

phants, in strata of yellow and red loam, alternating with coarse sand and gravel, in which was also much petrified wood of the willow and other trees. Neither here nor in the neighbouring country were there any marine shells, but merely layers of black coal.\* But grinders of the mammoth were collected much farther down the same river, near the sea, in lat.  $70^{\circ}$ , mixed with *marine* petrifications.† Many other places in Siberia are cited by Pallas, where sea shells and fishes' teeth accompany the bones of the mammoth, rhinoceros, and Siberian buffalo, or bison (*Bos priscus*). But it is not on the Obi nor the Yenesei, but on the Lena, farther to the east, where, in the same parallels of latitude, the cold is far more intense, that fossil remains have been found in the most wonderful state of preservation. In 1772, Pallas obtained from Wiljuiskoi, in lat.  $64^{\circ}$ , from the banks of the Wiljui, a tributary of the Lena, the carcass of a rhinoceros (*R. tichorhinus*), taken from the sand in which it must have remained congealed for ages, the soil of that region being always frozen to within a slight depth of the surface. This carcass was compared to a natural mummy, and emitted an odour like putrid flesh, part of the skin being still covered with black and grey hairs. So great, indeed, was the quantity of hair on the foot and head conveyed to St. Petersburg, that Pallas asked whether the rhinoceros of the Lena might not have been an inhabitant of the temperate regions of middle Asia, its clothing being so much warmer than that of the African rhinoceros.‡

Professor Brandt, of St. Petersburg, in a letter to Baron Alex. Von. Humboldt, dated 1846, adds the following particulars respecting this wonderful fossil relic:—“I have been so fortunate as to extract from cavities in the molar teeth of the Wiljui rhinoceros a small quantity of its half-chewed food, among which fragments of pine leaves, one-half of the seed of a polygonaceous plant, and very minute portions of wood with porous cells (or small fragments of coniferous wood), were still recognisable. It was also remarkable, on a close investigation of the head, that the blood-vessels discovered in the interior of the mass appeared filled, even to the capillary vessels, with a brown mass (coagulated blood), which in many places still showed the red colour of blood.§

After more than thirty years, the entire carcass of a mammoth (or extinct species of elephant) was obtained in 1803, by Mr. Adams, much farther to the north. It fell from a mass of ice, in which it had been encased, on the banks of the Lena, in lat.  $70^{\circ}$ ; and so perfectly had the soft parts of the carcass been preserved, that the flesh, as it lay, was devoured by wolves and bears. This skeleton is still in the museum of St. Petersburg, the head retaining its integument, and many of the ligaments entire. The skin of the animal was covered, first, with black bristles, thicker than horse hair, from twelve

\* Pallas, Reise in Russ. Reiche, pp. 409, 410.

† Nov. Com. Petrop. vol. xvii. p. 591.

‡ Nov. Com. Petrop. vol. xvii. p. 584.

§ Quart. Journ. Geol. Soc. Lond. vol. iv. p. 10., Memoirs.