

Assuming that the Tarim maintains its present channel for a long time unchanged, what part will that portion of it which flows south have in the further development of the Desert of Tschertschen? We have an indication in the Tagh-kum. Here we have on the left bank of the Ettek-tarim a sand-wave 50 to 60 m. high; the next sand-wave on the east of this watercourse is barely half as high; there is no third similar accumulation, only single dunes which soon leave room for the steppe that spreads along the right bank of the Tarim. If now the Tarim checks in this way the transportation of sand from the east, no fresh sand-waves will be able to form, while those which exist already will be carried still farther west, and in the course of time the steppe will gain ground and spread itself out in the wake of the last sand-wave. Whatever may be the course of future development, it may be taken for granted that the sand-masses of the Desert of Tschertschen will suffer serious detriment, and the sandy ridges will assuredly become considerably less than they are now. But, it may be objected, — but how do you, then, account for the Chotan-darja and the Kerija-darja being shut in by similar high masses of sand, — how is it that these two rivers, which longitudinally considered, flow parallel to the lowest part of the course of the Tarim, do not exercise any distinguishable influence upon either the one or the other of the masses of sand which rise on their banks — in a word, how is it these two streams flow transversely across the desert, and yet produce absolutely no effect upon it? I would reply, that, for one thing, these two rivers are essentially different from the Tarim, and so cannot be straight away compared with it; secondly, the winds which blow in their vicinity are subject to quite other conditions; and in any case they know nothing of such a constant and powerful east-north-east wind as prevails in the region of the lower Tarim. Nevertheless, it must be admitted, that the east wind does make itself appreciably felt beside the Kerija-darja. But neither the Chotan-darja nor the Kerija-darja carries water all the year round; precisely in the windy season, that is in spring and early summer, both are perfectly dry, and consequently no longer present any obstacle to the drift of the sand. The belt of forest too is in general too narrow and insufficient to prevent the onward march of the sand, although it does indeed retard it and break the force of the wind. The lower Tarim on the other hand always contains running water, though during the three winter months it is covered with ice. A river which is constantly flowing compels the dunes on the windward side of it to come to a standstill, and of this I obtained a striking proof in the upper course of the Eastern Ilek, where the dunes rise precipitously on the eastern bank, while on the west they have been blown away.

On the 16th February we continued our journey north. The western sand was barren, and in the vicinity of the river not more than 20 m. high; but then we were travelling at a relatively low level and did not see the crests of the sand. Nor were we able to discover any watercourse entering the Ettek-tarim from the left, or any gap in the sand, to suggest where in the past the Tschertschen-darja might have flowed; indeed there is not so much as a strip of dead wood to show there ever has been an older channel. In the bed of the Ettek-tarim, which all day was marked with extraordinary distinctness, there was surprisingly little sand, at the most only a few small dunes. As a rule, the bottom consists of a bed of hard sand, horizontal or