

or *Camp CCLXXXI*. The absolute altitude, therefore, seems to be of very great importance in connection with the formation of dunes.

But another reason also seems to have to be taken into consideration, for otherwise it would be difficult to understand why there are no sand dunes in the valley between *Targo-gangri* and *Shuru-tso*, though the altitude there is not much higher than in the *Nagrong* valley, or about 4,750 m. I cannot tell what this reason is. But I believe that it depends upon the morphology of the country itself, the relative height of the bordering ranges above the floor of the valley, the breadth of the valley in relation to the height of its border-ranges, the steepness of the slopes, the quality of the western range as a former of a lee side and the surface form of the ground of the valley. Only when *all* these conditions are fulfilled, as obviously in the *Nagrong* valley, sand dunes may and *must* be accumulated.

I have said before, that *Camp CCCXLIX* had a height of 4,644 m. and *Camp CCCL*, one of 4,628 m. It should, however, be remembered that from the point where we crossed the brook of the valley, the ground rises towards the base of the hills at the last-mentioned camp. The height of the bed just west of this camp was, therefore, much less than 4,628 m., probably only 4,550 m. The eastern half of the *Nagrong* valley, therefore, certainly rises some 80 m., from the brook to the base of the hills. In other words, the slope of the floor of the valley is such as must be favourable for the formation of sand dunes.

The next day's march we had to ride amongst dunes only for 2 km., after which they became rudimentary and soon ceased altogether. The belt of sand dunes, therefore, had a length of some 6 or 7 km. and a breadth of about 1 km. Only on this little surface and nowhere outside of it, all the conditions were existent. Now when one sees the enormous masses of sand and dust that are carried by the wind up through the valley, — how a little bag in which one of my men carried the aneroids, thermometers, sketch-book and other things, was half filled with sand at our arrival at camp, — and how tents, blankets, clothing, boxes, everything, became heavy with sand, one easily realises that these sand dunes would, in the course of many years, rise to an enormous height, if there was not an agency that made their farther growth impossible. This agency is the strength of the wind itself. The dunes of *Nagrong* have already reached their maximum height. All the sand that is heaped on them by the wind nearly every day is immediately carried away from the dunes by the same wind. The belt of dunes is only a station on the way of the drifting sand. If occasionally, during a day with moderate wind, the dunes grow in height, they will again be beaten down to their normal height by the next hard storm.

The fact that the storms do not sweep away *all* the sand of *Nagrong*, only proves that the gradients of the slope and the altitude and form of the western