

the sand towards the west-south-west, retaining their individuality as they travel, though constantly renewing the ground that lies exposed to the light of day.

In crossing the desert, the chief features of which I have described in this and the two preceding chapters, I was enabled to obtain a good general idea of its structure, though only along one single line; for the high concatenations of dunes which accompanied us on both sides prevented us from seeing very far either to the east or to the west. Nor was the weather we experienced at all suitable for reconnaissance work. But from the fact that every lake on the right bank of the Tarim has a bajir at its inner end, and from our perceiving bajirs beside us at least two or three times during the course of our march across the desert, it may safely be inferred, that it was not pure chance which led us to hit upon so advantageous a route, but that the ground would have been pretty much the same no matter which lake we had started from. As I shall prove subsequently, there are bajirs beside the Ettek-tarim, that is in the extreme east of the Desert of Tschertschen.

Now it is a natural question to ask, how far do these bajirs extend? Do they exist in every part of the desert, or where do they cease? These questions I am fortunately able to answer in the light of previous journeys. They become progressively rarer, less distinct, and smaller in size towards the west. If, for example, we consider that part of the desert which stretches between the point where the Kerija-darja dies away in the sand and the Tarim, we find (Feb. 1896) that there the steep leeward faces of the dunes look towards the south, the west, and the south-west; that the strips of scanty poplars and tamarisks, which occur there in two or three places, run north and south; but that one can also distinguish accumulations of dunes stretching east and west, parallel to the Tarim. On the crest of a dune in that locality I found a coating of snow, 2 cm. thick, embedded under a layer of sand, 22 cm. thick: this was manifestly a solitary sheet of snow which had been surprised by the first storm of spring, and subsequently protected against thawing by the thick deposit of sand.

In January of the same year I crossed the same desert between the Chotandarja and the Kerija-darja; and there I found that as a rule the dunes stretch from north to south, and turn their steep sides towards the west. At the same time there is another system of dunes easily distinguishable, stretching from east to west, with their steep slopes looking towards the south or south-south-west. At the points where these two systems intersect one another, there are pyramidal dunes, which in elevation overtop all others in their vicinity. Nearer the Kerija-darja the directions in which these systems run are in the one case north-north-east and south-south-west, and in the other west-north-west and east-south-east, and their steep faces are all turned towards the west, the south, and the south-west. Here again there are accumulations or concentrations of dunes, running north and south, or parallel to the two rivers; but here they seem to be in some way causally dependent upon the substratum, for we found, even where the dunes are highest, small bare patches of hard clay soil, and the sand surrounding them is not any higher than it is round the bare patches that lie in between the concatenations of dunes. Now these patches of bare clay, which stretch north, north-east, and east, are of course nothing but small bajirs. The sand here does not exceed 25 m. in height, and generally is not more than 15