

ting upon the root-bound rampart on the north. On the south however there is no such rampart, but the rise in the surface is much more considerable. In a third stadium the lake-basin is, as it were, lifted up to the position  $c-c_1$ , and its surface then lies higher than the desert to the north. There is of course a limit to the elevation of the lake-bottom, just as there is to the elevation of the bottom of the Tarim, which however brings about the overflows of the river, and produces its marginal lakes and the changes in its bed. In the Kara-koschun also the shore rampart is at length breached, and the masses of water pour themselves through to the north. This explains why the islands between the several arms A to F are so long and so narrow. The rampart is strongest just where the breach has occurred, and where beyond it the surface to the north is relatively lowest. Further east, as my survey demonstrated, there was no need for a rampart, the ground itself rising there into a ridge or threshold two or three meters high. A long time has of course been necessary to effect this elevation of the whole of the Kara-koschun basin, and during that time there have been periodical risings and fallings of the water-level, the result partly of the high and low water at the different seasons and partly of the varying precipitation in different years. Moreover, as we have seen, the lake has on the whole shrunk seriously in volume since Prschevalskij's time. One would suppose, then, that the natural rampart I have been speaking of would be less and less exposed to the danger of being cut through as the years went past. But the effect that is produced by the general shrinkage is not only counterbalanced, it is outweighed, by the effects produced by two other factors, namely the filling up of the basin and the excavation of the desert to the north in consequence of the wind's energy — a problem to which we shall return in another connection. Hence at some time in the past, e. g. 100 or 150 years ago, the Kara-koschun may have extended to double its present area, nay to an area several times the double of the existing area, without any overflow taking place to the north. It is to that epoch that we must ascribe the origination of the belt of *schor* which occurs in several places along the shores. It is of course impossible to follow in detail all the oscillations that have taken place, nor is it always easy to unravel the causes which brought them about. The object of these investigations of mine is to trace out the great laws of the forces which have been operative there, and to discover the principle underlying the migrations of the lake of Lop-nor.

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