

Here I had of course no opportunity to do more than make an approximate estimate of its volume; although, I admit, it would have been interesting to know exactly how great a quantity of water does flow during the rainy season down a highland river that empties itself into a self-contained drainage-basin. It took us 26 minutes to cross over the full breadth of the stream, making use of its mud-banks on the way; most of these were flush with the surface of the current, though one or two projected above it. By means of these mud-banks the entire mass of water was divided into 20 branches, each big enough to make an ordinary Tibetan river; but four were of extraordinary size, and the passage of them was not unattended with real danger. The roaring, boiling torrent did indeed carry away one of our mules, though she managed to save herself by swimming.

I calculated the breadth from the number of steps my saddle-horse took, namely 716, and these I computed to be equal to 475 m. The maximum depth amounted to 1.20 m.; the four largest branches had, I dare say, a mean depth of about one meter, while the others were only half as deep or less. I estimated the mean depth of the entire river at 0.60 m. Nor is this exaggerated; for the figure which I have quoted above for the breadth includes only the actual water-breadths, that is to say it disregards the mud-banks. It was more difficult to estimate the velocity; the only way I could do this was by comparing it with what I remembered of the corresponding phenomena in the case of the Tarim. In some places, especially in the big collected branches, the velocity was considerably more than a meter, and may in some places have been  $1\frac{1}{2}$  to 2 m. in the second. But in the smaller, shallower channels it was very much less. I should put the average velocity throughout at 0.75 m. in the second. On the basis of these estimates, the volume per second works out at 205 cub.m., and I venture to think that the estimate is too low rather than too high. Thus the Satschu-tsangpo is essentially bigger than the Tarim at Abdal at the spring-flood season: for we have found that the volume of the latter is then 140 cub.m. in the second. Yet how different the two rivers! Properly speaking, the only resemblance between the two is this, that each is the principal artery in a self-contained drainage-basin. The basin of the Satschu-tsangpo, or rather of the Selling-tso, is in point of area only a fraction of that of the Tarim, while in the matter of length the Tarim is several times longer than the Tibetan river. The Tarim dwindles, as we have seen, from source to mouth, and in proportion as it approaches its terminal lake, the smaller grows its volume. The Satschu-tsangpo on the contrary increases in strength as a consequence of all the big tributaries which it picks up in its main valley, this being one of the great latitudinal valleys of the interior of Tibet, stretching from east to west. There is also a great difference between the fluctuations of the two rivers during the different seasons of the year. The Tibetan river was now evidently at its maximum, which coincides with the rainy season, that is the latter part of the summer, at which time the lower Tarim is at its lowest ebb. When the latter reaches its highest level, that is late in autumn, the Satschu-tsangpo will pretty certainly be shrunk to the smallest insignificance. In the Tarim the fluctuations of volume are more evenly distributed, and the transitions from high water to low water and *vice versa* are less abrupt than in the Tibetan river, in which the changes of level even in the course of 24 hours may, in consequence of the