

ance of the bold cliffs that from here onwards line both sides of the basin-like head of the valley as it widens again eastwards. The observation is of special interest because, as appears from Muḥammad Yāqūb's levelling operations to be presently mentioned, the ground descends steadily from the ancient terminal basin east of Bēsh-toghrak to the dried-up sea-bed near Kum-kuduk. This furnishes distinct evidence of the existence of a connexion between the two in a comparatively recent geological period.

Footprints
preserved
in gravel
soil.

A minor observation of some interest also rewarded my visit to the terraces which my lamented Chinese Secretary, Chiang Ssü-yeh, and myself had baptized in 1907 with the name of *K'ai-mên kuan*, 'the defile of the open gate', viz. to westernmost China. In the narrow strip of gravel at the foot of the more northern of the two terraces I found clearly impressed the traces of an old track evidently caused by movements of wild camels before the caravan traffic had scared them away from grazing along this southern side of the valley. But there was another proof, too, how well gravel-soil in this extremely arid region preserves the traces even of an occasional wayfarer's passage. On the gravel slope of the northern terrace there remained quite sharply defined the footprints of my pony leading up to the point from which, as I remembered, I had, seven years before, surveyed the open valley eastwards and sighted the few poplars of Bēsh-toghrak. I was to find on many subsequent occasions similar proofs of the exceptionally retentive nature of the desert soil on these barren confines of true Cathay.

Arrival
at Bēsh-
toghrak.

The remaining tramp of six miles to the wells of Bēsh-toghrak took me over ground with which I had already become familiar on my second journey. It does not require fresh notice here, beyond the mention that I was again struck by the comparative luxuriance of the desert vegetation which covers the sandy soil at the head of the valley, as well as by the water-eroded appearance of the cliffs which here also fringe its southern side. Farther down the valley high dunes completely screen the foot of the extensive plateau, probably also of clay, which borders it on the south. I found Surveyor Muḥammad Yāqūb encamped at Bēsh-toghrak; he had been there for several days, after safely completing his line of levelling, which he had carried over a distance of close on sixty miles with a total of 526 stations. In accomplishing this task on such inhospitable ground and under severe climatic conditions, he had shown much patient devotion and endurance.

Route
followed by
Surveyors.

On the day of halt which followed, March 13th, Lāl Singh and Afrāz-gul also rejoined me. They had carried their survey right across the salt-encrusted arm of the old sea-bed to the north of Kum-kuduk and thence, as Map No. 35. A, B. 3, 4 shows, close along the edge of the gravel-covered glacis of the hill range. One important observation made by Afrāz-gul, which has a direct antiquarian bearing, I have already discussed above.⁹ A few other points of interest ascertained in the course of the Surveyors' work along that route may conveniently find mention here before we turn to Muḥammad Yāqūb's line of levels and to the geographical conclusions it supports. Starting from Kum-kuduk, the hard salt-crust surface of the sea-bed was reached at a distance of about two and a half miles. It extended northward for fully six miles, broken only towards the middle by a small patch of reed growth over clayey *shōr*, and beyond this by a streak of briny water about thirty feet across. The belt of sandy soil with reeds and scrub met with on the opposite side was quite as broad as near Kum-kuduk.

Water
reached by
digging.

Passing through this, the Surveyors kept, for the rest of their first march and for the whole of the next, close to the line where the sandy scrub-covered belt meets the gravel Sai along the foot of the clay plateau. In several places the edge of this plateau was found broken up by erosion into a string of small isolated clay terraces or ridges. At the foot of a small reed-covered hillock which served for a fixing, five miles to the east of Camp 96, Afrāz-gul's observant eye noticed

⁹ Cf. above, p. 323.