

channel, between the two »communicating vessels»; and this inference is further strengthened when we call to mind, that the lakes in question widen out in proportion as they expand towards the north, being widest close to the northern depression. But with regard to this we possess no certain information until a fresh levelling has been made. It is not inconceivable, that at the present time the deepest part of the desert exists in the middle, so that it is very possible the new lakes will there make a temporary halt, until the more northern depression of Lop-nor becomes still further deepened by the wind. The first supposition is however the more likely, especially when we compare the relations of level along this eastern line with those along the line of the Tarim, where the greatest depths coincide with the lake-region around the Kara-köl. The lake of Utschu-köl, the recollection of which is preserved by tradition, seems to have been situated somewhere about the locality in which the newly formed desert lakes are now; and this argues for the probability, not only that the terminal lake of the Tarim oscillates between the depression of the Lop-nor in the north and the depression of the Kara-koschun in the south, but also that there are sometimes intermediate stations between the two. If the Lop-nor shifted its position in the 4th century, and if the Kara-koschun is shifting its position in the 20th, it follows that the intervening sixteen centuries are the measure of the full period which is required for a complete swing of the pendulum (the lake) from the one region to the other, disregarding intermediate stages.

The essential difference between the causes which on the one hand lead the rivers to shift their beds and on the other lead the lake to change its situation is to be discerned in this, that the former build up ramparts, raise their beds, and so are forced to overflow at some weak point or other and then spread out at the side, whereas the lake alters its position in consequence not only of the wind having grooved the surface to the south or the north of it, but also of the difference of level being increased through the tendency of the lake to become filled with solid material. It is difficult to determine how far any definite parallelism exists between the oscillatory movements of the rivers and the oscillatory movements of the lake, though several circumstances point to the existence of some such relation. When the water of the Tarim flowed along the bed of the Kuruk-darja, and consequently pushed as far north as it was able to get, the lake of Lop-nor too lay as far in that direction as it was possible for it to do. But when the Tarim struck out a diagonal line to the southern extremity of the lowland, the lake settled also in the extreme south of the desert. Between these periods came the intermediate stadium which terminated about 160 years ago; but until it did so, the water of the Tarim used to flow through the bed of the Tokus-tarim from Schirgetschapghan to Utschu-köl, wherein we may again discern a parallelism between the river and the lake. Possibly the little arm which goes to the Märdäk-köl is also a last surviving trace of a similar intermediate stage. Finally the idea of the parallelism I have suggested derives additional support from the consideration that a few years ago the water once more began to flow through the bed of the Tokus-tarim, and appears now to be experiencing a process of augmentation, in every respect parallel with the origination and increase of the desert lakes.