

little changed, except by the introduction of calcareous or siliceous matter into the minutest interstices ; but, in the same circumstances, the crusts of echinida and stellerida are converted to crystallised calcareous spar. Even in arenaceous and argillaceous strata, and amidst flint nodules where every sponge is silicified, the stems of crinoidea and spines of echinida are thus represented. A curious circumstance was noticed some time ago by the Rev. H. Jelly of Bath, concerning some lamelliferous corals of the oolite : the great mass of the coral was decomposed, and the cavity it once filled was partially occupied by pyramidal crystals of carbonate of lime, in whose transparent substance *the radiating plates of the coral* were clearly discernible ; a fact in harmony with many other phenomena indicative of the power of crystalline attractions to overcome and involve arrangements of matter depending on other causes.

The laws of the distribution of fossil zoophyta so far agree with what has been already inferred concerning plants, as to prove that in this class of beings likewise, many distinct systems or assemblages of forms have existed at different ancient periods, which are all now extinct. Yet it is certain that the differences are mostly only such as belong to species, genera, and families, those minor groups of orders and classes which most distinctly reveal differences of physical condition, while agreements of a very general kind permit nearly all fossil zoophyta to be ranked as analogous to known living tribes. Even for the crinoidea, the most considerable exception, at least one living type is known. There is, undoubtedly, to be noticed a great difference as to the groups of zoophyta which belong to the different periods of the formation of the stratified crust of the globe ; and a considerable discordance between the forms of the oldest fossil races, and those now actually existing. Zoophyta were collected by the author (1836) among bivalve shells, in one of the oldest fossiliferous slaty rocks of Britain, on the summit of Snowdon ; they occur in the Bala limestone ; abound to admiration in the calcareous