

of the island is cultivated, there is still a large proportion unoccupied, and covered with wood or swamp. Most of the original forest is denuded, but a very vigorous growth of young fir is rapidly replacing it.

Not till within the past few years did its ore deposits attract the attention of capitalists from outside. The holders of licenses to search for minerals were fortunate in leasing their claims to the Nova Scotia Steel Co., Limited, who have just entered upon mining operations on an extensive scale. To the obliging manager of the mine, Mr. Chambers, I am indebted for much valuable information and assistance in carrying out my recent investigation. His plans and sections, showing the extent and position of the ore deposits on their claims, were admirable examples of geological work, and were so clear and explicit in their details as to leave nothing to be desired. I had an opportunity of verifying all this work during my stay. In fact, it formed a groundwork for the study of the structure of the whole island, and thereby saved me much time and labour.

Geologically, the island is composed of a series of shales and sandstones alternating. The shales prevail towards the base and top of the section, while the central portion of the island is occupied by a wide belt of hard white-weathering sandstone or quartzite rock, which cleaves into beautiful blocks and flags, suitable for building or paving purposes. The prevailing angle of inclination of the strata is about 8° , the general direction being N. 28° W. magnetic. The strike however, is not quite straight, but forms a segment of a circle with a gentle curve northward at either end. Here the dips change somewhat, pointing more to the east and west.

The lowest strata forming the base of the section crop out on the extreme south-western end of the island, while the highest occupy a strip of the shore on the north side, near the north-east corner. The total thickness amounts to about 2,340 feet. The first 1,000 feet consists chiefly of shaly strata with thin irregular layers of sandstone interstratified, which become more and more numerous, and of thicker dimensions towards the top. These are succeeded by the white-weathering sandstone or quartzite mentioned above, as striking through the central portion of the island. It attains a thickness of about 700 feet. The quartzite is in turn overlaid by sandstones and shales in about equal proportions, constituting the remainder of the section, and is about 640 feet thick. These rocks hold numerous fossil organisms, all referable to the Upper Cambrian series of Wales. The *Lingula* flags are well represented. Mr. Matthew, of New Brunswick, to whom a set of fossils from this island was sent for identification, is even inclined to regard some of the higher strata as Ordovician, Lower Silurian.

With regard to the deposits of iron, there are four well-defined beds of ore, regularly stratified, forming part of the general section, and therefore distinct from lodes or veins as generally understood. Two of these occur in the lower shaly portion, and two in the