

of an Echinus and a common Star-fish, as consisting of five converging spheromeres, as the body of a Caterpillar or a Butterfly consists of thirteen rings movable upon a longitudinal axis. In most Crinoids we have also five spheromeres, but occasionally four or six, and in some Asterioids even a larger number. In Acalephs the body is generally built of four or eight or twelve spheromeres; but here and there the numbers vary, as we find also that the number of rings varies in the lower Worms. In the Halcyonoid Polyps the number of spheromeres is constantly eight, they being the highest Polyps. In the Actinoids we find, in the lowest families, a large and varying number of spheromeres, sometimes increasing regularly with age; whilst in the highest Actinoids—the Madrepores proper—the individual Polyps are made up of twelve spheromeres, six of which are more prominently developed than the six others. A similar difference between alternating spheromeres is observable among the higher Acalephs. Here unequal spheromeres may combine in such a manner as to produce the appearance of bilateral symmetry; and though this feature is not only common among Radiates, but even prominent in some of the higher representatives in each class of this type, it is yet subordinate to the plan of their structure: for, upon close analysis, it is found, that, even in those Radiates in which bilateral symmetry is most marked, it is in reality the result of a symmetrical arrangement of radiating elements around a vertical axis, and not of elements symmetrically placed upon the two sides of a longitudinal axis.

Thus it appears that the body of all Radiates, be they Polyps, Acalephs, or Echinoderms, is composed of identical elements, which may be called spheromeres; and that these parts are arranged symmetrically around a vertical axis, in the same manner as the wedge-shaped segments of an orange are arranged within its bark. There is no propriety, therefore, in considering the body of Acalephs as something peculiar, and different from that of a Polyp or an Echinoderm, and it is unnecessary to give it a distinct name, as Huxley does, who calls it Hydrosoma, else this name must be extended to all Radiates; for the body of the Actinia is as much a Hydrosoma as that of any Acaleph, and so also is that of Pluteus and allied forms (young Ophiurioids and Echinoids), that of Bipinnaria and Brachiolaria (young Asterioids), and that of Auricularia (young Holothuria). We need, however, distinct names to designate the different stages of development of these animals; which, once sanctioned by use, may become as significant as the names applied to the larval conditions of the Insects.

I should not object to the name of Hydrosoma for the young Acalephs, had we not already, for every stage of their growth, names which are very generally adopted, and which render new ones superfluous. For the earliest state of the embryo Hydroids we have the name of *Planula*, for the Medusæ buds of the Hydroids that