

By and by the latter is transformed into an accentuated mountain-land. The absolute altitudes decrease while the relative increase. But so far the mighty mountain systems at the edges of Tibet still protect the central parts of the country, though a time will come when the ramparts will have been pierced by the source branches of the great rivers and the destruction will proceed towards the heart of the plateau-land. The enormous valleys of the Indo-Chinese rivers show the direction in which the destruction goes on. This Dr. Ahlmann regards as the first stage of a destructive mountain-building cycle.

I will also enter here a few of the general conclusions drawn by the late Prof. A. HENNIG from my collections of specimens of rock, and described by him in Vol. V of the present work (p. 208 *et seq.*). He regards as certain that as early as in the beginning of Gault the Cretaceous sea became deeper and that therefore a transgression of this sea covered portions of Western and South-western Tibet which had formerly been dry land. During the Cenomanian period the same conditions prevailed. On the other hand it seems probable that South-west Tibet in the younger Cretaceous and older Tertiary epochs had risen above the surface of the sea, and at once became exposed to the weathering and eroding agencies. The material I brought home persuades Hennig that a very energetic mountain-folding action and a lively volcanic activity were at work perhaps already in the early Cretaceous and certainly in Eocene time, a time during which the formation of Transhimalaya and Himalaya began. Towards the end of the Pliocene and before the beginning of the Pleistocene period, the folding activity came to an end, after having built up the Transhimalayan and Himalayan folds. The weathering and erosive activity goes on uninterruptedly as well as does the deposition of detritus. The conglomerates and sandstones formed at that time and discordantly covering the Jura-Cretaceous formations, took part in the folding activity; the latter therefore continued far beyond the Eocene period. As the Pleistocene conglomerates in the valleys of the Brahmaputra and Satlej still preserve their original horizontal situation, the folding activity of this region seems to have ceased with the Pleistocene period, after having been at work during the whole Tertiary epoch.

According to Hennig, the continental epoch of Southern Tibet probably began in Postcenomanian and continued beyond Pliocene time. The atmospheric activity must during these long periods have been enormous in the Transhimalayan and Himalayan folds. Deep erosive gorges were cut down, old parts of the sedimentary and deep niveaux of the eruptive formations were exposed and laid bare by the continuous denudation. It is clearly proved by the distribution of the specimens of rock which I collected, that the uncovering of the lower, *i. e.* the older parts of the eruptive and sedimentary formations in the latitudinal valleys between the Transhimalaya and Himalaya, has been caused by a very strong and energetic fluvial erosion. In the