

fact the thresholds which occur along the course of one chain of bajirs or one desert groove are independent of those which occur in the adjacent grooves: there is no continuity between them, they merely lie parallel to one another.

During our march across the desert, we observed evidences for the two following laws with regard to the construction of the thresholds. (1) They grow both broader and bigger from north to south, and in the middle of the southern half of the desert practically merge and disappear; (2) their steep leeward faces are turned towards the south-south-west. In the north of the desert the thresholds are more distinctly outlined, their borders being more sharply defined on both the windward and the leeward side; whereas in the south their margins are less distinct because of the minor dunes which project from them.

The fact of the thresholds turning their steep faces towards the south-south-west points to the predominance of winds from the north-north-east, which winds likewise impress their effects upon the surface dunes of the great dune-concatenations; that is to say, upon their surface they call forth a temporary formation of superficial dunes, which have a fall towards the south-south-west. Against the east-north-east wind the thresholds are on the contrary in great part screened, unless it is to this wind that the notch or saddle in the middle of each threshold is to be ascribed. But to the north-north-east wind the thresholds are sensitive, because it sweeps unhindered through the whole length of the bajir grooves. In other words, the dune-concatenations and the thresholds are the products of winds blowing from different quarters. The most powerful wind, the predominating wind, builds up the highest and most massive of the dune-lengths, namely the unbroken chain or concatenation of dune-accumulations; while the less powerful and less constant wind, from the north-north-east, gives rise to the lower dune-system, the thresholds or sandy isthmuses; though the real cause of their coming into existence is, as I have mentioned above, something else. The predominant winds in the Lop country blow, as we have found, from the north-east quarter, more especially from the east-north-east. But when we come to describe the Desert of Lop, we shall find that the north-north-east wind is likewise possessed of a respectable degree of power. The structure of the thresholds points also to the operation of the same wind in the Desert of Tschertschen.

If now the dune-concatenations travel towards the west-south-west, and the thresholds towards the south-south-west — as they indeed do even in that part of the desert in which there are no bajirs, and in which their steep leeward faces are all the same turned towards the west and south and south-west, nevertheless no displacement of the two systems occurs, for as appears from fig. 315, the point of intersection a coincides at a later stage of its advance with the point a_1 , that is to say, the same portions of the sandy mass are in contact in both cases alike. It is for this reason that the bajirs travel towards the west-south-west and not towards the south-south-west; they move along the components of the wind's direction, and especially in the direction dictated by the east-north-east wind, which is by far the most powerful. The rate of advance in both systems would appear to be about

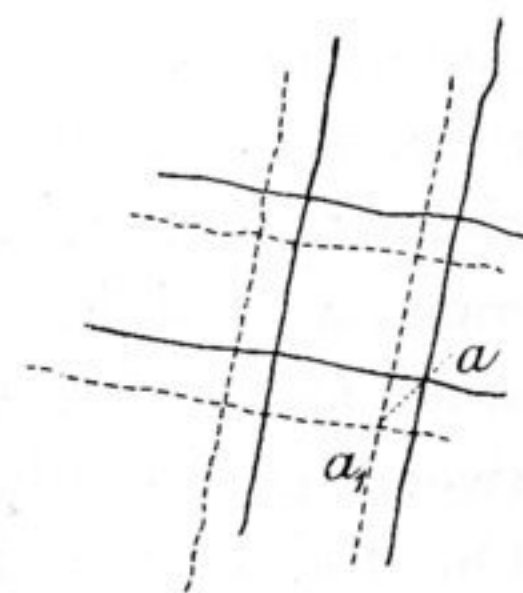


Fig. 315.