

see where the ground would best bear the weight of the caravan. Next after them followed the horses and mules; but even when the ground was firm enough to bear these animals, it gave way underneath the slow and heavy camels. Hence each camel had to be supported by two men on each side, who hurried the beast on as fast as possible. The results of my excursions in Tibet go to show that attempts to travel across the high plateaus in summer should be avoided. The reason for choosing that season is the hope of finding grazing for the caravan animals, but nothing is gained by that. The difficulties of the ground tax the animals' strength far more than the want of grazing, so that it is wiser to do as Bonvalot and Dutreuil de Rhins did, and travel in the winter; by so doing you gain time and advance more quickly across the barren parts of the highlands. During the course of my winter journey through western Tibet I never once had to contend against this kind of difficulty, although a caravan has then difficulties of another character to struggle against, especially the persistent westerly winds. However, once you have traversed the plateau region between the Arka-tagh and the Nameless Range, and have started to travel south from this latter, the country improves gradually, the reason being that the grass slowly becomes more and more abundant. However it is hardly possible to lay down any general rules for the regional distribution of the boggy ground. It does indeed seem to be the rule that the finest sifted disintegrated material fills the concave self-contained basins, and that hard rock is most abundant in the mountain-ranges which border these basins, but generally it is just the flat, barren, denuded summits of the ranges that possess a greater proportion of boggy ground than the horizontal latitudinal valleys. In these latter the fine material, as a direct consequence of the hollowness of the cavity, is more closely consolidated than on the convex heights; while these again are exposed to a more copious downfall, so that the fine material, instead of being there more tightly packed together, is more and more loosened after each successive shower, and consequently more and more inclined to glide downwards on both sides. Nevertheless it very often happens that such a crest is hard and firm, especially if it is grass-grown, while on the other hand the bottom of a latitudinal valley may be soft and marshy where it is barren and sufficiently sodden. Again, crests in which the sifting distributive work of denudation is not yet completely finished, so that they still consist to a very considerable extent of gravel, may also be hard and firm enough to bear. In the boggy regions, no matter whether situated in the valleys or on the heights, the only routes that are at all practicable are the bottoms of the watercourses.

This was the case now when we started to go down from the difficult pass; we had to travel the whole of the way in the bed of the brook which gurgled down the glen, and the farther we descended the better grew its gravel-filled channel. The brook finally ran into a main stream flowing towards the south-east and carrying at that moment a volume of about 4 cub.m. in the second. This latter was divided into several arms, distributed throughout its broad and deeply excavated bed. Here, so long as we rode in the water or in a bed of the stream which had quite recently carried water, the going was excellent; but outside of these the ground was again boggy. The tracks of the yaks and kulans served as warnings to us, particularly when we saw them growing deeper and zigzagging in black dotted lines.