

from the remote Huronian period to the Tertiary the American land occupied the same position as at present, and that its changes were merely changes of relative level as compared with the sea, but which so influenced the ocean currents as to cause great vicissitudes of climate.

Having thus endeavored, however roughly and imperfectly, to define the nature, extent, and causes of the vicissitudes of climate and other physical conditions on our continents, we shall be in a position to consider their present state and the causes of the distribution of their living inhabitants.

In speaking of continents and islands it may be as well to remark that all the land existing, or which probably has at any time existed, consists of islands great or small. It is all surrounded by the ocean. Two of the greater masses of land are, however, sufficiently extensive to be regarded as continents, and from their very extent and consequent permanence may be considered as the more special homes of the living beings of the land. Two other portions of land, Australia and the antarctic polar continent, may be regarded either as smaller continents or large islands, but partake of insular rather than continental characters in their animals and plants. All the other portions of land are properly islands; but while these islands, and more especially those in mid-ocean, cannot be regarded as the original homes of many forms of life, we shall find that they have a special interest as the shelters and refuges of numerous very ancient and now decaying species.

The two great continents of America and Eurasia have been the most permanent portions of the land throughout geological time, some parts of them having always been above water, probably from the Laurentian age downward, tho at various times they have been reduced to little more than groups of islands. On them, and more especially in their more northern parts, in which the long continuance of daylight in summer seems in warm periods to have been peculiarly favorable to the introduction of new vegetable forms, and to the giving to them that vigor necessary for active colonization, have originated the greater number of the inhabitants of the land.

Regarded as portions of the earth's crust, the continents are areas in which the lateral thrust, caused by the secular contraction of the interior of the earth, has ridged up and folded the