

it is so long since the water disappeared, and the desert has so long reigned supreme, that in respect of time there exists no reason why drift-sand should not have accumulated, at all events into small dunes. No, the reason why dunes are wanting is, as I have hinted, something different, namely the prevailing wind, its force, and regularity of direction, as well as the peculiar relief which it has itself given rise to. The drift-sand, which has its origin in the greatly disintegrated ruins of the adjacent Kuruk-tagh, is swept south-westwards by the tempests of unexampled violence which blow here, and which, after they leave the detritus slope, career unchecked across the northern part of the Desert of Lop. In this way the wind becomes a powerful agent of erosion in its hands, by means of which it scoops out and planes down the innumerable gullies between the jardang ridges. The tops of these ridges would correspond to the original level of the clay desert, were it not that they too are worn down by the wind and its instrument, the sand it drives before it. Nevertheless the parts which have been most severely attacked are the gullies. Seeing now that, from the very nature of the case, these trenches all lie parallel to the direction in which the wind so constantly blows, it is perfectly obvious that it is a sheer impossibility for the drift-sand to secure a footing and establish itself amongst them. Any sand that does by chance remain in them at the tail-end of a subsiding storm is instantly swept away by the next tempest that sweeps across the desert. Each of these gullies may be compared to a rifle-barrel, through which the sand and finer particles of the crumbling jardangs are shot like projectiles, the wind acting as the explosive force that drives them forward. The exceedingly small and very rare layer of sand to which I have alluded a page or two back, as lying in some of the gullies, may in part have been left by the dying gasps of the last storm that swept across the desert, and would probably be blown away by the next storm that followed. It is more likely however that it lies in tiny angles of the gullies or in parts which are relatively screened against the wind. It is possible that, if the clay desert were perfectly horizontal, sand-dunes would have been formed here in the same way as in the south-west parts of the same desert, where the storms occur with the same constant regularity. But as the relief now is, the gullies act like river-beds, as conduits for the sand, so that it has not sufficient room to build up a dune of the typical crescentic or scutiform shape. And yet this too can hardly be credited, for after the country was converted into a barren desert, its clay surface must, in the immediately succeeding years, have been as level and as even as any other region in that part of Asia. If sand-dunes were formed *at that time*, they must either have been swept away or they must have maintained their position, in which case they would naturally have proved a hindrance to the wind's erosive activity, and the gullies and jardangs would never have come into existence. Hence their presence is a proof that the northern part of the Desert of Lop has never been sanded over. I assume therefore three different causes for the absence of the dunes in the northern part of this desert.

(1). The regularity and inconceivable violence of the north-east wind, combined with the long continuance of each individual storm. It is clear that, even if other winds, e. g. the south-west, prevailed, the masses of sand would be shifted now in one direction, now in the other, the result being, that it would remain on the