

no fossils. He also reached many purely geological conclusions, and has been called, "the father and founder of the science". Similarly, Martin Lister, contemporary with Ray, and said to be the author of the first geological map, drew figures of modern shells and fossil shells side by side, noting in regard to the latter, "either these were terrigenous, or, if otherwise, the animals which they so exactly represent have become extinct".

Throughout the eighteenth century the dominant theory of fossils was that they were deposited by the Noachian flood, and a fierce campaign between orthodox and heretical science persisted for two generations. In 1726 Scheuchzer published his *Homo Diluvii Testis*, supposed to be a crowning proof of the diluvial theory. It contained a description of what was believed to be the skeleton of a child drowned by the Deluge, and it was not till long afterwards that Cuvier identified the interesting fossil as the remains of a gigantic salamander.

We may close the pre-Cuvierian period with the illustrious name of Werner (1750-1817), who, according to his pupil Jamieson, was the first definitely to suggest that the different geological formations could be discriminated by their fossils, and that the newer the formation the more nearly do the fossils approximate to living forms. From this we see that the founding of palæontology was not far off.

The foundation of palæontology is usually placed, and with much justice, altogether to the credit of Cuvier, but it is historically truer to associate it also with Lamarck and William Smith. These three men, very different from one another,—the skilful anatomist, the evolutionary thinker, the English surveyor,—were complementary.

In his study of the Tertiary mammals of France (1796) Cuvier turned his anatomical erudition and skill to good account, making absolutely clear for the first time that fossils were in most cases remains of extinct organisms, different from and yet