

exactly the same. For the waves eternally and perpetually break on the edge of the coast, and whatever the land in these places loses in extent, it gains in other places by the accumulation of mud, which condenses into solid stone and again rises above the level of the sea as new land. Nothing can be more erroneous than the idea of a firm and unchangeable outline of our continents, such as is impressed upon us in early youth by defective lessons in geography, which are devoid of a geological basis.

I need hardly draw attention to the fact that these geological changes of the earth's surface have ever been exceedingly important to the migrations of organisms, and consequently to their Chorology. From them we learn to understand how it is that the same or nearly related species of animals and plants can occur on different islands, although they could not have passed through the water separating them, and how other species living in fresh water can inhabit different enclosed water-basins, although they could not have crossed the land lying between them. These islands were formerly mountain-peaks of a connected continent, and these lakes were once directly connected with one another. The former were separated by geological depressions, the latter by elevations. Now, if we further consider how often and how unequally these alternating elevations and depressions occur on the different parts of the earth, and how, in consequence of this, the boundaries of the geographical tracts of distribution of species become changed, and if we further consider in what exceedingly various ways the active and passive migrations of organisms must have been influenced by them, then we shall be in a position to completely understand the great variety of the