

nute circular cases, which form the receptacles of their spore-like seeds. And when, high in the Upper Silurian system, and just when preparing to quit it for the Lower Old Red Sandstone, we detect our earliest terrestrial organisms, we find that they are composed exclusively of those little spore receptacles. The number of land-plants gradually increases as we ascend into the overlying system. Still, however, the flora of even the Old Red is but meagre and poor ; and you will perhaps permit me to lighten this part of my subject, which threatens too palpably to partake of the poverty of that with which it deals, by a simple illustration.

We stand, at low ebb, on the outer edge of one of those iron-bound shores of the Western Highlands, rich in forests of algæ, from which, not yet a generation bygone, our Celtic proprietors used to derive a larger portion of their revenues than from their fields and moors. Rock and skerry are brown with sea-weed. The long cylindrical lines of *Chorda filum*, many feet in length, lie aslant in the tide-way ; long shaggy bunches of *Fucus serratus* and *Fucus nodosus* droop heavily from the rock sides ; while the flatter ledges, that form the uneven floor on which we tread, bristle thick with the stiff, cartilaginous, many-cleft fronds of at least two species of chondrus,—the common carrageen, and the smaller species, *C. Norvegicus*. Now, in the thickly-spread fucoids of this Highland shore we have a not very inadequate representation of the first or thallogenic vegetation,—that of the great Silurian period, as exhibited in the rocks, from the base to nearly the top of the system. And should we add to the rocky tract, rich in fucoids, a submarine meadow of pale shell-sand, covered by a deep green swathe of *zostera*, with its jointed saccharine roots and slim flowers, unfurnished with petals, we would render it perhaps more adequately representative still.

'We cross the beach, and enter on a bare brown moor,