

tensity as that which lit up the sky. There was a strong rime-frost lasting all the morning, and it soon formed a gradually thickening mist. The sky, after being perfectly clear for a space at about 11 o'clock, again clouded over, and at half-past four in the afternoon the snow began to come down in thin, fine flakes. Quite a fresh breeze blew all day from the west-south-west.

It is an easy road, running through soft sand, except in a few places where the surface consists of a thin coating of clay, slightly convex, off which the sand has been blown. On the whole it is tolerably straight, winding only to avoid the dune crests when it threads a belt of dunes. The steep leeward faces of these are all turned towards the south-west, and the prevailing wind is too feeble to alter their situation in the slightest degree. Occasionally we came across patches of detritus, but in every case extremely small in quantity; it consists for the most part of round rolled pieces of green crystalline schist. These patches of debris are the extreme stragglers of the great mass which lies at the foot of the mountains, forming in some places, e. g. at Kapa, accumulations of immense thickness.

At first our route lay amongst small dunes and scattered mounds. At Ketme, where the surface becomes covered with small granulations and scrub (jantak and tschige), there is a well. The true name of the place is apparently Kertme, a word which is stated to signify »hard clay terrace», or a step-like formation of the ground. The well, Ketme-kuduk, is situated in a hollow, an erosion trench, which, according to Roborovskij's statement, is an »old bed of the river Tschertschen-darja». My guides however asserted distinctly, that it is a continuation of the watercourse which is formed by the streams Atschan, Isängän, and Kontsche-bulak. It is the rarest thing in the world, they said, for its water to get as far as the astin-jol; though the existence of the watercourse would seem to indicate that at one time at any rate it did do so, even though it were only once in a decennium after an especially heavy rainfall in the mountains. I consider it extremely unlikely, that it ever was a former bed of the Tschertschen-darja. It is quite certain that in Marco Polo's time Tschertschen was situated where it now stands, and in 600 years an old watercourse like that at Ketme would have been obliterated. In the actual bed there still remain several table-like elevations of hard grey clay, cubical or oblong in shape, and resembling at a distance houses and walls. It is perfectly evident that they were at some time or other eroded by the heavy floods of water which rolled down this channel.

After riding for some distance beyond Ketme through low sand, dotted over with tamarisk-mounds, we entered a region of absolute barrenness. The surface is very gently undulating. The sand is coarse-grained, but is arranged in broad, low waves, so low indeed that we were often only aware of their crests by noticing that the snow had melted off them, thus giving the country a black-striped appearance. The steppe again makes its appearance at Jantak-kuduk. Southwards from that point it is said to be no very great distance to the barren sand, though on the north the sand is a long way off. The wells were all frozen; but we had no need of them, there being a superabundance of snow. The water in them is said to be almost fresh, although they are only 1 to 1½ m. deep. They are so constructed as to be protected on the south by an overhanging shelf, whilst there is a convenient approach to the water on the north. Several of them were however then half-