

true gneiss. And, similarly, if previous observers have placed certain "volcanic" rocks in the same formation with the Sillery sandstones, we may be certain that they did so intelligently, and that Sir William Logan and his staff were fully aware of the differences between a crystalline and a fragmentary rock.

V. Mr. Selwyn calls attention to two characters not pointed out by Sir W. E. Logan which distinguish the "Volcanic" from the Lévis area on the Rivière du Sud. One of these is the occurrence of fossils in the district north of the river; but this does not seem to be a new discovery. The other distinction is a peculiar schistose structure in the sandstones of the "Volcanic" group, which is not to be observed among those of the Lévis formation. It is worthy of note that here we have Mr. Selwyn himself making use of a lithological peculiarity for separating two different groups of rocks. The absence of fossils from his second or "Volcanic" division is emphasised by Mr. Selwyn; and no doubt this difference, as compared with the Lévis formation, is a most important one. Still we know that Sir W. E. Logan was aware of this distinction; so that here again we have, not the announcement of a new fact by Mr. Selwyn, but simply a new explanation of a certain peculiarity. Sir William accounted for the absence of fossils by metamorphic action; Mr. Selwyn would probably attribute it to volcanic interference: the difference is, after all, only in theory.

Although I have searched very carefully, I have failed to find in Mr. Selwyn's paper any other traces of original observation than those I have enumerated. The first of these items has no bearing upon the mutual relations of Mr. Selwyn's second division and the Lévis formation; the fourth cannot be said to be a new observation at all, and thus we have, as the actual basis of fact for Mr. Selwyn's new conclusions, the absence of Potsdam strata from the neighbourhood of the Lévis formation, the supposed unconformity on the River Etchemin and a trifling lithological peculiarity among the sandstones of the Rivière du Sud. The supposed unconformity is by far the most important part of this basis; but we must recollect that Mr. Selwyn is far from being positive about it, and, further, that the same difficulty occurred to him as regards the contact of the rocks on the northwest edge of the fossiliferous belt. There too, he does not distinguish between an unconformity and a fault, and I believe were this latter point decided it would go far to settling this vexed question of the age of the Quebec group.