

by exchanging with naturalists who had collected in Greenland, Labrador, and Norway, I employed myself, summer after summer, in dredging both on the south and north shore of the St. Lawrence, until able at length to discover in a living state, but under different conditions as to temperature and depth, nearly every species found in the beds on the land, from the lower boulder clay to the top of the formation, and from the sea-level to the beds six hundred feet high on the hills. Not only so: I could ascertain in certain places and conditions all the peculiar varieties of the species, and the special modes of life which they indicated. Thus, in the cases of the Peter Redpath Museum, and in notes on the Post-pliocene of Canada, the gap between the Modern and the Glacial age was completely filled up in so far as Canadian marine species are concerned. The net result was, as I have elsewhere stated, that no change other than varietal had occurred.

In studying the fossil plants of the Carboniferous, so abundant in the fine exposures of the coal formation in Nova Scotia, two defects struck me painfully. One was the fragmentary and imperfect state of the specimens procurable. Another was the question, What preceded these plants in the older rocks? The first of these was to be met only by thorough exploration. When a fragment of a plant was disclosed it was necessary to inquire if more existed in the same bed, and to dig, or blast away or break up the rock, until some remaining portions were disclosed. In this way it has been possible to obtain entire specimens of many trees of the Carboniferous; and to such an extent has the laborious and somewhat costly process been effectual, that more species of carboniferous trees are probably known in their entire forms from the Coal formations of Nova Scotia than from any other part of the world. I have been amused to find that so little are experiences of this kind known to some of my *confrères* abroad, that they