

layers, the serpentine having rather a reticulated distribution in a ground-mass of calcite. Logan regarded such aggregates as altered masses of an originally organic growth, and in 1864 Sir William Dawson described these reticulate structures as the ramification of a Foraminiferal growth under the name of *Eozoon Canadense*. This view was supported by Carpenter in 1876, and was afterwards confirmed by Parker, Jones, Brady, Reuss, and other specialists, whereas King, Rowney, and Carter contended that the supposed *Eozoon* was not an organic structure, but had been produced by processes of mineralogical segregation. The controversy continued for many years, until Moebius, of Kiel University, published what is considered by most geologists a decisive paper in favour of the inorganic origin of the *Eozoon* structure. Moebius contended that the serpentine matter of the "Canal System" had been infiltrated into the calcite along fine vein-fissures disposed in the calcareous rock with exceptional regularity.

*Sponges.*—No group among the Invertebrates resisted scientific treatment so long as the fossil sponges. This is scarcely surprising, when it is remembered that zoologists were still in doubt in the early part of the nineteenth century whether the marine sponges belonged to the vegetable or animal kingdom. The pioneer investigations of Robert Grant (1825) first afforded a true conception of the organisation of these creatures; and after Grant, several English scientists—among others, Johnstone, Bowerbank, and Carter—made important advances towards securing a better grasp of the morphology and systematic relations of the group.

The backward state of zoological knowledge of living sponges made it almost impossible for palæontologists to attempt anything more than a description and illustration of the fossil sponges. The first volume (1826) of the *Petrefacta Germaniæ* of Goldfuss and Münster included seventy-five species of fossil sponges, which the authors distributed under eleven generic names; but the work of Goldfuss shows little advance on the works of earlier writers, Guettard, Parkinson, Mantell, and others. The works of Michelin (1840-47) and Blainville also yield merely descriptions of the external form, without any account of the finer structural features. These authors take the same standpoint as Goldfuss, in assuming that the fossil sponges are ancestral forms of the living ceratose sponges, in