

to Marāl-bāshi and thence to strike across the desert to the Khotan river by the nearest route which might prove practicable. As far as Marāl-bāshi I proposed to follow the foot of the barren hill chain which here forms the southernmost rampart of the T'ien-shan. Two reasons combined to make me choose this route. The first was that this range almost throughout its length from the hills north of Ārtush to south of the Kelpin oasis (Maps Nos. 5. A-D. 1; 8. A. 1; 7. A, B. 4) had as yet remained practically unsurveyed, as appears from the portion of Dr. Hassenstein's map of the Tārīm basin that includes it.⁴ The other reason was archaeological and had its origin in reports first heard at Marāl-bāshi in 1908 and again later on the Kāshgar side.⁵ These seemed to indicate that an old route, now but vaguely remembered in local lore, had during some earlier period skirted the foot of that chain and been used for traffic instead of the present Chinese 'high road', or more correctly cart track, leading much farther south along the actual course of the Kāshgar river.

March to
Āstin-
Ārtush.

Having previously dispatched all baggage that was not immediately needed by trader's caravan to Khotan, I took the precaution, as I expected water to be scarce, of reducing my party still further by sending Surveyor Muḥammad Yāqūb along the high road to await me at Marāl-bāshi. Accompanied by Afrāz-gul Khān and Naik Shamsuddīn I set out myself to the north-east. The first day's short march brought us through fertile ground, which I had already seen in 1900, to Sedir in the canton of Bēsh-karīm. Passing again the well-known shrine of Bū-Mairyam and sighting beyond Eski the Stūpa ruin of Maurī-tim which had been surveyed in the same year,⁶ we then made our way to the large oasis of Āstin-Ārtush (Map 5. A. 1). Its famous Ziārat of Sultān Boghra Khān has been visited and described by the Forsyth Mission.⁷ We passed it as darkness fell, on our way to our night's quarters at a large farm at Wakwak, not far from the eastern end of the cultivated zone of Ārtush.

Along
terminal
course of
Ārtush
river.

On October 11th a long march brought us to Kalta-yailak, a narrow and far-stretching belt of hamlets, which forms the terminal oasis of the river of Ārtush. Almost the whole of our route led over desert ground near the foot of the outermost hill range. The big bends in which the river winds here eastwards indicate the almost level nature of this ground. There is no marked glacis along the foot of this range, and as a consequence former river-beds and marsh-beds still liable to inundation from the south approach close to it. These were subsequently found to be characteristic features of the whole of the ground traversed by us on the way to Marāl-bāshi. It presents a striking contrast with the wide glacis slopes of piedmont gravel that everywhere edge the foot of the K'un-lun range on the opposite side of the Tārīm basin. This contrast is clearly due to an essential difference in the morphology of the two mighty ranges which form the north and south rims of that basin, and therefore may here receive passing mention. The surveys carried out by Lāl Singh in 1908 and 1915 among the outer hill chains of that portion of the T'ien-shan which lies between the longitudes of Kelpin (Map No. 7. B. 3) and Kāshgar may be of use to others more competent than myself to follow up the point.

Site at
Duldul-
ökür.

I had previously received information about some old remains at the very foot of the outermost hills, and consequently left the track leading to Kalta-yailak beyond the river crossing of Kīchik-langar.⁸ After passing over a desolate plain covered with scanty scrub and much salt

⁴ See 'Karte des Tarim-Beckens' in Hedin, *Reisen in Z.-A.*, Petermann's Mitteilungen, Ergänzungsheft No. 131.

⁵ Cf. *Serindia*, iii. p. 1307, 1310.

⁶ Cf. *Ancient Khotan*, i. pp. 79 sq.

⁷ See *Yarkand Mission Report*, p. 17; Figs. 41, 42.

⁸ The bed, where we passed it again after marching about 7 miles beyond Kīchik-langar, was about 30 feet

wide and held water to a depth of close on 2 feet; the measurement taken indicated a volume of not less than 80 cubic feet per second. During the period of the summer floods the river was said to fill the bed to a height of some 7 feet more on the average. These indications suggest the possibility of far more extensive cultivation than is to be seen at Kalta-yailak at present.