these rocks that the ancient pyramids were built. What an enormous time must have been necessary to convert the remains of these little shells into beds many hundreds of feet thick! The *Miliola* were also so abundant in the Eocene seas as to constitute the greater part of calcareous rocks* out of which Paris has been built. Agglomerated in this manner, these little shells form the continuous beds of limestone which are quarried for building purposes in the environs of Paris, at Gentilly, Vaugirard, and Châtillon.

On the opposite page we present, in PLATE XXIII., an imaginary landscape of the Eocene period. We remark amongst its vegetation a mixture of fossil species with others belonging to the present time. The Alders, the Wych-elms, and the Cypresses, mingle with *Flabellaria;* the Palms of extinct species. A great Bird—a wader, the *Tantalus*—occupies the projecting point of a rock on the right; the Turtle (*Trionyx*), floats on the river, in the midst of Nymphæeas, Nenuphars, and other aquatic plants; whilst a herd of Palæotheria, Anoplotheria, and Xiphodon peacefully browse the grass of the natural meadows of this peaceful oasis.

With a general resemblance in their fossils, nothing can be more dissimilar, on the whole, than the lithological or mineral characters of the Eocene deposits of France and England; "those of our own island," says Lyell,† "being almost exclusively of mechanical origin —accumulations of mud, sand, and pebbles; while in the neighbourhood of Paris we find a great succession of strata composed of limestones, some of them siliceous, and of crystalline gypsum and siliceous sandstone, and sometimes of pure flint used for millstones. Hence it is by no means an easy task to institute an exact comparison between the various members of the English and French series. It is clear that, on the sites both of Paris and London, a continual change was going on in the fauna and flora by the coming in of new species and the dying out of others; and contemporaneous changes of geographical conditions were also in progress in consequence of the rising and sinking of the land and bottom of the sea. A particular subdivision, therefore, of time was occasionally represented in one area by land, in another by an estuary, in a third by sea; and even where the conditions were in both areas of a marine character, there was often shallow water in one, and deep sea in

* Similar beds of Miliolite limestone are found in the Middle Bagshot beds on the coast of Sussex, off Selsey—the only instance in England of the occurrence of such calcareous deposits of Middle Eocene age.—H. W. B.

† "Elements of Geology," p. 292.