In the beginning of the sixteenth century the study of fossil remains may be said to have really begun. Leonardi da Vinci, the renowned artist and scientist, and Fracastro, of Verona, both maintained that the fossils were entombed in the sea mud instead of being sports of nature generated by fermentation through the influence of the stars or by spontaneous generation, theories which were thus for the first time seriously questioned, and which, in spite of all opposition, retained a dominant influence for two centuries later. Some claimed that the shells had been left by Noah's deluge, but, in opposition, Fracastro offered a mass of evidence which, although to us apparently conclusive, was not in accordance with the predominant theory of the time, and was in consequence fiercely assailed. He considered that inundation too recent and too transient; it consisted mainly of fresh water, and any organic remains resulting therefrom would necessarily be found in superficial deposits instead of in the interior of mountains.

And Fabia Colonna appears to have been the first to point out that some of the fossil shells found in Italy were marine and some terrestrial. However, these correct generalizations were the exception, not the rule, for during the sixteenth century fossils were usually considered as "sports of nature." The eminent botanists, Tournefort and Camerarius, believed in the dissemination of the seeds of minerals and fossils throughout the sea and the earth, and in the subsequent development into the characteristic forms by augmentation of atoms or particles as in crystals, stalactites, and stalagmites. Lhwyd, in his Lithophylacii Brittanici Ichnographia (Oxford, 1599), taught that the spawn of marine animals, after being raised with the vapors from the sea, conveyed inland by and precipitated from clouds, permeated into the interior of the earth where they produced the fossils. In addition to these there is the theory popular for many centuries, and now not entirely thrown aside although never a favourite with scientists, viz., that fossil animals and plants were formed by the Creator just as they are found in the rocks in pursuance of a design beyond our comprehension.

In the seventeenth century by means of collection, description and discussion of fossils the study was considerably advanced, and, although the "sports of nature" theory was still "on deck" up to the end of the century, clear ideas began to prevail and the study to advance