

»The direction in which the sandy masses of Ordos are moving may also be observed outside its own boundaries. For instance, we were told by the Catholic missionaries, that the town of Ning-tschao-ljang, south-east of Boro-balgasun, was overwhelmed by sand that came from the west. South of Ordos we saw how the sand in the vicinity of the village of Tao-tung-tsa was heaping itself up on the right side of a ravine, that is to say on that side which looks towards the Yellow River. Near the town of Chua-ma-tschen the Great Wall is covered with sand that came from the west. With regard to the town of Suan-chua-fu, Armand David writes, that the local prevailing winds bring with them immense masses of sand, which have so completely covered the western town-wall that men, as well as wolves and foxes, are readily able to find their way over it into the town. Mr Garnak, who lately completed a journey from Peking to Manchuria, says only, that in the south-eastern corner of Mongolia, i. e. east of the Southern Chingan, he encountered masses of sand travelling from west to east. Prschevalskij does not give any information of this character at all, either about the sand that lies along the northern elbow of the Yellow River or about the sand of Tengeri. Kreitner encountered barkhans west of Su-tscheo, especially around the town of Dun-chuan; but in his book, *Im fernen Osten*, we have not a single statement as to the direction in which the sands move. He reports that the northern slopes of the range of Tapan-san are covered with sand, whence we may conclude that it has been blown there by northerly, or at all events by north-westerly, winds. The circumstances we observed in this part of Mongolia, in the districts west of the town of Gao-taj, likewise point to the incidence of north-westerly winds. Although we had no opportunity to cross the region proper of the barkhans in north-west Mongolia, we had the good fortune to see, in the valley of the Gaschiun-tsuche, how sharply the advance of the sand is defined, for it is there heaped up along the whole of the western side of the *thalweg*, and it has come from the west.»

After that Potanin goes on to give a readable account of the formation and structure of the Mongolian dunes, and the occasion of their origination, and then continues:

»Contrary to what Prschevalskij has observed in one passage (I. p. 134) of his *Mongolija*, it is the effect of the winds, and not the effect of the rain, that checks and moderates the barkhan waves. The influence of the rain is indeed so feeble that, even after a heavy downpour, as we observed, the slight rippings on the surface of the barkhans were in no way altered or disturbed.»

»From what quarter is it that the wind originally derives the materials out of which it builds up the barkhans? Unless they are to be considered as a continuation of the sandy desert of Tengeri, then their derivation must be traced to the red sandstone mountains of the provinces of Schen-si and Gan-su (Kan-su). The sandy masses in the alluvial valley of the Yellow River, above Lan-tschou, are of a grey colour, not yellow, and if they contribute in any way to the formation of the barkhans of Ordos, it is as a by-product amongst other varieties of sand. The source of origin of the sandy masses in Kusuptschi, and in general of the barkhans which accompany the northern bend of the Hwang-ho, as also of the barkhans of Tengeri, is probably to be found on the northern slopes of the Nan-schan, that is if we consider that