

exist a single edge to betray that water in noteworthy quantities ever courses down it. It was not until we had passed the outlet of a side-glen coming from the left that we perceived any erosion channel; this carried even then a little water, though it was divided into several arms distributed over its pebbly bottom, and most of them frozen. Entering the principal glen, it forms an orthodox channel, in which however both water and ice were soon swallowed up amongst the gravel. The bottom of the valley contains indeed a good deal of sand. After that several small steep transverse glens open out on both sides. Scattered along the foot of the lofty mountain walls there are a goodly number of more or less free-standing knolls and buttes. Amongst certain of these was a tiny frozen lake, called Tschakar-tala or Sovar, which filled the whole of the bottom of the valley. It is more probable however that the vast expanse of ice which we saw was formed by spring-water, which had thus frozen into sheets. The absolute altitude amounted here to 4254 m., so that we were now 63 m. *below* the level of the Panggong-tso. The rocks consisted for the most part of schists, granite, and quartzite. On our way down from the first pass we came across one or two fragments of granite. I did not however observe directly any signs of glacial activity. All the same the impression arose in my mind, that the elongated depression in which the lakes lie, and which orographically really is a latitudinal valley, once served as the pathway for a big and massive glacier, which had its gathering-grounds and *firn*-basin to the west, and itself travelled east through the valley; and it is in consequence of this that the bottom is so smooth and level as we actually find it to be. Otherwise it is difficult to account for its possessing these properties. In valleys in which there exists no reason for supposing glaciers ever were present, the bottom is seldom so level; generally indeed there exist several cross-thresholds, passes, and similar irregularities of surface. There do, it is true, exist irregularities of this character in this great valley, more particularly the isthmus between the Tso-ngombo and the Panggong-tso; but this in no way militates against my supposition. For it must be remembered that it is just at that point that the great glen of Niagzu debouches from the north, and during the epoch in which the climate was moister than it is now an incomparably greater volume of water must have come down that way than the existing eroded watercourse would lead one to suppose. For a long period this river brought with it vast quantities of gravel and mud, and out of them formed a delta, which encroached progressively upon the lake, until finally its flat scree reached right across it and cut it into two separate basins. In the extreme east we also observed similar divisions between the small lakes that constitute the beginnings of the Tso-ngombo in that quarter. It is moreover a noteworthy fact, that the depth decreases from west to east and that the decrease appears to proceed with the greatest regularity; this suggests an erosive force acting with the greatest energy at the root of the glacier and of necessity decreasing towards its extreme tip. Then however we are confronted with the difficulty of explaining the possibility of movement on the part of the ice-stream along what was practically level ground, or even somewhat rising ground, unless we can imagine that the eastern lake-basins became at a subsequent period more filled up and consequently shallower. I must however leave this problem to geologists to solve.