

object is to ascend, should first be considered. I shall, therefore, now give some account of the *Radiaries*.

The animals forming this class receive this appellation, because they exhibit a disposition to form *rays*, both in their internal and external parts, a disposition which begins to show itself, as we have seen, both in the polypes and the infusories* with respect to their oral appendages, and is found also in the tunicaries and cephalopods, or cuttle-fish. And this tendency in the works of the Creator to produce or imitate radiation, does not begin in the animal kingdom; the Geologist detects it in the mineral, and the Botanist in the vegetable, for Actinolites, Pyrites, and other substances exhibit it in the former, and a great variety of the blossoms of plants in the latter. We may ascend higher, and say that irradiation is the beginning of all life, from the seed in the earth and the *punctum saliens* in the egg, to the foetus in the womb; and still higher in the physical world, sound radiates, light radiates, heat radiates. If we further survey the whole universe, what do we behold but radiating bodies dispersed in every direction? Suns of innumerable systems, shedding their rays upon their attendant planets; and the Great Spiritual Sun of the universe, even God himself, is described in Holy Scripture as that awful Being, "*Whose goings forth have been from of old, from everlasting.*"

Cuvier, and after him several other modern Zoologists, have considered Lamarck's Class of Radiaries as forming a group or class of the zoophytes; but when we recollect that they cannot, like the infusories and polypes, be propagated by cuttings and offsets, this seems to indicate an animal substance in which the nervous molecules are less dispersed, and that some tendency to nervous centres has been established. In the upper classes of invertebrated animals, indeed, many will reproduce an organ when mutilated, and

* See above, pp. 167, 176, &c.