

uniform horizontality of the country, must be of a quite different character from those that are operative in the lower Tarim. For if the Kara-koschun occupied an actual depression, with sharply defined boundaries, it is self-evident that the lake would be immovable, no matter how greatly the river altered its course. But in actual fact there exists no cavity, no distinct basin; the country is almost everywhere a dead flat, and this is of course the fundamental reason why the lake *is able* to alter its position at all.

Let us first consider the effect which the Kara-buran may have upon the basin of the Kara-koschun. According to Prschevskij, the first-named lake was in 1877 30 to 35 versts long and 10 to 12 versts broad, but even then its extent varied considerably according as the Tarim was at high water or at low water. The lake was 3 to 4 feet deep or less, though there were some deeper places. The open reed-free reaches were both more numerous and more general than those in the Kara-koschun. With regard to the Kara-koschun he says, »This lake or more strictly speaking this marsh» is 90 to 100 versts long and at the most 20 versts broad. This measurement does not however agree with his own map,* which represents the Kara-koschun as being only three times as large as the Kara-buran. But it is quite evident from the description as well as from the map that the last-named lake was at that time a really extensive sheet of water. According to the same map the circumference of the lake, disregarding capes and bays, was 85 versts. Pjevtsoff in 1890 estimated it at 60 versts. If we may assume that both these measurements refer to the lake at the period of high water, they clearly indicate a not inconsiderable diminution in its dimensions during the interval of 13 years. Within the next six years following the lake experienced a very much greater shrinkage, as my map of 1896 plainly shows, for at a time of year when the former lake-basin of the Kara-buran ought to have been full of water from the melting of the ice I was able to ride diagonally across it. And in 1900 in the beginning of June the lake had practically disappeared, nor would the ensuing autumn flood fill more than small portions of its old basin. The insignificant remnant that survived was converted into a marginal lake hanging upon the new (at any rate in that region entirely new) bed of the Tarim, in striking contrast to the situation of 1877, when the river both entered the lake, and flowed out of it again at its eastern end.

What has filled up the lake is the sediment that the Tarim and the Tscher-tschen-darja have brought down with them and deposited in its basin. In 1890 Pjevtsoff was able to say, »In the western part of the lake we encountered numerous sheets of open water, fresh and exceptionally transparent, and measuring as much as 8 versts in circuit and 4 saschen in depth.» This last statement is however one which I can only accept with the very greatest dubiety — namely that a lake of such excessive shallowness should increase from a depth of 3 to 4 feet in 1877 to not less than 28 feet in 1890. Anyway these large basins, filled with bright, clear water, have within the last ten years become loaded with sediment.

During the period in which the conditions remained thus the Kara-buran acted as a clearing-reservoir for the Kara-koschun, and hence contributed in an exceptionally

* *Karta Lob-nora po sjomke Polkovnika Prschevskago v 1877 godu.*