

from the larger orifices, which often project above the surface in perforated papillæ. By the circulation of the water through the porous structure, the nutrition of the animal mass is effected; and the modifications observable in the number, size, form, and disposition of the pores, channels, and orifices, in different species, appear to be subservient to this especial function.

Fossil sponges are numerous in the cretaceous deposits, and generally in the flint nodules; they also occur in the white Chalk, and Chalk-marl, and are often mineralized by pyrites: the detached spicula are very abundant, particularly in some layers of the Shanklin Sand, and Kentish rag. In certain localities, entire strata are almost wholly composed of Sponges.

But associated with the true Sponges, are numerous Zoophytes which resemble them in form, but are of a nature altogether different; and it is important that the student should be able to discriminate them. These are the fossil remains of Polypiaria (*having polypes*), and are the skeletons or framework of aggregations of animalcules, or polypes; each individual of which had an independent existence, although the whole were united by one common living base.* The *Alcyonium*, called dead-

* A polype generally has a cylindrical or oval body or sac, with an opening at one extremity, around which are long feelers, or tentacula (*Wond.* p. 518.).