

terior to the deposit of the Montmorency Bridge limestone. At Indian Lorette the section is almost identical with that of the Montmorency Falls. In the direction of Beauport I picked up in some limestone quarries several brachiopoda which resemble Trenton brachiopoda, but they were never determined in a regular way. They are now in the collection of the *Jardin des Plantes* at Paris, with my other gatherings in North America during the years 1848, '49, and '50.

Mr. Salter, who has examined the fossils picked up by Dr. Bigsby at Montmorency, Beauport, and Indian Lorette, regards them as indicating the Trenton limestone, and Mr. Logan gives a list of fossils indicating for the limestone at the summit of the cascade the Trenton age. In accordance with these two geologists, I regard those horizontal beds of limestone as representing the Trenton limestone of New York, although I think the presence of the *Alveolites rrpens*, an Upper Silurian coral, in those rocks, requires further inquiry before arriving at a final conclusion on all the rocks found at Montmorency.

The fifty feet of limestone pointed out by Mr. Logan at the foot of the fall, and in immediate contact with the gneiss, I did not see, and it is difficult for me to believe that fifty feet of limestone could have escaped my notice when my attention was entirely fixed on the stratigraphical phenomena of the section of Montmorency Falls. But it is such a celebrated place for excursions and of such easy access, that the verification of the question by a geologist can readily be made. Even if these fifty feet of limestone are there, it is to be proved that they contain Trenton fossils, which Mr. Logan does not say.

Messrs. Logan and Hunt, in previous works, ("*Report of Progress of the Geological Survey of Canada, for the year 1847-48*," and, "*Esquisse Géologique du Canada, avec une Carte Géologique du Canada*," Paris, 1855,) have described and colored all the country east of Montreal, between Lake Champlain and Quebec, as occupied *exclusively* by strata of the age of the *Hudson River group* and *Oneida sandstone*, or *Richelieu slates* and *Sillery formation*, with some patches of *Trenton limestone*. It is certain that the *Taconic system* occupies the *main part* of the country, and that the geological map of Lower Canada is to be greatly modified to be put in harmony with the Primordial fauna formation.