

## SECTION II.—FIRST EXCAVATION OF BUDDHIST SHRINES

Condition of drift-sand. Before proceeding to a detailed account of the excavations carried on by me at the site of Dandān-Uiliq, and the archaeological finds yielded by them, it will be useful to describe in broad outlines the characteristic features of the area which contains the ruins. With the exception of occasional narrow patches already mentioned, where the hard loess soil lies exposed, the whole of it is covered by low dunes of the usual semi-lunar shape ranged in close succession. In accordance with the prevailing winds, their crest was found generally facing with its concave side to the south or south-east. The drift-'sand' of the dunes differs in no way in appearance from the fine sand that filled the structures excavated. Of the specimens brought back from the latter, Prof. Lóczy's microscopical examination has shown that their constitution is identical with that of the riverine loess found in the various layers of Yōtkan. Hence the conclusion seems justified that the dunes of Dandān-Uiliq, like those at Rawak, Ak-sipil, and elsewhere near the edges of the Khotan oasis, owe their origin to accumulation of finer river deposits carried away by the winds or else to identical materials collected by the winds from eroded loess beds.

Within the limits of the area where pottery débris occurs on any bare patches of loess (marked by a dotted line in Plate XXIV) the height of individual dunes above the original level did not seem anywhere to exceed 10 feet. But beyond those limits to the north the average elevation of the dunes increased up to about 20 feet, and the small depressions between them invariably showed deep sand at their bottom. Two miles to the north lay the great ridge of drift-sand I had passed on approaching the site, with its broad swelling crest reaching an apparent elevation of about 50 feet above the ground to the south. Two similar great Dawāns were seen rising to the east and north-west of the ruined area, high enough to hide completely any ancient buildings that might have existed there. But their slopes did not approach the area nearer than about half a mile, and as the intervening ground showed no traces of ruins there is nothing to suggest that those heavy masses of sand cover ancient remains.

Wind-eroded depression.

Within the area anciently occupied only one prominent physical feature attracted attention, a clearly marked depression stretching in the direction south-east to north-west to near the spot where our well was dug in a basin-like hollow. The width of this depression varied from about 50 to 80 yards and more, and its depth from 10 to 20 feet. Its banks steeply cut into the loess soil, together with the curving course, curiously suggested a river bed. Yet a closer examination of the banks, especially those towards the west, showed at once that the force which had excavated this depression could only be wind erosion. That this potent agency was still actually at work could be seen where the great trench passes close to the group of ancient dwellings marked D. v and D. ix. Here progressive erosion had undermined the timber foundations of structures adjoining the bank, and large fragments of wood which had evidently become detached quite recently, together with other débris, were strewing the steep slope. I had subsequently frequent occasion to observe exactly the same process in its progressive stages of destruction near the ruined buildings of the Niya Site, where the surrounding ground had been gradually cut away to 15 feet and more below the original level as indicated by the ruins<sup>1</sup>.

<sup>1</sup> I am inclined to believe that the depression above briefly described, and also marked in the plan, is closely related in character and origin to the large wind-cut trenches, often developed into regular parallel valleys, which Prof. E. de Cholnoky has observed in certain sandy areas of the Hungarian plains. See his paper 'On the laws of drift-sand

movement' in the *Journal of the Hungarian Geological Institute*, 1902 (transl. in *Földtani közlöny*, xxxii, pp. 138 sqq.), where the great geological importance of this phenomenon for the explanation of surface formations appears to have been recognized for the first time.