

between the Eocene and recent periods, to the history of which the last seven chapters have been devoted. Several fragmentary deposits have been met with here and there, in the course of the last half century, of an age intermediate between the white chalk and the plastic clays and sands, of the Paris and London districts, monuments which have the same kind of interest to a geologist, which certain mediæval records excite when we study the history of nations. For both of them throw light on ages of darkness, preceded and followed by others of which the annals are comparatively well known to us. But these newly discovered records do not fill up the wide gap, some of them being closely allied to the Eocene, and others to the cretaceous type, while none appear as yet to possess so distinct and characteristic a fauna, as may entitle them to hold an independent place in the great chronological series.

Among the formations alluded to, the Thanet Sands of Prestwich have been sufficiently described in the last chapter, and classed as Lower Eocene. To the same tertiary series belong the Belgian formations, called by Professor Dumont, Landenian and Heersian, although these are probably of higher antiquity than the Thanet Sands. On the other hand, the Maestricht and Faoe limestones are very closely connected with the chalk, to which also the Pisolitic limestone of France has been recently referred by high authorities.

The Lower Landenian beds of Belgium consist of marls and sands, often containing much green earth, called *glauconite*. They may be seen at Tournay, and at Angres, near Mons, and at Orp-le-Grand, Lincent, and Landen in the ancient province of Hesbaye, in Belgium, where they supply a durable building-stone, yet one so light as to be easily transported. Some few shells of the genus *Pholodamya*, *Scaloria*, and others, agree specifically with fossils of the Thanet Sands; but most of them, such as *Astarte inæquilatera*, Nyst, are peculiar. In the building-stone of Orp-le-Grand, I found a *Cardiaster*, a genus which, according to Professor E. Forbes, was previously unknown in rocks newer than the *cretaceous*.

Still older than the Lower Landenian is the marl, or calcareous glauconite of the village of Heers, near Waremmé, in Belgium; also seen at Marlinne in the same district, where I have examined it. It has been sometimes classed with the cretaceous series, although as yet it has yielded no forms of a decidedly cretaceous aspect, such as Ammonite, Baculite, Belemnite, Hippurite, &c. The species of shells are for the most part new; but it contains, according to M. Hébert, *Pholodamya cuneata*, an Eocene fossil, and he assigns it with confidence to the tertiary series.

*Pisolitic limestone of France.*—Geologists have been still more at variance respecting the chronological relations of this rock, which is met with in the neighborhood of Paris, and at places north, south, east, and west of that metropolis, as between Vertus and Laversines, Meudon and Montereau. It is usually in the form of a coarse yellowish or whitish limestone, and the total thickness of the series of beds,