

These geological terms, thus proposed by Pallas, were not of course used by him in their more precise modern definition. We know, for example, that his Tertiary mountains consisted mainly of the younger Palæozoic sediments which are now called Permian, and that with these ancient formations he included the much younger sands and clays that inclose the remains of mammoth, rhinoceros and other extinct mammals.

The main value of his observations lies in his clear recognition of a geological sequence in passing from the centre to the outside of a mountain-chain. He saw that the oldest portions were to be found along the axis of the chain, and the youngest on the lower grounds on either side. He recognized also that the sea had left abundant proofs of its former presence on the land, he thought that its level had never been more than 100 fathoms higher than at present, and he supposed that the elevation of the mountains had been caused by commotions of the globe.¹

We now pass from the Ural chain, which served Pallas as his type of mountain-structure, to another and more famous group of mountains, where, during the same period, another not less zealous explorer was at work. The labours of De Saussure among the Alps mark an epoch, not only in the investigation of the history of the globe, but in the relations of civilized mankind to the mountains which diversify the surface of the land.

Up till towards the end of the eighteenth century

¹ See the summary of Pallas's views given by D'Archiac in his *Cours de Paléontologie Stratigraphique*, p. 159, 1862. For a fuller exposition consult *Journal de Physique*, xiii. (1779), pp. 329-350.