

animals and plants as that in the "Vestiges," and in which the sea is described as that great and fruitful womb of nature in which organization and life first began. Lamarck, at the time when Maillet wrote, was a boy in his sixth year. He became, comparatively early in life, a skilful botanist and conchologist; but not until turned of fifty did he set himself to study general zoology; and his greater work on the invertebrate animals, on which his fame as a naturalist chiefly rests, did not *begin* to appear — for it was published serially — until the year 1815. But his development hypothesis, identical with that of the "Vestiges," was given to the world long before, — in 1802; at a time when it had not been ascertained that there existed placoids during the Silurian period, or ganoids during the Old Red Sandstone period, or enaliosaurs during the Oolitic period; and when, though Smith had constructed his "Tabular View of the British Strata," his map had not yet appeared, and there was little more known regarding the laws of superposition among the stratified rocks than was to be found in the writings of Werner. And if the presumption be strong, in the circumstances, that Lamarck originated his development hypothesis ere he became in any very great degree skilful as a zoologist, it is no mere presumption, but a demonstrable truth, that he originated it ere he became a geologist; for a geologist he never became. In common with Maillet and Buffon, he held by Leibnitz's theory of a universal ocean; and such, as we have already seen, was his ignorance of fossils, that he erected dermal fragments of the Russian *Asterolepis* into a new genus of *Polyparia*, — an error into which the merest tyro in palæontology could not now fall. Such, in relation to these sciences, was the man who perfected the dream of development. Nor has the most distinguished of its continen-