

in his treatise proved conclusively that the fossil crinoid stems were not independent individuals, as had been erroneously supposed, and gave complete representations of several genera, more especially of the genus *Encrinus*.

The first example of a living *Pentacrinus* came from Martinique, and was described by Guettard, who fully recognised the relationship of the recent species with earlier forms in the Liassic and Jurassic strata.

Schulze and Parkinson added valuable data to the investigation and relationship of sea-lilies, as the crinoids were commonly designated; while Blumenbach classified them in near relationship to the ophiuroids (brittle-stars) and asteroids (star-fishes). But the founder of the more scientific literature of crinoids was Miller of Danzig, who published in 1821 his famous work, *Natural History of the Crinoidea or lily-shaped Animals*. Miller not only gave admirable descriptions of a number of previously unknown species from the Carboniferous limestones of Ireland and the Upper Silurian limestones of Dudley, but also proposed a clear terminology for the individual parts of the calyx, the arms, and the stem or column.

In the case of the important class *Echinoidea* (Sea-Urchins), contributions to the literature of fossil and existing forms practically kept pace with one another. The first systematic treatment of the *Echinoidea* was published as early as 1732 by John Philip Breyn of Danzig. In his work all known living and fossil forms were grouped under seven genera. Two years later Klein's *Dispositio Echinodermatum* appeared, and Leske in 1778 prepared a second and enlarged edition of this important work. The Klein-Leske classification recognised twenty genera, the names of which have only been partially continued in the literature. The works of Breyn and Klein have both sustained their reputation in zoological and palæontological literature.

Fossil molluscs were always awarded a large amount of attention owing to the remarkable number of species, the wide range of distribution and favourable preservation of the shells. Fossil cephalopods were figured in the older works of the seventeenth and eighteenth centuries, as a rule under the names of belemnites, nautilites, ammonites, and orthoceratites. The Gastropods or Snails were sub-divided into numerous genera of somewhat indefinite characters—*e.g.*, Dentalites,