

of the population, all Dolāns who until very recent times led a semi-nomadic life and in places still continue to do so.¹ I found these difficulties illustrated on entering, at a distance of about four miles, a wide belt where fields and farms had been abandoned during recent years to luxuriant reeds and scrub. The water-supply was said to have been inadequate during the preceding few seasons; but the scarcity could not have been very serious, seeing that the young trees in the abandoned arbours and orchards were still flourishing vigorously.

Following a track known as *Kelpin-yoli*, by which the people of Kelpin are accustomed to make their way to Marāl-bāshi through the desert, we passed into a sandy steppe; here young Toghraks had grown up in plenty since irrigation was first extended, some seventeen years before, to the outlying cultivation belt that had now again been abandoned. After a march of about nine miles vegetation became restricted to sparse tamarisk-cones, many of them dead. These, too, disappeared near the point where we left the Kelpin track to make for a gap visible in the rugged hill range of Bēl-tāgh to the north-east. For over five miles we now travelled over a bare clay steppe, which soon began to show those regular wind-cut terraces or 'Yārdangs' with which I had become so familiar in the Lop basin. They reached here only to an average height of between four and six feet, with a bearing varying between N. to S. and NE. to SW. This bearing, like that of the Yārdangs met with in 1908 on my way south of Kelpin, clearly showed that the direction of the prevailing winds was here also much the same as in that far-off Lop desert where the effect of wind-erosion is so widely marked.

Wind-
eroded
clay steppe.

But, on approaching the gap above mentioned,² I found a far more striking demonstration of the vast power exerted by wind-erosion over the whole Tārīm basin, and of the great part it has played over countless ages in shaping its surface formations. For the gap, about half a mile wide and lying at its bottom about 150 feet above the level of the plain, had manifestly been cut through by the force of the winds, which strike the range at right angles and are ever at work here with their corrosive agent, the drift-sand. To the south of the gap and along the south-western or lee face of the range the sand lies heaped up in huge dunes to an estimated height of at least 500 feet from the level of the plain. The crest of the range rises steeply above the dunes for another hundred feet or so, everywhere showing sharp cuttings like the top of a crenelated wall. The effects of wind-erosion, presented here on a huge scale, resembled in every detail those I had observed years before on the east face of the modern town walls of An-hsi and at the breached and half-effaced circumvallations of the ruined towns near An-hsi and Ch'iao-tzū.³ In and near the gap no sand was lying, because the winds sweeping freely over the gentle gravel slope would carry off whatever particles of decomposed rock, &c., they had brought. But farther south, where the grinding work of the wind is actually proceeding along the hill crest, the sand, whether driven up from the north-east or locally produced by erosion, is allowed to settle down on the lee side and to accumulate in stationary dunes. The slight east to west bend in the direction of the range shown here by our survey may help further to account for the exceptional height of the accumulations at this point. Altogether no more striking illustration could be looked for of that great process of wind-erosion which has carved out and isolated all the bold island-like hills to the east and north-east of Marāl-bāshi.⁴ I shall have occasion farther on to recur to the evidence here afforded,

Hill chain
cut through
by wind-
erosion.

¹ Cf. *Serindia*, iii. p. 1311. For a graphic description of the annually renewed barrage upon which Marāl-bāshi depends in the main for its irrigation, see Hedin, *Reisen in Z.-A.*, pp. 225 sq.

² See Map No. 7. A. 4. It is probably from this gap or pass, in Turkī *bēl*, that the hill range derives its name *Bēl-tāgh*. The break farther south where the Bēl-tāgh end faces

the Achal-tāgh is too wide to be called *bēl*.

³ Cf. *Serindia*, iii. pp. 1095 sqq., 1102 sq.

⁴ It is a matter for special regret that the late hour at which the gap was reached and the necessity of pushing on to the foot of the Lāl-tāgh did not allow of photographs being taken here.