

and Tangir where Rāja Pakhtūn Wālī, an exile of the Khushwaqt family of Yāsīn, had for some years past established a chiefship of his own. The mountain tracks over which we were taken under his protection crossed a series of high passes and offered great advantages for survey operations. We were fortunately allowed full freedom to use them.

A number of triangulated points on the high ranges to the south and north helped to control the half-inch plane-table work, and, thanks to Lāl Singh's devoted exertions, a fortnight's hard travel sufficed to map some 1200 square miles of ground distinctly difficult in parts and hitherto wholly unsurveyed. The mapping then accomplished awaits separate publication in the Royal Geographical Society's Journal, and the briefest mention of it must suffice here.¹

Subsequently we crossed the Indus-Gilgit river watershed and the Darkōt pass to the headwaters of the Chitrāl river. This route allowed me to see ground of distinct historical and geographical interest. From here we made our way past the glaciers feeding the Karambār river and across the difficult Chilinji pass into uppermost Hunza, where we picked up Muhammad Yakūb, the second surveyor, with the heavy baggage. Finally we gained the Chinese border on the Ming-taka pass by September 7th.

Journey across
Hindukush.

Survey resumed
in Sarikol.

The journey down to Tāsh-kurghān allowed the main Sarikol valley to be re-surveyed on a larger scale than before. From it we followed for a couple of days the usual caravan route through the mountains towards Kāshgar over the Chichiklik pass. Beyond the Tangitar gorge our routes divided.² Lāl Singh moved off by rapid marches *via* Yārkand and Khotan in order to reach the main K'un-lun range near Kapa from where I was anxious to extend our triangulation of 1906 as far eastwards as climatic and other conditions would permit. Afrāz-gul, in charge of the heavy baggage, executed a plane-table traverse to Kāshgar by the usual route *via* Ighiz-yār and Yangi-hissār.

I myself set out for the same goal with Muhammad Yakūb by a new route leading due northwards across the Merki pass and down the valley of the Kara-tāsh or Bēsh-kan river.³ Owing to special difficulties this important valley, in which most of the eastern drainage of the great glacier-clad range of Muz-tāgh-atā finds its way into the plains between Yangi-hissār and Kāshgar, had never been explored in its whole length. During spring and summer the big floods from the melting snow and ice of the range render the extremely narrow gorges of the Kara-tāsh river in the north quite impassable. By the time the waters subside in the autumn, heavy snow on the Merki and Kara-tāsh passes closes the approaches from the south. In the spring of 1906 I had sent Rām Singh to descend the valley, but the flooded river had obliged him to abandon the attempt.

We were more fortunate this time. Exceptionally early snowfalls had stopped the melting of the glaciers just in time to allow of a passage while the Buramsāl pass (14,940 feet), though under deep snow, could still be traversed with laden yaks. Nevertheless the descent through the extremely confined gorges of the river below Chimghan proved very difficult and in places risky. The constant crossings of the river tossing between precipitous rock walls could not have been effected without the help of hardy local camels secured from Kirghiz camps higher up the valley. The trials attending these marches showed that Muhammad Yakūb, if not equal to my other surveying companions in experience and general aptitude for independent work, was anyhow not wanting in pluck.

Difficult river gorges.

Preparations at
Kāshgar.

After emerging from the last of those gloomy defiles, two marches across fertile tracts brought us to Kāshgar by September 21st. Once again Sir George Macartney's unfailing help greatly facilitated the organization of my caravan at the ever hospitable British Consulate General, and by

¹ For a preliminary account of this visit to Darēl and Tangir, cf. *A Third Journey of Exploration in Central Asia*, Geographical Journal, 1916, xlvi. pp. 101 sqq.

² See Sheet No. 2. D. 4.

³ See Sheet No. 2. D. 3, 4; *Third Journey, G.J.*, xlvi. p. 110.