

periods are repeated annually, we have for the 16th September (1899) at Lajlik 98 cub.m., and for 23rd December (1895) at Jarkent 92 cub.m. The latter measurement was taken 18 km. above the city of Jarkent, and the distance between it and Lajlik is 100 km. Thus the two points lie a considerable distance apart, and it may be assumed that along that stretch the river loses a good deal of its volume through evaporation, absorption into the ground, and freezing. At Lajlik on 23rd December the volume ought to be about 70 cub.m. If however it already amounts at that place to 98 cub.m. on the 16th September, we have an unexpectedly small drop in the three months. But then there is an artificial factor of great importance which comes into play. On the 16th September the numerous irrigation canals throughout the extensive district of Jarkent, several of which carry each a very respectable volume, are all open and draw off from the mother river a very appreciable percentage of its water. On the 23rd December the position is in this respect very different. In most of the canals the velocity is less than in the river, and consequently they freeze sooner than it does. When I traversed the district on the date mentioned nearly all the canals were frozen to the bottom, and consequently at that season were depriving the river of none of its water. Hence the entire volume that the river then possessed flowed on without diminution past the point where I crossed over it, that is immediately north of Posgham, for all the canals break away above that point. Were there no canals, the volume at Lajlik on 16th September would be incomparably greater than 98 cub.m.

From the end of December the river drops daily (at Jarkent) all through January and February, and for about 25 days in the former of these two months it is frozen, and the ice is frequently so strong that caravans and *arabas*, or »native carts», are able to cross over on the ice. But as the ferry-men depend for their livelihood upon putting travellers across the river, it is to their interest that the ice should break up as soon as possible, and accordingly they proceed to break it up at the ferry sooner than is necessary. In the end of February the river drops at Jarkent to its lowest ebb, partly because of the severe cold which reigns in the mountainous regions and partly because that is the season when the irrigation canals are all opened and put in order so as to be ready to water the spring-sown seed. In fact the Jarkent-darja is said to be then in places so shallow that it is possible to ford it on horseback. But in March the melting of the river-ice gives occasion to an early spring-flood, the *mus-suji*. In the beginning of that month in the year 1896 the river at Mejnet was so full that it was not possible to cross it anywhere without a ferry-boat; at intervals sheets of ice came floating down, these being the last remnants of the great ice-field that gets set adrift and gives rise to the *mus-suji*. I was told, that when the spring-flood proper arrives, the river swells out there to 1½ km. in breadth. And so swift is the current that for the space of twenty days in the end of June and beginning of July nobody ventures to cross over the onrolling masses of muddy water even by ferry-boat; thus for that period communication between the two banks is quite severed. At the same time the road between Mejnet and Ala-ajghir is rendered impassible by reason of extensive overflows of the river. Such areas of inundation occur, as we have seen, all down the Tarim right away to its termination, being occasioned by the extreme flatness of