

position of his own well-known views, in the discussion of Mr. Macfarlane's paper. Farther, in connection with all these various and somewhat discordant opinions, the conclusions arrived at by our late lamented colleague, Sir W. E. Logan, have been canvassed and to some extent set aside.

In these circumstances duty requires that some extended notice of this subject should be taken in this address; and that if no absolutely certain conclusions on all the points in dispute can be affirmed, the state of the controversy should be clearly explained to the bystanders, and the ground cleared for further wrestling on the part of the combatants, should this prove to be necessary. In attempting to perform this somewhat difficult task, it will be proper that I should refrain from entering into details, and that I should confine myself to the question as it relates to Canada, without discussing those features of it which belong to the regions farther south.

I would first say a few words as to the position of the late Sir William E. Logan in relation to the older rocks of Eastern Canada. When Sir William commenced the Geological Survey of Canada in 1842, these rocks, in so far as his field was concerned, were almost a terra incognita, and very scanty means existed for unravelling their complexities. The "Silurian System" of Murchison had been completed in 1838, and in the same year Sedgwick had published his classification of the Cambrian rocks. The earlier final reports of the New York Survey were being issued about the time when Logan commenced his work. The great works of Hall on the Palæontology of New York had not appeared, and scarcely anything was known as to the comparative palæontology and geology of Europe and America. Those who can look back on the crude and chaotic condition of our knowledge at that time, can alone appreciate the magnitude and difficulty of the task that lay before Sir William Logan. To make the matter worse, the most discordant views as to the relative ages of some of the formations in New York and New England which are continuous with those of Eastern Canada, had been maintained by the officers of the New York Survey.

Sir William made early acquaintance with some of these difficult formations. His first summer was spent on the coast of Gaspé and the Baie de Chaleur, where he saw four great formations, the Quebec group, the Upper Silurian, the Devonian, and the Lower Carboniferous, succeeding each other, obviously in