

whole. In this matter of aggregation of animals we have thus various grades. The Foraminifers and Sponges present us with the simplest of all, and that which most resembles the aggregation of buds in the plant. The Polyps and complex Bryozoans present a higher and more specialized type; and though the bilateral symmetry which obtains in the higher animals is of a different nature, it still at least reminds us of that multiplication of similar parts which we see in the lower grades of being. It is worthy of notice here that the lower animals which show aggregative tendencies present but imperfect indications, or none at all, of bilateral symmetry. Their bodies, like those of plants, are for the most part built up around a central axis, or they show tendencies to spiral modes of growth.

It is this composite sort of life which is connected with the main geological function of the Foraminifer. While active sensation, appetite, and enjoyment pervade the pseudopods and external sarcode of the mass, the hard skeleton common to the whole is growing within; and in this way the calcareous matter is gradually removed from the sea water, and built up in solid reefs, or in piles of loose foraminiferal shells. Thus it is the aggregative or common life, alike in Foraminifers as in Corals, that tends most powerfully to the accumulation of calcareous matter; and those creatures whose life is of this complex character are best suited to be world builders, since the result of their growth is not merely a cemetery of their osseous remains, but a huge communistic edifice, to which multitudes of lives have contributed, and in which successive generations take up their abode on the remains of their ancestors. This process, so potent in the progress of the earth's geological history, began, as far as we know, with Eozoon.

Whether, then, in questioning our proto-foraminifer, we have reference to the vital functions of its gelatinous sarcode, to the complexity and beauty of its calcareous test, or to its capacity