

rived from any other source, whether rivers or lakes or the encircling mountainous regions, from which they were *directly* transported, they would indeed have spread themselves out over the flat parts of the basin just as they do now, but the Ostracod-bearing sedimentary strata would in that case have been buried underneath the outspreading drift-sand, and the shells would never have come to light. In this respect they serve as the characteristic fossil by and through which to determine the origin of the sand. A precisely similar process is now taking place in the Desert of Lop, where the *Limnæa* shells are being, as it were, »dissected» out of the areniferous clay deposits in which they have been inclosed. It is of course essential to represent the formation of the desert as proceeding step by step or region by region, not as taking place throughout the whole of the field simultaneously. In some regions the vegetation would no doubt be able to persist longer than in others, and consequently in these latter the formation of dunes would begin earlier. But the period at which the last traces of this vegetation were destroyed, and the desiccated material was pulverised to dust, is so distant that no remains now exist. The only poplar trunk, white and brittle as glass, that I saw whilst crossing the desert in 1895 was situated only a couple of days' march west of the Chotan-darja, and may possibly have clung to life for a long time with the aid of the groundwater. But as a rule there are no vegetable remains to be seen on the few patches of bare soil that occur at wide intervals apart. Certain of these patches, occurring between Camp No. XIII and the Jaikent-darja and the Chotan-darja, I described in the following manner: »Noch ein paarmal kreuzten wir nackte Flecke zwischen den Dünen; sie bestehen aus salzhaltigem, feinem, hartem Staub, oft mit scharfkantigen, niedrigen Stufen. Das Material ist sehr spröde und porös; von Vegetation enthalten sie keine sichtbaren Reste, und fast gar keinen Sand. — Es ist dies der ursprüngliche Boden, auf dem sich die Dünen (50—60 m. hoch) aufgetürmt haben. Die horizontale Schichtung ist immer sehr deutlich.»\*



Fig. 198. OUR CARAVAN IN THE DESERT OF GOBI.

\* *Pet. Mitt.*, Ergänzhft. 131, p. 243.