

## CHAPTER XXXII.

### SPECIMENS OF SAND, DUST, AND MUD.

Here it will perhaps be a convenient place to state the results of the analysis of a number of specimens of sand, dust, and mud which I brought home with me. The specimens from the 1894—97 journey are described by Professor Baron G. De Geer, and those from the 1899—1902 journey by Mr. Gregori Aminoff, under the direction of De Geer. For the present purpose a detailed mechanical and petrographical examination was considered superfluous, a brief general analysis being all that seemed called for.

Each specimen was tested with hydrochloric acid, in order to determine the carbonate it might contain, and with the magnet, to ascertain its percentage of magnetite; and further it was examined with an ordinary microscope, to see if it contained organic remains. The magnitude of the particles or grains was determined by comparison with sedimentary products, after sifting them through a Schöne sorter. Grains possessing a magnitude of 2 to 0.05 mm. are termed sand, those of 0.05 to 0.01 are termed dust, and those smaller than 0.01 are termed mud or clay. Mixed products are classified according to the predominant ingredient, and by the same rule a discrimination was made between coarse-grained sand, 2 to 1 mm.; medium-grained, 1 to 0.5 mm.; and fine-grained, 0.5 to 0.05 mm.\*

The following specimens were obtained in the Desert of Tschertschen, i. e. that part of the great sandy desert of the Tarim basin which is situated between the lowermost course of the Tarim and the Tschertschen-darja.

A specimen from the Ettek-tarim, taken on the 17th February 1900, consists of fine yellowish sand, principally non-rounded grains of quartz, mica, and felspar; strongly calciferous, with a moderate percentage of magnetite.

The next specimen was taken from the lofty dune-accumulations beside the Tus-alghutsch on 7th Dec. 1899 — fine, yellowish sand, consisting of non-rounded grains of quartz, felspar, and mica (muscovite), and containing

1.7 per cent of grains bigger than 0.5 mm.  
98.3 » » » » less » 0.5 »

This specimen was moderately calciferous, and had a large percentage of magnetite.

\* *Peterm. Mitteil.*, Ergänzhft No. 131, p. 268, where Prof. De Geer's report on the specimens of my earlier journey will be found.