

any intention even of making a register at all? The mere bulk and number of the volumes would militate sadly against any such supposition; but the peculiar character and order of their contents would militate against it more powerfully still.

Now, the geologic register far excels any human record, in the number and significancy of the marks of a strictly analogous cast which demonstrate its vast antiquity. As we ascend higher, and yet higher, the characters of the document strangely alter. In the Tertiary ages we find an evident approximation to the existing style. An entire change takes place as we enter the Secondary period. A change equally marked characterizes the Palæozoic eras. Up till the commencement of the Cretaceous system, two great orders of fish, — the *Ctenoid* and *Cycloid*, — fish furnished with horny scales and bony skeletons, — comprise, as they now do, the great bulk of the finny inhabitants of the waters. But immediately beyond the Cretaceous group these two orders wholly disappear, and the *Ganoid* and *Placoid* orders — fish that wear an armature of bone outside, and whose skeletons are chiefly cartilaginous — take their places. Up till the period of the Magnesian Limestone, the *homocercal* or two-lobed type of fish-tail greatly preponderates, as at the present time; but in all the older formations, — those of the immensely extended Palæozoic period, — not a single tail of this comparatively modern type is to be found, and the *heterocercal* or one-sided tail obtains exclusively. Down till the deposition of the Chalk has taken place, all the true woods are coniferæ of the Pine or Araucarian families. After the Chalk has been deposited, hard-wood trees, of the dicotyledonous order, are largely introduced. Down till the times of the Magnesian Limestone, plants of an inferior order — ferns, stigmarias, club-mosses, and calamites — attain to a size so gigantic that they rival the true denizens of the forest;