

of the animal kingdom retain with plants, are more marked and more predominant. In the construction of zoophytes, nature seems still to keep in view the models of vegetable forms, the characters of which, while effecting the transition from one kingdom to the other, she continues to impress on her productions. Zoophytes, both in their outward form, and in the disposition of their internal organs, preserve the symmetrical arrangement round a common centre so generally exhibited in plants, and especially in flowers, and in the verticillated leaves and branches.* Hence, the radiated or star-like forms which predominate in most of the animals composing this class: and, hence, they have obtained the title of *Radiata*, by which Cuvier has designated them.

Like the animals of the sponge tribe, Polypi are for the most part attached to some inorganic shell or base, which may be either of a horny or calcareous nature. The form of this shell admits of almost infinite variety. In some it constitutes the external surface of the animal, and encloses the flesh in a general sheath, leaving only openings at the extremities of the tubes for the expansion of each set of tentacula surrounding the respective mouths. Sometimes these tubes are joined together endwise, like the branches of a tree, leaving lateral apertures for the protrusion of the tentacula of each separate polype: this is the case in the



60

Sertularia. (Fig. 60.) At other times the tubes are placed parallel to each other, like the pipes of an organ, with transverse partitions at regular intervals: such is the structure of the *Tubipora musica*, as shown in Fig. 61. In Fig. 62, a portion of the tubes is seen highly magnified, and laid open, to show the polypes in their interior.

In some species the horny base is fashioned into a number of cells, each of which serves for the protection of its respective polype. These cells are generally placed at the

* See page 76.