No. 2; and it is equally common to find large quantities of shells, corals, sea-urchins, encrinites, and various other forms of life in such limestones as No. 1, which, in many cases, are almost wholly composed of entire or broken shells and other marine organic remains.

Marine and lake sediments form soils on and in which the creatures live that inhabit the bottom of the waters, and it is easy to understand how numerous shells and other organic bodies happen thus to have been buried in muddy, sandy, or conglomeratic mechanical sediments, the component grains of which, large or small, have been borne from the land into water, there by force of gravitation to arrange themselves as strata. By the life and death of shells in these fossilised sediments, it is also easy to understand why they are so often more or less *calcareous*. The question, however, arises, *how it happens that strata of pure or nearly pure carbonate of lime or limestone have been formed.*

Though the materials of shale (once mud), sandstone (once loose sand), and conglomerate (once loose pebbles), have been carried from the land into the sea, and there arranged as strata, and though limestones have, in great part, been also mechanically arranged, yet it comparatively rarely happens that quantities of fine unmixed calcareous sediment have been carried in a tangible form by rivers to the sea, though it has sometimes been directly derived from the waste of sea-cliffs and mixed with other marine sediments. When, therefore, it so happens that we get a mass of limestone consisting entirely of shells, corals, and other remains, which are the skeletons of creatures that lived in the sea, in estuaries, or in lakes, the conclusion is forced upon us that, be the limestone ever so thick, it has been