it is 30 years since the river ceased to flow this way, we get an advance at the rate of one meter in the year for the entire dune-length. But this result is, as I have just said, not very trustworthy; all we can say with certainty is, that the river-bed has been buried under the advancing sand.

Another fact of great interest is that the Tagh-kum is that portion of the sand-wave which in this region has advanced farthest west; in other words, the highest and most massive accumulation of sand is the one which travels farthest. Throughout the whole of its course this is the only part of the Ettek-tarim which has been buried under the eastern sand-wave, though, it is true, it is invaded by smaller individual dunes. Both north and south of Tagh-kum the river-bed lies at a pretty good distance from the steep sand-wave. I had already observed the same thing in the Desert of Tschertschen, and also beside the desert lakes of the Tarim. Now this appears to conflict with the assumption, that the rate of advance diminishes in proportion to the increase of mass. The explanation which I would suggest is, that the high sand lies more directly exposed to the wind than the lower and relatively better screened portions of sand in its vicinity, and consequently it advances faster. The valley of the Ettek-tarim is also narrowest immediately opposite to the Tagh-kum, being only a few hundred meters broad. Here then there will almost certainly be formed a transverse barrier or threshold, for the sandy slope to the west of this sand-mountain lies relatively in the lee. In all other parts the valley is broader, 3 km. or more. One would indeed have expected that the valley would be broadest precisely where the masses of the Tagh-kum encroach directly upon the bank of the Ettek-tarim, for it is only, or at any rate principally, at this point that the eastern sand-wave has been directly arrested in its westward progress, whilst simultaneously the dune-mass on the west of the river has been able to move unchecked towards the west, whereby the breadth of the valley ought to be increased. That this is not the case however may depend to some extent upon the fact that the Tagh-kum acts as a screen against the wind. But to give a completely satisfactory explanation of the mutual relations of sand and water is impossible. We have not the slightest conception of what the aspect of the country was like when the Ettek-tarim was first formed. Now, it is true, its valley does appear to be as distinctly bounded by two sand-waves as any normal chain of bajirs that exists anywhere in the desert, and it is also very probable that, when the river broke through to the south, it selected a precisely similar chain of depressions, in which it had nothing more to do than clear the transverse thresholds out of its path. But it is also possible, although not likely, that the masses of water forced their way totally irrespective of the position of the sand, and that the two sand-waves, which now shut in its valley on east and west, grouped and arranged themselves afresh after that time. On this assumption, it is easy to imagine that the relatively more westward position of the Tagh-kum, as compared with the rest of the sand-wave, is nothing more than a pure chance.

If the valley of the Ettek-tarim either marks or coincides with a former bajir-chain, then this must at one time have run due north and south, and not south-west, south-south-west, and south, like the chain of bajirs we travelled along in the desert. The valley of the Ettek-tarim bends slightly in three places, thus bringing