

It gives rigidity to the body, and furnishes the muscles with a fulcrum; and we find it composed, like all other *shells*, of a mixture of animal matter and carbonate of lime. Such was the lesson taught me in a single walk; and I have recorded it at some length. The subject of it, the loligo, has been described by some of our most distinguished naturalists, such as Kirby in his Bridgewater Treatise, as "one of the most wonderful works of the Creator;" and the reader will perhaps remember how fraught with importance to natural science an incident similar to the one related proved in the life of the youthful Cuvier. It was when passing his twenty-second year on the sea-coast, near Fiquainville, that this greatest of modern naturalists was led, by finding a cuttle-fish stranded on the beach, which he afterwards dissected, to study the anatomy and character of the mollusca. To me, however, the lesson served merely to vivify the dead deposits of the Oolitic system, as represented by the Lias of Cromarty and Ross. The middle and later ages of the great secondary division were peculiarly ages of the Cephalopodous molluscs: their belemnites, ammonites, nautili, baculites, hamites, turrilites, and scaphites, belonged to the great natural class—singularly rich in its extinct orders and genera, though comparatively poor in its existing ones—which we find represented by the cuttle-fish; and when engaged in disinterring the remains of the earlier-born members of the family—ammonites, belemnites, and nautili—from amid the shades of Eathie or the mud stones of Shandwick, the incident of the loligo has enabled me to conceive of them, not as mere dead remains, but as the living inhabitants of primæval seas, stirred by the diurnal tides, and lighted up by the sun.

When pursuing my researches amid the deposits of the Lias, I was conducted to an interesting discovery. There are two great systems of hills in the north of Scotland,—an older and a newer,—that bisect each other like the furrows of a field that had first been ploughed across and then diagonally. The diagonal furrows, as the last drawn, are still very entire. The great Caledonian Valley, open from sea to sea, is the most remarkable of these; but the parallel valleys of the Nairn, of the