

clusively to the oolite formation : in the magnesian limestone, and even in transition limestone, a tendency to an oolitic structure may be sometimes observed. It is not yet ascertained, whether these globules are the result of a tendency to crystalline arrangement, or whether they are of animal origin.

The organic remains that occur in the different beds of oolite are so numerous and various, that it would require an ample volume to describe them fully. It will, however, be necessary to notice those fossil genera that differ remarkably from the genera whose remains are found in the lower strata, and indicate a considerable change in the condition of the globe, or at least in those parts of it where the strata were deposited.

It has been already observed, that most of the shells in the lower strata are different species with internal chambers, such as nautilites, ammonites, and belemnites, and that univalve unchambered shells are rarely found among them. By far the greater number of genera that have left their remains in these strata belong to the acephalous Mollusca, or such as had neither heads nor eyes, and inhabited bivalve shells. Even in the lias, only about five genera of spiral univalve unchambered shells have been well ascertained, and the number of species or of individual shells is small. In the oolite, the genera and species of univalve unchambered shells are more numerous, and the individual shells of several species abound in some of the strata. Now, as these animals had heads and eyes, and moved on their bellies like the land-snail, we may infer, that they did not live in deep seas, where the sense of vision could not be available ; they lived and moved in comparatively shallow water near the shore.

The vertebrated animals, whose remains are found in oolite, are fishes and reptiles of the same genera as those discovered in lias ; some, undoubtedly, belong to the crocodile genus, and had feet, like the living species of crocodiles ; hence we may infer, that there were dry land and rivers in the vicinity.

It may well excite surprise, that calcareous strata should so rarely be found, which present distinct indications of having been formed exclusively by coralline polypi ; particularly as coral rocks and reefs, of great extent, are so rapidly forming in our present seas. There are, however, among the strata of oolite, some, which are composed almost entirely of madreporites, and have received the name of coral ragg. There are other strata which abound in the remains of fossil sponges and alcyonia, and with congeries of minute millepores and madreporites. More than twenty species of trochiform or top-shaped spiral shells, and several species of echinites, are found in the oolite strata ; but in the lias below, as before stated, only a few genera and species occur, and the individual shells are scarce. The *gryphæa incurva*, so common in the lias, is rarely if ever found in the oolite strata ; but another species, with a broad expanded shell, called the *gryphæa dilatata*, is a fossil frequently found in different beds of the