

sessile on the bottom, grew by the addition of successive chambers, in the same manner with the smaller species.¹

Let us, then, examine the structure of Eozoon, taking a typical specimen, as we find it in the limestone of Grenville or Petite Nation. In such specimens the skeleton of the animal is represented by a white crystalline marble, the cavities of the cells by green serpentine, the mode of whose introduction we shall have to consider in the sequel. The lowest layer of serpentine represents the first gelatinous coat of animal matter which grew upon the bottom, and which, if we could have seen it before any shell was formed upon its surface, must have resembled a minute patch of living slime. On this primary layer grew a delicate calcareous shell, perforated by innumerable minute tubuli, and resting on the slimy matter of the animal, though supported also by some perpendicular plates or septa. Upon this again was built up, in order to strengthen it, a thickening or supplemental skeleton, more dense, and destitute of fine tubuli, but traversed by branching canals, through which the soft gelatinous matter could pass for the nourishment of the skeleton itself, and the extension of pseudopods beyond it. (Figs. 11, 12.) So was formed the first layer of Eozoon, which probably was at its beginning only of very small dimensions. On this the process of growth of successive layers of animal sarcode and of calcareous skeleton was repeated again and again, till in some cases even a hundred or more layers were formed (nature-print, Chap. VI.) As the process went on, however, the vitality of the organism became exhausted, probably by the deficient nourishment of the central and lower layers making greater and greater demands on those above, and so the succeeding layers became thinner, and less supplemental skeleton was developed. Finally, toward the top, the regular arrangement in layers was abandoned, and the cells

¹ I refer to some of the Stromatoporæ of the Silurian and the *Cryptozoon* of the Cambrian. See note appended to this chapter.