

was about half a meter lower than in the same month of 1899, a circumstance which they attributed to the formation of the new arm, the Tokus-tarim, which starts in the district east of Schirge-tschapghan.

My last opportunity of observing the hydrographical relations at the mouth of the Tarim occurred in the spring of 1901. On 3rd April I measured the river at precisely the same place at which I measured it on 25th June 1900. The imposing dimensions to which the river swelled that year are shown in the accompanying section (fig. 108). The breadth amounted to 44.6 m., the mean depth to 3.809 m., the mean velocity to 0.8303 m. in the second, and the volume to 141.05 cub.m. in the second, this being the biggest volume I ever obtained in the lower part of the Tarim system. It was, I have no doubt, the maximum of the season which happened at that precise date to approach the region of the embouchure, while in consequence of the very severe winter the volume was *per se* exceptionally large. That was the spring when the left bank of the river, together with our old winterquarters at Jangi-köl, was washed away by the flood.

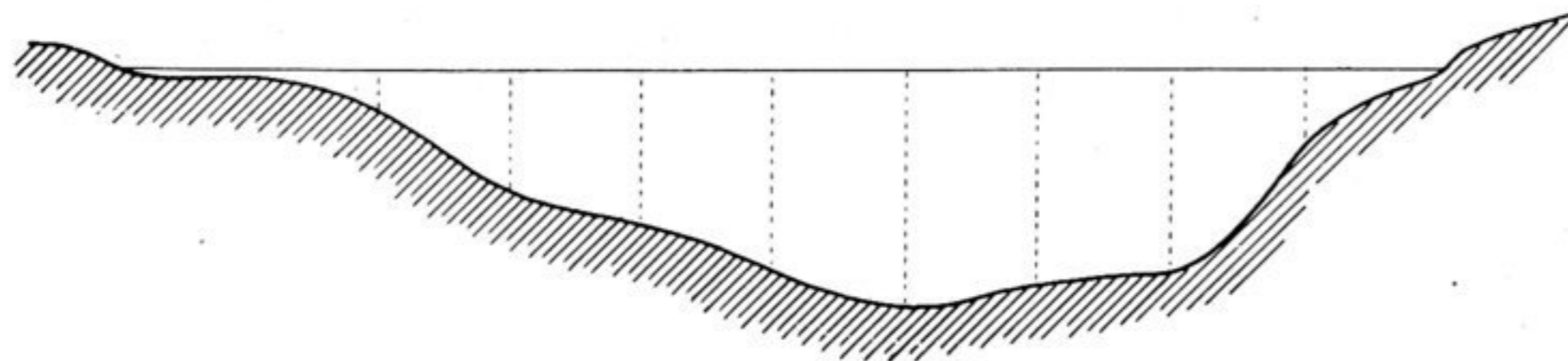


Fig. 108. Right. 0.24 1.09 3.85 4.75 6.14 7.32 6.50 6.10 2.10 = depth. Left.
 0 8 70 89 92 91 90 86 62 }
 9 70 88 139 104 104 105 57 } velocity.
 51 82 129 100 96 101 61 }
 58 74 90 95 93 103 }
 Breadth = 44.6 m. Tarim at Jurt-tschapghan, April 3. Scale 1 : 460.

Just as I have above compared the two measurements taken on 13th April and 25th June 1900, so in like manner I may now compare the measurement of 13th April 1900 with the measurement of 3rd April 1901. The volume on the former occasion was 85.91 cub.m., on the latter occasion 141.05 cub.m., or 55.14 cub.m. the larger. The difference may be in part accounted for by the fact that the water-supply in the latter year was in general more abundant than in the former, but also, and to a yet greater extent, by the difference of time, for on 13th April the main body of the spring-flood had already gone past, whereas on 3rd April in the following year I caught it just in the act of passing Jurt-tschapghan. And no doubt during the ensuing ten days, from the 3rd to the 13th, the volume would again have decreased every day until by the latter date it had shrunk to the same value that it had on 13th April of the year before (1900). From the great volume of 1901 we are not therefore warranted in inferring that the river was about to abandon the bed of the Schirge-tschapghan, for this also would no doubt show an increase proportional to that of the Tarim as a consequence of the ten day's difference of time.

On 4th April 1901 I made yet another measurement of the river in its actual mouth at pretty nearly the same place as on 10th April 1900. Here at Kum-