would bring up from the bottom its sand-banks and plains forming an extent of slightly-winding and unsheltered shore. The character of a coast will therefore depend very greatly upon its former history, before it become fixed. We have this contrast in the eastern and western sides of the Adriatic, or in the western and eastern sides of the British islands. These circumstances are to some degree controlled by the effects of partial volcanoes, or of powerful winds and currents. But on the whole, it may generally be inferred that a long unbroken shore indicates that the last change on the land level was one of elevation; while a coast penetrated, broken, and defended by islands has received its conformation from being stopped in the process of subsiding.

The coast of Africa has over almost its whole circuit, that unbroken or slightly indented outline which would arise from upheaval. The only conspicuous exception to this, is in the eastern region, neighboring on the Mozambique Channel, where the Portuguese and the Arab possess the advantage, so rare in Africa, of having at their command convenient and sheltered harbors. There are centres of partial volcanic agency in the islands of the Atlantic, north of the equator, and in the distant spots settled by Europeans outside of Madagascar; but this action has not, as in the Mediterranean or Archipelago, modified the character of the continental shore. It is not known that there exists any active volcano on the continent.

Africa, therefore, if it could be seen on a great model of the world, would offer little, comparatively, that was varied in outline or in aspect. There would be great tawny deserts, with scanty specks of dusky green, or threads of sombre verdure tracing out its scant and temporary streams. There would be forests concealing or embracing the mouths of rivers, with brown mountains here and there penetrating through them, but rarely presenting a lofty wall to the sea. Interior plains would show some glittering lakes, begirt by the jungle which they create. But it is a land nearly devoid of winter, either temporary or permanent. Only one or two specks, near the mouth of the Red Sea, and a short beaded line of the chain of Atlas, would throw abroad the silver splendor of perpetual snow. It is the great want of Africa, that so few mountains have on their heads these supplies for summer streams.

The sea-shore is generally low, except as influenced by Atlas, or the Abyssinian ranges, or the mountains of the southern extremity. There is, not uncommonly, a flat swampy plain, bordering on the sea, where the rivers push out their deltas, or form lagoons by their conflict with the fierce surge upon the shore. Generally at varying distances, there occur falls or rapids in the great rivers, showing that they are descending from interior plains of considerable elevation. The central regions seem, in fact, to form two, or perhaps three great elevated plateaux or terraced plains, having waters collected in their depressions, and joined by necks; such as are the prairies of Illinois, between the St. Lawrence and the Mississippi, or the llanos of South America between its great rivers. The southern one of these African plains approaches close to the Atlantic near the Orange River. Starting there at the height of three thousand feet, it proceeds round the sources of the river, and spreads centrally along by the lately visited, but long known lakes north of the tropic. The equinoctial portion of it is probably drained by the Zambeze and the Zaire, flowing in opposite directions. It appears to be continuous as a neck westward of Kilmandjaro, the probable source of the Nile; till it spreads out into the vast space extending from Cape Verde to Suez, including in it the Niger and the Nile, the great desert, and the collections of waters forming Lake Tzad, and such others as there may be towards Fitre.

The mountains inclosing these spaces form a nearly continuous wall along the eastern side of Africa. The snows of Atlas form small streams, trickling down north and south; and, in the latter case, struggling almost in vain with the tropical heats, in short courses towards the Desert of Sahara.

There are found separate groups of mountains, forming for the continent a broken margin on the west. There may also be an important one situated centrally between Lake Tzad and the Congo; but there appears no probability of a transverse chain, stretching continuously across this region, as has hitherto had a place on maps, under the title of the "Mountains of the Moon."

No geological changes, except those due to the elevation of the oldest formations, appear to have taken place extensively in this continent. The shores of the Gulf of Guinea, and of the eastern regions, abound with gold, suggesting that their interior is not covered by modern rocks. The two extremities at Egypt and Cape of Good Hope, have been depressed to receive secondary and tertiary deposits. There may be other such instances; but the continent seems, during a time, even geologically long, to have formed a great compact mass of land, bearing the same relations as now to the rest of the world.

The valleys and precipices of South Africa have been shaped by the mighty currents which circulate round the promontory of the Cape; and the flat summit of Table Mountain, at the height of three thousand six hundred feet, is a rocky reef, worn and fretted into strange projections by the surge, which the southeasters brought against it, when it was at the level of the sea.

The present state of organized life in Africa tells the same tale. It indicates a land never connected with polar regions, nor subjected to great variations of temperature. Our continent, America, is a land of extremes of temperature. Corresponding to that condition, it is a land characterized by plants, the leaves of which ripen and fell, so that vegetation has a pause, waiting for the breath of spring. All the plants of southern Africa are evergreens. The large browsing animals, such as the elephant and rhinoceros, which cannot stoop to gather grass, find continuous subsistence in the continuous foliage of shrubs. America abounds with stags or deer—animals having deciduous horns or antlers. Southern Africa has none, but is rich in species of antelopes, which have true or permanent horns, and which now here sustain great variations of heat and cold. Its fossil plants correspond apparently in character to those which the country now bears.

Its fossil zoology offers very peculiar and interesting provinces of ancient life. These have been in positions not greatly unconformable to those of similar phenomena even now. Great inland fresh-water seas have abounded with new and strange types of organization, in character and office analogous to the amphibious forms occurring with profusion in similar localities of the present interior. These, and representatives of the secondary formations, rest chiefly on the old Silurian and Devonion series, the upheaving of which seems to have given the continent its place and outline. Coal is found at Natal, near the Mozambique Channel, but not hitherto known to be of value.

Africa still offers, and will long continue to offer, the most promising field of botanical discovery. Much novelty certainly remains to be elicited there, but it is very dilatory in finding its way abroad. Natal is the region most likely to be sedulously explored for some time. Vegetable ivory has been brought thence, and elastic, hard, useful timber abounds. Much lumber of good and varied character is taken to Europe from the western regions of the continent; but so greatly has scientific inquiry been repelled by the deadly climate, that even the species affording it are unknown, or doubtfully guessed at.

The vegetation of the south is brilliant, but not greatly useful. It affords the type of that which covers the mountains, receding towards the northeast, until they reach perpetual snow near the equator. That which is of a more