

of small furrows showing the same direction. It was obvious that corrosion by wind-driven sand was the main factor in sculpturing the surface of what had been the lake bottom of an earlier geological period.

The only portions of the ground protected against it for the time being were successive small belts where the drift-sand had accumulated in low dunes. It did not take me long to discover that these drift-sand areas generally corresponded to strips of dead forest, here usually stretching from west to east and thus right across the route we were steering. Almost everywhere the withered and bleached trunks of Tograks and tamarisks, whether lying half-smothered on the ground or still rising upright, seemed to form more or less regular rows. Now, in the course of the many marches I had made along rivers of the Tārīm Basin where they pass through alluvial plains, I had often been struck, like other observers, by the fact that in the living riverine jungle belts the wild poplars, constituting the bulk of the timber, show the peculiarity of ranging themselves in rows parallel to the banks of the water-courses, large or small.¹ The same observation applies also to the dead forest strips so often encountered at ancient sites and elsewhere in the Taklamakān, near dried-up river branches. Hence the conclusion naturally suggested itself that these strips of dead forest which we passed through at intervals, varying that day from about three to four miles, had once grown up along channels of running water in what had formed part of an earlier delta.

While kept alive by water, the trees and the scrubby undergrowth near them had helped to catch and retain the fine sand ever drifting across this basin, as can be seen to this day along the banks of all actual river channels passing into the Lop depression or the Taklamakān. When they died through loss of moisture, this cover would still be kept on the ground by the fallen thicket and in turn would help to protect its remains and the bank itself from erosion. It was intrinsically the same process as the one so often noticed at the Niya Site and other ruins in the Taklamakān, where ancient timber débris, refuse-heaps, rush fences, and the like had saved the original occupied ground and its old remains from being eroded to the present level of the surrounding open area. The cohesion assured by the roots of the dead trees and scrub would greatly help to keep off wind-erosion from the banks of the dried-up water channels, and to the same cause may probably be attributed the survival of the canal banks, which I had so often noticed at old sites rising high above the general scooped-out level.²

Where the rows of dead trees were near erosion trenches, the banks of the latter often seemed particularly steep and high; and it has since occurred to me as very probable that wind-erosion had there only continued the work begun by running water. But it was not until we had covered about twelve miles that we came upon a well-marked and far-stretching depression (shown in Map No. 60. C, D. 4 as 'Eroded Nullah', long. 89° 45', lat. 40° 15') which, with its considerable width and wall-like banks over fifteen feet high, distinctly suggested an ancient river-bed. The strips of dead jungle previously crossed on this march have been duly shown on the map with the dead tree symbols Ψ Ψ placed in rows to mark the direction. But it was at first difficult for me to realize their full significance, and even if I had recognized it from the beginning, I should not have been able to spare time for the collection of exact data as to levels, bearings, &c., while my attention was being constantly distracted by practical cares about the proper direction and safe progress of my desert column. We were proceeding over ground so much broken that even the maintenance of a correct course towards the compass point for which I was steering became a matter of anxiety. Though the terraces, crowned by rows of dead trees, and dunes which I usually chose for our plane-table 'fixings' always showed a distinct rise above the intervening ground of Yārdangs, it was impossible to get any distant outlook or well-defined landmarks. In addition to the confusing

¹ Cf. e.g. Hedin, *Reisen in Z.-A.*, p. 54 sq.

² Cf. above, pp. 129, 309, 347; below, chap. xxvi. sec. iii.