

the orogenetic origin of the latter valley dates from the Eocene period, if it is not still older, though its modelling into a regularly falling deep-cut valley is the work of the erosive power of running water, whereas the transformation of the Selling-tso—Panggong-tso valley belongs to a very recent time and has been, geologically speaking, of very short duration. It is probable that the differential movements of the surface in connection with the mountain building process during the whole Tertiary epoch and later, have had their maximum in the region of the greatest folds, *i. e.* the Himalaya and Transhimalaya. But these movements have been so slow that they have always been counter-balanced by the speed with which the Tsangpo has been able to cut down its valley. In the northern depressions the rivers finally reached a stage where their erosive power was not strong enough to overcome the regular rising of the ground, and later on the desiccation of the climate did the rest.

If in the future the climatic changes continue in the direction of increasing aridity, the Tsangpo will sooner or later meet the same fate as the other dead rivers of Tibet. It is easy and instructive to imagine what would happen if a rising of the surface somewhere east of Shigatse under such conditions gradually dammed up the Tsangpo valley. Because of the gradually decreasing quantity of water in the river, the latter would not be strong enough to cut through the threshold. A long and narrow lake of the same type as Panggong-tso would be formed in the valley. For some time it would send a small outlet across the threshold. But the increasing aridity and evaporation from the lake would finally cut off the latter completely. Above the lake the dwindling Tsangpo by other local movements of the surface would be cut into several pieces, everyone of them feeding a salt lake. And then the filling and levelling activity would begin, the transformation of a hitherto peripheral country to a plateau-land. As it is now, the Tsangpo valley is swept clean by the river. But after the entrance of a period of aridity as described above, all the solid material would remain in the valley. The screes of detritus at the foot of every mountain would grow, and even the finest particles, the products of denudation and weathering, would be brought by occasional rains to the bottom of the basins. At the mouth of every tributary valley the talus fans would accumulate undisturbed. The sand dunes which now at some places in the valley are formed by the west wind, would no longer be washed away by the highwater of a river. In the uppermost part of the depression where we found the relative altitude of the Transhimalayan passes only 856 m. above the valley, the process of filling would proceed at a slower rate than in the east, between Ye and Shigatse, where the difference in altitude between valley and passes was 1688 m., for in the latter case the denudation would have much more solid material to destroy and accumulate in the valley, a fact which explains the high degree of evenness characterising the great valleys of the interior of Tibet. The filling up of the valley to the same degree as now existing on the