

in the hollows or narrow passages, e. g. between two dried tamarisk-mounds, you can see the whirling sand literally driving along like smoke or mist. Now this drift-sand, which is derived from the crumbling ranges of the Kuruk-tagh, and perhaps also from those of the Bei-schan and the Tschöl-tagh, does, in contradistinction to the ephemeral and rudimentary fluviatile dunes beside the lower Tarim, form a real addition to the material in the sandy desert. And as disintegration is a constant process, which here takes place through the agencies of aridity, being in especial promoted by the wide range of temperature not only between winter and summer, but also between day and night, and as the wind, in respect both of its direction and its force, is likewise constantly operative, it follows that the augmentation of the sand in the western part of the Desert of Lop must also proceed with a similar degree of regularity. The loss which the Kuruk-tagh experiences in altitude is a measure of the gain which the sandy desert makes through the transporting power of the wind. There can hardly be any other region on the earth in which this process is taking place with the same degree of distinctness, on the same stupendous scale, and at the same rapid rate. You both see and hear the actual power of the wind in full operation; on every side of you you have the rush and roar of the tempest and the sand, until you almost fancy you are in a river of solid matter flowing on like a swift torrent.

Through corrasion also the wind helps to crumble down the Kuruk-tagh; for not only does it carry away the disintegrated material that it finds already prepared for it, but the sand with which the atmospheric current is charged exercises a directly corrasive effect upon the surface of the rocks; and the signs of abrasion, and the conchoid excavations that we find here and there, are eloquent evidence of the rasping and eroding power of the sand. Walther says that the telegraph wires between the stations Aidin and Bala-ischem on the Transcaspian Railway have to be renewed every eleven years, their original thickness being by then reduced one-half by the sand-storms. It would have been interesting to learn what effect is produced upon the telegraph poles within the same period. So far as I understand, they would suffer far less from the abrasion of the sand than the iron wire does; otherwise it would be difficult to explain why the poplar-trunks that still stand upright beside the Kuruk-darja and at Lâu-lan, and have stood there dry and exposed for so many centuries, were not long ago totally destroyed. They are, it is true, in consequence of their porosity, saturated through and through with sand and dust; but it is difficult to make out in what way this contributes to their power of resistance.

With regard to the importance of the wind in forming sandy deserts, Richtigshofen says: »Die Winde operiren wesentlich mit dem gegebenen Material, machen neues frei durch Corrasion und übernehmen das welches in anderer Weise gelockert wurde.» Even though we were to conceive the Desert of Lop to be entirely free from wind, a belt of calms in fact, or even though none but westerly winds prevailed, the western and middle parts of the Tarim basin would nevertheless be filled with sandy deserts just the same, though the deserts would then cover a far smaller area than they do now.

This brings me to the third source for the sand that I have mentioned above, namely, the bottom of the former sea. With regard to this Richtigshofen says in the