

barrier to all attempts to trace farther back into the past the signs of the existence of Man upon the earth.

In the concluding chapters I shall offer a few remarks on the recent modifications of the Lamarckian theory of progressive development and transmutation, which are suggested by Mr. Darwin's work on the 'Origin of Species, by Variation and Natural Selection,' and the bearing of this hypothesis on the different races of mankind and their connection with other parts of the animal kingdom.

*Nomenclature.*—Some preliminary explanation of the nomenclature adopted in the following pages will be indispensable, that the meaning attached to the terms Recent, Post-pliocene, and Post-tertiary may be correctly understood.

Previously to the year 1833, when I published the third volume of the 'Principles of Geology,' the strata called Tertiary had been divided by geologists into Lower, Middle, and Upper; the Lower comprising the oldest formations of the environs of Paris and London, with others of like age; the Middle, those of Bordeaux and Touraine; and the Upper, all that lay above or were newer than the last-mentioned group.

When engaged, in 1828, in preparing for the press the treatise on geology above alluded to, I conceived the idea of classing the whole of this series of strata according to the different degrees of affinity which their fossil testacea bore to the living fauna. Having obtained information on this subject during my travels on the Continent, I learnt that M. Deshayes of Paris, already celebrated as a conchologist, had been led independently, by the study of a large collection of recent and fossil shells, to very similar views respecting the possibility of arranging the tertiary formations in chronological order, according to the proportional number of species of shells identical with living ones, which characterised each of the successive groups above mentioned. After comparing 3000 fossil species with 5000 living ones, the result arrived at