Good illustrations of *sponges* appeared in the pictorial works of the seventeenth and eighteenth centuries, but they were generally termed pelagic plants or fruits, or were included with corals and bryozoa, under such names as coralliolithes, alcyonias, fungites.

Guettard was the first to publish a more detailed investigation of fossil sponges. His researches were not confined to the description of external features, but made a careful note of the inner construction, the canals and openings. At first Guettard rightly compared the fossil specimens with existing sponges, afterwards he placed them with corals, but ultimately returned to his first idea that they were sponges. His treatises are accompanied by good figures, and undoubtedly rank as the best contributions to the older literature. Parkinson included the fossil sponges with alcyonarians; he gave careful descriptions and very good illustrations of a number of Cretaceous and Jurassic forms, but made no attempt at systematic treatment; in his later, smaller work, Parkinson compared some forms with sponges, others with alcyonarians, and Schlotheim took much the same standpoint.

Fossil *corals* were figured by Knorr and Walch, and by most of the early writers on palæontology. Linnæus gave the Silurian coral fauna of Gothland to one of his students, Fougt, to be described, and Guettard published detailed works on fossil corals from the Dauphiné and other parts of France. The fine illustrations of Parkinson represented more especially the coral types of the older strata in England and Scandinavia. Schlotheim also described a large number of species under the vague generic titles of Fungites, Porpites, Hypurites, Madreporites, Milleporites, and Tubiporites. On the whole, the study of fossil corals was limited to external features; little was known about the organisation of recent corals, and the systematic arrangement had no secure basis.

The knowledge of *crinoids* had reached a more favourable stage of advancement. The older authors in the sixteenth and seventeenth centuries occasionally figured the stems and crowns of crinoids under the terms of trochite, entrochite, encrinus, pentacrinus, or under such popular terms as fossil "wheels," "lilies," "pennies," etc. The classificatory position of fossil crinoid remains continued, however, quite indefinite until Rosinus in 1718 demonstrated their affinities with existing representatives of the *Euryaleæ*, an Ophiuroid family. Rosinus