formation contains the usual characteristic plants.* In regard to the carboniferous epoch, I examined at Greensburg, near Pittsburg, in Pennsylvania, a series of fossil foot-prints, of a reptile allied to Cheirotherium, and probably a large Batrachian, first discovered by Dr. King; and I satisfied myself of their genuineness and position in a series of shales and sandstones, containing Sigillaria, Lepidodendron. and other well-known coal-plants.[†] In reference, however, to this era, we are no longer required to appeal to mere foot-prints to prove the existence of reptiles; for two or three fossil skeletons of saurians have been met with in the carboniferous strata of Saarbruck, near They have been carefully examined, and their true nature Treves. recognised by the late Professor Goldfuss, and by Mr. Owen.

After such unexpected discoveries, we shall do well to be on our guard against the presumption of taking for granted that our present knowledge of the earliest occurrence of a particular class of fossils in stratified rocks can be reasoned upon as if it afforded a true indication of the first appearance of a particular class of beings on the globe. We must not even feel too confident that some mammalia may not have co-existed with the European saurians of Saarbruck, or with the American Cheirotherium of Greensburg. Endeavouring, however, to ascribe a due share of importance even to negative testimony, we may regard the non-discovery hitherto of fossil cetacea in all the rocks from the Silurian to the chalk inclusive, as offering the most striking fact in Paleontology in favour of the doctrine that the most highly organised class of animals was one of the last which made its appearance on the earth.

Next in chronological order above the coal, comes the allied Magnesian Limestone or Permian group, and the secondary formations from the Trias to the chalk inclusive. These rocks comprise the monuments of a long series of ages in which reptiles of every variety of size, form, and structure peopled the earth; so that the whole period, and especially that of the Lias and Oolite, has been sometimes called "the age of reptiles." As there are now mammalia entirely confined to the land; others which, like the bat and vampire, fly in the air; others, again, of amphibious habits, frequenting rivers, like the hippopotamus, otter, and beaver; others exclusively aquatic and marine, like the seal, whale, and narwal; so in the early ages under consideration, there were terrestrial, winged, and aquatic reptiles. There were iguanodons walking on the land, pterodactyles winging their way through the air, monitors and crocodiles in the rivers, and ichthyosaurs, and plesiosaurs in the ocean. It appears also that some of these ancient saurians approximated more nearly in their organization to the type of living mammalia than do any of the reptiles now existing.1

In the vast range of strata above alluded to, comprising the Per-

liman's Journal, vol. ix. Jan. 1850.

+ See Papers by the Author, Journ. of Geol. Soc. 1846; and Second Visit Reptiles, to Brit. Soc." 1841, p. 200.

* These foot-tracks are figured in Sil- to the U.S. vol. ii. p. 306., where the footprints are figured.

‡ Owen's Report on "British Fossil