

At some places great granite blocks are seen in the bottom of the valley, especially at Machung. Gortsang is a northern valley more considerable than the rest; it has a brook in two branches with two bridges, near Machung. A small northern valley is called Saukpa, opposite which the valley of Chamda has some snow in its upper part. The ground of the main valley is soft and has some grass vegetation. At a widening the Dok-chu is divided in three branches, one of which sweeps the foot of the granite rocks at the left side, forcing the summer road to ascend the rocks at Berü-chang, as the high-water fills almost the whole bottom of the valley. Another place of the same kind is called Sibri, where the Tanglo and Yamdang valleys enter from the south. The bottom of the main valley is here covered with gravel and sand, sometimes forming rudimentary dunes. The granite rocks on both sides are now very steep, often perpendicular, and the whole landscape is more accentuated. The surface of the granite is often polished or formed into hollows and soft, rounded ridges by the action of erosion at earlier periods.

At Lingö, Camp 137, where there is some cultivation, the height is 4 070 m, indicating a very moderate rise since Camp 136. To the S.  $23^{\circ}$  W. enters the valley Doglo; to the S.  $48^{\circ}$  W. is a small peak called Deru or Düri with a ruin on its top. The valley Dok with the Dok-chu, or, as it is called further west, Raga-tsangpo, comes almost straight from the west. The Dok-chu at Lingö is said to be unfordable in summer. In winter it remains covered with ice, which only after severe cold is strong enough to bear men and horses.

At the junction the Dok-chu forms a delta of three or four branches with small rapids, whereas the Mü-chu is more quiet; this is one of the causes why the Mü-chu should be regarded as the main river and Dok-chu as a tributary. On the other hand the Dok-chu dictates the direction of the joint valley. A measurement of the volume of water proved to be unreliable; it was made at a place where the Mü-chu was divided in two branches, carrying 14.57 and 15.11 cubic metres or  $29\frac{1}{2}$  cub. m. together, only  $3\frac{1}{2}$  cub. m. less than the joint river the day before. Later on I found that some water from the Dok-chu joined the Mü-chu already above the junction, and therefore the above volumes are unreliable. If the configuration of the country alone be considered, I find it very likely that the Mü-chu under all conditions must be much stronger than the Raga, for the regions from where it comes are high and rich in springs and tributaries; the Raga, on the other hand, comes from comparatively lower parts of the Transhimalaya, which receive less precipitation. To judge from Ryder's map the northern tributaries of the Raga are very short, and such must be the case also with those from the south; many of these short valleys are probably dry in the beginning of April. On the long way from Raga-tasam to Lingö the river does not receive a single tributary worthy of mention, and much of its own water must be lost by evaporation and filtration in the soil. A future examination at different seasons will probably prove that the Mü-chu is always the greater of the two, as coming from regions more exposed to precipitation.