

Charchan along which I was anxious to have our triangulation extended as far as possible to the east. I planned our reunion at Mīrān by January 15th, just in time for the start on those desert explorations north of Lop-nōr which formed the chief task in my programme for the winter. Careful arrangements and detailed instructions were needed to assure the timely completion of the difficult surveys that were to precede it, and though fortunately I could place absolute reliance on my old travel-companion's devoted zeal and energy, the exact planning of them had absorbed much of my thought and time during our hurried joint journey to this point. My heavy baggage was dispatched to Kāshgar under the care of Afrāz-gul Khan and Naik Shamsuddīn, by the usual caravan route via Ighiz-yār, the one I had followed in 1906.¹⁰

I myself set out due north with Muḥammad Yāqūb Khān, the second surveyor, in order to reach the same goal by a new route, across the Merki pass and down the valley of the Kara-tāsh or Bēsh-kan river, which receives most of the eastern drainage of the great glacier-clad range of Muz-tāgh-atā. Owing to special difficulties this important valley, which supplies the large oasis of Yangi-hissār with most of its irrigation, had never been explored in its whole length. The narrow gorges through which the Kara-tāsh river has cut its lower course are rendered quite impassable during the spring and summer by the big floods from the melting snows and glaciers. By the time these floods subside, early in the autumn, the Merki pass is liable to become blocked by heavy snow. In the spring of 1906 I had sent Surveyor Rai Rām Singh to descend the valley; but the attempt, though made with his usual pluck, was completely baffled, and after reaching Chimghan he was obliged to turn off to the north-east and seek his way to Yangi-hissār across the Ghijak pass. Favourable conditions, mainly due to chance, promised better success on the present occasion. Kirghiz information showed that an exceptional succession of early snowfalls with low temperatures, corresponding to the unusual season we had experienced ever since leaving Yāsīn, had reduced the melting of the glacier ice earlier than in ordinary years. Thus there was hope that I should be able to pass the river gorges just while the Merki pass, though already under snow, was still practicable for laden Yaks.

Difficulties
of Kara-
tāsh river
route.

Rain and then snow accompanied us all the way up the Buramsāl valley and made doubly welcome the shelter offered by the 'Ak-ois' of the last Kirghiz camp below the pass. The bad weather conditions prevailing for the last month and more, though favourable to my passage, had not allowed the ripening of the oat crop in the scattered fields that we found in the narrow valley up to about four miles above Toile-bulung. Farther up, large grass-covered moraines indicated former glaciation down to a level of about 12,000 feet. By the morning of September 16th the sky had fortunately cleared and allowed the ascent to the Merki (or Buramsāl) pass (Fig. 69), close on 15,000 feet above sea-level, to be made with load-carrying Yaks, notwithstanding the deep snow that covered the last 2,000 feet or so of the slope. The descent to the north was much steeper and rendered difficult over the greater part by huge heaped-up masses of boulders, half-hidden in the snow. We emerged from the snow only near Merki-chat, where we found a small Kirghiz camp occupying a sheltered position, some 12,180 feet above sea-level, by the stream coming from the Merki-jilga (Fig. 77).

Crossing of
Merki pass.

After halting there for the night and securing fresh Yaks, we resumed our march down the valley, which for a distance of about seventeen miles maintains a direction generally to the NNE., but with many windings. The constant crossings of the river bed, which were necessary in order to get round the foot of the precipitous rocky spurs, would have caused trouble, no doubt, earlier in the season. But now the combined volume of the several streams that unite in the valley was not large enough to fill the whole bed. The valley bottom widened, and progress for the time being

Descent to
Kara-tāsh
river junc-
tion.

¹⁰ See *Desert Cathay*, i. pp. 100 sqq.