

While they insisted upon the manifest proofs of constant and universal decay over the surface of the globe, the Scottish geologists no less strongly contended that this decay was a necessary part of the present economy of nature, that it had been in progress from the earliest periods in the history of the earth, and that it was essential for the presence of organised beings upon the planet. They pointed to the vegetable soil, derived from the decomposition of the rocks which it covers, and necessary for the support of vegetable life. They appealed to the vast quantity of sedimentary rocks forming the visible part of the crust of the earth, and bearing witness in every bed and layer to the degradation and removal of former continents. They showed that the accumulated *débris* of the land, carried to sea, was there spread out on the sea-floor to form new strata, which, hardened in due time into solid rock, would hereafter be upheaved to form the frame-work of new lands.

Such was the geology of the Scottish School. It was based not on mere speculation, but on broad fundamental facts drawn from mountain and valley, hill and plain, and tested as far as was then possible by the scrutiny of actual experiment. It strove, for the first time in the history of science, to evolve a system out of the manifold complications of nature, to harmonise what had seemed but the wild random working of subterranean forces with the quiet operations in progress upon the surface of the earth, to understand what is the present system of the world, and through that to peer into the history of earlier conditions of the planet. It taught that the earthquake and volcano were parts of the orderly arrangement by which new continents were from time to time raised up to supply the place of others that had been worn away ; that the surface