

prove to be greater than that of the *Singi-kamba*. The *Ladak Range* is higher and more exposed to the monsoon rains than the *Transhimalaya*, and, therefore, catches a greater amount of the precipitation than the mountains farther north-east. But, on the other hand, the drainage area of the *Singi-kamba* is much more extensive, and the average height of its level will probably be somewhat higher than that of the *Gartang*. Further: it is certain that a greater amount of snow falls on the *Ladak Range* than on the *Transhimalaya* during the winter months. The spring flood will thus be greater in the *Gartang* than in the *Singi-kamba*. From the Tibetans, it is of course impossible to get any useful information in this respect. Most of them said that both rivers were very swollen during the rainy season, and that they were of the same size. Other informants asserted that the *Gartang*, in summer, was the bigger of the two. Very likely the relation may change from day to day, depending upon the distribution of the rainfall.

When merely looking at the map, a geographical student would feel tempted to believe that the *Gartang* is the main river, and the *Singi-kamba* only a second class tributary. For the valley of the *Gartang* is much broader and does not in the least change its direction after the junction. It, therefore, seems as if the *Gartang*, being the most powerful river, dictates the direction of the joint river. But such a conclusion would be a mistake, for the *Gartang* flows in a tectonic valley, whereas the lower part of the *Singi-kamba* flows in an erosion valley piercing the *Transhimalaya* in a transverse gorge. At the very junction, it is, as I have said before, easy to see that the *Singi-kamba* is the most powerful of the two, for it forces its way diagonally across the tectonic valley and presses the *Gartang* to the very base of the *Ladak Range*, reminding the latter river, as it were, of its inferior rank of a tributary. If the *Gartang* were the more powerful, it would easily be able to keep its ground along the right side of the valley, as it does above the junction.

At 6 o'clock a. m., of *November 12th*, the greater part of the different branches was again covered with ice. Along the banks the ice ribbons were strong. In the middle, there were open passages where heaps of drift ice came down. At 2 o'clock p. m. the greater part of the ice had again begun to move, but already at 7 o'clock, ice floes again came swimming down and the rivers began to freeze for the night. After a few days the whole river would freeze from bank to bank, without any open water at all.

It may have been exceptional, but the climate at the junction was much milder than even at *Langmar*, though the distance is so short and the difference in absolute altitude nearly none. The minimum temperature of the night only fell to  $-14.6^{\circ}$ , though the next night it again was at  $-19.2^{\circ}$ . Both evenings very strong W. S. W. winds blew, coming like cascades down across the *Ladak Range*.