

Other observers believed, however, that the anorthosites were eruptive, among whom were: Emmons,¹ Selwyn² and Packard.³

None of the investigations on which these views rest were either sufficiently extended or sufficiently detailed to determine definitely the true relations of the two rock series, and the question consequently remained undecided. On this account I began in the summer 1883, at the request of Dr. A. R. C. Selwyn, Director of the Geological Survey of Canada, a detailed study of the anorthosite area, discovered many years before by Richardson,⁴ about Lake St. John, and the head waters of the Saguenay, and devoted the greater part of two summers to investigating and mapping this area. It proved, however, to be of much greater extent than Richardson supposed, extending back into the northern forests through a tract of country unsurveyed and almost unexplored, and which was for the most part only accessible by rivers difficultly navigable and hard to ascend, so that a very detailed investigation proved to be impossible. The southern, eastern, and western limits of the area were, however, mapped, and a good general knowledge of the character and the stratigraphical relations of the area obtained.

It was therefore thought best to select a smaller area more conveniently situated, in which to determine in detail the stratigraphical relations of these rocks. For this purpose the choice fell on that above mentioned as the Morin area, which had the advantage of being generally easy of access and which further commended itself as being the area which Sir William Logan had formerly examined, and on the study of which his opinion concerning the so-called Upper Laurentian rocks were chiefly based. A careful study of this area extending over four summers was consequently made.

¹ Emmons, loc., cit.

² Selwyn, Rep. Geol. Survey Canada 1879-1880, 1877-1878.

³ Packard, On the Glacial Phenomena of Labrador and Maine. Mem. Boston Acad. Nat. Hist. Vol. 1., part 2, p. 214.

⁴ Richardson, Rep. Geol. Surv. Canada 1857, p. 71.