each outstanding eminence; but towards every point of the compass it was always the same monotonous, discouraging outlook—one sand-ridge peeping up behind another—a billowy ocean without a shore, actual mountain-chains of nothing but fine, yellow sand. The camels still continued to climb up and slide down the slopes with the same marvellous surety of foot; nevertheless, we were often obliged to make a path for them. These difficult places, which the men called davan-kum (sand-pass), generally discouraged us all a little; but whenever we were favored with a good piece of level ground (darah) between the dunes, we quickly recovered our spirits and pushed on with fresh vigor, the men crying "Khoda kalesa" (God grant it!), "Inshallah" (With God's will!), and "Bismillah" (In God's name!). But after advancing a little way a fresh ridge would face us, and fresh crests would tower up ahead as far as the eye could reach.

On the top of a commanding dune we made a long halt, for the purpose of reconnoitring and of quenching our thirst. Occasionally poor Yolldash and the sheep, which were dying of thirst, were given their fill. Yolldash was wild the moment he heard the sound of water. Every time anybody went to the water-tank, he came running up wagging his tail.
The last survivor of the sheep followed us with the patience and fidelity of a dog. The men grew so fond of the creature that they said they would rather perish of hunger than kill it.

But the camels were visibly tiring. Heavy falls grew more and more frequent. When they fell on a steep incline, they were unable to get up without help. One of the beasts, which came down near the summit of a ridge, we were obliged to free entirely from his burden, saddle and all; and then, all putting our shoulders to him, we rolled him seventy feet down the slope into a hollow between two sand-dunes. It was only then that he was able to recover his feet.

After going eight miles, we had had enough of it for that day; and camped on a small patch of bare ground, so hard that we did not even attempt to dig a well. Every trace of organic life had now absolutely ceased. No moths came fluttering round my candle at night. Not a single yellow leaf came dancing down the wind to break the deadly uniformity. As soon as our duties were finished, we sat down and discussed the doings of the day, and what should be done on the morrow. It was truly touching to hear Islam Bai doing his best to keep up the courage of the others. He told them about our former journeys, about the masses of snow we encountered in the Alaï valley, “which were much worse than the sand,” about the glaciers of Mus-tagh-ata, and our several ascents of the great mountain.
CHAPTER XLIII

THE CAMELS BREAK DOWN

APRIL 25TH. As a consequence of the limpid purity of the atmosphere, the minimum thermometer sank to an unusually low level, not more than a couple of degrees above freezing-point; and in the morning a nor'wester was blowing and the air was again thick with dust. All day long, therefore, the temperature remained more than ordinarily low; we had no grounds for complaining of the heat, even at noon. Under the clear night sky radiation had been very active; then came the veil of dust, shielding the earth like an umbrella, so that the sun's rays were a long time in warming the ground. Meanwhile the air grew so thick that we had difficulty in seeing beyond the next dune or so.

The terraced patches of clay and silt, which lay embedded between the sand-dunes, and on which we preferred if possible to encamp, were formations of a remarkable character. They consisted of a series of horizontal flakes of clay, brittle, friable, and saline, and crumbled to pieces at the least touch. The several flakes did not lie at the same level, but generally rose layer above layer like a series of steps. There was not a trace of sand in them, nor of vegetable matter either. They were pure alluvial clays; of that there could not exist a doubt. Probably they were the last surviving fragments of the bed of the great Central Asian Mediterranean, which has dried up in the course of countless centuries, and the different terraces possibly indicated different sea-levels. As a rule none of these patches of clay was bigger than the deck of a brig; and the sand-dunes, in their restless onward movement, keep pouring over them and covering them up.

When morning came I made a most unwelcome discovery.
I had noticed the day before how the water washed very noisily to and fro in the water-tanks, and I looked into them to ascertain the cause. They contained only water enough to last two days! I asked the men why they had not obeyed my instructions, and put in sufficient water to last ten days. They answered that Yollchi was responsible for the quantity of water brought. When I reproached Yollchi he answered, "We might be perfectly easy; for it was merely a four days' journey from the last of the desert lakes to the place where we could get water by digging for it." This statement agreed with the maps I had. Consequently I relied upon the man, all the more since his information hitherto had invariably turned out to be correct. We were all without exception convinced that we were every bit as near to water by going east as by going west; consequently nobody said a word about going back to the last of the desert lakes. And yet what suffering, what loss, what sorrow would have been spared both to ourselves and to others, who were anxious about our fate, if we had retraced our steps to that little desert lake! However, we all agreed to watch over the water we had, and husband it like gold. Privately, I instructed Islam Bai not to let the two water-tanks out of his sight for a single moment. From that morning the camels never got a drop more water to drink.

Thanks to the dust-haze, the air remained beautifully cool. The crests of the dunes gleamed out of the gloom like fantastic ghosts, yellow dolphins with arched backs, mocking us for our audacity in daring to defy them. The thick atmosphere embarrassed us considerably in judging of distance and perspective. We were often brought up suddenly at the bottom of a dune, which, owing to its blurred outlines, we still imagined to be a good way ahead of us.

In front of us extended an endless world of ridges and hummocks of sand. The greater portion of the dunes stretched from north to south; the highest ones extended from east to west. The horizontal terraces of clay, which were at least evidence that the ocean of sand was not quite without a bottom, and which buoyed us up with the hope
that we should ultimately get beyond the sweep of its sand-waves, had now entirely ceased. Everything was completely buried under sand; the dunes were sand; every hollow between them was sand. It was plain we were entangled in the very worst part of all the desert; and I became painfully conscious of the seriousness of our position.

I travelled all that day on foot, partly to spare my excellent camel Boghra, partly to encourage my men. The camel Babai kept stopping every minute. Time after time the cord that he was led by broke, and his nose became sore and tender. At last he lay down on the sand, and refused to exert himself any further. We took off his load. Then he got up. We fastened his load on again as he stood. But he walked slower and slower, stopped oftener and oftener, and had to be led all the time by one of the men. Finally we relieved him of his burden and divided it among the other camels, and left him to make his way alone in the wake of the caravan. It was a terrible sight to see "the ship of the desert," man's only hope on that endless sea, become a wreck. We gazed and gazed impatiently eastward, seeking some abatement of the difficulties of the road; but we gazed in vain. There was nothing but mountains of sand as far as the eye could pierce. All of a sudden a gadfly came buzzing among the camels. Instantly our hopes rose to fever point; we believed we were nearing "land." Yet in all probability it was merely a deceiver, which we had not observed before—a straggler which had quietly lain hidden in the hairy hide of one of the camels.

Babai delayed us continually; at last we decided to halt for an hour, so as to afford him an opportunity to rest. We gave him a few pints of water and a few handfuls of hay out of his own pack-saddle; he devoured them voraciously. When his saddle was taken off, we perceived he had an open sore on his back, where a rough piece of the saddle had chafed his unhealthy yellowish flesh. His legs trembled; his tongue was white. It was painful to see the poor creature. Leaving Mohammed Shah to look after him, the rest of us went on. For a long time we heard the sick animal crying after us.
MARCHING ALONG THE EDGE OF A SAND-DUNE
The highest dunes now rose 150 to 200 feet above their bases. Farther on again they sank to 100 to 120 feet.

"Karga! karga!" cried Islam Bai, as he pointed to a raven, which circled two or three times round the caravan, hopped about on the summit of a dune, and finally disappeared. This incident awakened universal joy. We looked upon it as an indication that the Khotan-daria was not far off. The raven was hardly likely to have sought the depths of the desert for the mere pleasure of the thing.

After we had gone 12½ miles, Chong-kara, the big black camel, refused to go farther. This obliged us to make camp No. XIII. We gave the camels what was left of Babai's saddle to eat; for we had a good reserve supply in the saddles of the other seven, which were all stuffed with hay and straw.

My dinners grew gradually simpler, till at last I was forced to content myself with tea, bread, and tinned foods. The men lived on tea, bread, and talkan (toasted flour). Our fuel had pretty well run out. The small supply we had started with was all done, and we had no resource left but to sacrifice some of the less valuable packing-cases. In the evening we again took counsel together. We considered that, at the most, we had only three days to the Khotan-daria, but hoped before then to come to a belt of poplars, where we should be able to obtain water by digging for it. A couple of gnats came and kept me company in the tent. The question was, had they travelled with us or had they been blown to that spot by the wind from some wood in the vicinity?

April 26th. At daybreak, while the men were occupied with getting the tent down and preparing the caravan for a start, I set off alone, on foot, to try and find a passage eastward. From that point I travelled on foot all the way to the Khotan-daria; consequently I was no longer able to calculate the distance from the camel's paces. Instead of that, I adopted the device of counting my own, an occupation which greatly interested me. Every hundred paces I went was so much space won towards "land"; and with every thousand my hopes of safety rose a degree.
Meanwhile, with my compass in one hand and my field-glass in the other, I hastened eastward, due eastward; for there ran the river of safety. The camp, the camels were soon lost to sight behind the summits of the sand-hills. My only companion was a solitary fly, which I regarded with unusually friendly eyes. Otherwise I was alone, absolutely alone, in the midst of a death-like silence, with a sea of yellow sand-dunes before me, rolling away in fainter and fainter billows right away to the horizon. Deeper Sabbath peace never brooded over any graveyard than that which environed me. The only thing wanting to convert the simile into actual fact was the headstones to the graves.

I soon fancied the dunes were not so high as usual. I tried to maintain the same level, as far as possible, by keeping to their crests and circling round the highest points. I knew the poor camels would have many a toilsome, many a weary step to take in my wake. A bewildering chaos of ridges, lying northeast to southwest, and east to west, were flung across one another in the strangest fashion. Our position was desperate. The dunes burst up to heights of 140 to 150 feet. As I looked down from the top of one of these giant waves, the depression at my feet, on the sheltered side of the dune, looked a long way below me, at a giddy depth. We were being slowly but surely killed by these terrible ridges of sand. They impeded our advance; yet over them we must. There was no help for it, no evading them. Over them we must—a funeral procession, marching to the doleful clang of the camels' bells.

The steeper faces were now turned towards the east and southeast. Evidently the northwest wind had prevailed in this quarter during the past few days. A good crisp breeze was cutting across from that direction even then. On its wings rode every now and again a few small tufts of some species of white vegetable down. Over one of the ridges rolled a handful of dry and withered thistles, closely matted together. Unfortunately, these scant tokens of organic life were wafted thither by the northwest wind. In all probability they had travelled a route coincident or parallel with ours.
Noon came, and I was near fainting from fatigue and thirst. The sun glowed like a furnace above my head. I was dead beat; I could not go another step. Then my friend the fly swung round to the other side of me and buzzed such a lively tune that he roused me up. “Just a little bit farther,” he buzzed in my ear. “Come, drag yourself on to the summit of the next dune. Tramp off another thousand paces before you give in. You will be all the nearer to the Khotandaria—all the nearer to the flood of fresh water which rolls down to Lop-nor—all the nearer to the dancing waves of the river, which sing a song of life and spring, and of the spring of life.” I tramped off the thousand paces. Then I dropped on the top of a dune, rolled over on my back, and pulled my white cap over my face. O, burning sun! hasten, hasten westward; melt the ice-fields of the “Father of the Ice Mountains;” give me but one cup of the cold crystal streams which pour from his steel-blue glaciers and foam down his mighty flanks!

I had walked eight miles. It was delightful to rest; and there was a stir of air on the dune top. I fell into a kind of torpor; I forgot the gravity of our situation. I dreamed I was lying on a patch of cool emerald-green grass, underneath a leafy silver poplar, and a gentle breeze was whispering through its trembling leaves. I heard the wavelets beating their melancholy cadences against the shore of a lake, which washed the very roots of the poplar. A bird was singing in the tree-top—singing a song of mystic meaning which I did not understand. A beautiful dream! How gladly would I have continued to steep my soul in its false illusions! But alas! alas! the hollow clang of the funeral bells again woke me up to the grim realities of that evil desert. I sat up. My head was heavy as lead; my eyes were blinded by the glittering reflections of the eternal yellow sand.

Up staggered the camels, their eyes dull and lustreless, like the dying gleams of the setting sun. It was a look of resignation, a look of indifference; all desire for food had gone out of it. Their breathing was labored and slow; their breath more disagreeable than usual. There were only six of them, led by Islam Bai and Kasim. The other two men
had remained behind with Babai and Chong-kara. Even at the beginning of the day Chong-kara's legs had failed him. "They would come on to camp," said Islam, "as quickly as they were able."

After that the desert showed us another of its features. Every now and again we stumbled into level pools of inconceivably fine dust lying embedded between the dunes. We sank into them up to the knees as though we trod on soft mud. Accordingly, after that we kept a vigilant lookout for these treacherous spots. In other places the sand was covered with a thin sprinkling of minute particles of flints with sharp edges. They appeared to exercise much the same sort of influence upon the sand-dunes that oil does upon the waves of the sea. Where they were present the dunes were flattened down, rounded off, and lost their delicate rippled surface.

Between two of the sand-dunes we made a strangely unexpected discovery—namely, a portion of the skeleton of a donkey, or, as the men asserted, of a wild horse. There was nothing but the leg bones, which were white as chalk, and so brittle that a mere touch caused them to crumble to pieces like ashes. The best preserved parts were the hoofs. They were too large to be those of a donkey, too small to have belonged to a tame horse. What was the creature doing out here in the desert? How long had the bones lain there? To these questions the obdurate desert sand returned no answer. For my part, I fail to see why those bones may not have lain where we found them for thousands of years. I ascertained subsequently from several instances that the dry, fine desert sand unquestionably does possess the property of preserving organic matter for a very long period of time. Perhaps the skeleton had lain buried beneath the sand for centuries, and had only quite recently been exposed through the drifting away of the superincumbent dunes.

We were all completely done up through weariness and the cravings of thirst. We were unable to drag ourselves on more than another mile and a half, and then halted on a patch of hard level clay. There, too, we lighted upon a number of
curious objects—namely, small, brittle, white snail-shells, tiny pebbles, which some time or other had been rolled and polished by water, amorphous pieces of flint, a fragment of a mussel-shell, and a large quantity of pipe-like formations of limestone, as though lime had been moulded round the stalks of reeds.

It was evening when Yolchi and Mohammed Shah struggled into camp, tired and thirsty, supporting their steps on their hand-staves. They came alone. The two camels refused to go any farther, and so they had left them to their fate. As soon as it turned a little cooler I sent a man to fetch them. He found that they had picked up a bit, and towards midnight brought them in.

Our spirits all revived that evening. Looking to the east with my field-glass, I thought the dunes were much lower, 40 to 50 feet at the most. To-morrow we should be through the high sand-ridges: we should perhaps be able to encamp in the woods of the Khotan-daria! A glorious thought! It put life into us all.

From this point I did without the tent. It was necessary to husband our strength for more essential exertions. We all slept comrade-like under the open sky. Yolchi, however, held aloof from us, and never spoke unless he was spoken to first. There was a traitorous look in his eye; we felt more comfortable when he was out of our sight. The word that was oftenest heard during the day was "Yaman" (Bad; things look bad). But after a while something of the grim humor of despair began to creep over us. We passed some flakes of stone. One of the men advised another to look for gold. But no matter how the day went, our spirits invariably rose as we drew near to the next camping-place. Besides, what was the use of worrying ourselves about the morrow; only let us rest after the toils and fatigues of that day, and recover from its deceptive hopes! After the heat of the day the coolness of the night was always welcome.

In the evening, about six o'clock, a bright idea occurred to me. Why not try to dig a well? Islam Bai and Kasim were instantly all eagerness. While the former made haste to get
my "dinner" ready the latter set to work to dig. He rolled up his sleeves, spat in his hands, and laid hold upon the ketmen, a sharp-pointed Sart spade, the blade of which was put on at right angles to the shaft. The dry clay crackled, and Kasim sang as he dug. After the other two men came into camp, all three took their turns in digging. In answer to my question whether there was water there, Yollchi smiled scornfully, and said: "Oh yes, there was plenty of water, if we dug down thirty gulatsh (fathoms)!" Kasim got down about a yard. The clay was mixed with sand and it was moist! Yollchi was put to shame, and worked with double zeal. The hopes of all of us revived. I hurried through my simple meal, and with Islam hastened to the well. And at it we went, all five of us, as hard as we could work. The hole grew deeper. The man digging could not be seen from the level ground; nor was he able to throw the sand to the surface. A rope was tied to the handle of a bucket, and by that means the loose sand was drawn up to the top. A third man emptied the bucket. Gradually a circular mound rose round the opening, until I set to work and shovelled it away to make room. We began work at six o'clock. At that hour the temperature of the air was 83.5° Fahr. (28.6° C.); of the surface of the earth 80.2° Fahr. (26.8° C.). At a depth of 3½ feet the argillaceous sand showed 61.9° Fahr. (16.6° C.), and at five feet 54.3° Fahr. (12.4° C.).

The material we dug through was clayey sand of a grayish yellow color, and contained in places reddish brown husks, the relics of some species of decayed vegetation. Of stones there was not a trace.

It was pleasant and refreshing to lie on the cool sand. The water in the iron tanks was 84.9° Fahr. (29.4° C.) warm. A tinful was embedded in the sand that was thrown out of the well, and it speedily became cool enough to quench our thirst.

Slowly and gradually the sand grew moister. It was evident there was water, although Yollchi believed it was a long way down to it. When we got down about 6½ feet, the sand was so moist that we could squeeze it into balls, and by so
DIGGING THE DECEITFUL WELL
doing made our hands moist. And how pleasant it was to cool our heated cheeks against it. In this way a couple of hours passed. The men had grown tired. Their breasts and shoulders, which were bare, dripped with perspiration. They kept stopping to rest oftener and oftener, and every now and again swallowed a mouthful of water. Nor did our conscience reproach us for the extravagance; for were we not going to fill our empty tanks at the well we were digging?

In the mean time, it had grown pitch-dark, and the work went on by the light of a couple of candle-ends stuck in niches in the sides of the well. Their own instinct brought all the animals round the mouth of the hole. The camels, waiting impatiently, stretched their long necks over it and sniffed at the cool wet sand. Yolldash came and squatted down on it with his legs out-stretched before him. Every now and then the hens, too, came and took a peep at what was going forward.

Inch after inch we forced our way down, working with the energy of despair for life—dear life. The hope of deliverance gave us new strength. We were resolved not to be beaten; we would dig on all the next day before we would give in. We would find water.

We were all standing in a ring round the gaping hole we had made in the ground, talking about it, and watching Kasim, who, half-naked as he was, looked strange and eerie in the dimly lighted cavity at our feet, when all at once he stopped, letting the spade drop out of his hands. Then, with a half-smothered groan, he fell to the ground.

“What is the matter? what has happened?” we asked, one and all stupefied with amazement.

“Kurruk kum!” (The sand is dry!) came a voice as if from the grave.

A couple of spade-strokes convinced us that the man was right: the sand had become as dry as tinder. The deceptive moisture was possibly due to a fall of snow during the winter, or to a shower of rain. But we did not know that; and the sand-dunes do not betray their secrets. We got down as far as 10½ feet; and there the temperature was 52.2° Fahr. (11.2° C.).
This unwelcome discovery made, we became instantly conscious of our weariness, and realized how much of our precious strength we had wasted during the three hours we had toiled in vain. We literally collapsed, became unnerved, lost all our energy. A deep and bitter gloom darkened every face. We shunned one another’s glances. We staggered away each to his sleeping-place, seeking oblivion of our despair in a long and heavy sleep. Before I lay down I had a private conversation with Islam Bai. We did not conceal our apprehensions from each another. We recognized the extreme gravity of our position, and pledged each other to keep up our own and the other men’s courage to the utmost extremity. According to my maps, we could not be very far from the Khotan-daria; nevertheless, it was as well to be prepared for the worst. Before lying down, I took the opportunity of the other men being asleep to examine the contents of the last of the tanks. It contained sufficient water to last one day. We should have to watch over it as if it were gold. In fact, if we could have bought one more day’s supply of water with all the money we had, we should not have hesitated about it a moment. We resolved to measure out the last precious portions drop by drop. It must be made to last three days: that could be done if we confined ourselves to two cups a day to each man. For three days the camels had not tasted a drop, nor did they get a drop more. Yoll-dash and the sheep got a bowlful each once a day, and on that they managed very well. Then we two also sought rest, leaving the patient, docile camels standing in a circle round the mocking well, waiting in vain for what they could not get.
CHAPTER XLIV

NO WATER LEFT

At sunrise of April 27th we did all we could do to preserve the camels’ strength. We took out the hay stuffing of one of the Saddles and gave it to them; they devoured it greedily. Then they looked about for water; but we could only moisten their lips. After the hay they got a sackful of old bread and some oil. To relieve their burdens a little we left behind us my tent-bed, a carpet, and several other articles of minor importance.

As soon as I had swallowed my tea I hastened on in advance. I was consumed with impatience to get on, for the dunes were lower than usual, not more than thirty-five feet in height. All the same, I observed that the brown substratum, which every now and again peeped out from underneath the sand in the hollows between the dunes, was slightly uneven in contour; so that the lower elevation of the dunes may have been due to inequalities in the natural surface of the earth, and to the top of the higher parts being less deeply buried in sand. Consequently I did not deceive myself. An hour later I was again entangled in a maze of lofty sand-dunes, quite as difficult to cross and equally boundless as heretofore. The larger agglomerations of dunes stretched from east to west; while the secondary or transverse dunes lay from north to south or from northeast to southwest. The steep slopes were now turned towards the east and towards the south. But not a sign of life, not a single tamarisk to break the straight line of the horizon, nothing to indicate the approximate presence of “land.” My senses reeled as I gazed across that desolate ocean of sand in the depths of which we had hopelessly lost ourselves. Again and again, from the top of every
sand-ridge I came to, I swept the horizon with my field-glass, hoping to discern in the east the dim dark line of the woods of the Khotan-daria. But all in vain.

Going down the side of one of the dunes, my eye fell upon a small object resembling a root. I stooped down to pick it up, when suddenly it darted away and disappeared in a little hole on the edge of the dune. It was a lizard, of the same yellow color as the sand. How did the creature live? Did it eat nothing? Did it never want a drop of water to drink?

It turned out a splendid day. The sky was flecked with light feathery clouds; the heat was not at all oppressive; radiation was less active than usual. At the end of three and a half hours I was overtaken by the caravan, which continued to go well all day long. But when they came up, Mohammed Shah and the two sick camels were already missing. "They were coming on slowly after them," said the other men. High up in the sky we perceived two wild geese, scudding away to the northwest. This again revived our hopes; for we conjectured that they came from the Khotan-daria, and were making for the little desert lake that lay at the foot of the mountains we had passed. And yet, after all, we were only trying to deceive ourselves; for wild geese only fly at such a great height when they are migrating from place to place; and when they are doing that, what signifies to them the crossing of a desert some 200 miles broad?

I got up on Bogobra's back for a while, and he received the accession to his burden without murmuring. As soon as I was mounted I felt myself terribly tired; yet when I noticed how the animal's knees tottered at every step he took, I got down again and walked.

That day the sand-hills were the highest of any we had yet crossed—fully 200 feet high. The way I estimated their height was this. I stationed myself a little way off a dune along the top of which the caravan was moving. I knew by previous measurement the exact height of one of the camels. On a pencil I marked notches at equal distances apart, each space representing the height of the camel. Then, holding the pencil up to my eye, I measured how many notched
spaces were required to cover the height of the dune; in other words, I measured how many camel's heights it was. Apart from that my eye alone told me that the camel was an extremely small object as compared with the dune, which was more like a high hill. It will readily be understood that over gigantic billows of sand like this we could not advance very rapidly. We were compelled to make many a détour, involving great loss of time, in order to avoid them; in fact, we were sometimes compelled to travel for a time in the exactly opposite direction from that in which we wanted to go.

Yolldash kept close to the water-tanks, in which he could hear the last few drops of the precious fluid splashing against the sides, and whined and howled every time he heard a splash. Whenever we stopped, uncertain which way to turn, he yelped, and sniffed at the tanks, and scratched in the sand, as if to remind us that we ought to dig a well, and to let us know that he wanted water. When I lay down to rest the dog would come and crouch in front of me, and look me straight in the eyes, as if to ask me whether there really was no hope. I patted him, and spoke soothingly to him, and pointed towards the east, trying to make him understand that there was water there. At that he would prick his ears, jump up, and run in that direction; but he soon came back again, downcast and disappointed.

After some trouble Islam Bai and I climbed to the top of a pyramidal dune, and took a long and searching reconnaissance of the country ahead through my field-glass. But there was no abatement of the billows of sand, no gap in the dunes towards which we could steer our course. Everywhere the same curdled sea of giant sand-waves. No matter which way we looked, we were surrounded by the same desolate, lifeless landscape. As the result of our deliberations we resolved to keep pushing on as long as the six camels were able to walk, and until a really serious crisis confronted us. That crisis occurred at six o'clock that same evening, on the slope of a dune looking towards the north, where we made camp No. XV., a camp shut in on every side by "ugly" country.
Shortly after reaching camp we were joined by Mohammed Shah. He said that even at the beginning of the day's march the camels refused to move, and he had therefore abandoned them to their fate. One of the two carried a couple of empty water-tanks, and the other had no load. If I had been there when they stopped I should have had them shot; for the old man said that at the most they could not last longer than two days. But he believed they might be saved, if we could find water before night. As it was, until then, they were abandoned for lost, and would have to wait in patience for a painful death. God grant it came speedily!

Mohammed Shah's report made an extremely painful impression upon me. I was to blame for the loss of the innocent lives. It was I who was answerable for every moment of agony, every pang of pain, which the men and animals of my caravan suffered. I was not present, it is true, when the first camels were delivered up to the power of the evil desert. But in imagination I saw the action vividly. It weighed upon my conscience like a nightmare, keeping me awake at night. I saw Babai lie down when Mohammed Shah left him. The other camel remained standing, although his legs trembled under him, and, with expanded nostrils and shining eyes, followed the departing caravan with a wistful and reproachful look. But the caravan soon passed out of sight. Then I imagined him slowly turning his head towards his companion, and thereafter crouching down beside him. Then they both stretched out their necks along the sand, half closed their eyes, and lay motionless, breathing heavily through their expanded nostrils. Their weariness increased; they rolled over on their sides with legs out-stretched. Their blood coursed slower and slower, thicker and thicker, through their veins; the rigid torpor of death gradually stiffened their limbs. The pauses between their breathings became longer and longer, until at last the end came. In all probability Babai would die first, for he was the weaker. But how long did that death-struggle last? We shall never know. My blood curdled with horror as the thought flashed across my mind that perhaps they might live some days, and be buried
alive by the sand-storms. Ah well! they are now sleeping their century-long sleep under the moving billows of the remorseless and interminable desert.

Later on in the afternoon we perceived that the western sky was full of thick steel-blue clouds, heavily charged with rain. They were the symbols of water and of life. We were surrounded by aridity and death. They widened out; they drove closer together. The sight of them fairly fascinated us. We could not take our eyes off them. Our hopes of rain grew stronger from moment to moment. We set out two of the empty water-tanks. We spread out the tent-covering on the ground, with one man at each corner, ready to hold it up. We waited and waited. But the clouds slowly drew over to the south, vouchsafing us not a drop.

Islam Bai baked bread for me for the last time. Mohammed Shah declared that we had fallen under the spell of telesmat—i.e., witchcraft—and should never find our way out of the desert. With superb calmness, as if stating a mere matter of course, Islam Bai remarked that the camels would fall one after the other, and then it would be our turn. It was simply the inevitable course of events. I answered, I was convinced we should not die in the desert. Yollchi mocked at my compass—my kebleh-nameh (the shower of the direction to Mekka)—and swore it was it which was deceiving us, by leading us round in a circle. No matter how many days we travelled, he said, the result would be just the same. The best thing we could do was not to exert ourselves unnecessarily: we were bound to die of thirst at the end of a few days. I assured him that the compass was a perfectly trustworthy guide, and had led us due east all the time; he had only to note the rise and setting of the sun to convince himself of the fact. His reply was that the dust-haze, together with telesmat (witchcraft), affected even the sun, so that it was no longer to be trusted to.

On April 28th we were awakened by an unusually violent hurricane of wind out of the north-northeast, which enveloped the camp in blinding clouds of sand. Up over the dunes dashed the whirling columns of sand, down they plunged on
the lee side, and careered away one after the other in a frenzied dance. I tossed a handful of pieces of paper on the wind, and watched how they dropped to the ground directly they got to the sheltered side of the dunes, and there remained. The atmosphere was choked with dust and sand; it was so thick that we were unable to see the summits of even the nearest dunes. We could not possibly have steered our course by the sun that day. There was not the faintest glimmer of light in the sky to indicate his position. This was the worst storm we had experienced throughout the whole of our journey through the desert, one of those terrible kara-burans or "black storms," which convert day into night.

We slept the previous night under the open sky. The night being cool, I lay down wrapped in my furs, with a bashlik (hood) pulled round my head. In the morning, when I awoke, I was literally buried in sand. A thick sheet of fine yellow sand covered my neck and breast. Fine yellow sand had penetrated through every opening in my clothing. When I stood up it slipped down inside my shirt next my skin, so that I had to take off my clothes and shake them. My furs were indistinguishable from the surface of the dune. Every object about the camp was in a precisely similar plight, half smothered in sand. It cost us a great deal of trouble to fish them all out with our hand-staves.

The going that day was fearful. We could not get a glimpse of our surroundings; we did not know which way to go. But the air was cool, and that and the gale made us forget the cravings of thirst.

That day I was unable, of course, to go on in advance; my footsteps would have been obliterated almost instantly. All we could do was to stick close together, men and animals in a clump. If you once get separated from your companions in such a storm as that, it is utterly impossible to make yourself heard by shouting, or even by rifle shots. The deafening roar of the hurricane overpowers every other sound. If you do get separated from them you are bound to wander astray, and so become irretrievably lost. All that I could see was the camel immediately in front of me. Everything else
was swallowed up in the thick, impenetrable haze. Nor can you hear anything except the peculiar whining and moaning made by the millions upon millions of grains of sand as they whiz without cessation past your ears. Perhaps it was this eerie sound which worked upon the imagination of Marco Polo, and led him, when speaking of the Great Desert, to write thus: "Even in the daytime one hears those spirits talk. And sometimes you shall hear the sound of a variety of musical instruments, and still more commonly the sound of drums. Hence in making this journey 'tis customary for travellers to keep close together. All the animals, too, have bells at their necks, so that they cannot easily get astray. And at sleeping time a signal is put up to show the direction of the next march."*

We had a hard and trying march. Through the greater part of the middle of the day it was as dark as pitch; at other times we were environed by a dim, murky light, half yellow, half gray. Several times when the sand-blast met us full in the teeth we were nearly suffocated. In fact, when the more violent gusts struck us we crouched down with our faces on the ground, or pressed them against the sheltered side of a camel. Even the camels turned their backs to the wind and stretched out their necks flat along the ground.

The sand-hills grew no lower, but towered up in front of us as high as ever they did. No sooner had we surmounted one summit than we saw another looming out of the haze ahead of us. During the course of the day one of the younger camels gave up. It was easy to see the animals were exhausted. They staggered, their legs trembled, a dull, glassy look was in their eyes, their lower lip hung limply, their nostrils were expanded. We were in the act of laboriously surmounting the summit of a dune, where the storm seemed to rage with tenfold fury, when Yolchi, who was leading the dying camel last of all in the order of march, came hurrying forward alone. He was afraid to lose sight

of us, lest he should not find us again. The camel had not been able to get over the last crest, he said, but had fallen close to the top and rolled over on his side, and would not get up. I commanded the caravan to halt, and sent back two of the other men to see if they could not somehow persuade the camel to rise and follow us. They disappeared in the dust-haze, but soon came back, saying that the trail was already obliterated, and they had not dared to go too far from the caravan.

Thus we lost our third camel, which, like the other two, was abandoned to a painful death in the desert. We gradually became hardened to these affecting losses. Our only concern now was to save our own lives. When people fall into such desperate straits as we were in, their feelings get blunted, and they grow indifferent to the sufferings of others. Every morning when we started I used silently to question myself, Whose turn will it be next to start on the long, dark journey that hath no end?

At six o'clock in the evening we stopped, having travelled 12\(\frac{3}{4}\) miles during the day. After carefully considering our situation we agreed to abandon everything that was not absolutely necessary. I and Islam Bai went through our stores seriatim. We unpacked the cases of sugar, flour, honey, rice, potatoes, and other vegetables, macaroni, and two or three hundred tins of preserved foods. The greater part of these things, together with several furs and felts, cushions, books, a big bundle of journals, the cooking-stove, and petroleum-cask were stowed away in boxes and covered up with carpets, and left in a hollow between two dunes. On the summit of the next dune, which was visible for a long distance, we planted a staff, and fastened to it a number of a Swedish journal, so as to make a flag. It was our intention, if we found water, to come back and fetch the things we left. Consequently, during the course of the evening we made a score of laths out of the lid of a packing-case, and tied a number of the same journal round each. These little flags we purposed to stick in the tops of the highest dunes we crossed during the succeeding days, so that, like buoys in an unfa-
miliar fairway, they might serve to guide us to camp No. XVII., where we left our stores.

I picked out all the tinned provisions which contained anything of a liquid nature, such as mushrooms, lobsters, and sardines. My men, having convinced themselves that the tins contained no pork or bacon, ate up their contents with great delight. What they did not eat were used next day. The remainder of the water, scarcely 3½ pints, was put into two kungans (iron pitchers). We took with us the last two tanks, in case we should discover water. The camels had another of the saddle stuffings, but they did not eat it with any appetite, for their throats were parched up. I had tea for the last time, and made a thorough good meal off moist tinned provisions.

April 29th. We started at daybreak with the five camels which still survived. Just as we were starting, Islam Bai came and with a heavy heart told me he had found one of the iron pitchers empty, and that he and the other men suspected Yollchi of having drunk the water, for they had heard him moving stealthily about and fumbling in the dark. However, we had no proof that he was guilty; but our suspicions against him were strengthened when he came creeping to my feet, complaining of pains in the breast and stomach. We believed it was all pretence. Nevertheless it was my duty to set an example to the rest, and keep up the other men's courage, so I gave him half of my allotted portion to drink. After that we lost sight of him; nor did he show himself again until the following morning.

We vainly scanned the horizon for "land." There was not a sign of a living creature to be seen. The desert ocean extended before us and around us to an infinite distance. The country decreased a little in elevation, but the relative dryness of the atmosphere remained unaltered. The ridges now stretched from north to south, their steep sides being again turned towards the west, which of course greatly added to the difficulties of our advance. Looking eastward from the top of a high crest we had before us an unending succession of steep banks of sand, which, by an optical illusion,
looked like a series of easy steps. Westward the eye glided across the long, sloping, windward faces of the dunes, so that towards that quarter the surface appeared almost level. The effect of this was to reduce us to despair. We fancied the dunes were growing higher and higher, and consequently the road more and more difficult with every step we took. Here, too, the sheltered sides of the dunes frequently showed a sprinkling of minute fragments of micaceous schist of a steel-gray color.

This day our hopes were spurred by the discovery of the skeleton of a vole (gen. Arvicola), as well as of a hoary, withered poplar. And yet it was building upon an extremely slender foundation, for the vole's skeleton may have been carried to the spot where we found it by a bird, and the poplar was without a root. If only it had been rooted in the ground! That alone, for as little a thing as it was, would have kindled our hopes anew.

We travelled through that awful sand the whole day; consequently our pace was painfully slow. The camels' bells echoed at longer intervals apart, for the poor creatures were half dead with fatigue. All the same they still marched on with the same calm dignity and majestic gait which always distinguish them. Their excrement contained next to no straw, for they were living almost entirely upon their own flesh, and were growing fearfully thin. They presented a wretched appearance, every rib they had plainly showing through their hair. The three camels we had abandoned were no doubt by this time dead; in any case, it was too late to do anything to save them, even though we should come across water immediately.

It was a still, calm day, although the atmosphere was still saturated with dust. The men said, and with truth, that it was God's blessing the past few days had been cool, and we had not had the burning sun to contend against. Otherwise every camel we had would have given in, and we ourselves should be on our last legs.

I walked for twelve and a half hours without stopping; we covered altogether nearly seventeen miles before we en-
camped for the night. Eastward there was not the slightest sign of an improvement in the surface of the country. The same billowy sea of sand stretched right away to the horizon; there was not a single object except sand upon which the eye could rest.

April 30th. The thermometer fell to a minimum of $41.2^\circ$ Fahr. ($5.1^\circ$ C.), and even when morning came it was decidedly cold. Clouds of fine dust still floated about in the atmosphere; but it cleared sufficiently to let us see the position of the sun—i.e., a faint brightening that loomed through the haze. We gave the camels another saddle stuffing and all the bread we had, and so considered they would be able to last out another day. There were two tumblerfuls of water left in one of the pitchers. While the men were engaged in loading up for the start, Islam Bai caught Yollchi with his back to his comrades and the pitcher at his mouth. There ensued an unpleasant and painful scene. Islam Bai and Kasim, boiling with rage, flung themselves upon Yollchi, hurled him to the ground, struck him in the face, kicked him, and would assuredly have killed him had I not intervened with my authority, and compelled them to let him get up. He had drunk half of what there was, leaving about one-third of a pint. At noon I proposed moistening each man's lips, and in the evening intended to divide what was left into five equal portions. I wondered how many days we should hold out after that. Mohammed Shah said that once in Tibet, many years before, he had struggled on for thirteen days without water.

Again the funeral bells began their mournful ding-dong, ding-dong; the caravan got into motion for the east. At first the dunes were only 25 feet high; but we had not advanced far before we were once more struggling through the mazes of chong-kum (big sand). A little wagtail circled round the caravan, twittering, and once more caused our rapidly expiring hopes to flicker up. Islam Bai was so encouraged by the incident that he proposed to go on in advance with the iron pitchers and fetch water for us all. But I said "No." I needed him now more than ever; and we went on all together.
From the very start almost Yollchi was missing. The other men believed that he was unable to keep up with us any longer, but would die on our track. They were all embittered against the man. At the last lake we passed, he swore that we only needed to carry water sufficient for four days, and undertook within that space to bring us to a region where we could get water by digging for it. But the men believed that, from the very beginning, he had entertained a treacherous design against us, that he had of deliberate purpose led us into a part of the desert where we must inevitably perish of thirst, that he had stolen some of the water for his own secret use while he hastened, after the wreck of our caravan, to inhabited parts to fetch some other "gold seekers" of the same stamp as himself to come and plunder my goods. It was not easy to determine how much of truth there was in this theory, and the matter was never cleared up.

Every evening up to this point I had kept a fully detailed account of each day's incidents in my journal; and those accounts constitute the foundation of my description of that awful journey. The last lines I wrote in my book, which might have been the last I ever was to write at all, were penned on the afternoon of April 30th, and ran as follows:

"Rested on a high dune, where the camels gave up. We scanned the eastern horizon with a field-glass—nothing but mountains of sand in every direction, not a blade of vegetation, not a sign of life. Nothing heard of Yollchi, either in the evening or during the night. My men maintained he had gone back to the stores we left behind, intending to keep himself alive on the tinned provisions, while he fetched help to carry off the rest. Islam believed he was dead. There were still a few drops of water left for the morning, about a tumblerful in all. Half of this was used in moistening the men's lips. The little that remained was to be divided equally between us all in the evening. But when evening came we discovered that Kasim and Mohammed Shah, who led the caravan, had stolen every drop! We were all terribly weak, men as well as camels. God help us all!"
My account of what happened during the immediately succeeding days rests upon pencil notes scribbled on a sheet of folded paper. But besides recording the course of events, I never under any circumstances omitted to note the bearings of the compass, and to count the number of paces I took in each direction. When at last I found leisure to rest on the banks of the Khotan-daria, it was my first and principal concern to write out my notes with complete fulness of detail, so long as the particulars were fresh in my memory.
CHAPTER XLV

THE CAMP OF DEATH

May 1st. The night was cold; the thermometer fell to 35.9° Fahr. (2.2° C.), the lowest reading we had during the twenty-six days we were crossing the desert. But the atmosphere was pure, and the stars glittered with incomparable brilliancy. The morning dawned calm and gloriously bright—not a speck of cloud in the sky, not a breath of wind on the tops of the dunes. No sooner had the sun risen than it began to be warm.

The 1st of May! The day which in the Northern land of my birth marks the beginning of spring. What a crowd of happy recollections, of joy, of pleasure, of cheerful gayety; and, above all, what pleasant memories of the social cup and its pearly contents are there not associated with those poetic words—the 1st of May! I tried to persuade myself that even in the barren deserts of the Far East the same day would also be a day of rejoicing. On the 1st of May a year ago I arrived at Kashgar, where I found both rest and comfort after the severe inflammation which attacked my eyes; and I hoped that this 1st of May would again mark a turning-point in our destinies—and it did!

Early in the morning Yollchi, whom we all looked upon as dead, once more put in an appearance in camp. He had recovered, and was so bold as to prophesy that we should certainly discover water before the day was over. The other men refused to speak to him, but sat silent and downcast, drinking the last few drops that remained of the camels' rancid oil, which they had warmed, and eating some fragments of stale bread. All the previous day I had not tasted a drop of water. But suffering the extreme tortures of thirst, I ventured to swallow
about a tumblerful of the horrible and abominable concoction which the Chinese call brandy, stuff that we carried to burn in our Primus cooking-stove. It burned my throat like oil of vitriol. Yet what of that? It was at any rate liquid, and so calculated to maintain the moisture of my body. When Yoll-dash saw me drinking he came running up, wagging his tail. But when I showed him it was not water, he slunk away down-cast and whining. Fortunately the men refused to touch the liquor. Afterwards I hurled the bottle with loathing into the side of a dune.

However, in the mean time my strength left me, and as the caravan slowly struggled on, ever towards the east, my legs failed and refused to carry me farther. In the still atmosphere the funereal camels' bells rang out clearer than ever before. We had left three graves behind us. How many more were we destined to leave by the side of our track? The funeral procession was rapidly approaching the church-yard.

Islam Bai went on first, compass in hand. The five camels were led by Mohammed Shah and Kasim. Yollchi followed close behind the last camel and urged on the string. Dead tired, and tortured by a consuming thirst, I staggered on a long way behind in the rear of the caravan. Down they went out of sight behind each sand-hill in turn; then up they mounted again to the crest of the next after it. The echo of the camels' bells sounded fainter and fainter, and at longer and longer intervals, until at last they died away in the distance.

I dragged myself on a few steps farther; then I fell again. I scrambled up, reeled on a short distance, and once more fell. This was repeated time after time. I could no longer hear the sound of the camels' bells.

A dead silence reigned all round me. But the caravan had left its trail behind. This I stuck to like grim death, all the time steadily counting my heavy, dragging footsteps. At length, from the summit of a dune, I once more caught a glimpse of the caravan. It had halted. The five camels were dead beat, and had thrown themselves down. Old
Mohammed Shah lay flat on his face on the sand, mumbling prayers and crying to Allah for help. Kasim sat in such shade as he could find behind one of the camels, and gasped for breath. He told me the old man was completely done up, and unable to go another step. All the way, ever since they started, he had been delirious, raving about water the whole time.

Islam Bai was a long way on ahead. We shouted to him to come back. He was now far the strongest of us all, and again proposed to hurry on on foot with the iron pitchers. He thought he could do thirty-five miles during the night. But when he saw the pitiable condition to which I was reduced he abandoned the idea. After we had rested awhile, Islam had another plan. He suggested we should seek a piece of firm ground, and use such strength as remained to us in digging a well. Meanwhile he undertook to lead the caravan. The white camel was freed of his load, consisting of the two ammunition-chests, two European saddles, and a carpet. These things we intended to leave behind. Then with great difficulty, Islam helping me, I scrambled on the white camel’s back. But the animal refused to get up. It now became clear to us all that it was impossible to go on any longer groping our way in this fashion in the burning heat; especially as Mohammed Shah was perfectly delirious, laughing to himself, weeping, babbling, playing with the sand, and letting it run between his fingers. He was absolutely unable to go any farther, and we could not, of course, abandon him.

We resolved, therefore, to remain where we were until the hottest part of the day was past, and then continue our journey in the cool of the evening and during the night. We let the camels remain where they had thrown themselves down, but took off their loads. Islam and Kasim once more put up the tent, so that we might get a little shade in the inside of it. They spread our last carpet and a couple of felts on the ground, and rolled up a sack to serve as a pillow. I then crept in—literally crept in on my hands and knees—took off all my clothes, and lay down on the bed. Islam and Kasim followed my example, and so did Yolldash and the
sheep—that is to say, they too came inside the tent. Yolchi remained outside, keeping in the shade. Mohammed Shah still lay where he first fell. The poultry were the only creatures in the caravan which kept up their spirits. They sauntered about in the blazing sunshine, picking at the camels' pack-saddles and the provision bags. As yet it was only half past nine. We had not covered more than three miles, and had an interminably long day before us. Nobody ever longed for sunset so earnestly as we did that 1st of May in the year 1895.

I was completely overcome by weariness, and scarce had strength to turn myself over in bed. At this time despair took possession of me—though never before, and never afterwards. All my past life flitted before my mind as in a dream. I thought I saw the earth, and all the noisy world of men and their doings; and they seemed to me to be at an immense distance from me, absolutely unattainable. I thought all this disappeared, and the gates of eternity stood ajar, and I felt as if in a few hours I should be standing on their threshold. I thought of my home in the Far North; and my soul was harrowed when I pictured the uneasiness, the anxiety which would seize upon those who were near and dear to me when we never came back and nothing was heard of us. They would wait expectantly year after year, and they would wait in vain; no information would ever reach them. There would be nobody to tell the tidings of our fate. Mr. Petrovsky would, of course, send out messengers to inquire about us. They would go to Merket, and would there learn that we left that place on April 10th, intending to steer our course due east. But by then our trail would be long obliterated in the sand; and it would be absolutely impossible to know in which direction we had gone. By the time a systematic and thoroughly exhaustive search could be set on foot, our bodies would probably have been buried several months under the unresting, devouring billows of sand.

After that an endless panorama of pictures from my former travels passed in succession before my mind's eye. I had travelled through all the Mohammedan countries of Asia for
a whole year like a dervish, and now I had reached my last camping-ground. Fate said to me, "Thus far shalt thou go, but no farther." Here the strong pulses of my life were to cease. It was ten years ago when I first set out on my travels. I had admired the Palace of the Forty Columns at Ispahan. I had listened to the waves of the Saiendeh-rud beating against the pillars of Shah Abbas's marble bridges, and enjoyed the cool shades of Cyrus's mausoleum. In the temple halls of Xerxes and of Darius, and in the pillared arcades of Persepolis, I had learned to understand the truth of the poet's words—

"Det härliga på jorden, förgänglig är dess lott."
(To perish is the lot of all things here below.)

How beautiful it was to rest under the shade of the date-palms of Basrah! Would that the Tigris could offer me a few drops of its muddy water! What would I not have given the water-carrier of Bagdad for his skinful of the precious fluid, which he hawked about through her narrow streets and lanes, getting a few copper coins for an ass's load. I thought of my adventures in the land where the incidents of the Thousand and One Nights are everyday occurrences. Nine years previously I had left Bagdad with a caravan of Arabian merchants and Mecca pilgrims with fifty francs in my pocket, which I relied upon to take me to Teheran. But the slow rate of travel and the monotonous mode of life were too much for my patience. One dark night I ran away from the caravan, in company with an Arab to whom I gave the little money I had left.

Our horses were almost done up when we came within sight of Kermanshahan. I went to a rich Arab merchant living there, named Aga Mohammed Hassan. I remember how his eyes sparkled when I told him I was a son of Charles XII.'s country. He wanted to keep me as his guest for half the year. I could only stay with him a few days; but during those few days I lived the life of Nur-ed-Din Ali in the Thousand and One Nights. Over against the house in which I lived there was an enchanting garden, full of sweet-scented
roses and lilacs in full bloom. The paths were strewn with chips of marble, and in the middle of the garden there was a pure white marble basin filled with crystal water. From the centre of the basin a fountain shot up a delicate rod of water, which broke at the top and fell back in a thousand drops, sparkling like a silver cobweb in the sunshine. And when at last I tore myself away from these fascinating delights, my generous host pressed into my hand a purse overflowing with silver coins.

I saw before me, every feature distinct, the noble and wise countenance of the unhappy Shah, Nasr-ed-Din, as he was when, his uniform blazing with jewels, he received King Oscar's embassy in the Imperial Palace at Teheran; and that carried my thoughts back to the Emaret Sepa Salar, where we lodged, and where of an evening we strolled underneath the spreading planes and cypresses.

All these scenes of the past flitted through my mind like a dream; but those adventures were as nothing in comparison with what we had just gone through.

Thus I lay all day long, wide awake, with my eyes open, staring at the white covering of the tent, without fixing my gaze upon any one definite object, but seeing everything in a blurred, confused chaos. Once or twice only did my vision grow dim and faint, and my thoughts muddled; that was when I dropped off in a half-slumber. In these few odd moments I imagined myself resting again on the green meadow-grass under the shade of the silver poplars. How bitter was the awakening to reality! When I came to myself I fancied I was lying in my coffin. The funeral procession had reached the churchyard; the funeral bells had ceased their lugubrious tolling; the graves were almost ready; the next sand-storm would shovel them up level with sand. Who among us would be the first to die? Who would be the unhappy wretch that should die last—whose lungs would be filled with the pestilential stench from the corpses of his comrades? God grant the end may come quickly—that I may not be overlong tortured with this fearful bodily torment—this fearful mental anguish!
The hours followed one after another as slowly as dying camels in a desert-wrecked caravan. I kept looking at my watch; every interval between looking seemed like an eternity. But stay—what was that? My body was bathed in a sudden coolness, so refreshing, so comforting! The tent-flap was rolled up. It was noon. Yes, a faint breeze was flitting across the overheated sand-dunes. But faint though it was, it was strong enough for my sensitive skin to feel it. It continued to grow stronger and stronger, until, about three o'clock, it became so fresh that I was obliged to draw a felt covering over me.

Shortly afterwards something happened which I can only look upon as a miracle. As the sun drew nearer and nearer to the horizon, so did my strength gradually return; and by the time he rested like a glowing cannon-ball on the tops of the dunes in the west, I was completely recovered. My body had regained all its former elasticity. I felt as if I could walk for days and days. I burned with impatience to be up and doing. I would not die. The thought of how the dear ones at home would miss me; the thought of how they would mourn for me; and how it would grieve them if they were unable to send a wreath to be placed on my unknown grave—these were the thoughts that tormented me most. I resolved, therefore, during the immediate following days to strive my uttermost to keep going—going—going, to drag myself on, creep on all fours if I could not get on in any other way, but at all costs to keep struggling—struggling on towards the east, even though all my men—all my caravan—should long have given up and died. The temptation to just lie there and wait—for oh, how delicious it is to rest when you are dead tired! You quickly slumber off, and forget all your pains and anxieties in a long, heavy sleep, out of which you never wake again—this temptation I now put from me finally once and for all.

At sunset Islam Bai and Kasim both revived. I told them my resolve. They were both of the same mind as I was. Mohammed Shah still lay where he had fallen. Yollchi lay on his back in the shade of the tent. Both were delirious;
neither answered when we spoke to them, but kept on muttering incoherently and confusedly to themselves. After twilight set in, Yollchi moved; and as his senses returned the wild animal in him awoke. He crept up to where I was lying, shook his fist at me, and in a discordant, hollow, threatening voice, cried, "Water! water! Give us water, sir!" Then he began to weep, fell on his knees before me, and in a whining tone of entreaty begged me to give him a little water—just a few drops. What could I say to him? I reminded him that he had stolen half of our last supply, that he had had more than the rest of us, and had been the last to get a good drink; consequently he ought to hold out the longest. Half choking with ill-suppressed sobs, he crept away.

Was there no means of imparting moisture to our bodies before we left this hateful spot—even though it were only a moistening of the lips and throat? We were all suffering incredible agonies of thirst, the men more than I. My eyes chanced to fall upon the cock that still remained alive. He was walking about among the camels with all the gravity of his kind. Why not tap and drink his blood? One of the men made an incision in the animal's neck. The blood trickled out slowly and in small quantity. It was not enough; we wanted more. Yet another innocent life must be sacrificed. But the men hesitated a long time before they could bring themselves to slaughter our docile travelling-companion, the sheep, which had followed us through every danger with the fidelity of a dog. But I told them it was to save our own lives, which might be prolonged a little if we drank the sheep's blood.

At length Islam, with an aching heart, led the poor creature a little to one side, turned its head towards Mecca, and, while Kasim tied a rope round its legs, drew his knife, and with one sweeping cut severed the arteries of the neck. The blood poured out in a thick reddish-brown stream, and was caught in a pail, where it almost immediately coagulated. It was still warm when we fell upon it with spoons and knife-blades. We tasted cautiously at first; it was repulsive. A
sickening odor rose from the pail. I managed to get down a teaspoonful of the blood; but could not persuade myself to touch another drop. Even the men found it disagreeable, and offered it to Yolldash. Yolldash licked it, then went his way. We were sorry afterwards that we had killed our faithful friend to such little purpose; but it was then too late.

I understood now how thirst can make a man half insane. Islam and the other men gathered a saucepanful of the camels' urine. They poured it into an iron cup, and added vinegar and sugar; then, holding their noses, swallowed the abominable concoction. They offered the cup to me; but the mere smell nauseated me. All the others drank it except Kasim. And he was wise to abstain; for after a while the other three men were seized with violent and painful vomiting, which completely prostrated them.

Gaunt and wild-eyed, with the stamp of insanity upon him, Yollchi sat beside the tent, gnawing at the dripping sheep's lungs. His hands were bloody; his face was bloody; he was a horrible sight to look upon. I and Kasim were the only two who were fit for anything. Islam Bai pulled himself together a little, after getting rid of his nauseous draught. He and I, once more, for the last time, went through our baggage. We decided to abandon the greater part of it. I put together in a little heap such things as I considered were indispensable necessary, such as my drawings and some route-plottings, specimens of rocks and of sand, maps, scientific instruments, pens, paper, the Bible and Swedish psalm-book, together with a number of other small articles. Islam Bai likewise picked out what he thought indispensable, such as provisions for three days (flour, tea, sugar, bread, and a couple of cases of preserved food). I proposed to leave behind all our Chinese silver money, half a camel-load of it, amounting to nearly £280 in value. I hoped we should soon discover water; then we should be able to return and fetch what we were now putting aside. But Islam Bai would not hear of the money being left behind; and events proved that he was right. In addition to the things already mentioned, Islam
found room for a couple of boxes of cigars and cigarettes, some cooking utensils, which we had brought on with us from camp No. XVII., all our weapons, and a small supply of cartridges, candles, a lantern, bucket, spade, rope, and a number of similar objects.

Among the things left behind I may mention—two heavy ammunition-chests, the tent, some felts, together with our last carpet, several cases filled with miscellaneous articles, cloth, caps, and khalats, which I had intended as presents for the native chiefs, several useful books of reference, both my photographic cameras, with over a thousand plates, of which a hundred or more had been used during our journey across the desert; further, some saddles, the medicine-chest, drawing materials, unused sketch-books, all my clothes, winter boots, winter caps, gloves, etc.

We packed up the things we were not taking with us in some eight packing-cases inside the tent, the tent-canvas being turned in underneath them, so that they might help to hold up the tent in stormy weather. We counted upon the white tent-canvas, which was visible a long way off, more especially as we pitched it on the top of a sand-hill, serving as a sign-post if we should come back in quest of the goods. I dressed myself entirely in white, from top to toe. If I was doomed to die in the sand, I wanted to be properly attired: I wanted my burial clothes to be both white and clean.

The things we deemed it indispensable to take with us were packed in five Sart kurchins, or double wallets made of sail-cloth. We stripped the camels of their pack-saddles, and put these on their backs instead. One camel carried the heavy things, such as the rifles, spades, and so forth, all wrapped up together in a kighiz or felt carpet.

Before starting, we opened a couple of boxes of preserved food; but although the contents were moist, we experienced the utmost difficulty in getting them down, our throats were so parched.

The camels had lain all day in precisely the same places where they fell in the morning. Their labored breathing was
the only sound that broke the deathly silence. The unhappy creatures were dying, but wore an air of indifference and resignation. Their big baggy throats were shrivelled up and of a whitish-blue color. We had great difficulty in persuading them to get up.
CHAPTER XLVI

THE CRISIS COMES

At seven o'clock that evening the death-bells rang for the last time. In order to husband my strength, I rode the white camel, it being the freshest. Islam Bai, who had squandered his strength over the abominable draught he had swallowed, led the caravan at a miserably slow pace. Kasim followed in the rear, and kept urging the camels on. Thus we crawled away from the Camp of Death, steering east, ever east to where the Khotan-daria rolled on through its fresh green woods.

As we left the unhallowed spot, Yollchi crept inside the tent and took possession of my bed, still gnawing away at the sheep's lungs, greedily, voraciously draining them of every drop of moisture. Old Mohammed Shah still lay in the same place where he fell. Before we left I went to him, called him by his name, and placed my hand on his forehead. He glared at me, his eyes ashy-gray and wide open, and with a confused look in them; but an expression of unshaken calmness, of quiet rapture spread over his face, as though he expected the next moment to enter the pleasure-gardens of Paradise, and partake of its innumerable joys. Possibly for several days past he had seen floating before his dazed vision glimpses of Bihesht, about whose voluptuous delights he had read so many times in the Koran; and no doubt the thought of the joys to come comforted his spirit in the bitter agonies of shaking itself free from his body. No doubt he imagined his heavy life's work was done and he had lain down to rest, and would never more toil and drudge in attending upon camels, never more wear out his old age in tramping with caravans from one city to another through the sand-wastes of
East Turkestan. He looked terribly shrivelled up and wasted away, shrunk to a mummy-like old man. His copper-brown face was the only part of him that still wore any look of freshness. His breathing came very slowly and irregularly, and every now and again sighs mingled with the death-ruckled which broke over his lips. Again I stroked his dry, wizened brow, placed his head in a more comfortable position, and said, in as calm a tone as my emotion would allow me, that we were going to hurry on ahead and should soon find water. We would fill the pitchers and hasten back to him. I bade him lie where he was till his strength returned; then he might come along our trail to meet us, so as to shorten the distance we should have to travel back. He tried to lift one hand, mumbling something of which the only word I caught was "Allah." I understood only too well—and so, perhaps, did he—that we should never meet again. He had not many hours left to live. His eyes were dim and glazed; his slumber would pass gradually over into the deep sleep of death. He was entering upon his eternal rest, environed by the mighty silence, and by the ever-shifting sand-dunes moving on towards their mysterious goal.

With my heart bleeding and lacerated by self-reproaches at having this life upon my conscience, I dragged myself away from the dying man.

I also took farewell of Yollchi, and exhorted him to follow on along the trail of the caravan. That was the only way he could save his life. I did not upbraid him for leading us astray; nor did I reproach him with having deceived us when he said he was well acquainted with the desert, and within four days would bring us to a place where we could get water by digging for it. What good would it have done if I had rebuked him for putting only a four days' supply of water in the tanks instead of a ten days' supply? It would only have embittered the man's last moments; and I could not do that, I was so terribly sorry for him.

The last six hens made a tragic-comic picture as, cackling contentedly to themselves, they feasted with every mark of satisfaction upon the carcass of the dead sheep. No doubt
they had not yet missed the cock, but they would miss him afterwards.

Why did we not kill the poor things? Well, why did we not, with more reason, kill the two unhappy dying men, and so release them out of their misery? These are questions which cannot be answered at a distance. When death stands open-mouthed waiting for you, you grow less sensitive to other people's sufferings. We were all doomed. It was only a question of hours with us all, and it seemed the most natural thing in the world that the oldest and weakest should die first. And as each fresh member of the caravan collapsed and sank to the ground, it did not in the least surprise us. We merely asked ourselves, "Whose turn is it next?" To kill a human being, even though he is struggling in the agonies of death, is murder, and always must be. We did not abandon the camels without some slight hope of being able to return to them with water and save them. But the men could not possibly live so long. They were, in fact, virtually dead already. Otherwise, so long as there was the smallest chance of saving them, I should not, I could not, have left them behind. To have stayed beside them until the end came would have entailed the needless sacrifice of our own lives. We could do nothing to assuage their sufferings, for of water—the one thing they needed—the one thing that might possibly have saved their lives—we had none—absolutely not one drop. Nor could we have given them any comfort in the last dread moments. They were delirious—completely unconscious; their minds were dead already. But why did we not take them on with us? For the sufficient reason that it was physically impossible. They were much too far gone to walk, and the camels were much too weak to have carried them. Besides, even supposing the camels had been strong enough to carry them, to have taken dead men with us would, under the circumstances in which we were then situated, have been tantamount to an act of suicidal folly—an outrageous madness. Our own strength was seriously undermined. Our own lives depended upon a successful race against fast-ebbing energy and fast-running time, and
we did not know how far we might have to go before we reached water—the precious life-restorer. We were stripping ourselves of everything except the barest indispensable necessaries in order to husband our strength, to facilitate our progress, to economize time. To have burdened ourselves, therefore, with two helpless, hopeless sufferers, for whom we were utterly incapable of doing the least thing further, would only have been to imperil our own lives for absolutely no purpose. All the same it wrung my heart to have to leave the unhappy men behind in the desert. My conscience was loud in its reproaches. I suffered intense agony of mind. Yet what could I do? The bitterness of that hour—it was more than I can describe. It is known to God alone!

As for the hens, I had a presentiment that they ought not to be killed, since they might be useful, if we did come back to fetch the tent; besides, with the carcass of the sheep to feed upon they would be able to preserve their lives for a long time. In this I was not wrong, as was proved in the end of May, 1896, more than a year later. But I must not anticipate the natural course of events.

Meanwhile we marched on slowly, Yolldash still faithfully following us, although as lean as a skeleton. The camels' bells tolled a mournful peal for the dying veterans of the caravan. From the top of the first dune we surmounted I turned and sent back a sigh over the Camp of Death, where my two attendants were breathing their last. The tent stood out like a sharply cut black triangle against the lighter-tinted western sky. Then I went down the dune, and it vanished from my sight. I experienced a feeling of relief when it was no longer visible. I never looked back again.

Before us were the black night and the treacherous ocean of sand. But I was buoyed up by an abounding energy and the joy of life. I would not die in the desert. I was too young. I had too much to lose. Life had still much to give me. Never before had I valued it as I did now. My travels in Asia should not end in that place. I must traverse the continent from side to side. There were numerous problems I wanted to solve before I reached my far-distant goal—
Peking. Never before had I been so full of overflowing gladness, never before had my vital spirits been so buoyant with energy. I was determined I would get through, even though I should crawl it like a worm through the sand.

Our pace was slow, desperately slow. Nevertheless we kept scrambling over one high dune after another. At length another of the camels fell. He at once stretched out his legs and neck, prepared to die. We transferred his load to the back of Ak-tuya, the white camel, which seemed to be the strongest. We released the dying animal from the rope that bound him to the camel immediately in front of him, let him keep his ill-omened bell, and left him to his fate in the darkness of the night. With the other four camels we steered our way as well as we could see towards the next sand-dune.

The night was pitch-dark. The stars twinkled brightly through the pure atmosphere, but their light was too faint to enable us to judge of the inequalities of the ground. We were stopped by every sand-dune we came to. For a few minutes we had a level slope, which we got down easily enough; then all of a sudden a wall of sand would rise up immediately in front of us. The camels' strength was exhausted. Even the cool night air was incapable of reviving them. They kept stopping incessantly. First one hung back, then another. Somehow the rope that bound them together would get loose, and one or two of the camels would lag behind, and we would go on some distance before we became aware of our loss. When we did perceive it we had to halt and turn back and fetch them.

Islam Bai was completely done up. He writhed in continual pain, and was seized with repeated vomitings of an extremely violent and convulsive character; and, as his stomach was empty, they rapidly drained away what little strength he had left. Poor fellow! he suffered fearfully, writhed on the ground, and retched to such an extent that I thought he would bring up his very intestines.

Thus like worms we crawled along through the darkness. But I saw clearly we could not go on in that way, stumbling
blindly over the dunes in that happy-go-lucky fashion. I got down off my camel, lighted a lantern, and went on ahead to find out the easiest passages between the gigantic billows of the sandy ocean. I carried my compass in my hand and steered due east. The lantern cast a faint glimmer along the steep dune-sides. But again and again I was obliged to stop and wait for the rest of the caravan. At about eleven o'clock I no longer heard the distant tinkle of the camel-bell—there was but one left now. The dense blackness of the night and a deathly silence environed me on every side. I put the lantern on the top of a dune, and, lying down on the sand, tried to sleep. But not a wink could I get. I sat up and listened, holding my breath, hoping I might hear some faint, far-off sound. I looked eagerly towards the east to see if I could not catch a glimpse of a shepherd's fire, marking the forest beside the Khotan-daria. But no; there was no such beacon of hope. All was dark, silent as the grave. Nothing—nothing at all betrayed the least semblance of life. It was so still I could plainly hear my own heart beating.

At length I caught the sound of the last of the camels' bells. It sounded at longer and longer intervals; but it approached gradually nearer. When they reached the top of the dune on which I sat, Islam Bai staggered up to the lantern, fell heavily to the ground, and gasped out that he could not take another step. His strength was totally exhausted.

Seeing that the last act of our tragic desert journey was now about to be played, and that all would soon be over, I determined to give up everything and hasten on eastward as far as my strength would carry me. In a scarcely audible voice Islam whispered that he could not go with me. He begged to be allowed to remain with the camels, and said he would die where he lay. I encouraged him, telling him I was sure his strength would return after he had rested an hour or two in the cool night-air; and when it did I solemnly commanded him to leave the camels and their loads—everything—and follow on in my footsteps. To this he made no answer, but lay on his back, with his mouth and eyes wide open.
ABANDONING THE WRECK OF OUR CARAVAN
Then I bade him farewell and left him, fully believing that he had but a short time to live.

Kasim was still fairly brisk. Like me, he had had the good sense to abstain from the abominable draught at the Camp of Death. The only things I took with me were the two chronometers, a bell, the compass, a penknife, a pencil and a piece of paper, a box of matches, a pocket-handkerchief, a box of tinned lobsters, a round tin box full of chocolate, and, more by accident than by design, half a score of cigarettes. Kasim carried the spade, bucket, and rope, in case we should have to dig a well. Inside the bucket he put the sheep's fat tail, two or three pieces of bread, and a lump of coagulated sheep's blood. But in the hurry he forgot to take his cap, and, when morning came, had to borrow my handkerchief, which he wound round his head to protect himself against sunstroke.

But we were unable to derive much advantage from our wretched provisions, because our throats and their mucous membranes were parched up, as dry as the skin on our hands and faces, so that it was impossible to swallow. If we tried to get anything down, it stuck fast in our throats. We felt as if we were being suffocated and made haste to put it out. But a man who is tormented by the agonies of thirst gradually loses all sense of hunger. For the first few days the tortures of thirst are so poignant that you are on the brink of losing your senses. But when your skin ceases to perspire, or when your perspiration becomes imperceptible in consequence of the blood flowing continually thicker and slower through your veins, a rapidly increasing weakness takes possession of you and quickly brings matters to a crisis.

It was exactly midnight when we abandoned the wreckage of our caravan, which only a few days before had made such a brave show. We were literally shipwrecked, and had to leave behind us our "ships of the desert" a prey to the merciless ocean of sand. We set out to seek the "coast"; but knew not how far we should have to travel over those rolling billows of sand before we reached it.

The four camels that now remained lay silent, resigned,
patient as sacrificial lambs. They breathed heavily and with difficulty, and their long necks were stretched out flat on the surface of the dune. Islam Bai did not glance up when we left him; but Yolldash sent a wondering look after us. No doubt he believed that we should soon come back again, perhaps with water; for the caravan was staying behind, and we never left it very far. I never saw the faithful creature again, and I missed him greatly.

I placed the lighted lantern close behind Islam, and left it there. For a little while it served us as a sort of light-house, telling us how far we were advancing away from it, and also guiding us in our course towards the east. But its pale rays speedily became lost behind the sand-dunes, and we were swallowed up in the night.
CHAPTER XLVII
A DESPERATE MARCH

MAY 2d. After leaving the death-doomed caravan behind, I felt I was freer to choose my own course. My only concern now was to keep pushing on, and to steer as straight a line as possible to the east, so as to shorten the road all I could. We marched on at a brisk pace for a good two hours without stopping; the sand continuing all the time every bit as high and heavy as it had been before. At the end of the two hours we both became so sleepy that we were forced to lie down for a while. But we were only lightly dressed. Kasim wore nothing except a simple jacket, his baggy trousers, and boots. I had on woollen underclothing, a thin suit of white cotton, a white Russian cap with a peak to it, and stiff leather top-boots. It was not long, therefore, before the chilly night air woke us up. We walked on smartly till we got warm. Then the desire to sleep once more seized us, and this time with such overpowering force that we did sleep. At four o'clock the nipping air woke us up again, for it was just about dawn, and I felt chilled to the bone. We got up and walked on for five hours without stopping—that is, till nine o'clock. Then, being tired, we gave ourselves an hour's rest.

While we were resting, a crisp westerly breeze sprang up and cooled the air, so that we were able to go on a little way farther. But by half-past eleven the heat grew so oppressive that everything turned black before our eyes, and we sank down on a dune utterly spent. There, on a steep slope facing north, where the sand was not yet heated by the sun, we rested the remainder of the day. Kasim dug out a hole immediately under the crest of the dune, going down till he
came to the layers of sand that were still cool from the night-air. We took off every stitch of clothing and buried ourselves up to the neck in the sand. Then, putting up the spade and hanging our clothes over it, we made a sort of screen to shelter our heads from the sun. And so we lay all day long, cool and comfortable; sometimes, indeed, we were actually cold. But the sand gradually grew warm from the heat of our bodies and from the sun-saturated atmosphere. Then we crept out of our hole, and Kasim dug a fresh one, heaping the cool sand all over me. How delicious it was! like a cold douche in the burning sunshine. We left nothing but our heads sticking out, and these we protected to some extent against sunstroke. One midge and two flies kept us company. But then they might have been blown by the wind from a great distance!

Thus we lay buried alive in the eternal sand, uttering never a word, and yet not being able to sleep. We did not move until six o'clock in the evening; then we got out of our sand-bath, dressed, and continued our journey at a slow and heavy pace, for in all probability the dry sand-bath had weakened us. Nevertheless we stuck to it doggedly, although we had innumerable stoppages, pushing on eastward, ever eastward, until one o'clock next morning. Then, thoroughly wearied out, we lay down and went to sleep on the top of a dune.

May 3d. After a refreshing sleep we woke up at half-past four in the morning. We always travelled best just before sunrise, because, the air being then fresh, we were able to go long distances without stopping. That day our dying hopes once more revived, and our courage was rekindled. All of a sudden Kasim stopped short, gripped me by the shoulder, and with wildly staring eyes pointed towards the east, without uttering a word. I looked and looked in the direction towards which he pointed, but could see nothing unusual. But Kasim's eagle eye had discovered on the verge of the horizon the green foliage of a tamarisk—the beacon upon which all our hopes of safety were now concentrated. We steered our course straight for the solitary tree, taking the
utmost precautions not to lose its bearings. Every time we
dipped into the hollow between two sand-dunes we, of course,
lost sight of it; but, immediately we climbed the next dune,
there it was still before us, and we were approaching nearer
and nearer to it! At length we reached it. Our first act
was to thank God for bringing us so far safe.

We revelled in the fresh greenness of the tree, and, like
animals, chewed away at its sappy leaves. It was really alive.
Its roots evidently went down to the water stratum; we
were now within reasonable distance of open water. The
tamarisk shot up from the top of a sand-dune, and there was
not a yard of flat, hard ground to be seen anywhere near it.
A strange existence these tamarisks (*Tamarix elongata*) lead.
Their branches and tough, elastic stems, seldom exceeding
seven feet in height, are bathed in burning sunshine; while
their roots penetrate to an almost incredible depth, and, like
siphons, suck up nourishment from the subterranean supplies
of moisture. In fact, that solitary tree reminded me of a
water-lily swimming, as it were, on the billowy surface of the
desert ocean. Merely to look at the tamarisk was a pleasure,
and to stretch our parched and weary limbs beneath its
sparse shade for a little was rapture indeed. It was the
olive-branch, telling us that there was an end to the sandy
ocean, after all—the outermost islet of the Skärgård,* or
skerry fence, proclaiming to the shipwrecked mariners the
near proximity of the coast. I gathered a handful of leaves,
which were not unlike the needles of the pine, and thor-
oughly enjoyed the sweet, fresh scent they gave off. My
hopes now rose higher than they were before, and with our
courage renewed we again pushed on towards the east.

By this the dunes had decreased in height, reaching not
much above thirty feet. In one of the hollows we came
across two small, scanty patches of kamish, or reeds (*Lasia-
grostes splendens*); we plucked the wiry stalks and chewed
them. At half-past nine we came to another tamarisk, and
saw several more farther on. But our energy was paralyzed

* The belt of islands which fringes the eastern coast of Sweden.
by the intense heat, and we dropped exhausted in the shade of the bush, and, as we had done the day before, dug a hole in the sand and buried ourselves in it naked.

For nine mortal hours we lay as if dead. Kasim hardly had strength enough to cover me with fresh sand. At seven o’clock we started again in the twilight, at first with tottering limbs. After walking for three hours Kasim stopped short again, exclaiming “Tograk!” (poplar). I saw something dark looming up two or three dunes ahead; and, sure enough, he was right. It was three fine poplar-trees, with their leaves full of sap. But the leaves were so bitter that we could not chew them; we rubbed our skin instead until it became moist.

We were so completely spent that we lay for a couple of hours utterly incapable of making a closer examination of the locality. We began to dig a well close to the tree-roots. But we had to stop. We literally had not strength enough to do it; the spade kept turning in our hands and falling out of them. The sand was scarcely damp at all; the water was clearly a long way down. Nevertheless, we hung about the place a little while, and tried to scratch the sand away with our hands; but we soon found we could not do much that way, and gave up the idea of digging a well.

Our next plan was to gather together in a heap all the dry branches we could find round about the poplars and set fire to them, making a huge flaming bonfire, which flung its ruddy glare a long way across the dunes. Their tops, catching the murky gleam, looked like ghosts stalking out of the darkness. Our object in making the bonfire was partly to give a signal to Islam Bai, supposing he was still alive, which, however, I very seriously doubted, and partly to give the alarm to anybody who might chance to be travelling from Khotan to Ak-su, by the road that runs down the left side of the Khotan-daria.

Our purpose being a good one, we kept up the fire with feverish energy for fully two hours. Then we left it to die out of its own accord. Kasim fried a slice of the sheep’s tail, and after very great exertions managed to swallow it.
I had but little better fortune with the lobsters. The rest of our “provisions” we left behind us, not wishing to burden ourselves unnecessarily. But I took the empty chocolate tin with me. I was going to drink the water of the Khotandaria out of it! After that we had a good sleep beside the fire, which prevented us from feeling the chilliness of the night.

May 4th. We began to move at three o’clock in the morning, and at four o’clock made a start. Then, with our strength drooping at every step and our legs tottering under us, and with innumerable halts, we stumbled on till nine o’clock. Then the desert ocean once more opened its ravenous jaws before us, and appeared to be waiting with malicious joy the fatal moment when it should devour us. After the three poplars we saw no more, and the tamarisks were so few and far between that we could scarcely see from one to the other. Our courage began to sink; we began to be afraid it was merely a depression we had passed, and that we should soon be engulfed again in the everlasting sea of sand. At nine o’clock we fell helpless at the foot of a tamarisk, and there we lay, exposed to the blazing sun, for ten mortal hours.

Kasim was sinking fast. He was incapable of digging a hole in the sand to lie in; and as he was also unable to cover me with cool sand, I suffered terribly from the heat. All day long we never spoke a word. Indeed, what was there we could talk about? Our thoughts were the same, our apprehensions the same. The fact is, we really could not talk; we could only whisper or hiss out our words.

Where now were the sand-storms which a week ago interposed such a perfect screen between us and the sun? We looked in vain for the black cloud which alone could shield us from the coppery glow. Sun and desert had conspired together for our destruction.

But even that long, weary day had an end; the sun once more dipped down towards the west. By a desperate effort I roused myself, shook the sand off my body, which looked as if it were encased in tight-fitting parchment of a reddish-
brown color. I dressed myself, and called upon Kasim to come with me. He gasped, in reply, that he was unable to go any farther, and with a gesture of despair gave me to understand that he considered all was lost.

I went on alone, alone with the night and the everlasting sand. It was still as the grave, and the shadows seemed to me to be darker than usual. Occasionally I rested on the dunes. Then it was I realized how lonely I was, alone with my conscience and the stars of heaven, which shone as brilliantly as electric lamps. They alone kept me company; they were the only things I saw and knew; and they inspired in me the conviction that it was not the valley of the shadow of death I was walking through. The air was perfectly still and cold; I could have heard the faintest sound a long way off. I placed my ear close down upon the sand and listened; but I heard nothing except the ticking of the chronometers and the faint and sluggish beating of my own heart. There was not a sound to indicate there was any other living creature throughout all the wide universe of space.

I lit my last cigarette. The others we had smoked the day before, and so long as they lasted they had to some extent stilled the tortures of thirst. I generally smoked the first half, and gave the rest to Kasim. He puffed and sucked away at the paper mouthpiece for a long time, and declared it did him a world of good. But that last cigarette I finished myself, for I was absolutely alone.

May 5th. I dragged myself on and on until half past twelve, when I sank down under a tamarisk. After trying in vain to kindle a fire, I dosed off.

But what was that? There was a rustling in the sand. I heard footsteps. I saw a human figure gliding past in the darkness. "Is that you, Kasim?" I asked. "Yes, sir," he answered. The coolness of the night had revived him, and he had followed in my footsteps. The meeting cheered us both, and we continued our way for a time in the pitch-dark night.

But our strength was rapidly deserting us, our legs tottered under us; we struggled hard against weariness, against the
A DESPERATE MARCH

...desire for sleep. The steep faces of the dunes now looked almost exclusively towards the east. I slid down them. I crept long distances on my hands and knees. We were growing indifferent; our spirits were flagging. Still we toiled on for life—bare life. Then imagine our surprise, our amazement, when on the long, sloping surface of a dune we perceived human footsteps imprinted in the sand! Down we went on our knees and examined them. There was no doubt of it. They were the footprints of human beings. Somebody had travelled that way. Surely we could not be very far from the river now; for what could bring people out into the sandy waste! In an instant we were wide awake. But Kasim thought that the trail looked wonderfully fresh. "Just so," I rejoined; "that is not at all strange. There has been no wind for several days. Perhaps our signal-fire of the night before last has been seen by some shepherd in the forest beside the river, and he has come a little way into the desert to ascertain what was the cause of it."

We followed up the trail till we came to the top of a dune, where the sand was driven together in a hard, compact mass, and the footprints could be more distinctly made out.

Kasim dropped on his knees; then cried, in a scarcely audible voice, "They are our own footsteps!"

I stooped down and convinced myself that he was right. The footprints in the sand were plainly enough caused by our own boots, and at regular intervals beside them were the marks of the spade; for Kasim had used it as a staff to support himself by. It was a discouraging discovery. How long had we been going round and round in a circle? We comforted ourselves with the assurance that it could not possibly have been very long. It was only during the last hour that I had been so overcome with sleep that I forgot to look at the compass. But we had at any rate had enough of tramping for a while, and at half-past two in the morning lay down and slept beside the track.

We awoke at daybreak and pushed on again. It was then ten minutes past four. Kasim was a fearful object to look at. His tongue was white, dry, and swollen, his lips bluish, his
cheeks sunken, his eyes dull and glassy. He suffered from a convulsive hiccough, which shook him from top to toe; it was like the singultus, or hiccough of death. He had hard work to stand up; but he did, and managed somehow to follow me.

Our throats were on fire with the hot dryness. We fancied we could hear our joints grating, and thought they would catch fire from the friction of walking. Our eyes were so dried up that we were scarcely able to open and shut them.

When the sun rose we turned our eager eyes towards the east. The horizon was sharp and distinct, and had a different outline from what we were accustomed to see. It was no longer denticulated as if formed of innumerable series of ridges of sand; it was a horizontal line, showing scarce perceptible inequalities. After going a little farther we perceived that the horizon was edged with a black border. What joy! What blessed fortune! It was the forest that lined the bank of the Khotan-daria. We were approaching it at last.

Shortly before five o'clock we came to a darah (strictly speaking, valley) or depression in the sand, and I soon arrived at the conclusion that it was a former bed of the river. Numerous poplars grew in its lowest part. There must be water not very far below them. Once more we seized the spade; but we had not strength enough to dig. We were forced to struggle on again towards the east. We travelled at first across a belt of low, barren sand. But at half-past five we entered the thick, continuous forest. The trees were in full foliage, and their leafy crowns filled the forest beneath with gloomy shadows. After all, we were not to lose our spring, the season dedicated to hope!

With my hand to my brow, I stood riveted to the spot by the marvellous sight. It cost me an effort to collect my senses. I was still half giddy, as if newly awakened from a hideous dream or distressing nightmare. For weeks we had been dragging ourselves, slowly dying by inches, through the valley of the shadow of death—and now! All around us, in whichever direction we turned our eyes, life and spring-time,
the singing of birds, the scent of the woods, green leaves in every variety of tint, refreshing shade, and over there, among the hoary patriarchs of the forest, innumerable spoor of wild animals—tigers, wolves, deer, foxes, antelopes, gazelles, hares. The air was alive with flies and midges; beetles went whizzing past us as swift as arrows, their wings humming like the notes of an organ; and the morning songs of the birds trilled from every branch.

The wood grew denser and denser. At intervals the stems of the poplars were entwined with creepers; and our progress was often interrupted by impenetrable labyrinths of dead trees, branches, and brushwood, or equally often by dense thickets of thorny bushes.

At ten minutes past seven the forest grew thinner. We saw between the trees indistinct traces of both men and horses. But it was impossible to determine how old they were, for the forest protected them against the obliterating effects of the sand-storms. What joy! what bliss! I felt—I was sure we were saved now.

I suggested that we should go straight through the forest, steering due east, for in that direction the river could not be very far away. But Kasim thought that the trail, which undoubtedly marked a road of some kind, would gradually lead us to the river banks. And as the trail was easy to follow, and kept all the time in the shade, I adopted Kasim's suggestion.

Weak and struggling, we followed the trail towards the south; but by nine o'clock we were completely done up by the tropical heat, and dropped on the ground in the shade of two or three poplars. With my naked hands I scratched out a hole between the roots, and lay there, tossing and turning all day long from the heat, without being able to sleep a wink. Kasim was stretched out on his back, muttering deliriously and moaning to himself; nor did he answer when I spoke to him—not even when I shook him.

The day seemed as if it would never end. My patience was tried to the uttermost; for I felt certain the river must be in our immediate vicinity, and I was dying to get to it.
It was seven o'clock before I was able to dress myself. I called upon Kasim to come with me to the water. But he was beaten at last. He shook his head, and with a gesture of despair signed to me to go on alone, drink, and bring back water to him; otherwise he would just die where he lay.

I took off the blade of the spade and hung it on a branch which stretched across the path, so that I might be able to find again the point where we entered the forest; for I now had hopes of being able to recover the baggage we had left behind—we had only to go due west from the place where we struck the forest and we should come to it. I considered that Islam and the other men were already dead. The spade-shaft I took with me. It would be a staff to help me along, and would also serve as a weapon if I wanted one.

I cut right across the forest, still directing my course to the east. It was anything but easy work. Two or three times I very nearly got stuck fast in the thorny bushes. I tore my clothes and scratched my hands. I rested unceasingly on roots and fallen tree-trunks; I was fearfully tired. Twilight came on. It grew dark. It cost me almost inconceivable efforts to keep awake. Then all at once the forest came to an end, as abruptly as though it had been smitten by fire, and to the east stretched a dead level plain of hard, consolidated clay and sand. It lay five or six feet below the level of the forest, and showed not a single trace of a sand-dune. I recognized it at once; it could not possibly be anything but the bed of the Khotan-daria. And I soon had my inference confirmed. I came across the trunks and branches of poplar-trees, half buried in the ground; I noticed furrows and sharply broken edges a foot high or more, all evidently due to the action of a running stream. But the sand was as dry as the sand in the desert dunes. The river-bed was empty, waiting for the summer floods to come down from the mountains.

It was inconceivable that I should perish in the very bed of the river I had been so long and so desperately seeking; that I could not believe. I called to mind the tendency of the Yarkand-daria to shift its channel to the east, and recol-
CRAWLING THROUGH THE FOREST IN SEARCH OF WATER
lected the ancient river-bed we had crossed in the forest. Very likely the Khotan-daria obeyed the same tendency. Very likely its current clung by preference to the eastern bank; I must therefore find it, if I would find the deepest places in the river channel. I resolved to cross over to the other side before I gave up all hope.

I now changed my course to due southeast. Why so? Why did I not keep on towards the east, as I had always done hitherto? I do not know. Perhaps the moon bewitched me; for she showed her silver crescent in that quarter of the heavens and shed down a dim, pale-blue illumination over the silent scene. Leaning on the spade-shaft, I plodded away at a steady pace in a straight line towards the southeast, as though I were being led by an unseen but irresistible hand. At intervals I was seized by a traitorous desire to sleep, and was obliged to stop and rest. My pulse was excessively weak; I could scarcely discern its beats. I had to steel myself by the strongest effort of will to prevent myself from dropping off to sleep. I was afraid that if I did go off I should never waken again. I walked with my eyes riveted upon the moon, and kept expecting to see its silver belt glittering on the dark waters of the stream. But no such sight met my eyes. The whole of the east quarter was enshrouded in the cold night mist.

After going about a mile and a half, I was at length able to distinguish the dark line of the forest on the right bank of the river. It gradually became more distinct as I advanced. There was a thicket of bushes and reeds; a poplar blown down by the wind lay across a deep hole in the river-bed. I was only a few yards from the bank when a wild duck, alarmed by my approach, flew up and away as swift as an arrow. I heard a splash, and in the next moment I stood on the brink of a little pool filled with fresh, cool water—beautiful water!
CHAPTER XLVIII

HUMAN BEINGS AT LAST

It would be vain for me to try to describe the feelings which now overpowered me. They may be imagined; they cannot be described. Before drinking I counted my pulse: it was forty-nine. Then I took the tin box out of my pocket, filled it, and drank. How sweet that water tasted! Nobody can conceive it who has not been within an ace of dying of thirst. I lifted the tin to my lips, calmly, slowly, deliberately, and drank, drank, drank, time after time. How delicious! what exquisite pleasure! The noblest wine pressed out of the grape, the divinest nectar ever made, was never half so sweet. My hopes had not deceived me. The star of my fortunes shone as brightly as ever it did.

I do not think I at all exaggerate if I say that during the first ten minutes I drank between five and six pints. The tin box held not quite an ordinary tumblerful, and I emptied it quite a score of times. At that moment it never entered my head that, after such a long fast, it might be dangerous to drink in such quantity. But I experienced not the slightest ill effects from it. On the contrary, I felt how that cold, clear, delicious water infused new energy into me. Every blood-vessel and tissue of my body sucked up the life-giving liquid like a sponge. My pulse, which had been so feeble, now beat strong again. At the end of a few minutes it was already fifty-six. My blood, which had lately been so sluggish and so slow that it was scarce able to creep through the capillaries, now coursed easily through every blood-vessel. My hands, which had been dry, parched, and as hard as wood, swelled out again. My skin, which had been like parchment, turned moist and elastic. And soon afterwards an active per-
spiration broke out upon my brow. In a word, I felt my whole body was imbibing fresh life and fresh strength. It was a solemn, an awe-inspiring moment.

Never did life seem to me richer, more beautiful, more valuable than it did that night in the bed of the Khotan-daria. The future smiled upon me from the midst of a magic sea of light. Life was worth living. The talk about life being a vale of misery seemed to me utter nonsense. An angel's hand had guided me through the darkness of the night to the little pool in the river-bed. I imagined I saw a heavenly being floating by my side, and thought I could hear the rustle of his wings. Never before, and never since, have I so vividly realized the sublime influence of the Eternal.

After drinking my fill, and making sure of my wonderful escape from a miserable death, and after the ecstasy had subsided which came upon me when I felt new life streaming through my veins, and as soon as my entire physical being had entered upon a more normal course, I drank several more tins of water. After that my thoughts began to flow back in ordinary channels, and I awoke to the realities of the moment, and became attentive to my immediate surroundings.

The pool was situated in the deepest part of the river-bed, near the eastern bank, and had been left behind by the preceding summer's flood. It lay, therefore, below the general level of the river-bed, so that I had been unable to observe it until I almost stumbled into it. Had I gone fifty paces farther to the right or fifty paces farther to the left, I should have missed it; and, as I learned afterwards, it was a long distance to the next pool both up and down the river. The merchants who are accustomed to travel every spring with their caravans between Khotan and Ak-su know where all these pools are, and always make them their camping-places for the night. Perhaps I should have lost my way if I had not found the pool; perhaps my strength would not have held out until I reached the next.

The eastern bank of the river was fringed with the dry, yellow reeds of the previous year, and the young, green spring
sprouts were pushing themselves up between the tall, close-set stalks of the old. Behind the reed-beds towered the forest, sombre and threatening, with the silver crescent of the moon hanging in the crown of a tall poplar. I sat beside the pool, and noticed that its bright surface, seen under the dark shadows of the forest, was black as ink. The pool was about twenty yards long.

Then I heard a rustling in the thicket close beside me, the sound of stealthy footsteps, and the crackling of the dry reeds as they were pushed aside. It might have been a tiger. But anyway I felt not a quiver of fear. I had just been granted a renewal of life. The mere thought of seeing a tiger's head, with its glittering eyes, peeping out of the reeds, had a sort of fascination for me. I would look into them fearlessly, and ask the beast how he durst think of taking my dearly bought life. But the intruder, whatever he was, withdrew. His footsteps died away in the reeds. Whether it was a tiger, or some other wild animal of the forest, which had come down to the pool to drink, it had at any rate deemed it prudent to remain at a distance so long as the place was haunted by a human being.

Then my thoughts flew back to Kasim, whom I left lying alone in the forest, fighting against death, unable to move a yard, still less drag himself a distance of three hours to the pool of water. He was in urgent need of immediate help. The chocolate tin was too small to carry water in: it would merely have wetted his lips. What was to be done? How was I to carry him a sufficient quantity of the life-giving elixir?

My boots! Of course; my Swedish water-proof boots. They were quite as good, quite as safe, as any other utensil. Plump they went into the pool. Then I threaded the spade-shaft through the straps, and carrying it like a yoke over my right shoulder, hastened back with a buoyant step along the track by which I came.

The boots were filled to the brim with the precious liquid that was going to give fresh life to Kasim. Some of it was spilled owing to the haste I was in; but not a drop came
through the leather. Master Stjernström in Stockholm never made a pair of boots before which not only saved a man's life but also travelled right across Asia and back again. In consequence of this my boots afterwards became in their way famous.

The moon still poured her soft mellow light along the river-bed, so that I had no difficulty in following my own footmarks through the sand. Besides, it was no longer heavy walking, my weariness had disappeared, and I almost flew towards the forest that lined the left bank. In the forest it was not so easy to get along. My socks were thin, and my feet were continually getting pricked by thorns and splinters. But a worse evil was a thick veil of cloud, caused, no doubt, by the rising mist, which came between the moon and me, so that the forest became pitch-dark, and I lost the trail. I lighted matches, and vainly tried to rediscover it. I had recourse to my compass. I shouted "Kasim"; but my voice died away among the thousands of poplars without eliciting an answer. For a while I went on at haphazard, constantly shouting my attendant's name with all the strength of my lungs. But at last I grew tired of that aimless wandering; I was only getting lost deeper and deeper in the silent forest. I resolved, therefore, to stop and wait for daylight. I chose out an impenetrable thicket in which lumber, dead branches, and shrivelled tree-trunks lay heaped together in wild confusion, and set fire to them. In a trice the flames were leaping up fiercely; the dry branches crackled, spluttered, exploded. The draught from the bottom was so strong that it whistled and sizzled, and a tall column of fire licked the trunks of the poplars standing near. It was as light as noon-tide: the forest, lately so black, was lit up with a reddish yellow glare. Kasim could hardly help seeing such a fire as that, or hearing its loud crackling, for he could not be any great distance away. Again I shouted out his name, and, with the light of the fire to help me, again looked for my trail; but I did not find it. I lay down flat on the sand, and watched the furious burning of the fire; and so watching fell asleep. For a couple of hours I slept calmly and well; having first
taken the precaution to lie down in a spot where the fire could not reach me, yet near enough to be safe from tigers and other wild animals.

Day was breaking when I awoke. The fire had dwindled a good deal, since its progress was checked by a fresh belt of live poplars, which it had only been able to blacken and scorch; and a heavy column of smoke hung over the forest. My boots, which were leaning against a tree-root, had not lost one drop of their precious contents; the earth underneath them was not even damp. I swallowed a mouthful of water and set about looking for my trail of the night before, and now I quickly found it. When I came to Kasim, he was lying in the same position in which I left him. He glared at me with the wild, startled eyes of a faun; but upon recognizing me, made an effort, and crept a yard or two nearer, gasping out, "I am dying."

"Would you like some water?" I asked, quite calmly. He merely shook his head, and collapsed again. He had no conception of what was in the boots. I placed one of the boots near him, and shook it so that he might hear the splashing of the water. He started, uttered an inarticulate cry; and when I put the boot to his lips, he emptied it at one draught without once stopping; and the next moment he emptied the second.

May 6th. Kasim went through the same series of changes that I had gone through the evening before. As soon as he recovered his reason we took counsel together, and as the outcome of our deliberations decided that our best plan was to go back to the pool and take a good rest somewhere near it, and wash ourselves, a luxury we had not enjoyed for more than a week. But Kasim was still so weak that he was unable to keep up with me. He reeled about like a drunken man, and kept constantly sitting down. Seeing that he was on the right track for the pool, and that I could not do more for him than I had done already, I hurried on ahead. When I came to the pool I drank and bathed, and then waited fully an hour. But Kasim did not come.

Hunger began to be importunate. It was of the first im-
portance that I should find human beings as soon as I possibly could, both for the sake of food and also to enlist their help to return into the desert to the assistance of Islam, and to fetch such of our goods as might be saved. In the mean time, therefore, I left Kasim to his fate, and hastened on at a rapid pace up the right bank—that is, due south. My boots were still so wet that I was unable to get them on, and so went barefoot.

At nine o'clock there sprang up an extremely violent storm from the west, which drove clouds of sand and dust before it across the bed of the river, and darkened the sun so that I had not the smallest occasion to complain of excessive heat. But the thick haze completely shut out every view of the surroundings, so that I could see neither the forest on my right nor that on my left. After going a stretch of about three hours I was again tormented by thirst, for my mouth and throat were parched by the hot drift-sand and the buran (storm), and between them they nearly choked me. I turned aside into the forest and sought shelter in the undergrowth. I sat there a while, full of anxious thought. All at once it flashed across my mind that it might be days to the next water-pool, and that it would be unwise to leave the one which I had in such a wonderful manner discovered. Moreover, I thought it would be an excellent thing to see Kasim again. I therefore turned back towards the north. But I had barely gone half an hour when I stumbled by chance upon a tiny pool, scarcely a yard across, and containing a little muddy water with a faintly saltish taste. I drank an enormous quantity of it. I was overcome with weariness; but did not know what was the wisest thing to do. There was water here, and I had no immediate use of Kasim. On the other hand, I found I was unable to travel far towards the south. Perhaps it would be best to wait, and as soon as the storm ceased, by means of signal-fires warn any persons who might chance to be travelling the forest road that ran along the river-bank.

I therefore cast about for a dense thicket close to the pool, and well protected from the storm. Placing my boots and cap under my head for a pillow, I slept deeply and heavily—
the first good sound sleep I had had since May 1st. When I awoke it was already dark, and the storm still roared through the forest. It was eight o'clock in the evening. After another good drink out of the pool I made a big bonfire, and sat down beside it and stared into the flames for a long time. But I was tormented by the pangs of hunger. With the view of cheating my stomach a little, I gathered some grass and shoots of reed, and a bunch of young frogs out of the pool. The frogs were refractory; so I gave them a nip at the back of the head and swallowed them whole. After "supper" I scraped together a big pile of dry branches to feed the fire with during the night.

If only I had had Yolldash with me to keep me company! Perhaps he was still alive, and had followed our trail to the river. I whistled as loudly as I could, whistled again and again. But no Yolldash came scampering up. Then I dropped off again.

May 7th. The storm had ceased, although the atmosphere was still heavily charged with dust. This "black buran" suggested a gloomy and depressing idea. It was the first since the caravan collapsed. It had come to cast the first shovelfuls of earth over my dead attendants and the camels, and it would blot out every trace of our trail through the sand; so that Islam Bai, supposing he still lived, would perhaps never be able to find us. But then, again, he had a compass. And even supposing we did come across men, and supposing they were willing to go with us into the desert as far as the tent, we should now experience the utmost difficulty in finding it, seeing that we could no longer retrace our footsteps through the sand.

Then I thought of another thing. There was not a single trace of human beings in that immediate locality, not a sign of anybody having passed that way at all recently. Perhaps nobody travelled that way during the hot season? If I waited there for help, I might perchance die of hunger before help came. My last examination of Przhevalsky's map seemed to show that we should strike the river in the district called Buksem, about 25 Swedish or 150 English miles from the
"Would you like some water?" I asked.
town of Khotan. If I went well, I ought to travel that distance in six days.

To decide was to act. At half-past four off I started. I followed the middle of the river-bed in as straight a line as I could; and as a consequence of the almost dead level, the channel was pretty nearly straight, and varied from half a mile to two miles in width. I took the precaution to fill my boots with water; but at the end of some hours my feet were so sore and blistered that I was obliged to try and protect them by doubling my socks over them, and by bandaging them in strips of my shirt.

After a while I came upon another small pool, containing fresh water. I emptied my boots of the brackish water I was carrying and filled them with the sweet. After that I followed the left bank of the stream, and there, to my great joy, discovered a sheepfold constructed of branches of trees. But upon examining it I saw it was a long time since it had been used. In the river-bed close beside it I perceived signs of a well having been dug.

Weariness and the heat of the day combined drove me, about half-past eleven, into the shelter of the forest. There I halted, gathered young reed-shoots and grass, cut them up fine, and mixed them with water in the chocolate tin. That was my breakfast.

After noon I went on again hour after hour, until I really could go no longer. It was eight o'clock when I stopped, and made my fire, and “camped.”

May 8th. I started before daybreak, still keeping to the left bank, which ran towards the south-southwest. Strange I did not meet anybody! Perhaps the caravan-road lay deeper in the forest, so that I might easily pass people without seeing them. I thought I had better go and look; so I crossed through the forest, going due west. It was only about half a mile wide, and on the other side of it I came upon that terrible ocean of yellow sand, which I knew so well, and now fled from with horror. Another hour later, the sand-dunes, which stretched from north-northwest to south-southeast, came down in several places close to the brink of the river.
Along the edge of the desert there were poplars growing singly and at wide intervals apart. Overcome by the heat, I threw myself down under the shade of one of them to rest. On my way to that point I had passed no less than eight small pools; in most of them, however, the water had a faint saltish taste.

After resting a couple of hours, I continued my solitary journey towards the south. If there was a caravan road alongside the river, it was manifest it did not follow the left bank, for nobody would travel through the sand-dunes unless they were compelled to do so. I must cross over and see what promise there was in the forest on the right bank. At this place the river-bed was about a mile and a quarter wide. But I found no caravan-track in the forest on the right bank either. I therefore went back to the river-bed, and travelled close beside the bank and the edge of the forest. About 350 yards farther on there were two small islands in the river, covered with bushes and poplars; and between the southern island and the river-bank I perceived, shortly before sunset, the fresh footmarks of two barefooted men who had gone that way, but in the opposite direction—that is, towards the north—driving four donkeys before them.

Footprints of human beings! A remarkable, an encouraging sight! I was not absolutely alone, then, in that inhospitable region. The footprints were so fresh that every detail of the men's feet was plainly marked in the sand. At the most they could not be more than a day old. Strange I had not met them, seeing that we were travelling in opposite directions. But perhaps they rested during the day and only travelled at night? Where had they come from? Where were they going to? Where was their last camp? Was it in a dwelling-place of men, or was it merely by the side of a pool in the river? To follow them up would have served no purpose, for they had too long a start of me; I should never be able to catch them up. I had no alternative, therefore, but to follow the trail in the opposite direction. I observed the impressions of these human feet with the greatest interest and attention; and led on by them, I hurried along southward, keeping close to the right bank of the Khotan-daria.
CHAPTER XLIX

WITH THE SHEPHERDS OF THE KHOTAN-DARIA

Twilight was beginning to spread its dusky wings over the silent scene when, as I was passing a projecting headland, I thought I heard a wonderful sound. I stood stock-still; I held my breath and listened. But all was silent as before. I concluded it must have been a thrush or some other bird which had several times startled me already, and made me stop and listen. But no; there it was again, an unmistakable shout; and it was immediately followed by the lowing of a cow, a voice which in my ears was welcomer than the singing of a prima donna.

I hurriedly pulled on my wet boots, so as not to look like a madman, and with my heart in my mouth hurried in the direction from which the sounds proceeded. I pushed my way through thorny thickets; I jumped over fallen tree-trunks; I stumbled; I tripped again and again; I forced myself through dense beds of kamish, through heaps of crackling branches. The farther I went the more distinctly I heard the voices of men talking and the bleating of sheep, and through an opening in the forest I caught a glimpse of a flock of sheep grazing. A shepherd with a long staff in his hand was keeping watch over them, and when he perceived me, in my tattered clothes and blue spectacles, breaking out of the tangled thickets, he was not a little startled and amazed. Probably he took me for a goblin of the forest, or an evil spirit from the desert, who had lost his way and wandered thither by mistake. He stood as though rooted to the spot with terror, and could do nothing but stare at me open-mouthed. I greeted him with the usual "Salaam aleikum!" (Peace be with you!), and began to tell him in a
few words how I came thither. But he turned abruptly on
his heel and disappeared into the nearest thicket, leaving his
sheep to their fate.

After a while he came back in company with an older
shepherd, who was more amenable to reason. I greeted
him in the same way as I had done the first man, with
"Salaam aleikum!" Then I told him the whole story of
my journey across the desert. When I said that I had eaten
nothing for a week and asked them for a piece of bread, they
led me to a hut close by constructed of branches, and scarcely
five feet high. I sat down on a ragged felt carpet, and the
younger shepherd brought out a wooden platter, with some
freshly-baked maize bread. I thanked them, then broke off
a piece and began to eat; but I had not eaten above half a
dozen mouthfuls when I turned suddenly faint. The shep­
herds gave me a pan of sheep's-milk, which tasted excellent.
After that they went away and left me for a little while alone,
except that two big dogs stayed behind and barked at me
unceasingly.

Soon after dark the two men returned to the hut, accom­
panied by a third shepherd. Meanwhile the sheep had been
driven into the sheepfold, to protect them from tigers and
wolves during the night. I and the three shepherds slept
under the open sky beside a big fire.

May 9th. At daybreak the shepherds went off with their
flocks. Their hut stood on a little hill on the edge of the
forest, and through the trees commanded a view of the
Khotan-daria. A small creek came close up to the hut,
and in it was a pool of fresh water. But in addition to that
the shepherds had digged a well in the bed of the river, so
that they had a plentiful supply of good, clear water.

At noon the three men brought back their flocks, so that
they might rest around the well during the hottest part of
the day. This gave me an opportunity to become better
acquainted with my hosts. Their names were Yussuf Bai,
Togda Bai, and Pasi Akhun, and they were pasturing 170
sheep and goats, besides 60 cattle, belonging to a bai (rich
man) in Khotan. Winter and summer alike they lay out in
the woods with their flocks, and for their monotonous work were paid collectively only 20 tengeh* (or 9 shillings) a month, together with maize meal and bread. After their flocks had eaten up all the grass in one pasture-ground they moved on to another, and in each fresh place they came to they built a hut, unless there was one there already, left standing from the previous year. They had been only five days in the spot where I found them, and they were shortly going to a better place. The district as a whole was called Buksem (Close Tangled Wood).

The life these shepherds lead must be exceedingly lonely and devoid of pleasure, and one day remarkably like another; yet they looked both cheerful and contented. Togda Bai was married, but his wife lived in Khotan. When I asked him why she did not accompany him into the forest he told me that the Chinese, who sometimes travelled that way, would persist in molesting the native women, so that for this reason he preferred to be alone. Once or twice a year, however, he got leave to go into the town to see his wife. My arrival at their camp was clearly an important event in their monotonous life. All the same, they looked askance at me; it was evident they regarded me as a suspicious character. But their suspicion was to some extent disarmed by the fact that I was able to speak their own language, and readily conversed with them.

They lived almost exclusively upon maize bread, water, and tea, this last strongly flavored with pepper. Twice a day they baked a large loaf and divided it between them. They mixed the maize flour with water and salt, kneaded the dough, and shaped it in a circular wooden vessel or dish; then spread it out in the form of a flat cake upon the glowing embers and covered it up with hot ashes. In three-quarters of an hour it was cooked, and tasted exquisitely. I fairly revelled in it, and the shepherds were generous, despite the fact that they knew perfectly well I had not a single tengeh to give them in return.

* A tengeh of Khotan is equivalent to two tengeh of Kashgar; and a tengeh of Kashgar is worth about 2½d.
Their personal belongings were not many. They consisted, in the first place, of the clothes they wore—namely, a *chapau*, or outer coat; a *telpek*, or sheepskin cap, with the wool on the outside; a *belbagh*, or girdle, in which they carried their utensils for making tea. Their lower extremities were swathed in long bandages, and their feet encased in pieces of sheepskin fastened on with cord. Besides their clothes they possessed a large wooden platter (*kazaug*), another of medium size (*ayag*), and a small one (*jam*), a gourd (*kapak*) for holding water, a large ladle or spoon (*chumuch*) roughly shaped out of the root of a poplar, a felt carpet (*kighiz*), and a three-stringed guitar (*javab*). But by far the most important of their belongings was the axe (*balta*), a most useful implement, whether they wanted to make a hut, or cut firewood, or clear a path for their flocks through the thickets, or in the spring lop off the young shoots and branches of the trees to feed their sheep and goats on. Another indispensable instrument was the steel (*chakmak*) for striking fire; but once they have got a fire lighted they take care not to let it go out until they move on to another place. Before driving their flocks into the forest to graze they covered up the fire with ashes, and when they came back again in the evening they opened out the ashes, placed a few dry sticks on the embers, and quickly fanned them into a flame. But they also used dried dung for fuel. They kept their maize meal in a sack, and placed it and all their other belongings on the roof of the hut, to keep them safe from the dogs.

There was first-rate pasturage, they told me, on both banks of the river all the way to the town of Khotan, and it grew more plentiful as the town was approached, except that in the immediate environs there were no pastures; so that the bais who owned sheep kept them all the year round in the forests that fringe both banks of the Khotan-daria. In the seasons during which the river was dry people always travelled along the bed of the stream, which was as hard and dry as a street, and only travelled by the forest paths when driven out of the river-bed by the water.

After the noontide heat was passed, the shepherds again
went off into the woods with their sheep and goats and cattle, and I was left alone, though not for long. For a caravan of about a hundred donkeys, carrying rice from Khotan to Ak-su, went past the hut. The caravan leaders rode straight on without observing me; but Pasi Akhun had seen them, and told them of my adventures. As soon as they were gone by I went into the hut to rest; but almost immediately hearing the rattle of stirrups and the echo of voices, I hurried out again. It was three well-to-do merchants, each riding a capital horse, on their way from Ak-su to Khotan. They had left the former place eleven days before, and hoped to reach the latter in six days more.

They came riding through the forest at a smart trot, and bore straight down upon the shepherds' hut. They hastily dismounted, and advancing towards me, without hesitation, as though they knew I was there and had come to seek me, they politely greeted me. I invited them to sit down. Then one of them, a well-dressed man with a black beard, told me some news which beyond measure delighted me. The day before, while riding along the left bank of the river, some twelve hours north of Buksem, they saw a man, more dead than alive, lying by the side of a white camel, which was grazing on the border of the forest. Like the good Samaritan, they stopped and asked him what was the matter. All he could answer was to gasp out "Su! su!" (Water! water!). One of the merchants immediately rode off to the nearest pool and brought the man a kungan (iron pitcher) full of water. The sufferer, who, I soon understood, could be nobody but Islam Bai, drained the pitcher at a single draught. They gave him bread, and raisins, and nuts to eat. He revived, and told them how he came to be there in the pitiable condition in which they found him.

Islam then begged the three merchants to look for me; although, he said, he did not know whether I was alive or dead, for he had lost my trail two days before. If they found me, he earnestly besought them to lend me one of their horses, so that I might ride to Khotan, and rest and recover from the journey. Thereupon they looked for me all along
the road, until at length they found me in the hut; and they now offered me the use of one of their horses, that I might accompany them to Khotan. But I never hesitated a moment as to the course I ought to pursue. I decided to stay where I was until Islam Bai rejoined me. Seeing that he had succeeded in bringing one of the camels out to the river, probably he had saved a portion of my belongings. Possibly my diaries and maps relating to our desert journey were not lost. Possibly we might even be able to reorganize the remnants of my shattered caravan.

My hopes as to the future began to revive and shine out in rosy colors. During the morning I had been considering the effects of the shipwreck of my caravan, and what plans I should adopt for the future, so that my journey might yield the best results possible under the circumstances. I had almost made up my mind to accompany the first best merchant that went past to Khotan, and thence go on to Kashgar, whence I could send jighits to the first Russian telegraph station with despatches for Europe for a fresh stock of instruments and a fresh equipment, and with them, and what I could effect with the rest of the capital I had left behind in Kashgar, I might travel to Lop-nor, and thence return home through Siberia. But now that Islam Bai was alive, and had brought out one of the camels, I felt certain we might make an attempt to recover the tent and the stores we had left in it; so that, instead of curtailing my plans for the future, I began to extend them.

I therefore let the three merchants go on their way, after they had given me a good supply of wheat bread, and lent me eighteen silver tengeh (about 8s.). We arranged to meet again in Khotan, and settle the accounts outstanding between us. The shepherds were now thoroughly satisfied of the truth of my story, and I dropped hints that their generous services to me should not go unrewarded.

May 10th. A strong northeasterly gale loaded the atmosphere with dust. I lay and slept inside the hut all day long. The tremendous physical exertions I had undergone during the last few days of that terrible desert journey now took
their revenge upon me. I felt tired to death, like an invalid who is convalescent after a year's illness.

At sunset I was awakened by the screaming of a camel, and hurried out. There came Pasi Akhun, leading Ak-tuya, the white camel, with Islam Bai and Kasim following behind him. My excellent Islam flung himself with sobs of joy on the ground before me, and clasped my feet with his hands. I at once lifted him up and bade him calm his emotion. In his own mind he had as little expected to see me as I had expected to see him.

The white camel was laden with two kurchins (double wallets of canvas). One of them contained all my instruments (except those for measuring altitudes), my drawings and itinerary notes, paper, pens, and such like; the other the Chinese silver money, the lantern, teapot, cigarettes, and several other things. Moreover, Islam had saved the two Husqvarna rifles, and brought them wrapped up in a felt.

Islam ate a piece of bread, and rallied a bit, and then told me his story. For several hours after we left him on the night of May 2d, he lay where he fell; but finally he managed to get up and follow our trail, though very slowly, for the four camels, which he brought along with him, resisted being urged along. Later on, in the evening of May 3d, he saw the big signal-fire, which we made beside the three poplars; but it was a great way off. However, it gave him fresh courage, for by it he knew, not only that we were alive, but that we had reached the outskirts of the forest, perhaps discovered water. He reached the three poplars on the morning of May 4th, and observed the marks of our abortive attempt to dig a well. But as the day was oppressively hot, he stayed several hours in the shade of the poplars. With his axe he blazed the bark of one of the trees, and sucked out of the wound fully a cupful of sap, which both quenched his thirst and strengthened him. There he left one camel-load of goods. On May 5th he continued to press on in our footsteps, and on the following day arrived at the first dry river-bed, where he again observed our unsuccessful attempt at a well. There he lost one of the camels, the one which had been freed from
its load. The animal broke loose, and of its own accord went off towards the east. Up to that point Yolldash, although dying, had dragged himself along after the caravan; but from that time Islam never saw him again, and therefore concluded he must be dead. On May 7th my riding-camel, Boghara, fell, and about an hour later Nähr also. The latter carried all the instruments for measuring altitudes, cigars, tea, sugar, candles, and some macaroni. At last Islam succeeded in reaching the river with the white camel; but when he saw it was dry, he gave way to despair, and deliberately lay down to die, calmly and in peace. That was on the morning of May 8th; and as if by a miraculous interposition, at noon on that same day the three merchants came that way, saw him, and gave him bread and water, and he was saved. Shortly after that he fell in with Kasim, who told him that I had got on splendidly, but that he had not the slightest idea where I had gone to. Kasim was stupid enough to say he believed I had gone to the north, towards Ak-su; but Islam was fortunately sharper witted, and decided to look for me towards the south, in the direction of Khotan. Then he met Pasi Akhun, whom I had sent in quest of him, and now—there he was.

Thus, as will be seen, Islam Bai had acted like a hero; for while I and Kasim thought only of ourselves, he had done his utmost to save that portion of my belongings to which he knew I attached the greatest value. He had therefore gradually transferred them all to the back of the white camel, which still continued to be the strongest. Thanks to Islam, I was now in a position to carry out my journey as it was originally planned. Two and a half years later, after Islam Bai reached his native town of Osh in Fergana, King Oscar rewarded him with a gold medal.

That evening, round a big fire near the shepherd’s hut, we celebrated our escape from the clutches of the desert in a “sumptuous” feast. After many “ifs” and “buts” Pasi Akhun allowed himself to be persuaded to sell us a sheep for thirty-two tengeh (about 15s.). It was at once slaughtered. I had a chisslik (steak) of kidneys, grilled over the glowing
fire, while the men boiled some of the choicer parts in a pot. By this my pulse had risen to sixty. But it was only three days later, when I had properly rested and recovered, that it got up to eighty-two.

May 11th. The grass in that locality being all finished, the shepherds proposed to move to “other pastures green,” about six miles down the river, and on the right bank. We loaded our belongings on Ak-tuya and went with them. We pitched our camp on a little mound which stood beside the river, and was surrounded by thickets and kamish, and overhung by some ancient poplars. Between two of the poplars my attendants made me a forest hut, its frame consisting of branches, while the walls and roof were formed of boughs twisted and laced together. It afforded splendid protection against the sun, and was further sheltered by the adjacent trees. The ground inside was levelled and spread with felt carpets. The sail-cloth knapsacks, which contained the pieces of Chinese silver money, were my pillow; a small wooden cigarette-box served me for table. My instruments, map portfolios, drawing-books, and writing-materials lay in convenient disorder at the foot of one of the poplars. Considering our circumstances, I could not have wished things better. I was perfectly comfortable and cosey in my forest hut, quite as comfortable as if I had been in my own study in Stockholm.

Islam and Kasim made themselves at home beside the usual fire underneath a third poplar. The shepherds quartered themselves with their flocks in the reeds close by. Twice a day Pasi Akhun brought me a bowl of rich milk and a piece of maize bread, and I had sufficient tobacco to last a couple of weeks. The most consummate epicure never got richer enjoyment out of life than I did during the days that followed; and yet my lonely life in the forest bore not a little resemblance to the existence which Robinson Crusoe led on his island.

May 12th. Shortly after one o’clock we perceived a small caravan approaching our camp from the north. They were advancing along the bed of the river, but were still a long way off; and we impatiently awaited their arrival. Islam and
Kasim hastened down to the riverside, so as to call to them and guide them to the hut. They turned out to be a party of four merchants, belonging to Khotan, who left the town of Kucha thirteen days earlier. They had gone thither some time before with a supply of grapes, which they sold, and with the money the grapes fetched they had bought ten horses, some donkeys, and a cow, and were now taking the animals to Khotan, where they expected to make a good price of them.

They told me that at Sil, the place where the Yarkand-daria was joined by the Khotan-daria, the former river contained so much water that it reached up to the waist of a man on horseback. All the way up there were small pools in the bed of the Khotan-daria, and failing them, it was always easy to get water by digging a well. The summer flood was expected in the beginning or middle of June; but it would not attain its maximum volume for from one to two months after that.

We pounced upon these four merchants like hawks, and in half an hour bought from them three first-rate horses for 750 tengeh (about £17 5s.), although they had only given 600 tengeh (about £13 15s.) for them in Kucha. Besides that we also bought three pack-saddles and bridles, a sack of maize for the horses, a bag of wheat flour for ourselves, a pair of boots for Islam, who had gone barefoot ever since we left the Camp of Death, a pinch of tea, a kungan (iron pitcher), and two or three porcelain cups—all for sixty-five tengeh (less than 30s.). This made us independent of help from Khotan; with the horses and the white camel we might now try to save the loads of the two camels which were the last to give up.

In the evening we had a visit from two young hunters. They were armed with long guns, which they supported on a rest when they fired them. They had only just come to the forests of Buksem in pursuit of deer; they wanted the antlers to sell to the Chinese, who gave a good price for them for medicinal purposes. As the young men were intimately acquainted with all that region, I instantly engaged them to accompany Islam and Kasim in quest of the Camp of Death.
CHAPTER L

A RESCUE PARTY

MAY 13TH. The four merchants continued their journey towards Khotan. The two young hunters went off among the underwoods; but after the lapse of an hour returned with a deer (boghe or maral) which they had shot the evening before. It was flayed and quartered, and Islam very soon had an excellent soup ready. The deer's flesh was both delicate and tasty.

One of the hunters, Kasim Akhun, told me that the sand in the desert, which stretched between the Khotan-daria and the Keriya-daria, was very high; but in crossing it you could get water by digging wells during the first few days.

The season was, however, already too far advanced, and I therefore gave up my original plan of crossing that portion of the desert as well.

During the course of the day the father of the two young hunters arrived. Ahmed Merghen ("Merghen" means "hunter") was a splendid type of the Central Asiatic, tall, slim, broad-shouldered, with a big nose and a pointed imperial. He was very friendly, and took a great interest in our adventures; and gave us valuable advice in our consultations for organizing a rescue party. Nobody could have been more willing than he was to make a trip into the desert. He was a godsend to us. He remembered having once lost his way while hunting, and then passed near the three poplars where I and Kasim had made our signal-fire.

The morning was spent in arranging the details of the rescue expedition, and at one o'clock the men set out from our camp in the forest. The expedition consisted of Islam Bai, Kasim, Ahmed Merghen, and one of his sons. They took with
them the three horses and one camel, and, by way of provi­sions, bread, flour, mutton, and three kapaks (gourds) and a mesh (goat-skin) filled with water. Just as they were on the point of starting, Ahmed advised me to move out to a little island in the bed of the river, for the place where my hut stood abounded in scorpions. He was right; for I afterwards saw several of these unpleasant creatures. Their trail in the sand bore a striking resemblance to a lace pattern. But I liked my forest hut so well, and was so coseyly at home in it, and besides it would have been so much trouble to flit, that I preferred to stay where I was and defy the scorpions.

The rescue party left the camp at an hour which would allow them to reach that same evening the spot where I had hung up the spade for a sign-post. Ahmed went on foot with his gun over his shoulder; the other three men rode on horseback. It was a pleasure to see how easily my new friend, the hunter, like a mighty Nimrod or man of the woods, made his way through the thick undergrowth, sweeping the bushes aside and moving among them with such a light step that he almost seemed to fly.

After they had gone, I was again alone with the three shepherds, and put on the armor of patience for perhaps a full week. The shepherds' camp lay a few hundred paces from my hut; but Pasi Akhun agreed to sleep near me, so as to keep up the fire during the night. He brought me bread and milk three times a day, and I could get plenty of water from a well in the bed of the river.

May 14th. When I awoke at five o'clock, the sky was dark with clouds and there was a thick mist and a fine drizzling rain. Although the rain only lasted a very short space, and scarcely wetted the ground, it freshened the air—a rare and unexpected phenomenon! At seven I got up. But during the long, solitary days I spent in that forest hut I was by no means idle. I elaborated the rough notes I had taken during the later stages of my desert journey, and plotted some of my maps of the dunes. Betweenwhiles I lay down on my "bed" and read the Bible and the Swedish psalm-book, in which I discovered many a masterpiece of Swedish poetry.
A big yellow scorpion came walking over my sleeping-carpet, and when I molested him to kill him, fought like a mad thing. It now struck me as little short of wonderful that, while wandering about the forest by myself, and sleeping and resting as I did at all hours among the undergrowth, I had never disturbed any of these venomous animals. Considering the feeble state I was in, a sting might have proved serious, for the scorpion’s sting is not to be despised.

Half a score of merchants, with a caravan of forty donkeys, carrying raisins and kishmish (currants) to Ak-su, passed my hut, and stopped a moment to greet me. I bought a bag of raisins from them, and the shepherds got a treat.

These merchants told me that Masar-tagh consisted of two parallel ridges running towards the northwest, but that neither extended very far into the desert. The desert in the vicinity of the ridges was said to be extremely desolate and barren; high sand-dunes preponderated, and there were but few patches of bare, hard ground. The name was derived from a masar or saint’s tomb, the position of which was indicated by tughhs, or sticks with pieces of rag attached to them, stuck in the ground on a conspicuous spur of the dunes. The custodian of the shrine was a sheikh, who generally lived in Khotan, but spent a small part of the winter in the desert. He was rewarded for his services by the contributions, amounting to 200 tengeh (about £4 10s.) a year, of the owners of the sheep which grazed in that region.

The following days slipped past peacefully and quietly, and I gradually recovered from the almost superhuman exertions I had undergone in the desert. All the same, I had to summon up my patience; for it did get monotonous, sitting there alone day after day and night after night in my lonely hut in the midst of the forest. Yet I had everything I wanted. I enjoyed the best of health, drank in the forest air, and listened with pleasure to the lisping murmurs of the northeasterly wind, as it dallied with the leaves of the poplars. The heat was never oppressive; for the atmosphere was generally impregnated with dust, and the thick forest shade kept it cool. It was as silent and peaceful around me as on an
uninhabited island. The only break in the uniformity of the day was when Pasi Akhun brought me my "rations," or came to make up the fire. I used to get up at seven o'clock; but at that hour the flocks were already in the forest, grazing, and I found the bread and the milk-bowl standing by my side.

It was very strange that for three days I travelled along the river-bed without seeing a soul; whereas now caravans going between Khotan and Ak-su passed every day. As a rule each band of merchants came up out of the river to the hut, and gave me a friendly greeting. But, unfortunately, they never had any other wares except raisins, felt carpets, wool, cotton, and domestic animals. However, it was always a pleasure to me to talk to them; and they gave me much valuable information about the trading relations of East Turkestan, and about the river Khotan, and the climate of the region generally.

The news of our journey and wonderful escape spread like wild-fire both up the river to Khotan and down it to Ak-su. A merchant from the former place told me that we were the talk of the bazaars, and that our arrival was being awaited with great impatience. I was growing very anxious to reach Khotan, as I intended staying there some days to reorganize my caravan, so that I might make a start for Northern Tibet.

May 15th. Two or three merchants coming from the north reported to me that they had met Islam's party. That was at the end of the second day after they started; and they intended resting one day, so as to replenish their supplies of water.

The next day brought the bai who owned the flocks which my friends the shepherds had charge of. He came to superintend the shearing of the sheep, a task which is done twice in the year, in spring and autumn. The wool sold in Khotan at five tengeh (2s. 3d.) for a châreck (about 18 pounds avoirdupois). When there is a good clip of wool, it takes ten to twelve sheep to give a châreck; but at that season of the year the wool was thin, a good deal having been torn off by the thorny bushes of the underwoods, so that it would take
fifteen to twenty sheep to yield a chäreck. The bai hoped to shear about thirty chäreck altogether, for he had another flock of 500 sheep some distance higher up the river.

At dusk on May 21st Islam and the other men returned. The report they brought was not very satisfactory. They had travelled due west from the edge of the forest; but had not ventured to go as far as the place where we left the tent, because the days were getting hotter. The only things they brought back with them were those which we left behind under the three poplars, and which were of relatively little value. They had been guided thither by the dead body of the camel Boghra, for its pestilential stench was perceptible a long way off. But the most remarkable thing of all was that they did not find the camel Nähr, who carried the three aneroids, the boiling-point thermometer, the field-glass, two revolvers—one of them a weapon of the pattern that is used by the officers of the Swedish army—fifty cartridges, 200 cigars, besides several other things. They easily discovered the place where Islam had left the animal, because he had tied his girdle to a tamarisk close by to serve as a sort of guide-post. The tamarisk was still there on the top of a sand-dune; but the girdle was gone. Instead of it the branches of the tree were tied together with a piece of white felt. Round about there were footprints of a man's boots, whereas Islam had been barefooted. The camel and his valuable load were gone. And not only could they not find the animal, they could not even find a trace of him.

The question was, who was this man who had taken away Islam's girdle and left the felt rag in its place? I asked Islam whether he thought it could be Yollchi, who might have revived after we left the tent; but Islam pronounced that to be impossible, because he had never seen a glimpse of the man since he left the Camp of Death. Was it possible it was either of the three merchants who had fetched Islam some water, and lent me eighteen tengeh? No, for they had travelled straight from Islam to Buksem, to look for me. Besides, how would they have been able to find the camel? We were completely at a loss; but were unable to do any-
thing. If somebody had found Nähr alive, and had led him to the river, where he could get water and food, the finder, whoever he was, if he was an honest man, would have brought the animal to us. But if he had stolen the camel, together with his load, he must surely have left a trail of some kind behind him, and there were only two routes to choose between: either he must have gone northward to Ak-su, or southward to Khotan. But my shepherd friends always kept a sharp lookout upon the latter road, and they had seen no camel answering to our description of Nähr. There only remained, therefore, the route to Ak-su; and we gradually became convinced that the camel had been stolen, and his trail deliberately obliterated.

Ahmed Merghen then said he had seen the trail of a camel in the forest, and had followed it. But it brought him to the young camel, which had broken loose at the three poplars and run away into the woods by himself without his load. He had evidently found water somewhere, and after his ten or twelve days' free grazing in the forest was in excellent condition. But he had become so shy that he fled as though he had never seen a man before, and Ahmed had the greatest difficulty in catching him. I shall return to this point again later on, when I speak about the wild camel of Central Asia.

It may possibly occasion surprise that I relate all this at such length and in such detail; but I do it for two reasons. In the first place, in consequence of my loss my plans were entirely upset and altered; and in the second place, these events were followed a year later by a highly dramatic sequel.

My original plan of travelling into Northern Tibet was completely knocked on the head. I had lost my instruments for measuring altitudes, and my equipment was sadly crippled. The only course now open to me was to return to Kashgar, and re-equip and repair my losses. Although it was a longer road, I chose the route via Ak-su. And yet within less than a twelvemonth I could not resist travelling in Marco Polo's footsteps from Kashgar to Khotan. But before I give a
A RESCUE PARTY

brief account of our return to Kashgar, I should like to say a few words about those portions of the courses of the Yar­kand-daria and the Khotan-daria which came under my own observation.

A comparison of these two rivers, which flow pretty nearly parallel to one another, and seek the same goal, shows that they are in more than one respect dissimilar. The Yarkand­daria is the most important river in East Turkestan. Its channel is plainly marked and deeply eroded, and it contains water all the year round; indeed, in the month of June its flood rises to portentous dimensions. Except when it is ice­bound in winter, the river can only be crossed by means of ferries. The Khotan-daria, on the other hand, remains dry during the greater part of the year; it is only in the height of the summer that its channel holds any quantity of water. But it is so broad and shallow that the only place where a ferry can be used is at Khotan. The river flows through the worst section of the Takla-makan Desert, and has a far harder fight of it with the drift-sand than its sister stream to the west. Indeed, the sand is seriously threatening to choke it up and cut it off from the main river, the Yarkand-daria or Tarim, which it flows into—a fate which, as we shall see later on, has already overtaken the Keriya-daria.

Again, the belt of forest which accompanies the Yarkand­daria is frequently interrupted by steppes and marshes; whereas the Khotan-daria is accompanied by its forest-belts all the way to the confluence of the two streams, and the forest is thicker and altogether wilder than the forest of the Yarkand-daria. The sand-dunes nowhere approach near to the banks of the Yarkand-daria; but in the case of the Khotan­daria they stretch quite close up to the western forest-belt.

In one respect, however, the two streams agree. Both have shifted their channels towards the east, as is proved by the existence, in both cases alike, of former river-beds lying west of and parallel to their present courses, whereas there are no such disused channels to the east of them. It is also worthy of remark that the caravan-roads which
run alongside both rivers keep to the left bank; no doubt that is the safer side when the rivers are in flood. Moreover, almost all the towns along the middle course of the Yarkand-daria are situated on the left bank, and generally at some little distance from it. There are no towns along that part of the Khotan-daria which flows through the forest, the only inhabitants in those tracts being the nomad shepherds. The caravan-road down the Khotan-daria possesses only a local importance; but between Maral-bashi and Yarkand—that is, along the middle portion of the Yarkand-daria—runs one of the chief commercial highways in the centre of Asia.

May 23d. I was awakened at half-past three in the morning by a terrific buran (hurricane)—a perfect fury of a wind—from the west. It completely ruined my poor hut, and even threatened to tear up the trees by their roots. It roared and whistled through the tops of the poplars, which, being full of leaf, were bent over parallel with the earth, threatening every moment to snap in half. The branches, being dry, cracked and broke, and were flung to the ground. The reeds bowed in humiliation before the fierce tyranny of the storm. The entire forest roared and thundered, as though it were filled with the noise of many water-falls. It was, moreover, choked with dense clouds of drift-sand, which was blown in almost solid masses across the level bed of the Khotan-daria. The hurricane only lasted half an hour, and was succeeded by the same perfect calm which had preceded it.

At half-past seven we were all ready to start from the camp where I had spent such a long time, although a time rich in pleasant memories. Indeed, my thoughts often fly back, and with both gratitude and sadness commingled, to the happy days I spent beside the Khotan-daria. It was there I got a new lease of life; it was there I shook off my feet the sand of that awful desert; it was there I once more saw human beings like-fashioned unto myself, men who received me with kindness, fed me, tended me. Finally, it was there I enjoyed a beneficial and much-needed rest in the delightfully cool air of the forest. I gave each of my shepherd friends thirty tengeh
(13s. 9d.), and they were overjoyed. Then we went on our way, with the two camels and the three horses; and the last of the camels' bells once more echoed clear and sonorous, no longer sounding for a funeral, but ringing in a new life, with new hopes.
CHAPTER LI
DOWN THE KHOTAN-DARIA

We did not travel in one party, but divided. Islam Bai and the two hunters travelled by the caravan-road that traversed the forest on the left bank of the stream, in order to keep a lookout for the trail of the missing camel. Ahmed Merghen and I rode down the bed of the river, and Kasim followed us in charge of the two camels. But as we rode hard, we soon lost sight of him. In the afternoon we came to the little pool which had saved my life. There stood the reed thicket as before, and the poplars leaned over the water, which had dropped nearly five inches since May 6th. It retained the same shape, however. There I rested a good hour, partly to wait for Kasim to come up, but more particularly that I might drink again of that splendid, that glorious life-giving water. Ahmed Merghen called the pool Khoda-verdi-köll, or the "God-given lake."

After a ride of ten hours we all met again in the part of the forest called Kuyundehlik (the Place of Hares). Several shepherds were encamped there looking after their flocks. Islam had not seen any signs of the camel in the forest. Even though there had been any trail, it would have been destroyed by the hurricane.

May 24th. We decided to rest a day, chiefly in order that some of the men might scour the forest, in that part from four to eight miles wide, with their dogs. Five shepherds, in charge of five hundred sheep and sixty cattle, had been four days at Kuyundehlik. It was only a short two hours' journey to the pool of God's gift. Had I gone north on May 6th, instead of going south, I should scarcely have fallen in with these men, for at that time they were encamped in
another place; and it was several days from Kuyundehlik to
the next shepherds' camp, near the confluence of the Khotan-
daria with the Yarkand-daria.

A short distance below the camp of Kuyundehlik the
Khotan-daria divided into two arms. The arm on the west
was narrow and winding, and hence was called the Inchicke-
daria, as well as hidden in a thick wood; while the right-
hand branch was broad, and entirely destitute of forest on its
eastern bank. In the height of the summer both branches
are filled with water. The latter washes the foot of a series
of large sand-dunes known as Ak-kum (the White Sand).
The shepherds asserted that the Inchicke-daria was only
formed about eight years previously. But the thick woods
proved conclusively that it was the older channel, and that
the river was gradually abandoning it for its more easterly
neighbor. The absence of forest on the right bank of the
eastern branch proved also that vegetation had not yet suc­
cceeded in maintaining its ground on that side against the
persistent assaults of the drift-sand. When the Khotan-
daria is in flood, caravans for Ak-su travel along the delta or
island between the two branches, and consequently have to
cross them by the fords. The distance between the fords is
about two days' journey. During the dry portions of the
year the pools in both the main branch and the Inchicke-
daria occur near the right bank.

The district had a bad reputation for thieves and robbers,
who make a practice of plundering small and weak caravans.
But the new amban (Chinese governor) of Khotan had started
a systematic war of extermination against the evil-doers; all
whom he caught were summarily beheaded.

May 25th. My excellent friend Ahmed Merghen returned
home to Tavek-kel, near Khotan, but left his son Kasim with
us. We rode down the winding bed of the Inchicke-daria,
the banks of which were covered with young forest. Farther
back from the stream the trees were much older, and in many
places stood so close together that it was not easy to pass
between them. The tendency of the forests on both banks
is to unite and form one continuous forest, and this will no
doubt happen as soon as the summer floods entirely desert this channel for the right-hand branch. In fact, the Inchicke-daria was only forty or forty-five yards wide as it was. After a long day's ride we stopped for the night beside a pool in the bed of the river, at a place called Bedelik-utak (the Clover-Field Lot).

May 26th. Kasim, Ahmed's son, refused to go with us farther than one day's journey from Kuyundehlik; it was dangerous, both on account of robbers and of tigers, to spend the night alone in the forest. I and my two men, Islam and Kasim, continued our journey therefore without a guide. As the river became more and more sinuous in its course, we resolved to strike farther into the island, which consisted of prairies, interrupted by low dunes and small groves of forest trees. But as the river-bed made the more convenient road to travel by, we soon went back to it. Both banks were planted with luxuriant woods, so that we often seemed to be journeying through a park, or rather a tunnel of foliage.

At length we reached the point where the Inchicke-daria rejoins the Khotan-daria. The forest opened out like a door, and before us was the level bed of the Khotan-daria, lying, in consequence of the more powerful erosive force of its larger volume of water, some five feet lower than the bed of the Inchicke-daria. We encamped a short distance below the confluence, in a tract called Bora-tyshkyn (Beaten down by the Storm). There was a little island in the river; but so infested with ticks and scorpions that we preferred to make our fire for the night in the bed of the river, at some distance from the bank.

May 27th. As is generally the case in that part of the world after a clear night and a west wind, followed by a calm day, it was pretty warm on the morrow, and the heat began to make itself felt early in the day. For instance, at seven o'clock in the morning the thermometer registered 76.8° Fahr. (24.9° C.). The hard, level river-bed ran almost directly due north, at the same time gradually narrowing to a general breadth of about half a mile, and winding in and out round projecting "butresses" of forest. It will, of course, be readily
understood that the high-summer flood, being spread over the wide, shallow channel, is subject to active evaporation, so that the current necessarily diminishes in volume the farther it advances towards the north.

Again the river divided into two branches—the Yanghidiara (New River) on the left and the Kovneh-daria (Old River) on the right. We travelled down the former, and met a large donkey-caravan laden with groceries from Ak-su, from which place they started eight days before. The Kovneh-daria was shut in on both sides by sand-dunes exclusively. Despite its name, it is probably the newer channel, seeing that the forest trees have not succeeded in establishing themselves along its banks. The result of my observations upon the tendency of the Khotan-daria to shift its channel towards the east goes to show that it does not do this regularly and conformably throughout the whole of its course, but does it piecemeal, a portion at a time. The river-bed gets choked up here and there with the alluvial detritus brought down by the current. In every place where this happens the stream gradually rises above the general level of the adjacent land, and seeks a new passage towards the east.

In the evening we came upon a large pool, some 500 square yards in area, the largest I had hitherto seen. We made our fire on a hill overhanging the river, and from our camp obtained an extensive view of the surrounding country. In this place the current had delved a deep trench close under the right bank of the river, in which in the course of the next day's journey we found a string of small pools. Upon bathing in the large pool I discovered that it was deep, for I was unable to reach the bottom.

May 28th. During the course of this day's march the river-bed gradually became wider. As a general rule, where the channel is broad and level, there are no pools, and the trenches made by the last season's floods are scarcely discernible; but where it is narrow there exist numerous pools, and the trenches made by the current are plainly marked in serpentine curves. I also observed that the forest was appreciably thinner on the right bank than on the left; in fact, in
many parts it ceased altogether, its place being taken by bare sand-dunes. Close under the western bank the river-bed itself was occasionally overgrown with grass; but that was never the case along the right-hand side of the river. Everything tended to show that the current flows stronger on the right or eastern side than it does on the left or western. But in any case the movement of the current towards the east takes place at such a slow rate that the afforestation of its banks is enabled to keep pace with it. A few isolated poplars, like those near which we made our signal-fire on May 3d, still maintained a precarious existence on the west side of the stream; but they are doomed to perish.

At six o'clock we were still riding along the river-bed; Islam Bai had gone on in advance to seek out a convenient spot for camping on, when all at once the whole of the west became enshrouded in a dark, yellowish-gray cloud. At first it looked like a low wall; then it rapidly mounted higher, till it reached half way to the zenith; and then the next moment it was directly over our heads. The sun faded to a pale lemon disk; then totally vanished. A distant murmur arose along the border of the forest. It approached rapidly nearer. We heard the twigs and branches snapping off with a louder and louder echo. Towards the northwest the forest was enveloped in haze. Columns of sand and dust came spinning across the river-bed like theatrical wing-scenes moving on invisible rollers, alternately shooting on in advance of each other; and in a moment the forest was entirely blotted out. The first outfliers of the storm burst upon us; the black buran followed close at their heels, striking us with terrific violence, swallowing us up in its impenetrable clouds of dust. The sand was swept along in eddying sheets which trailed along the ground, putting me in mind of comets' tails. Track, trenches, storm-driven boughs—nothing was to be seen. In such a storm as that your head goes round; you imagine the earth, the atmosphere, everything is in commotion; you are oppressed by a feeling of anxiety lest the next moment you yourself should be caught up in the frenzied embrace of the wind. It turned as dark as midnight, and for
some time we dare not move a step from the spot where we stood. The instant the storm burst Islam was lost to sight; and it was only by the merest chance that we came together again. He just saw the dim outline of the caravan, like some huge monster, slowly crawling through the haze.

Seeing that the storm—one of the worst we had experienced—showed signs of lasting some time, we cautiously piloted our way to the river-bank, and sought shelter behind the thick brushwood in the heart of the forest. There we decided to encamp for the night. We afterwards dug a well in a depression of the river, and reached water after a few spades' depths. As soon as it grew dark (night), the men set fire to the undergrowth on the lee side of our camp. The flames, fanned by the gale, spread with portentous rapidity, giving rise to a magnificent, but wild, spectacle.

May 29th. The storm still continued. The air was so densely charged with dust that we saw but little of our surroundings. Fortunately we were able to get along by keeping close to the left side of the river-bed, and in that way chanced to stumble on a sign-post, consisting of a pole with a horse's skull on the top, fixed in a poplar tree. Upon going up to examine it more closely I discovered a path leading into the forest, a path which I took for granted went to Ak-su. We decided to follow it. It led us towards the northwest, along a plainly marked river-bed, now dry and in part sanded up, and shut in by sand-dunes, poplar holts, and bushes. In all probability it was a former arm of the delta of the Khotan-daria. At intervals, as the road crossed several belts of barren sand, the caravan-leaders had erected poles and gallows-like arrangements to serve as sign-posts.

That afternoon we encamped near some shepherds from Ak-su, who were comfortably installed in the forest in huts made of stakes and reeds. At first they regarded us with some suspicion; but soon gained confidence, and offered us bread, milk, and eggs. They lived with their flocks in the woods all the year round.

The Yarkand-daria, which we now saw a short distance ahead of us, is generally ice-bound for about four months in
the year. The shepherds said they expected the summer floods in about three weeks, and would then be driven by the overflowing of the river higher up into the forests. Just at that time, however, the river was at its lowest level. The next day we crossed the stream at a well-known ford. Its breadth was eighty-five yards, its greatest depth 1 1/2 feet, and its volume 265 cubic feet in the second.

On the other side of the river we continued on towards the north by a path which led to the town of Avvat (Abad), meaning “populous,” through a district that was in very ill repute on account of highway-robbers and stealers of live-stock. The road lay sometimes through tangled underwoods and thorny bushes, sometimes through kamish (reed) beds and open steppes, sometimes past shepherds' camps and small villages, now close alongside the right bank of the Ak-su-daria, now at some distance from it.

May 31st. Towards evening we approached the bazaars of Avvat, a place of about a thousand houses, with a beg, a Chinese tax collector, and a Hindu trader, Parman, who hospitably placed a comfortable serai (guest-house) at my disposal. All the same he was an arrant rogue. He loaned money to the peasantry at usurious rates of interest, and whenever they were unable to pay what they owed him took from them their wheat and maize and wool. The wool he sold in Ili (Kulja), the corn in the neighboring towns and villages. He confessed to me that he laid by 15,000 (Kashgar) tengeh (about £170) every year. The principal products of the district are rice, wheat, maize, and cotton. The little town stands on a branch of the Ak-su-daria, called the Kovneh-daria; it is crossed by a bridge which leads straight into the main street of the town.

June 1st. We rode the whole of the day through one continuous street, with canals on both sides of it, and shaded by avenues of trees, among which mulberries and willows predominated. The next day, at a place called Besh-ariik-ustang (the Channel of the Five Branches), we came out upon the great highway which runs to Kashgar, and also crosses the Ak-su-daria to Yanghi-shahr (the New Town), a place en-
closed within the walls of a Chinese fortress. Immediately we arrived I sent a man with my passport and Chinese calling-card to the Dao Tai, or chief officer of the district; but received back an indefinite sort of answer. Accordingly I did not take the trouble to call upon "His Excellency," a man who was notorious for his arrogance and drunken habits.

June 3d. We were now only a short distance from the Mohammedan town of Ak-su. Upon arriving there I was received with marked friendliness by Mohammed Emin, the aksakal (white-beard), or head of the West Turkestan merchants. He lodged me in his own good and comfortable house, sending the camels and horses to a neighboring caravanserai.

June 4th. During the past three days the white camel had pined away, refusing to eat grass or anything except a few broken fragments of wheat bread. On June 3d he had walked the short distance from the New to the Old Town without stopping; but every time anybody went near him he screamed out in a tone of suffering, as though he were afraid he was going to be hurt. At night he ate nothing; and next morning Kasim came with a concerned countenance to tell me that Ak-tuya was very ill. I hastened to the court-yard and found him lying on his side, with his legs doubled under him and his neck stretched out along the ground. He was breathing heavily; and, after one or two long-drawn breaths, he died.

This was the camel on which Islam had saved my diaries, maps, instruments, and other things which I set the greatest store by. Naturally, therefore, I felt sorry to lose the poor beast, which had rendered me such a signal service. All the way down the Khotan-daria I went to him at every place where we encamped and clapped him; but he always turned away his head and screamed, as though I were going to pull at his nose-rope. It seemed as though he knew I was the cause of the suffering he had endured. On the morning he died—the morning of the Feast of Mairam—it was still and quiet in the caravanserai court-yard. On that day no caravan came in, no caravan went out; ordinary work of every sort and
kind was entirely suspended. Everybody was out-of-doors. The streets, the bazaars were gay with new khalats (coats) in the brightest and most variegated hues, new caps (calottes) in glowing colors, and snow-white turbans. Every person looked happy and contented. On this day the meanest servant is greeted with a "Aid mubarek!" (A happy holiday to you!) by his master, and from the windows of the minarets the muezzin's voice, uplifted in prayer and praise of the Almighty, sounds clearer and more musical than usual. What a contrast between the silent court-yard, where my dead camel lay, and this richly varied picture of life and happiness, every face beaming with delight on this the greatest Mohammedan holiday of the year! As it happened, in the year of our visit to Ak-su, the Feast of Mairam fell on Whit-Tuesday. Mohammed Emin was going to sell the two camels for me on the following day. The money value of the dead animal was a mere trifle; besides, by this I had become accustomed to losing camels! But this poor beast had been the means of saving my sketches and diaries, and my purse for defraying the expenses of the summer; and I felt as if I had lost a faithful friend, a friend in whose fidelity I could trust implicitly, who had sacrificed his strength and finally his life to help me out of an awkward predicament.

His travelling companion, the young camel Chong-sarik, a giant of his kind, which Ahmed the Hunter had caught in the forest, left his manger and walked across to the white camel, and regarded him attentively with a look of wonderment. Then he quietly walked back to his manger, and with an unimpaired appetite went on munching the green, sappy grass with which it was filled. He was the last of the eight. I had not the heart to sell him without knowing into whose hands he would fall. The custodian of the serai was of opinion that he, too, would soon succumb to the hardships and privations he had undergone. Finally I gave him as a present to Mohammed Emin, on condition that he should be allowed to graze all summer on the fat meadows at the foot of the Tengri-khan.
FROM AK-SU TO KASHGAR

We stayed three days in Ak-su in order to organize a temporary caravan for the return journey to Kashgar, the centre and base of my exploring journeys in Central Asia. Thus I had an opportunity, though it must be confessed a brief one, of seeing something of the town of the White Water (Ak-su), so called because of the abundance of clear, fresh water which pours through it from the eternal snowfields and glaciers. The town occupies a favorable position on the left bank of the Ak-su-daria. In summer enormous quantities of water roll down the river. In winter there is but a fraction of it left, and the little there is freezes. A short distance below the town the river divides into two branches, the Yanghi-daria and the Kovneh-daria; but they reunite before they join the main stream, the Yarkand-daria, or Tarim. Immediately on the east the town is overlooked by a terrace of conglomerate and loess strata, which rises to a perpendicular height of 150 or 160 feet, and has been carved out and shaped by the river floods. On all other sides the town is surrounded by numerous villages, fertile fields and meadows, splendid orchards, and brimming irrigation canals. Rice, wheat, maize, barley, cotton, opium, and a vast quantity of garden produce are grown with signal success. Ak-su, with its 15,000 inhabitants, is only half as big as Kashgar; nevertheless, in respect of its agricultural products it ranks considerably higher. The keeping of sheep, which graze, as I have said, along the banks of the two large rivers, is likewise a flourishing industry.

Ak-su possesses a mixed population of divers races. Among others I noticed a great number of Chinese, a hundred or so
of Andijanliks (people of Andijan), or merchants from Russian Turkestan, besides three Afghans, who have paid periodic visits to Ak-su for a space of over twenty years. Mohammed Emin, the aksakal, or head of the Russian subjects trading to the town, was a Tashkendlik—i.e., a man of Tashkend—and had been domiciled in Ak-su for a dozen years. The Andijan merchants trade principally in wool, cotton, and hides. Of the last-named commodity some 30,000 are sent every year to Tashkend on the backs of camels, via the pass of Bedel, Kara-kol (Przhevalsk), Pishpek, and Auliehata. The caravans only travel during the winter. All the hot months of the year the camels run at pasture on the grassy slopes of the mountains near the town. Moreover, all communications are greatly hampered during the summer by the high state of the water in the swollen rivers.

Of "lions" that would repay a visit there were scarce any. The chief mosque, which, as usual, was called the Mesjid-i-Juma, or Friday Mosque, was not particularly remarkable, except that it occupied a picturesque situation on one side of a small open square, which communicated with the principal bazaar through a side lane. The square, called Righistan, is the centre of the life of Ak-su. On market days it is packed with people, and all sorts of commodities are offered.
for sale on a multitude of little stalls. Lumps of ice, collected in winter and preserved in subterranean cellars, are an important commodity during the hot season, and one that I personally enjoyed in liberal measure. In the principal bazaar there are two theological colleges, the Kok-madrasa (the Blue College) and the Ak-madrasa (the White College). Their façades are plain, with poor earthen-ware decorations, nor can their balconies or cloisters boast of any architectural merit. The mollahs, or theological students, live in cells opening out upon the court-yard. Some of the students had previously studied five, and even ten, years at the theological college of Mir-arab, in Bokhara. The Chinese have two lanzas (a lanza consists of not quite one hundred men) at Yanghi-shahr. They maintain a larger garrison at Utch-turfan, which commands the Bedal pass over the Tianshan mountains into Russian Turkestan.

All over the Mohammedan world it is customary to celebrate the first few days of the Feast of Mairam by a great number of gala dinners, at which incredible quantities of ash (pillau or rice pudding) and shorpa (soup made of green vegetables and macaroni) are consumed. Some of these feasts I shared in company with the aksakal, Mohammed Emin. But the best entertainment of all was that to which the aksakal invited me, and at which I was the only guest. We rode out to his garden, Sokha-bashi, situated about two miles from the bazaar. There a couple of gardeners live all the year round, and occupy themselves with the cultivation of grapes, apricots, melons, plums, cherries, and vegetables. We took our places underneath a leafy mulberry-tree, beside a canal filled with clear crystal water. A sheep was killed, and with his own hands the aksakal prepared an ash or pillau according to the most approved recipe of the culinary art. You take the best pieces of the meat, especially the breast and the kidneys, cut them up fine, fry them in butter in a pan over the fire, thereafter fill the pan with well-washed, pure white rice, and add onions to flavor. This dish, when properly prepared, is excellent.

An aksakal is a sort of consular agent. The subjects of
the Russian empire have their aksakal in each of the larger towns of East Turkestan. All these officers were subordinate to Consul-General Petrovsky in Kashgar. My friend, Mohammed Emin, the aksakal in Ak-su, was one of the best Mohammedans I have met, a cheerful and worthy man of about sixty, with a white beard; he had an intimate knowledge of East Turkestan, and was able to give me much valuable information. Even before I reached the town he had done me a service. He made inquiries on all the roads leading into Ak-su from the south after the thief who had, as we suspected, stolen the camel we lost; though without any result. Now he did me an even greater service. He declared his willingness to accompany me to Kashgar, a road he had travelled scores of times. I was very glad of this, for I knew he would be excellent company. He was quitting his post without permission, but for that I took it upon myself to answer to Mr. Petrovsky for him.

We had a journey of 270 miles before us to Kashgar; but
we were in no hurry, and resolved to take things easy. By June 7th all was ready for a start. Mohammed Emin procured me some Sart yakhtans (boxes), and provided the needful provisions, such as sugar, tea, rice, vegetables, honey, and so forth. Mutton we should be able to buy everywhere along the road. I gave Islam Bai and Kasim a gratuity each for their faithful services, as well as dressed them out from top to toe in good new clothes. I had lost all my clothes, and bought myself a costume which was half Chinese, half Sart.

This was the only occasion during my travels that I deprived myself of the prestige and respect which the European dress always inspires.

We hired four horses from a karakesh (owner of caravan animals), paying fifty-five tengh (12.5. 6d.) for each horse all the way to Kashgar. We left Ak-su at five o'clock in the afternoon; but that day we only rode a couple of hours. Our first stop was at the caravanserai of Langar. We travelled that short stretch down a continuous avenue bordered with rice-fields under water, cultivated fields, gardens, and houses, and encamped on a piece of meadow in a fine grove of poplars. Ten years before that Mohammed Emin had rested in the same spot with Przhevalsky, who was then on his way
home from his fourth journey. Afar off in the north through
the light dust-haze we caught a glimpse of the glittering
white peak of Tengri-khan, towering up to 24,000 feet; but
it was soon enveloped in the shades of night, and so disapp­
peared from our view.

On June 8th we crossed the Kum-daria (Sand River), the
name generally given to the Ak-su in that part of its course.
The river was split into a number of branches, and the crossing
was beset with no particular difficulties. A few days
after that the ferry would come into use; but five weeks
later, when the river would be in full flood, even the ferry
would be useless, and for some time all communication be­
tween the opposite banks would be interrupted. Every year
an average of half a dozen men lose their lives through attempt­ing to ride across the river when the current is too
powerful.

On the other side of the river we met a caravan of some
two hundred horses and oxen; each animal was dragging
after it on the ground two long beams of poplar wood (terek).
The aksakal told me that a large dam or jetty was being
built fifteen miles above the town, along the left bank of the
Ak-su-daria, and that no less than three thousand men were
engaged upon the work. The object of the dam, which is
reconstructed every year, was to prevent the flood from do­
ing injury to the terrace of conglomerate, and so eventually
sweeping away both the Old and the New Town, and to
force it over to the opposite or right bank. Thus the Ak-su-
daria, which at that point flows south, also tends towards a
more easterly course.

Four and a half hours later we rode across the Taushkan-
daria (Hare River), the sister stream of the Ak-su-daria. It
was much more difficult to cross, on account of the water
flowing in a confined channel. We accordingly hired two
suchis (water-men), who, being naked, carefully led the horses
across the stony river-bed.

June 9th. We reached the little town of Utch-turfan,
which owes such importance as it possesses solely to its posi­
tion as a sort of half-way house between Ak-su and the
FROM AK-SU TO KASHGAR

frontier of Asiatic Russia, and on the road by which the wool, cotton, felts, carpets, hides, etc., of East Turkestan are exported. There were some eighty prosperous Andijan (i.e., West Turkestan) traders established there, likewise under the authority of my friend Mohammed Emin. The town stands in the midst of fertile, well-cultivated fields, irrigated from the Taushkan-daria. In the far distance we saw the snow-white bastions of the great Tian-shan mountains, and nearer at hand some ranges of low hills. The Chinese amban (governor) of Utch-turfan, Tso Daloi, received me with great politeness and invited me to dine with him. He was formerly stationed in Tarbagatai, in Dzungaria, where he had come a good deal into contact with the Russians.

After resting a day, we left Utch-turfan on June 11th, escorted by the entire colony of Andijan merchants wearing their best khalats (coats). Our gayly dressed cavalcade excited not a little attention in every place we passed through. But at Sughetlik (Willow Village), where we were again offered tea and refreshments, our friends turned back. We went on to Ott-bashi (the Beginning of the Pasture Grounds) and encamped there in a park.

The next day we reached the kishlak, or winter village, of Bash-akhma (the River Source), and made our camp in a large Kirghiz aul consisting of nineteen uy (tents). The Kirghiz generally spend their summer there as well, for they are half-agriculturists, growing wheat, barley, and opium, although
they continue to live in their kara-uy (black tents). A few of them, however, have taken to clay cabins. They only sow the ground every other year, letting it rest and recover during the intervening years; hence it would be more strictly correct to call them agriculturists-every-second-year. They possess also flocks of sheep and goats. The Kirghiz, who devote themselves entirely to the keeping of live-stock, spend the summer in the mountains, and only come down into the val-

![Crowd at the Entrance of a Bazaar](image)

ley of the Taushkan-daria for the winter. There are seven septs, or families, represented in the district; but all obey one bi, or chieftain.

But I will curtail my account of this journey by hurrying over the next eight days. We travelled up the valley of the Taushkan-daria, crossed the ranges of low hills which shut in the valley on the south, and then continued in a southwesterly direction over the steppes and desert, until, on the afternoon of June 21st, we reached Kashgar—the westernmost town of China. The people we came in contact with were Kirghiz and Jagatai Turks. After the scorching heat of the desert of Takla-makan, I thoroughly enjoyed the fresh mountain air. As it was the rainy period, it was still further cooled by the
rains, which often fell in copious quantities, and by storms, which drove up and down the valley from the east and from the west as though they were being discharged through a rifle-barrel. We passed the towns and auls of Utch-musduk (the Three Glaciers), Sum-tash, Kizil-eshmeh (the Red Springs), Kustcheh (the Autumn Place), Jai-teve (the Grave Hill), Sogun-karaol, Kalta-yeylak (the Little Summer Pasture-Ground), and Besh-kerem (the Five Fortresses).

In Kashgar I stayed barely three weeks, and busy weeks they were, as I worked hard at equipping and fitting out another caravan. My old friend Mr. Petrovsky, who during my absence had been advanced to the dignity of consul-general, and, in addition, shortly after that was, for his invaluable services to me, honored by King Oscar with the star of a knight-commander of the Vasa order, welcomed me with much gladness and emotion, and did all in his power to help me with
the preparations for my next expedition. As soon as he learned of our unlucky desert journey from the aksakal of Khotan, he had gone to the Dao Tai and given him to understand that unless he promptly made inquiries after my lost camel in both Khotan and Ak-su he would hear of the matter from the Tsung-li-yamen in Peking. The Dao Tai did his duty; and our astonishment may be imagined when one day, while we were dining with him, he placed upon the table my Swedish officer's revolver. It had been among the things in the load which Nähr, the lost camel, carried. The weapon had been given by an unknown horseman to a peasant in the village of Tavek-kel. The search after the thief was renewed with redoubled zeal; but the Chinese mandarins never succeeded in getting any clew to the guilty party. I gave myself but little further trouble about the matter, being entirely taken up with fresh plans and projects for the immediate future.

The very next day after my arrival at Kashgar I despatched a courier to Osh, with several letters and despatches, among others one for my teacher and friend, Baron von Richthofen, in Berlin, asking him to send me a new and complete set of meteorological instruments—aneroids, boiling-point thermometers, etc. I telegraphed to Tashkend for clothes, provisions, and tobacco; and obtained a supply of cartridges and powder from the Cossack guard in Kashgar. The things which I had ordered from Europe could not arrive for three months. I could not possibly spend all that time in inaction, especially as the heat of the summer made me long for the fresh, cool air of the mountains. The only thing that detained me in Kashgar was the non-arrival of my letters from Sweden. During my absence Consul-General Petrovsky had sent them to Keriya, beyond Khotan, and they had not yet come back again. But here the Dao Tai came to my assistance, and did me the very great service of sending express couriers all the way to Keriya to fetch them. The men—for there was a fresh courier and fresh horses for each stage of the journey—took twelve days to go there and back; and, as the distance was 870 miles, they rode at the rate of about seventy-two miles a day.
COURT-YARD OF A MOSQUE IN CENTRAL ASIA

A GROUP OF KIRGHIZ AND A CHINAMAN
In a couple of weeks I had completed my preparations for a fresh start. The kindness and self-sacrificing help I received from Mr. Petrovsky, Mr. Macartney, and the Swedish missionary, Mr. Högberg, were of such a character as I shall never forget. They all three vied with one another in their efforts to assist me. The first and the second loaned me some aneroids and hypsometers; my countryman loaned me several things of practical value. A tailor in the town made me some clothes of Chinese cloth, and sewed me furs together and a tent. I bought horses, saddles, and stores of provisions in the bazaars. When we started again, on July 10th, I could scarcely believe that, only two months earlier, I had suffered a loss which, at the time, seemed as though it would utterly wreck all my plans.

But whither should we turn our footsteps now? To go to the north, and explore the Tian-shan mountains, would have been going over ground that is already tolerably well known. The time was too short to admit of my going so far south as the Kwen-lun mountains. To the west was the high plateau of the Pamirs, which I had already crossed in several directions. Despite this, I determined once more to visit that region, and spend the hot months among the mountain-giants on the Roof of the World, in continuing the investigations which I began the previous summer.
HEDIN, SVEN ANDERS, 1865-1952
THROUGH ASIA