

Acadia Before the Coal Era.

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In the last chapter of this history it was stated that, as in other histories, that of the world may be divided off into ages, periods and epochs, each having its own distinctive features and usually separated the one from the other by eras of more or less marked disturbance or revolution. It will now be necessary to give these divisions in systematic form, for convenience of reference. They are as follows:

Archaean Time: The Laurentian Era. The Huronian Era (The Archaean Revolution).

Palaeozoic Time: The Cambrian Era. The Silurian Era or Age of Invertebrates. The Devonian Era or Age of Fishes (The Acadian Revolution). The Carboniferous Era or Age of Coal-plants (The Appalachian Revolution).

Mesozoic Time—The Reptilian Age: The New Red Sandstone Era (Trias-Jura). The Cretaceous or Chalk Era. (The Rocky Mountain Revolution).

Cenozoic Time: Tertiary Era. The Age of Mammals. Quaternary Era. The Age of Man. The Glacial Period. The Post-glacial Period.

Archaean (or Ancient) time has been sufficiently considered in earlier chapters. It was a time of vast duration, probably equalling or exceeding that of all the time which has since elapsed. It has been divided into eras, such as the Laurentian and Huronian and even more, but authorities are not agreed as to the number or bases of these subdivisions, and they need not be further considered here. So far as Life was then present it was represented only by the very simplest forms, and even of these but few traces remain. It was a time of great physical and chemical changes, but of the first importance with reference to the future, as then were determined the most distinctive features of the earth's surface, the position, form and relations of continents and seas, the laws governing the systems of oceanic and aerial currents, the diversities of climate, etc., these peculiarities being largely the result of a well nigh universal system of disturbances which marked its close, and which for that reason has been styled the Archaean Revolution. It fixed the boundaries of Acadia as well as of other parts of America and has controlled its whole later history.

To Archaean Time succeeds Palaeozoic Time,

which may be compared with ancient history in the development of the human race. During its continuance life developed rapidly, first in the sea and then on the land, and long before its close was of comparatively high grade and diversified character. But, throughout, the plants and animals, whose fossil remains are disclosed to us in the rocks, were in many respects in marked contrast with those with which we are now familiar. This will be more apparent by a glance at some of the principal forms met with in successive eras, and which will also serve to indicate some of the principles which governed their development.

We have already considered the Cambrian era and the features of its life as revealed on the old Cambrian beach at St. John, and it will be remembered that, as then stated, the plant life embraced no higher form than sea-weeds and the animal life nothing higher than lamp shells and trilobites. To this era succeeds the Silurian, which is usually divided into the Lower Silurian or Ordovician and the Upper Silurian, the two being separated by a period of disturbance among whose results was the more distinct outlining of the St. Lawrence channel and the uplift of the Green Mountains of New England. In New Brunswick the Lower Silurian rocks are represented by the dark slates of Navy Island near St. John and by similar beds traversing portions of York county, while the Upper Silurian strata are very widely spread over both the southern and northern counties. The characteristic life forms of the former are, in addition to distinctive brachiopods and trilobites, peculiar sea-weed like forms known as graptolites and related to types which are still found abundantly along our modern shores. They are really animals, and from very similar forms arise our common jelly-fishes. In some regions, where the waters were deeper and clearer, corals also abounded, together with forms related to our modern squids and cuttles, but, unlike the latter, provided with a protecting shell. In the Upper Silurian corals were even more abundant, and on the shore near the Inch Arran hotel at Dalhousie as well as about Rimouski and Lake Temiscouata, they may be gathered, with the accompanying shells, almost as abundantly as in a modern coral reef. These corals are of a peculiar interest because being wholly marine forms they show the former presence of the sea at the points where they