

characterizes, says Agassiz, the fish of all the more ancient formations. At one certain point in the descending scale Nature entirely alters her plan in the formation of the tail. All the ichthyolites above are fashioned after one particular type — all below after another and different type. The bibliographer can tell at what periods in the history of letters one character ceased to be employed and another came into use. Black letter, for instance, in our own country, was scarce ever resorted to for purposes of general literature after the reign of James VI. and in manuscript writing the Italian hand superseded the Saxon about the close of the seventeenth century. Now, is it not truly wonderful to find an analogous change of character in that pictorial history of the past which Geology furnishes? From the first appearance of vertebrated existences to the middle beds of the New Red Sandstone, — a space including the Upper Ludlow rocks, the Old Red Sandstone in all its members, the Mountain Limestone, with the Limestone of Burdie House, the Coal Measures, the Lower New Red, and the Magnesian Limestone, — we find only the ancient or unequally lobed type of tail. In all the formations above, including the Lias, the Oolite, Middle, Upper, and Lower, the Wealden, the Green-Sand, the Chalk, and the Tertiary, we find only the equally-lobed condition of tail. And it is more than probable, that, with the tail, the character of the skeleton also changed; that the more ancient type characterized, throughout, the semi-cartilaginous order of fishes, just as the more modern type characterizes the osseous fishes; and that the upper line of the Magnesian Limestone marks the period at which the order became extinct. Conjecture lacks footing in grappling with a revolution so extensive and so wonderful. Shall I venture to throw out a suggestion on the subject, in connection with another