

passing this somewhat higher ground we came upon a dry deep-cut bed, about 30 yards across, which seemed to have its head in hills far away to the east. Its direction pointed to a junction lower down with the trough coming from Chin-êrh-ch'üan.

Beyond this the broken ground became level and then sloped down gently to a wide fan-like basin of gravel covered with scrub and furrowed by numerous shallow channels. These were all descending southward from the hills and thus carrying T'ien-shan drainage. Unfortunately a haze, perhaps brought by the light north-westerly wind, had hid all distant mountains since the morning. Near the first larger channel the aneroid indicated an elevation of 4,100 feet, only slightly higher than that of Chin-êrh-ch'üan. The general direction followed by all these drainage beds was south-westerly, and this makes it quite certain that they, too, join the 'Yen-tun trough', which the route from Ming-shui to Hāmi crosses near the halting-place of Wu-t'ung-wo-tzū (Map No. 37. c. 4), about twenty miles farther to the south-west.³ It will need further surveys to decide from which side this big dried-up river system of the 'Yen-tun trough' received its chief tributaries. So much, however, is certain, that the area once drained by it extends much farther to the east than is shown by former maps.

A dried-up river system.

We had moved to the north-west for more than twelve miles across the very gently rising glaciis of gravel before we reached the first foot-hills of the T'ien-shan. Passing up a defile about 300 yards wide at its bottom we came, after a vain search for water by our guide in a side valley north-westwards, upon a group of Toghraks and, close by, a spring amidst reed-beds. Its discovery was doubly welcome, for all traces of a track had disappeared since we left the gravel Sai. The view opening here northward across a plateau was wide. But the boldly serrated range that it showed in the distance raised doubts as to how, in the absence of reliable guidance, we should find a passage across it practicable for our already hard-trying camels.

First foot-hills of T'ien-shan.

On the morning of September 23rd our 'ta-lu-ti' appeared to have recovered from his bewilderment and stoutly declared that he recognized the halting-place of *Ta-hsi-k'ou*, mentioned in the itinerary obtained at Mao-mei, in the spring at which we had camped. Stating that he now remembered his bearings, he led on across the plateau to the north-west. As this direction was evidently not such as to take us far away from Bai, our goal to the north of the range, I was ready to follow it. For seven miles we traversed a gently rising plateau, covered for the most part with detritus, from which there emerged clusters of low rocky ridges and knolls of what looked like trachyte. Then we struck a narrow Wadi-like nullah, with sandy bottom and abundant scrub along its banks. The cliffs on either side rose steeply to over a hundred feet and showed a strike from NW. to SE. with an almost vertical dip. Their faces, like those of the exposed rocks that we subsequently came upon, were far less decomposed than the hill-sides we had passed in the Pei-shan. We had advanced another three miles when the bottom of the valley widened, and the sand in what obviously was the bed of a temporary stream showed signs of moisture. On digging holes here we came upon deliciously fresh water at a depth of less than one foot. Equally encouraging was it to find good grazing for the ponies along the banks, and even some bushes of late-flowering wild roses.

Water and scrub in nullah.

As we ascended the valley farther, these signs of a comparatively moister climate continued, and when we had passed a reed-sheltered spring and some rough enclosures near it which looked like herdsmen's shelters, we began to hope that the faint track we were following would prove to

Herdsmen's shelters.

³ *Wu-t'ung-wo-tzū* of Muḥammad Yāqūb's traverse is identical with *Utun-ozzü* of Professor Futterer. In view of the concordant heights of Chin-êrh-ch'üan (4,020 feet) and the point marked with 4,100 on our route (Map No. 37. c. 3), Wu-t'ung-wo-tzū probably lies considerably lower than

1,200 metres, the elevation shown for Utun-ozzü. The aneroid readings on our Pei-shan route were checked by mercurial barometer at several points and were found very consistent with the latter; see *Memoir on Maps*, p. 153.