

those which actually exist. Had the earth's surface presented only one unvaried mass of granite or lava; or, had its nucleus been surrounded by entire concentric coverings of stratified rocks, like the coats of an onion, a single stratum only would have been accessible to its inhabitants; and the varied intermixtures of limestone, clay, and sandstone, which, under the actual disposition, are so advantageous to the fertility, beauty, and habitability, of the globe, would have had no place.

Again, the inestimably precious treasures of mineral salt and coal, and of metallic ores, confined as these latter chiefly are, to the older series of formations, would, under the supposed more simple arrangement of the strata, have been wholly inaccessible; and we should have been destitute of all these essential elements of industry and civilization. Under the existing disposition, all the various combinations of strata with their valuable contents, whether produced by the agency of subterranean fire, or by mechanical, or chemical deposition beneath the water, have been raised above the sea, to form the mountains and the plains of the present earth; and have still further been laid open to our reach, by the exposure of each stratum, along the sides of valleys.

With a view to human uses, the production of a soil fitted for agriculture, and the general