

ance struck him with astonishment; a fellow-workman named a spot where many such monuments of a former world were scattered about; he visited the place, and became a geologist and the historian of the "Old Red." And what strange fantastic forms did it afterwards fall to his lot to describe! "The figures on a China vase or Egyptian obelisk," he says, "differ less from the real representation of the objects than the fossil fishes of the 'Old Red' differ from the living forms which now swim in our seas."

The *Carboniferous Limestone*, which underlies the coal, the *Coal-measures* themselves, the *New Red Sandstone*, the *Lias*, and the *Chalk*, have in their turn found their historians; but it would be foreign to our object to dwell further here on these particular branches of the subject.

Some few of the fossilised beings referred to resemble species still found living, but the greater part belong to species which have become altogether extinct. These fossil remains may constitute natural families, none of the genera of which have survived. Such is the *Pterodactyle* among Pterosaurian reptiles; the *Ammonite* among Mollusca; the *Ichthyosaurus* and the *Plesiosaurus* among the Enaliosaurian reptiles. At other times there are only extinct genera, belonging to families of which there are still some genera now living, as the genus *Palæoniscus* among fishes. Finally, in Tertiary deposits, we meet with some extinct species belonging to genera of our existing fauna: the *Mammoth*, for example, of the youngest Tertiary deposits, is an extinct species of the genus elephant.

Some fossils are terrestrial, like the gigantic Irish stag, *Cervus Megaceros*, the snail or *Helix*; fluviatile or lacustrine, like the *Planorbis*, the *Lymnæa*, the *Physa*, and the *Unio*; marine, or inhabiting the sea exclusively, as the Cowry (*Cypræa*), and the Oyster, (*Ostrea*).

Fossils are sometimes preserved in their natural state, or are but very slightly changed. Such is the state of some of the bones extracted from the more recent caves; such, also, is the condition of the insects found enclosed in the fossil resins in which they have been preserved from decomposition; and certain shells, found in recent and even in old formations, such as the Jurassic and Cretaceous strata—in some of which the shells retain their colours, as well as their brilliant pearly lustre or nacre. At Trouville, in Normandy, in the Kimeridge strata, magnificent *Ammonites* are found in the clay and marl, all brilliant with the colours of mother-of-pearl. In the Cretaceous beds at Machéroménil, some species of *Ancylyceras* and *Hamites* are found still covered with a nacre, displaying brilliant