

zoophytes and shells; the next in antiquity containing, in addition, vegetable remains and fishes; those which succeed enveloping not only fishes, shells, zoophytes, and plants, but also insects and bones of enormous reptiles, of birds, and of one or more genera of marsupial animals. The chalk is the uppermost, or most recent of this class. As the secondary rocks have manifestly been formed by the agency of water, it is clear that they were originally deposited in horizontal, or nearly horizontal layers or strata, although by far the greater portion has since been broken up, and now lies in directions more or less inclined to the horizon.

For the convenience of study, this subdivision of the rocks is still retained, as will hereafter be shown. To the above groups modern geologists have added a fourth class, the *Tertiary*.

16. TERTIARY STRATA.—4th. *The Tertiary*.\* These lie in hollows or basins of the chalk, and other secondary rocks, and are formed of the detritus of the more ancient beds. They abound in shells, plants, zoophytes, crustacea, fishes, &c. : and in them, with but one exception, the bones of mammalia first appear.

17. ALLUVIAL DEPOSITS.—Of a later formation than the tertiary strata, are those accumulations of water-worn materials, which are spread over the surface of almost every country more or less abun-

\* See Plate X. Fig. 3.