

The cell tenanted by this polype is of a tubular, an elliptical, oval, or hexangular figure, circumscribed by distinct walls which apparently separate it from those that lie in juxtaposition, and hinder any intercommunity. The isolation, however, I believe to be more apparent than real. In Vesicularia the cells are apart from each other, and rise from a common tube,—the zoophyte affording by this disposition of them a very favourable object for observing their true connection. Now Ellis states that while a branch of this species was in a watch-glass of sea-water, on the stage of the microscope, he “could plainly distinguish that the internal hollow part of the whole coralline was filled with the substance of the parent polype, which appeared to be of a tender gelatinous nature; and upon the least extension or contraction of the young polypes, this tender fleshy substance was visibly affected; *for each one was united to it by their lower part or tail.*”* I think I have also noticed a distinct thread of communication between the polypes of the Flustra; and though the closeness of their proximity, and their opacity, may prevent the demonstration in other genera, yet a like union may be probably inferred, for other conclusion seems incompatible with the mode of increase of the polypidoms, and the regularity of their patterns.

The polypidom, formed in some species of a congeries of many thousand cells, begins with one only. This original or seminal cell has no sooner been completed, or even in many instances previous to its perfection, than another begins to shoot out from a fixed point of its parietes, the bud gradually enlarging and developing itself until the form and size of the primary one has been attained.† This process can most easily be

apparent when it is in a state of contraction, at which time the whole filament also is obviously thicker than when relaxed. The filaments have a watery transparency and smooth surface, and under the highest powers of the microscope present neither an appearance of cross markings nor of a linear arrangement of globules.” *Farre* in *Phil. Trans.* an. 1837, p. 394.

* Essay on Corallines, p. 21.

† Of Lœfling’s observations on *Membranipora pilosa*, Pallas says—“Vidit propagari seu augeri, per gemmas a marginalibus seu extremis cellulis protusas, in perfectas cellulas effingendas, e quibus polypus dein exseritur. Interdum 2 proles ab eadem cellula, at non simul exseri, sicque series duplicari atque in latitudinem pandi crustam vidit.” *Elench. Zooph.* p. 51. See also p. 34.