

Kwen-lun. In some time, however, the view prevailed that there was only one tremendous mountain mass including all three systems, possessing high peaks as well in the middle as on the borders. Only geologically the orography can be understood and nobody has done more in the right direction than STOLICZKA.

Richthofen discusses the results of Stoliczka's researches and concludes that from the Indus to the Kwen-lun, nothing is younger than Trias. The Kwen-lun itself is of a very old age. As a rule the arrangement is the same as in the Chinese portion. Thus the Kwen-lun is the oldest of the whole series, and at its southern side the other mountain folds have made their appearance.

He regards the two opinions: the one accepting three ranges, Himalaya, Kara-korum and Kwen-lun, the other regarding the whole mountain mass as one single block, as being both partly wrong and partly right. So far as the unity is concerned, it may be said to be correct from a physico-geographical point of view. But this unity disappears if we follow the different systems in their continuation to the east. Only the Kwen-lun holds its direction and independence. But the country south of it changes more and more. Richthofen distinguishes two mountain systems: the Kwen-lun (W. N. W.—E. S. E., a direction which we now know is wrong from the meridian of Keriya), and the north-western Himalaya (N. W.—S. E.). Only the Kwen-lun remains a range, the Kara-korum and Himalaya broad highlands. He does not quite accept the view that the elevated ground with the Kara-korum Pass should be the same as the high Mus-tagh. But he is aware that the subaërial and lacustrine deposits hide very much of the relief. For the plateaux of Tibet are not founded on mountain structure, but are due to secondary phenomena, and, if a humid climate arrived, these plateau-forms would soon disappear. In the zone of syenitic gneiss only, we find a series of ranges, amongst which the K<sub>2</sub> Range is the most considerable. Until further information was brought back, Richthofen preferred to separate the Kara-korum from the K<sub>2</sub> Range instead of — as had been done — carrying the crest of the K<sub>2</sub> Range in a long curve along the water-parting of the Shayok and down to Chang-chenmo and Lake Panggong. In 1877 the country between Kara-korum and the southern foot of the Kwen-lun was too little known for allowing any conclusions as to its building.

The denudation has proceeded so far in the Kwen-lun that the average crest height is only some 700 or 900 feet lower than the peaks, a view that has to be much altered after the exploration of later years. In the Himalaya the average crest height is 4,800 m. and the summits up to 8,840 m. Thus the crest height of the Kwen-lun is so much higher than the crest height of the Himalaya, as the summits of the Himalaya are higher than the summits of the Kwen-lun.

The regions east of the Chang-chenmo route belonged still, in 1877, to »the least known parts of the whole earth«, and for these regions Richthofen had to go