

the volcanic fluid of the interior of earth. Lyell thus demonstrated a continuous and uninterrupted connection of the whole history of the earth, and he proved it so irrefutably, and established so convincingly the supremacy of the "existing causes," that is, of the causes which are still active in the transformation of the earth's crust, that Geology in a short time completely renounced Cuvier's hypothesis.

Now, it is remarkable that Palæontology, the science of petrifications, so far as it was pursued by botanists and zoologists, remained apparently unaffected by this great progress in geology. Biology still continued to assume repeated new creations of the whole animal and vegetable kingdoms, at the beginning of every new period of the earth's history, although this hypothesis of individual creations, shoved into the world one after the other, without the assumption of Cuvier's cataclysms, became pure nonsense, and lost its foundation. It is evidently perfectly absurd to assume a distinct new creation of the whole world of animals and plants at definite epochs, without the crust of the earth itself experiencing any considerable general revolution. And although this conception is most closely connected with Cuvier's theory of catastrophes, still it prevailed when the latter had been completely destroyed and abandoned.

It was reserved for the great English naturalist, Charles Darwin, to remove this contradiction, and to show that the organic beings of the earth have a history as continuous and connected as the inorganic crust of the earth; that animals and plants have arisen from one another by as gradual a transmutation as that by which the varying forms of the earth's crust, the forms of the continents, and of the seas surrounding and separating them, have arisen out of earlier