

The *Albien* of Alc. D'Orbigny, which Lyell considers to be the equivalent of the *Gault*, French authors treat as the "*glauconie*" formation, the name being drawn from a rock composed of chalk with greenish grains of *glauconite*, or silicate of iron, which is often mixed with the limestone of this formation. The fossils by which it is identified are very varied. Among its numerous types, we find Crustaceans belonging to the genera *Arcania* and *Corystes*; many new Mollusca, *Buccinum*, *Solen*, *Pterodonta*, *Voluta*, *Chama*, &c.; great numbers of molluscous Brachiopods, forming highly-developed submarine strata; some Echinoderms, unknown up to this period, and especially a great number of Zoophytes; some Foraminifera, and many Polyzoa (Bryozoa). The glauconitic formation consists of two groups of strata: the *Gault* Clay and the *glauconitic* chalk, or Upper Greensand and Chloritic Marl.

UPPER CRETACEOUS PERIOD.

During this phase of the terrestrial evolutions, the continents, to judge from the fossilised wood which we meet with in the rocks which now represent it, would be covered with a very rich vegetation, nearly identical, indeed, with that which we have described in the preceding sub-period; according to Adolphe Brongniart, the "age of angiosperms" had fairly set in; the Cretaceous flora displays, he considers, a transitional character from the Secondary to the Tertiary vegetation; that the line between the gymnosperms, or naked-seeded plants, and the angiosperms, having their seeds enclosed in seed-vessels, runs between the Upper and Lower Cretaceous formations. "We can now affirm," says Lyell, "that these Aix-la-Chapelle plants, called *Credneria*, flourished before the rich reptilian fauna of the secondary rocks had ceased to exist. The *Ichthyosaurus*, *Pterodactyle*, and *Mosasaurus* were of coeval date with the oak, the walnut, and the fig."*

The terrestrial fauna, consisting of some new Reptiles haunting the banks of rivers, and Birds of the genus Snipe, have certainly only reached us in small numbers. The remains of the marine fauna are, on the contrary, sufficiently numerous and well preserved to give us a great idea of its riches, and to enable us to assign to it a characteristic facies.

The sea of the Upper Cretaceous period bristled with numerous sub-marine reefs, occupying a vast extent of its bed—reefs formed of

* Lyell's "Elements of Geology," p. 333.