

Lop-nor on Chinese maps. On these the lake is placed in the northern part of the basin. HEDIN has further elucidated this question, and after having proved that Lop-nor must be an alternating lake which "wanders" he even predicted the return of the lake to a northern position. He could at that time scarcely have thought that his prophecy would be fulfilled during his years as an active explorer and that he himself was destined to follow so closely this last pulsation in the life of the river. Nature herself provided the proof of the correctness of his theory.

Around 1921 the last displacement of the lower Tarim and its terminal lake began. Dr. HEDIN was the first geographer to learn about this occurrence, when passing through Turfan in February 1928. At that time the displacement was completed, the joined waters of the Tarim and the Könche-darya following the old Quruq-darya bed (now bearing the name Qum-darya)¹ and forming a large lake on the big salt crust in the lowest part of the Lop depression.

The shape of this new lake Lop-nor, according to HÖRNER, is that of a hanging bag measuring nearly 90 km. from north to south and having a width varying from about 14 to 45 km. Its surface covers some 1500 to 1800 square km.

HEDIN and HÖRNER have proved that because of the sedimentation and wind erosion the lower Tarim is bound to be a changing river, and Lop-nor an alternating lake. There are no traces of any late crustal movements that could have caused such changes in the hydrography of the region.

In the case of the last return of the whole volume of the Tarim to the dry bed of Quruq-darya human activities may have played a certain part. They were certainly not decisive but they may have accelerated the natural development, and in the eyes of the natives they have come to be regarded as the cause. STEIN writes as follows: "In 1914 I heard the Loplik at Abdal complaining of the construction of a new big dam above Tikenlik as the cause which had kept the summer flood of the Tarim from reaching their marshes" (Stein 1921, p. 422 note 28). When I visited Tikenliq, in September 1928, the local people talked about how the drying-up of Yarkend-darya somewhat above the height of Tikenliq was due to constructions of new canals a little higher up the river. The water in Chong-köl and its surrounding swamps may then have risen so high that more water than usual flowed over into Könche-darya, which because of this addition to its volume broke through at a weak point in its bed at Temenpu, from where it soon came to follow the old bed of Quruq-darya.

The volume of water in the present lower Tarim is subject to marked seasonal changes. Because of the flat ground these changes affect the extension of Lop-nor to a very high degree. Thanks to HÖRNER's mapping we know the approximate outline of Lop-nor during the winter season 1930—31. During other times of the year

¹ The name Qum-darya, or Sand River, is not new. It was recorded already by KOZLOV as a second name of Quruq-darya, which means The Dry River.