It does not require any very profound study of the distribution of the sand in the Desert of Tschertschen and the Desert of Lop, to become convinced that it is the wind alone which must have been the cause of it, and a wind moreover which is continually charged with a constant amount of drift-sand. The Desert of Lop is narrow as compared with the Desert of Tschertschen, and unless there was a constant supply of fresh material, the migrating dunes would grow lower and travel faster as soon as they emerged upon the broader and more spacious region. But instead of doing so, they increase in height and size upon emerging. This can only be explained on the ground that the more easterly the dunes the swifter they travel in consequence of their diminutive size, and consequently there is every probability that these easterly dunes will overtake the westerly ones. Thus the sand is accumulating in the Desert of Tschertschen; and this would not be possible, were the supply of sand not continuous and uninterrupted. Hence we get to the kernel of the problem when we ask, where does this constantly feeding sand-stream come from? It cannot come, except to a very slight extent, from the dry, superficial layer of the eastern Desert of Lop, for if it did, the surface of the desert would obviously have to be excavated to an extraordinary, not to say to an absurd, extent. Even if that surface consisted exclusively of sand, it would have been excavated to a depth of 125 m. before it could accumulate such masses of sand as fill the Desert of Tschertschen. But seeing that the surface consists, not exclusively of sand, but for the most part of clay, it would (to satisfy the same condition) require to be excavated to twice or three times that depth. That wind-erosion on this vast scale cannot have taken place is best proved by the shape of the Desert of Lop, that is to say by its almost perfect horizontality. Theoretically, a regular and powerful atmospheric current, blowing across a region in which it does not deposit the drift-sand it carries with it, but only excavates, is indeed able to produce a considerable depression. But in the Desert of Lop this result is counteracted by the quantities of water which fill the deepest parts of the basin with solid material, and bring them up *au niveau* with the country adjacent. What therefore during a certain period has been gained through the erosion of the wind is lost again by the deposition, through the assistance of the water, of sand and silt. Precisely the same amount of solid material as is carried away in one place is accumulated in another, the result being a flat alluvial expanse instead of a conchoidal depression.* Here then we have the predominance of a

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le chemin aux fleuves, les ont obligés, tantôt à se perdre, tantôt à s'infléchir, pour retrouver une issue, dans une direction différente de celle qu'indiquait la pente générale du terrain.» (Traité de Géologie, p. 150, 151.)

* The same opinion which I have developed in the preceding pages I find maintained also by Rolland, who speaks of gullies in sandstone, many meters deep, which have been excavated by sand-carrying wind: »Le sable sec, c'est un fait général à la surface du Sahara, est un outil puissant d'érosion, avec le vent pour moteur . . . Sur les grès d'atterrissement l'érosion devient encore plus énergique, quand la roche est suffisamment tendre. On trouve, par exemple, sur un des parements du Gara Krima, près de Ouargla, des sillons larges et profonds de plusieurs mètres dus à un rabotage de ce genre . . . Ainsi la surface des grès d'atterrissement, s'effritant d'elle-même et rongée par les sables, puis remise à nu par le vent et offerte de nouveau sans défense à l'action persistante des agents de désagrégation, se réduit lentement, mais incessamment, en poudre plus ou moins grossière. Certains de ces grès sont naturellement friables; certaines alluvions sableuses et limoneuses sont à peine agrégées. Des matériaux siliceux deviennent libres de toutes parts, et ce sont eux qui alimentent les dunes.» (*Géol. du Sahara Alg.* pp. 215—217).