

In every polypidom of this order there are three parts which require notice,—the polypes, the fibro-fleshy calcareous crust in which they are placed, and the internal axis. The connection between these parts is indissoluble, and although we may treat of them separately, and as if they were somewhat independent, yet we must guard against the entertainment of any such opinion.* It was once indeed a debated question whether each polypidom might not rightly be considered a mere aggregation of separate animalcules, but all that we know of their habits and structure goes to prove the contrary, so that no one probably now disputes that the polypidom with its polypes constitute but one body, the latter being in the place of as many mouths and stomachs scattered over the surface. The whole mass, with the exception at most of the axis in those which possess a stony or horny one, is living and organized, receiving the material of its nourishment and growth from the food captured and digested by the polypes; and as they have not only an organical union with the irritable flesh in which they are immersed, but are many of them more intimately associated together by means of canals and intestines, so they participate in every benefit and every evil. When, therefore, one pinna of a Sea-Pen is lacerated or cut away, the remaining pinnæ gradually shrink, the polypes withdraw, and the whole body contracts in every dimension; or if a portion of the *Alcyonium* be subjected to irritation, the gradual collapse and contraction of the polypidom renders it obvious that the irritation has been communicated and felt through the entire mass.† On the con-

ed by the providence of nature, for that the edges of them do in that posture with *most ease cut the water flowing to and fro*; and should the flat side be objected to the stream, it would soon be turned edge-wise by the force of it, because in that site it doth least resist the motion of the water: whereas did the branches of these plants grow round, they would be thrown backward and forward every tide. Nay, not only the herbaceous and woody submarine plants, but also the lithophyta themselves affect this manner of growing, as I have observed in various kinds of corals and pori."—*The Wisdom of God in the Creation*, p. 77.

* Tiedemann has inadvertently asserted that the polypes "are able to leave the crust and return to it." *Comp. Phy.* 306.

† "Unknown to sex the pregnant oyster swells,
And coral-insects build their radiate cells;
 Parturient Sires caress their infant train,
 And heaven-born Storge weaves the social chain: