

less ellipsoidal basins. Across the basins, though the average depth has been stated to be half a degree because of the unevenness of the floor, the actual inclinations vary considerably. This local variation, combined with the discontinuity of the outcrops, renders exact correlation exceedingly difficult, if not impossible.

In any attempted correlation of widely separated beds by aid of their inclination it must not be forgotten that the beds originally existed, each as a continuous sheet over large areas, *in toto* probably lens shaped, and not only must the maximum inclination or dip be known, but the inclination in the direction of the line between the two beds whose correlation is attempted must be ascertained. The evidence at present available makes even a correlation of this kind in the area under discussion impossible.

With our present available knowledge it cannot be proven that the limestones or argillaceous beds in the one locality are synchronous or contemporaneous with the sandstone in the other; nor can it be proven that the sandstones antedate the limestones, except in the few places where both occur together, in which event it becomes necessary to show that these limestones are also younger than the sandstones elsewhere.

To the writer the possibility that the sandstones in one locality are synchronous with the argillaceous beds and the limestones in another seems more plausible than that they antedate them. This interpretation also obviates the necessity of assuming a time interval of some duration between the deposition of the sandstones and the Black River limestone, during which interval the Calciferous and the Chazy were deposited elsewhere, and during which the non-fossiliferous beds below the Black River and above the sandstone may have been deposited here.

Were fossils present in the sandstone this possibility would be in no way diminished by the fact, even were some of them Potsdam forms. In the locality east of