

and position as far east as New Brunswick and Newfoundland, and as far west as the Pacific slope,\* and is thus one of the most widely diffused of American formations, though I believe it has locally been confounded with rocks of similar mineral character but of newer date. The upper Laurentian of Logan, the Norian of Hunt, is entirely different in mineral character from the Huronian, and stratigraphically is related to the Middle Laurentian rather than to the Huronian, notwithstanding local unconformity. The Lower Laurentian of Logan may now, since the explorations of Vennor, † be safely divided into a lower and middle group, the former being however nothing more than the great gneissic formation recognized by Logan as the Trembling Mountain gneiss, which forms the base of his well-known Laurentian section, and the Bojian gneiss of European observers. The idea that the Middle Laurentian, the horizon of Eozoon Canadense and of the great Phosphate and Graphite deposits, is identical with the Hastings group, or with the Huronian, has, I am fully convinced, after some study of the Lake Huron, Madoc and St. John exposures of these formations, no foundation in fact. There seems, however, good reason to believe that the gap between the Lower Laurentian of Lake Huron and the Huronian, is to be filled not merely by the Middle Laurentian and the Norian, but by such rocks as those described by Dr. Bigsby, Prof. Bell and Dr. G. M. Dawson on the Lake of the Woods and other regions west and north of Lake Superior, and at present included in the Huronian, to the base of which many of them no doubt belong. ‡

I should not have occupied your time so long with these matters, but for their great importance geologically, and the able papers in which they have been brought under our notice, and for the circumstance that I have been renewing my studies of these rocks, in the hope of contributing some notes on Sir William Logan's share in their investigation, to a biographical sketch of that eminent geologist now in progress under the care of our associate, Dr. Harrington, to whom it has been committed by Sir William's executors.

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\* Clarence King's Report of the 40th Parallel. The rugged features and precipitous sides of the Laurentian and Huronian exposures in this region correspond with Logan's view of the steep slope of the Laurentian and at the time of the deposition of the Quebec Group rocks.

† Report Geological Survey of Canada.

‡ G. M. Dawson's Report on 49th Parallel; Bell, Reports Geological Survey of Canada.