

a sudden hurricane that came roaring down the ravine, the mass of rock in which it had been anchored at once gave way, and, bearing fast jammed among its roots a fragment of the mass which we still find there, and from which we read a portion of its story, it was precipitated into the foaming torrent. Dancing on the eddies, or lingering amid the pools, or shooting, arrow-like, adown the rapids, it at length finds its way to the sea; and after sailing over beds of massive coral,—the ponderous *Isastrea* and more delicate *Thamnastrea*,—and after disturbing the Enaliosaur and Belemnite in their deep-green haunts, it sinks, saturated with water, into a bed of arenaceous mud, to make its appearance, after long ages, in the world of man,—a marble mummy of the old Oolite forests,—and to be curiously interrogated regarding its character and history.

The pines of our Scotch Oolite—some of them, as I have shown, or rather as my specimens show, of exceedingly slow growth—are suggestive of a temperate, if not severe climate. The family of their contemporaries, however, to which I must next refer as not less characteristic of the flora of this ancient time than the coniferæ themselves, is now to be found in a state of nature in only the warmer regions of the earth, and can be studied in this part of the world only in our conservatories and greenhouses. It is known to the botanist as the Cycadaceous family; and at least two of its genera, *Cycas* and *Zamia*, we find well represented in the Oolitic deposits of Scotland. In the *Zamia*, a cylindrical, squat, scale-covered pedestal is fringed along its upper edge by a ring of long pinnate leaves, that radiate outwards like the spokes of a wheel from the nave; and, placed on the centre of the pedestal, there is, when the plant is in fruit, a handsome cone. The *tout ensemble* is as if a pine-apple, with the pot in which it grew, and with its leaves arranged like a ruff round its stem, formed altogether but one plant. The *Cycas* is usually taller than