

chu line is also unknown. The most important orographical feature is, however, the existence of a high water-parting range, Pabla, giving rise to the sources of the Mü-chu, and the Nien-chen-tang-la which is pierced by the river before its junction with the Raga. The joint river, Dok-chu, is thus situated south of the Nien-chen-tang-la. The Mü-chu affords a very comfortable way over a great part of the Transhimalayan system, but at the same time the deep valley makes it impossible to get a distant view and clear comprehension of the orographical arrangement all round. The fifth crossing, over Samye-la, is of quite a different type, very favourable for orientation, as will be seen later on.

The Pabla range stretches E.N.E.—W.S.W., but that part of the range, in which the Chang-la-Pod-la is situated must be nearly meridional, for the road, the direction of which is dictated by the valleys going down from the pass, runs east and west. The meridional part is, however, very short, for the Sha-la and Angden-la, belonging to the same range, are situated to the W.S.W. from Chang-la-Pod-la.

The pass is full of sharp-edged gravel, and so is also the western slope. The road to the west at once enters a well-defined valley between low rocks of quartzitic porphyrite and porphyry. From the left side enter the small valleys Shalung, Chilung and Sha-oktsang; from the right: Mugbalung, Shag-risivi-lungpa and Shageluma. The main valley itself is here called Shak or Shagenang.

At Sha-oktsang the height is 5 233 m. On the section of the road which takes us to Kyangdam, Camp 147, the fall is hardly 200 m, or to 5 050 m, which is much more gradual than to the east of the pass. From the left or south the following tributaries enter the Shak-chu: Nemolung and Chombolung, Salung-kamba and Ngoring; Kölung which is a steep and short valley; Hleyngang; Tsölung; Taynang from a ridge in the south, and with a brook joining the Shak-chu on a great widening of the valley; and finally a broad valley, in the upper part of which a low, snow-covered mountain is visible.

From the right or north the tributaries are: Parlung, which is a considerable valley with light-coloured, rounded mountains in its upper part, belonging to a ridge, the continuation of which is visible in the opening of almost every northern tributary. Through the Parlung another road is said to go to Kyangdam, and through its left tributary, Korchen, a road goes up to the Chang-la-Pod-la. At the junction with the Parlung the whole main valley was still like a lake of ice. Ayang is a small valley, but the above-mentioned ridge is seen through its opening. The little tributary Sogang enters near the great *mani* Lapsen-tari. The ridge of hills to the north appears reddish and without vegetation. Tukchen is a very broad and flat valley with a frozen brook. All these valleys are quite insignificant.

Some distance below Camp 146 the Shak-chu valley has a breadth of about 200 m; at its right side living rock occurs, sandy schist, and lower down lyditic schist. The terraces are very small and rudimentary. The bottom is still full of ice; sometimes, as at Tang-yung-ngori, the road goes on the slope of the hills. Then