three, because formed from the same source, these two which are not synchronous but successive would in the usual practice be correlated. The same would be true if each bed, as shown in the diagram, represented a series of similar beds.

The writer would then suggest that that there is a strong a priori reason for assuming that these beds are contemporaneous with the beds of limestone and argillaceous shales below the Trenton, and probably synchronous with some of them. From the general direction of the dips there is a remote possibility of some of the more distant outliers to the north being synchronous with the lowest beds of the Trenton, but this cannot be proven.[1]

Naturally the question might be asked, would you make all Potsdam contemporaneous with the lower Trenton? Certainly not. Potsdam, as a formational name, was introduced to denote a horizon which is supposed to be geologically older than the Trenton and which possesses certain definite types of fossils, and should be limited in its use to horizons where these two relations are proven to hold. The extension of the term to horizons in areas where the relations do not hold is apt only to lead to confusion. At present in Ontario much that has been classed as Potsdam, particularly on lithological grounds, is probably contemporaneous with limestones referred to later horizons now exposed elsewhere. The Potsdam sandstone undoubtedly should merge into limestone horizontally, unless our ideas of the processes of deposition are incorrect. Where the line of division comes in it would be difficult to say.

1 Wilson, Phys. Geol. Central Ontario. In this paper, on the basis of the above deductions, the writer advanced the views outlined here in more detail. Subsequently Dr. Ami, of the Geological Survey Department, described the Rideau Formation, which is made to include the formations here referred to, but the greater part of which lies to the east of the Frontenac axis, as being the shoreward extension of the Calciferous and Chazy. Dr. Ami's paper (Geol. Soc. Amer., Rochester, 1902.) has not yet come to hand, but the writer understands that the results of his studies on the eastern side of the axis in general confirm the conclusions reached by the writer after a study of the smaller exposures on the west. The latter the writer considers as probably the shoreward extension of the early Black River rather than the Chazy.