

are not at all on that account warranted in maintaining, that the dunes of the western Desert of Lop are formed in the same way, because they lie directly to the windward of the existing river-system, and are travelling in across it, in the same way as the dunes of the Kisil-kum are travelling over the Amu-darja. Bogdanovitsch is undoubtedly to a certain extent right, when he states, that the dunes owe their origin to lacustrine and fluviatile deposits of former ages that are now exposed to the wind. For this east-north-east wind sweeps right over the dry beds of the Kuruk-darja and the Lop-nor, and in the latter we have ascertained in especial that the wind is excavating it and making the depression deeper. In so doing it liberates not only dust, but also sandy material, which, upon being swept on farther towards the west-south-west, helps to augment the dunes in the Desert of Lop. But where has the sand come from which thus lay embedded in the sedimentary deposits of the Lop-nor? Well, part was carried there by the river, provided of course that the river washed, as it does now, the western front of the desert dunes; but by far the greatest part was carried there by the wind, as it swept across the lake charged with the products of disintegration. These, instead of being transported farther to the west, were arrested by the lake and its kamisch, and consequently they have simply passed through a stadium of rest, for they are now being removed from the desiccated lake-basin and transported farther. In part therefore the sand in that region has performed a species of revolution, and in part it has been arrested by the lake whilst on its way from its primitive source of origin, the solid rocks.

And, as I have already proved, precisely the same part is now being played by the Kara-koschun, in that it engulfs enormous quantities of drift-sand which enter it from the east, and which will only reappear and be re-excavated when the lake has completely dried up. If the region from Karaul downwards be taken into account, then a certain modicum of sand is even now describing a sort of revolution. In the delta there are undoubtedly arms beside which fluviatile dunes could arise, because the former have occupied their present positions too short a time for vegetation to have sprung up beside them, and when the beds dry up their sediments fall a prey to the wind. But the material of these alluvial formations is derived in great part from the continental dunes which overhang the river higher up, and from the bases of which it has been washed down by the current. Hence it is not these minimal fluviatile dunes which in the process of time have given rise to the continental dunes, but it is these last which, with the help of the river, have given origin to the fluviatile dunes, which are afterwards swallowed up by the big dunes: the augmentation of mass they effect is therefore = ± 0 .
