

there are patches of reddish and bluish chalcedony, resembling those observable in parts of the Ventriculites and Spongites in the chalk-flints of Sussex. They were probably gigantic goblet-shaped zoophytes, allied to the sponges, but of too perishable a texture to leave any trace but their general outline. Specimens may, however, yet be found with the structure preserved, for it was many years before I detected the true nature of the fossils next to be described.

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#### FOSSIL POLYPIARIA.

The fossil zoophytes included in this section present innumerable varieties of form and structure, but all possess this important character, namely, that they have originated from those aggregated families of minute beings termed POLYPES (*many-feet*\*). The common *Hydra* (*Wond.* p. 518, Tab. 98.), or fresh-water polype, that inhabits pools and streams, is a familiar example of a free, independent animal of this kind, consisting of a mere cellular gelatinous substance, in the form of a short tube, surrounded at the upper margin by long tentacula, or feelers, which appear to the naked eye like delicate threads. The Polypiaria, properly so

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\* This name is derived from the tentacula, or processes, which in some species serve for prehension, and in others for respiration.