

On land, vast accumulations of detrital origin are now in progress. Alluvial plains of every size, from those of mere brooks up to those of the largest rivers, are built up of gravel, sand, and mud derived from the disintegration of higher ground. From the level of the present streams, successive terraces of these materials can be followed up to heights of several hundred feet. Over wide regions, the daily changes of temperature, moisture and wind supply a continual dust, which, in the course of centuries, has accumulated to a depth of sometimes 1500 feet, and covers thousands of square miles of the surface of the continents. The numerous lakes that dot the surface of the land serve as receptacles in which a ceaseless deposition of sediment takes place. Already an unknown number of once existent lakes has been entirely filled up with detrital accumulations, and every stage toward extinction may be traced in those that remain.

But extensive though the terrestrial sedimentary deposits may be, they can be regarded merely as temporary accumulations of the detritus. Save where protected and concealed under the water of lakes, they are everywhere exposed to a renewal of the denudation to which they owe their origin. Only where the sediment is strewn over the sea-floor beneath the limit of breaker-action, is it permitted to accumulate undisturbed. In these quiet depths, are now growing the shales, sandstones, and limestones, which by future terrestrial revolutions will be raised into land, as those of older times have been. Between the modern deposits and those of former sea-bottoms which have been upheaved, there is the closest parallel. Deposition will obviously continue as long as denudation lasts. The secular movements of the crust seem to have been always sufficiently frequent and ex-