

CHAPTER LVI.

DIFFERENTIAL EARTH MOVEMENTS.

The general latitudinal orientation from west to east of the rivers and lakes on the Tibetan highlands is a very characteristic feature of the whole region. The four latitudinal valleys considered above, constitute continuous depressions which are to be explained as folding-troughs between the principal mountain systems. Even Nain Sing was struck by the continuity of one of these latitudinal depressions, and according to him a cart might be driven all the way from Noh to Ombo without any repairs being made to the road. This regular orientation of the lacustrine depressions will, as I have said above, prove to be of great assistance to us when we make the attempt to bring some order into the orography of Tibet, and the stretching of its principal mountain systems.

Before proceeding to this problem I will, however, say a few words on the geology of the region in question.

Ever since the middle Tertiary epoch, and even later, considerable tangential movements have taken place, according to SUESS, and these movements have folded the sea-bottom that stretched straight across Europe and Asia, while the table-land farther south did not take part in the movements. The whole southern rand of Eurasia is, as Suess says, pressed in gigantic folds towards Indo-Africa. The most magnificent of all these curved folds is the pair of systems called Himalaya and Transhimalaya, and the region of resistance which has forced the folds up like an enormous wall at the southern edge of Tibet, is the Indian peninsula.

Dr. H. AHLMANN has shown¹ how the orographic activity of the later tertiary epoch not only resulted in the formation of ranges of mountain-folds, but also in the elevation of the old sea-bottom which gradually was changed into a high-land plateau. This plateau forms the base of the mountain-folds. Further he proves that the destructive forces begin their work as soon as such a plateau block is formed. From the periphery the erosion of running water begins to cut down into the plateau block.

¹ Ymer 1918, p. 161.