

of the animal substance, and constitutes an external protection to the polypi. In another family, the *gorgonia* (Tab. 101), the skeleton is of a horny or ligneous texture, and flexible, bending to the motions of the waves; while in some it is jointed or articulated, as in the *Isis* (Tab. 102, fig. 3). Sometimes the skeleton is impressed with the cells, as in the madrepores; while in other species, as the red coral, the stem is smooth, and exhibits no traces of the peculiar structure of the animal. Yet amidst these almost endless varieties of form, the same essential characters are maintained; in all there is a skeleton or solid support, and a fleshy or gelatinous substance studded with polypi.

From an analysis of the stony corals, it appears that their composition is very analogous to that of shells. The porcellaneous shells, as the cowry, are composed of animal gluten and carbonate of lime, and resemble, in their mode of formation, the enamel of the teeth; whereas the pearly shells, as the oyster, are formed of carbonate of lime and a gelatinous or cartilaginous substance, the earthy matter being secreted and deposited in the interstices of a cellular tissue, as in bones. In like manner some corals yield gelatine upon the removal of the lime; while others afford a substance in every respect resembling the membranous structure, obtained by an analysis of the nacreous shells.*

• Experiments of Mr. Hatchett.