

small proportion of the whole goes past Kum-tschapghan. When the river drops, the amount that overflows is diminished, but that which flows on past Kum-tschapghan continues unchanged. As the river goes on subsiding, the several side-canal dry up one after the other. When, finally, the level has dropped so low that none of the side-canal any longer carries water, all the rest of the volume of the Tarim flows through the deltaic arms of the Kum-tschapghan and the Tusun-tschapghan. And it is not until this stage is reached that the river at this place also begins to fall steadily.

Thus the fact of the Tarim having at Kum-tschapghan a volume 3 cub.m. less in 1901 than in 1900 can only be accounted for by changes in the river-bed and in the parts of the marsh immediately adjacent. If these basins go on filling up at the same rate and in the same way, it will probably not be long before both deltaic arms are entirely destroyed. The best proof that this is the correct interpretation of the hydrographical changes which are taking place is afforded by the fact, that the river at Kum-tschapghan on 21st April 1896 carried a volume of 50.2 cub.m. in the second, or more than double as much as in 1901, although the measurement was taken half a month later, when the river was steadily and constantly falling, and at Abdal had not more than 60.7 cub.m. The following table shows the measurements made in the Tarim and Kum-tschapghan in the three years in question: —

Year	Breadth	Maximum depth	Velocity	Volume
1896 21st April	30.02	6.80	0.30	50.22
1900 10th April	30.00	5.09	0.3363	26.24
1901 4th April	29.60	4.65	0.3078	23.45

From this it is clear, that with a practically constant breadth, both volume and maximum depth (as also mean depth) decrease. The decrease in the maximum depth suggests as an obvious implicate a distinct proof that the river-bed is gradually filling up.

The same fluctuations and annual changes which are everywhere taking place in this unstable hydrographical system manifest themselves also in the principal deltaic arms, the Kum-tschapghan and the Tusun-tschapghan. In 1896 the latter had a volume of 22.6 cub.m., and the former of 27.6 cub.m. At *that time* the left branch was therefore the bigger, although the migration of the Kara-koschun northwards (described in the following pages) had not yet begun. The situation in 1900 and 1901 respectively is shown in the following table: —

	Breadth	Mean depth	Mean velocity	Area	Volume
Tusun-tschapghan 10th April 1900	22.0 m.	2.364 m.	0.3729 m.	52 sq.m.	19 39 cub.m.
4th April 1901	22.8 »	1.772 »	0.3975 »	40.41 »	16.06 »
Kum-tschapghan 10th April 1900	22.6 »	1.243 »	0.3055 »	28.09 »	8.58 »
4th April 1901	24.8 »	1.040 »	0.3760 »	25.79 »	9.70 »