

the few vegetable organisms, of apparently aquatic origin, which I have hitherto succeeded in detecting in the Lower Old Red Sandstone of Scotland.* Their individual numbers, however, must have been very great, though, from the destructible character of their tissues, their forms have perished in the stone. The immensely developed flagstones of Caithness seem to owe their dark colour to organic matter mainly of vegetable origin. So strongly bituminous, indeed, are some of the beds of dingier tint, that they flame in the fire like slates steeped in oil.

The remains of a terrestrial vegetation in this deposit are greatly scantier than those of its marine plants ; but they must be regarded as possessing a peculiar interest, as, with the exception of the spore cases of the Ludlow rocks, the oldest of their class, in at least the British islands, whose true place in the scale can be satisfactorily established. In the flagstones of Orkney there occurs, though very rarely, a minute vegetable organism, which I have elsewhere described as having much the appearance of one of our smaller ferns, such as the maidenhair-spleenwort, or dwarf moonwort. It consists of a minute stem, partially covered by what seems to be a small sheath or hollow bract, and bifurcates into two fronds or pinnae, fringed by from ten to twelve leaflets, that nearly impinge

* I must, however, add, that there was found in the neighbourhood of Stromness about fifteen years ago, by Dr John Fleming, a curious non-descript vegetable organism, which, though equivocal in character and appearance, was in all probability a plant of the sea. It consisted of a flattened cylinder, in some of the specimens exceeding a foot in length by an inch in breadth, and traversed on both the upper and under sides by a mesial groove extending to the extremities. It bore no external markings, and the section exhibited but an indistinct fibrous structure, sufficient, however, to indicate its vegetable origin. I have not hitherto succeeded in finding for myself specimens of this organism, which has been named provisionally by Dr Fleming *Stroma obscura* ; but it seems not improbable that certain supposed fragments of wood, detected by Mr Charles Peach in the Caithness Flagstones, but which do not exhibit the woody structure, may have belonged to it.