

interstratified in the gneiss at the southeast corner of the anorthosite area.

These facts together with the whole shape and character of this anorthosite area now that the mapping is completed, show that as Logan supposed, it is unconformable to the Grenville series, that is to say to the true Laurentian. But it may also be demonstrated that this unconformity is not due to superposition but to intrusion. The anorthosite does not belong, as was supposed, to a great overlying sedimentary formation, but is a great intrusive mass which cuts through gneisses with their associated limestone bands but does not overlie them.

In order to understand why Logan and other able observers who agreed with him, regarded these anorthosites as an overlying sedimentary formation, we must remember that they show here and there a more or less foliated structure. This is especially true of some places near their contact with the gneiss, and is best seen in the long arm-like extension at the south-east corner which following the line of least resistance penetrates the gneiss parallel to its foliation, and together with it is covered up by the overlying Cambrian. Moreover we find at St. Jérôme a small isolated occurrence of a more or less clearly foliated anorthosite, which is included in the gneiss, and Logan, who through the lack of time could not examine the whole area, supposed this to belong to the great Morin mass, the southern boundary of which was as a matter of fact many miles farther to the north. In going from St. Jérôme, therefore, at right angles to the strike of the rocks, to New Glasgow, which lies about nine miles further to the east, he passed from the gneiss over an interstratified anorthosite, then over gneiss with layers of quartzite and a limestone bed into the above mentioned arm-like extension of anorthosite, which shows a sort of schistosity parallel to the strike of the gneiss, and over this to gneiss again. Misled by this section which here is very deceptive, he decided that the whole was a great sedimentary formation of gneiss with interstratified beds of quartzite, limestones and anorthosites identical