

In front of us is a more dominating mountain group situated between the Tsangpo and the Chaktak-tsangpo. Mille is the name of a southern tributary, in the background of which is a ridge with some snow. At Tusang-tö two small cairns with flags mark another ferry-place, now not in use; here the valley may be 300 or 400m. wide. Above this place the living rock is graywacke-sandstone. The road ascends a terrace, the foot of which is washed by the high-water; now a wide part of the bed is dry. In July the river must be some three or four times as broad as now at this place.

Then to our left opens out the picturesque rocky gate through which the Tsangpo comes flowing from the S.S.W. to meet its tributary the Chaktak-tsangpo. The mountains at the right side of this passage are called Unggung; in the background of the passage is seen a snow-covered mountain Apchema, said to be in the district of Tsongka. Älung-tangne is a low threshold crossed by our road; here the rock is quartz. Camp 168 was pitched on the very point between both rivers, a place inundated in summer. The absolute height was 4,524m. (14,839 feet), or 511m. higher than at the entrance of Raga-tsangpo, 305 km. lower down.

On May 28th the Chaktak-tsangpo had a breadth of 28.1m., a maximum depth of 0.73m., an average depth of 0.48m., an average velocity of 1.39m. a second, and a volume of 18.8cub.m. a second.

The river had a temperature of  $+9.9^{\circ}$  at 3 P. M., the Tsangpo  $+9.4^{\circ}$  at the same time. At the confluence the bed of the Chaktak-tsangpo is very regularly built, and its current much quicker than that of the Tsangpo. The almost perfectly clear water of the tributary therefore forces itself out a long way into the muddy grey water of the main river. The latter could not be measured at the very confluence as the breadth was too great for spanning a rope across, so I had to take the boat up the river to a place where the Tsangpo was divided into two shallow and very regular branches separated by a long narrow and flat sandbank. Here, at the left bank the living rock was sandstone, and the river, so far as could be seen, came from the S.20°W.

The measurement was carried out on May 29th, and gives as results, for the first branch: breadth = 53.43m.; maximum depth = 1.04m.; average depth = 0.634m.; average velocity = 0.728m. a second; volume of water = 24.7cub.m. a second. The second branch: breadth = 54.93m.; maximum depth = 1.15m.; average depth = 0.728m.; average velocity = 1.176m. a second, and volume = 47.0cub.m. a second. It is curious to observe the great difference of velocity in the two branches, the right one being so much quicker.

The Tsangpo had thus 71.7cub.m. a second, or 90.5cub.m. after the junction with the Chaktak-tsangpo. The form of the bed is very different from that we found at the confluence with the Dok-chu, which is not surprising, as the bed changes constantly, though, as a rule, it becomes narrower and deeper towards the east on its way from the plateau-land to the periferic regions.