

CHAPTER XXVII.

ALTITUDE OF DUNES, MOVEMENTS OF DUNE-MASSSES.

My object in quoting *verbatim* the passages given in the preceding chapter was to afford some conception of certain other desert regions in the interior of Asia, with the purpose of showing that the Desert of Takla-makan occupies in many respects a peculiar position amongst them, and that with regard to its area, its unbroken continuity, and the volume of its sand it is not surpassed by any other Asiatic desert, nor indeed, so far as I know, by any other sandy desert in the world. In point of area alone it has formidable rivals in the Kara-kum and Kisil-kum, in Transcaspia; and with regard to the altitude of the dunes, the figures quoted by Obrutscheff, Roborovskij, and Loczy are considerably higher than those I obtained for the Takla-makan. In this connection it is however but fair to point out, that the maximum value of 89.5 m. that I obtained in the north-eastern part of the Takla-makan (Desert of Tschertschen) is based upon exact measurements of level, whereas the travellers I have just named either used an aneroid or estimated the height by eyesight alone. Now both these methods of measurement are of doubtful value, especially the latter, and certainly they are no longer applicable when we desire to ascertain the absolute limits of altitude to which an accumulation of sand-dunes is capable of attaining. Loczy's statement, that the dunes have a relative altitude of 500 m. above Tung-hoan gives us no real information about the actual altitude of the dunes that really consist of wind-driven drift-sand, or in other words, about the height at which the base of the dunes lies above Tung-hoan, for it is of course from this base that the real height of the dunes should be reckoned. Loczy can hardly mean, that the actual dunes themselves attain an altitude of 500 m. The value of 200 m. which Obrutscheff gives as being the altitude of the dunes of the Kum-tagh approaches close to the maximum height hitherto ascertained for dunes in any part of the world. Sokolow says:

»Ihrer Höhe nach übertreffen die Wüstendünen, wenigstens diejenigen der Sahara, bei weitem die Stranddünen und erreichen oft eine für Windbildungen in der That erstaunliche Höhe von 200 m.»* In his description of the Erg in Sahara

* *Op. cit.*, p. 180.