

several tributaries from the snow and ice mountains in the south, of which many appear in the form of springs. One of these comes from a considerable glacier, visible between its black mountain spurs not far off, another from the mountain group of Tünjom. The whole valley is a typical moraine landscape. Heaps and labyrinths of moraines are visible the whole way to the hard rock in the south. The material is granite, gneiss, black crystalline schist etc. Where Tage-tsangpo breaks through the moraine walls, it forms rapids, otherwise it is streaming quietly.

The most prominent mountains visible from Tag-ramoche are: to the S. 65° E. the Memo-gangri, S. 52° E. Ganglung-gangri, S. 38° E. Hlung, S. 25° E. Dunjum-pu, S. 10° E. Panglung with a glacier and snow-fields in the background, and south, Panglung-chonga. To the S.W. the mountains of Dogri or Dugri are situated, and to the north Membar-chunga.

The narrow valley of the Tage-tsangpo is called Tage-bup. Here the moraines have sometimes been swept away and the ground is covered with light sand, sometimes forming rudimentary dunes, sometimes bound by grass. For a certain distance the river is swollen as a long narrow lake with an extremely slow current, after which the Tage-tsangpo again becomes narrow and rich in rapids. The mountains are steep on both sides and the valley energetically cut out. One gets the impression that a considerable river must once have eroded this valley, and, before having made any measurements or read any Chinese accounts, I wrote in my diary: »The Tage-tsangpo must be the genetic source of the Satlej, even if the diminished precipitation of a later period has cut it off from the present Satlej.» Another proof was found when passing the two springs Langchen-kamba and Chako, the thermometer registering 3.5° and 4.6° C. resp. of their water. When writing down these names I had not yet heard that Langchen-kamba or The Elephant's river was the Tibetan name for Satlej. The mountain at the foot of which the two sources are situated is called Chumik-ri, or the »mountain of the source».

The rocks on both sides of the valley consist of serpentine, crystalline and ordinary limestone and sandstone. A little below the point where the Tage-tsangpo goes out into the open basin of the Manasarovar the valley of Tagdung, coming from S. 25° E. and surrounded by considerable mountains, joins the Tage-tsangpo. Sinchen and Sinchung are two smaller valleys to the S.W., and Laptsa is a valley from S. 50° W. coming from Gurla-mandata or Memo-nani, which is visible in S. 73° W. At Camp 209 there is a pool called Tso-nyak. From the road between Tamlung-la and this place one gets a very insufficient view of the complicated mountains farther south. This region promises very interesting discoveries to future travellers.

Between Camps 209 and 210 the country is again rich in moraines. The bed of the Tage-tsangpo is also full of blocks and gravel. The river, where our road crosses it, is divided in two branches, which at high water become united. On July 22nd their dimensions were: breadth 20.00 m., average depth 0.27 m., average velocity 0.71 m. and volume 3.89 cub. m. a second; and the second branch: breadth