

one hand and to the overlying Trenton group on the other, to that which the upper and lower Potsdam and the still older Menovian formations of St. John, &c., do in the eastern provinces. And, apart from the almost total absence of contemporaneous igneous rocks in the one area and their great preponderance in the other, together with the comparatively undisturbed condition, characteristic of all the Western Palaeozoic areas, the succession of the Lake Superior Lower Cambrian series corresponds even more closely with the eastern series than it might be expected to do, in areas more than 600 miles apart. The absence of palaeontological evidence of age may perhaps be in a great measure accounted for by the great and repeated manifestation of volcanic activity over the whole region during the accumulation of the sediments, producing conditions highly unfavorable for the existence of animal life. While, as already stated, there is no marked unconformity, there is here, as in the St. Lawrence and Ottawa basins, a constant overlapping of the upper members, giving rise to the statement that east of Black Bay the Animikie series of dark argillites is wanting. This, however, is not the case, as is clearly proved by the fact that these argillites have been sunk through in the Silver Islet mine to a depth of nearly 1,000 feet below the waters of the lake. And there can be little doubt that the great dark argillite silver-bearing series of Lake Superior underlies the greater part of Black Bay, and the peninsula between it and Nipigon Bay, as well as St. Ignace, Simpson and other islands to the eastward, in some of which it is exposed in fine sections, associated as at Thunder Cape with massive columnar diabase, and conformably overlaid by red and white dolomitic sandstones and rather coarse pebble conglomerates.

On the east shores of Hudson's Bay there appears to be an almost similar series of traps, dolomites, argillites, sandstones and amygdaloidal lavas, resting in almost undisturbed attitude on the Pre-Cambrian gneisses. A similar series occurs also in the Rocky Mountains—though, so far as known, without the volcanic associations—which I have elsewhere predicted, will eventually be proved to occupy the same Lower Cambrian horizon.

The Red River and Lake Winnipeg Palaeozoic area is described on a subsequent page, and referred to as forming the eastern margin of the great interior continental basin. Physically, the rocks of this area are closely connected with the Central-and-Western Palaeozoic Basin, and it is not impossible that they are also geographically connected beneath the overlying Cretaceous rocks of Dakota with those of the extreme western extension of the Cambro-Silurian and Devonian systems of southern Minnesota. Their supposed distribution northward is shown on the accompanying map, and also that they constitute the western limit of the