

to exceed that of all the species of *Chelone* now known to exist throughout the globe. Above this great bed lie the Bracklesham and Bagshot beds, which consist of light-yellow sand with an intermediate layer of dark-green and brown clay, over which lie the Barton Clay (in the Hampshire basin) and the white Upper Bagshot Sands, which are succeeded by the Fluvio-marine series, comprising the Headon, Bembridge, and Hempstead series, and consisting of limestones, clays, and marls, of marine, brackish, and fresh-water origin.\* For fuller accounts of the Tertiary strata of England, the reader is recommended to the numerous excellent memoirs of Mr. Prestwich, to the memoir "On the Tertiary Fluvio-marine Formations of the Isle of Wight," by Professor Edward Forbes, and to the memoir "On the Geology of the London Basin," by Mr. W. Whitaker.

At the base of the *Argile Plastique* of France is a conglomerate of chalk and of divers calcareous substances, in which have been found at Bas-Meudon some remains of Reptiles, Turtles, Crocodiles, Mammals, and, more lately, those of a large Bird, exceeding the Ostrich in size, the *Gastornis*, which Professor Owen classes among the wading rather than among aquatic birds. In the Soissonnais there is found, at the same horizon, a great mass of lignite, enclosing some shells and bones of the most ancient Pachyderm yet discovered, the *Coryphodon*, which resembles at once both the Anoplotherium and the Pig. The *Sables Inférieurs*, or Bracheux Sands, form a marine bed of great thickness near Beauvais; they are principally sands, but include beds of calciferous clay and banks of shelly sandstone, and are considered to be older than the plastic clay and lignite, and to correspond with the Thanet Sands of England. They are rich in shells, including many Nummulites. At La Fère, in the Department of the Aisne, a fossil skull of *Arctocyon primævus*, supposed to be related both to the Bear and to the Kinkajou, and to be the oldest known Tertiary Mammal, was found in a deposit of this age. This series seems to have been formed chiefly in fresh water.

The *Calcaire grossier*, consisting of marine limestones of various kinds, and with a coarse, sometimes compact, grain, is suitable for mason-work. These deposits, which form the most characteristic

\* Detailed sections of the whole of the Tertiary strata of the Isle of Wight have been constructed by Mr. H. W. Bristow from actual measurement of the beds, in their regular order of succession, as displayed at Hempstead, Whitecliff Bay, Colwell and Tolland's Bays, Headon Hill, and Alum Bay. These sections, published by the Geological Survey of Great Britain, show the thickness, mineral character, and organic remains found in each stratum, and are accompanied by a pamphlet in explanation.