

the depth of not more than one or two hundred feet, although in particular places it is several hundred feet. These deposits have been pushed forward at the mouths of some large rivers, so as to cover hundreds, and even thousands, of square miles. Oceanic currents have also made deposits in the bottom of wide seas of considerable extent; and in some limited spots these deposits have been consolidated into rock. The action of frost and gravity, also, has crumbled from precipitous ledges angular fragments enough to form a slope of detritus sometimes a hundred feet high. The polyparia, or coral builders, have advanced their work only a few feet in thickness during this period, and soils have accumulated in some places about as much. Volcanic action has occasionally thrown up a new island from the ocean's bed; but only a few of them have been permanent. Some tracts of country, in no case more than a few hundred miles in extent, have, by the same agency, been raised a few feet, or sunk down the same amount. But after all, the earth's surface remains essentially the same as when man was placed upon it.

Now, compare these slight changes with those which have preceded it, through the operation of the same agencies, since the first existence of animals upon the globe. I will not contend, with some distinguished geologists, that these same changes have always operated with the same intensity as at present. But there are several circumstances which show that the depositions from water could not have been essentially different in ancient and modern times. Now, just compare six or eight miles in thickness of the fossiliferous deposits of the previous periods with the two hundred feet of alluvium accumulated during the historic period; and, after you have made all reasonable allowance for the greater intensity of action in former times, you will still find yourselves confounded by the incalculable time requisite to pile up such an immense thickness of materials, and then to harden most of them into stone, especially when you call to mind the numerous changes of organic life, and the vast amount of animal remains which they exhibit. A superficial observer might lump such a work, and crowd it into a few thousand years. But the more its details are studied, the longer does the period appear that is requisite for its production. Each successive investigation discovers new evidence of changes in composition, or organic contents, or