

shales at Cabot head. The alternative correlation appears to be that these shales are of Ordovician age perhaps belonging to the Cincinnati group.

(2) With the age of the shales in doubt, the data bearing upon the relations of the Silurian and Ordovician formations are rather meagre. We will first turn to Chief island. To explain the occurrence of both Niagara and Trenton fossils in the dolomites resting in the irregularities of the Huronian, only one hypothesis appears adequate. That is, this resistant knob was washed by both Trenton and Niagaran seas, practically all of the Ordovician deposits being eroded away before the Niagara deposits were laid down.

The proximity of Niagara and Black River strata on the beach at Haileybury admits of a different explanation as already stated. The Black River outcrops west of Haileybury are 185 or more feet (based on elevation of Haileybury station) higher than the deposits near lake level, most of which are basal Niagaran. At Dawson point the basal Niagaran beds are 110 feet above the lake. Thus in the case of strata that are generally horizontal there is evidence of considerable differential movement including such faulting at least as is found near Haileybury. That a part of the difference of elevation may be due to irregularities in the floor upon which the sediments were deposited, is probable, but the conditions at Haileybury are certainly due, for the most part, to later movements. This conclusion is in accord with the statement by Dr. W. G. Miller¹—"Along the wagon road, in lots 5 and 6 in the 3rd concession of the township of Dymond, to the northwest of the town of New Liskeard, the limestone cliff presents a striking face, indicating faulting. The fault line is continuous with the western shore of Lake Timiskaming, and furnishes still further evidence confirmatory of the theory that the lake lies along a great northwest-southeast fault."

It seems probable that Chief island and Dawson point are also separated by a fault.

¹Report of the Bureau of Mines, Vol. XIX, Pt. II, p. 108.