

dune-crest, and the other from the south-west or leeward side of the same dune. Both specimens are fairly calciferous; but, whereas the grains in the former measure 0.3 mm., those of the latter are seldom as big as 0.2 mm. The former contains the larger percentage of magnetite, and its colour is rather darker yellowish brown, more spotted with black, differences that are easily accounted for by the fact that the heavier particles were deposited by the wind on that side. Another specimen, taken in the Takla-makan on the 13th April 1895 from the leeward side of a dune, furnishes a still more decisive proof of the sifting of the material by the wind; for the specimen consists almost entirely of beautiful laminæ of mica, with rounded edges and from 0.5 to 2 mm. in size, consisting partly of biotite, partly of muscovite. The colour of this peculiar micaceous sand is brown and silvery. By way of a subordinate intermixture, the specimen contains also some very fine, strongly calciferous sand with a moderate percentage of magnetite.

A specimen from Camp. No. XII, in the middle of the Takla-makan (24th April 1895), consists of fine drift-sand, of a conspicuous yellow-brown colour, rather strongly calciferous and with rather a large percentage of magnetite, the grains being seldom larger than 0.2 mm. Another specimen taken not far east of the preceding, at Camp. No. XIV on 26th April, had grains of almost precisely the same dimensions, but of a somewhat lighter colour, as well as more calciferous and with a large percentage of magnetite.

With regard to the specimens taken from the west of the Desert of Takla-makan, De Geer says, that one from Ordan Padschah (11th March 1895) consists of fine-grained drift-sand, of a grey, rather brownish, colour, spotted with black, very strongly calciferous, a slight proportion of magnetite, but with little mica and without vegetable remains, notwithstanding the propinquity of the site to the belt of oases. The grains do not as a rule exceed 0.2 mm.

A specimen from a dune at Lajlik (15th March 1895) is of a purer grey colour, and is heavily impregnated with magnetite, but in other respects resembles the specimen last described. It contains grains of quartz, orthoclase, plagioclase, hornblende, mica, quartzite, mica-schist, and other schists, limestone, calc-spar, and garnet. Here again the dimensions do not as a rule exceed 0.2 mm.

Two specimens taken at Camps No. II and IV immediately east of the Jarkent-darja, in the middle of April 1895, consist of very fine sand, often less than 0.1 mm., of a light yellow-brown colour, with traces of magnetite, rather strongly calciferous, and containing a slight sprinkling of small vegetable remains. Another specimen from Camp. No VI is on the whole similar to these two, except that it is somewhat darker and coarser, the grains being not seldom 0.2 mm. in dimensions.

Both in the interior of the Desert of Lop and in the heart of the Taklamakan I picked up several cylinders of sand (fig. 199), 10 cm. long and 1-2 cm. thick, composed of rather hard fine-grained sand. According to De Geer, these have been unmistakably cemented together by carbonate of lime, and shed off at the roots or stalks of the kamisch. In this way particles of sand which ordinarily are only 0.2 to 0.5 mm. in dimensions, form a solid accretional mass. De Geer rightly regards these formations as proofs that vegetation existed when the drift-sand era began. In the Desert of Lop, where similar sand-cylinders are abundant in certain places,