

Proceeding eastward from the city we find another interesting exposure of this formation occurring at the branching of the road leading to Beechwood cemetery, close to the swamp. Here a very interesting section may be seen showing the contact of this formation with the Utica, indicating the presence of a local fault or dislocation apparently causing a downthrow on the west side of the fault of at least 200 feet. This fault is a remarkable one, and can be traced to a distance of two miles on the Ontario side, traversing the country in an approximate north and south direction, crossing the swamp above referred to, and may be seen bringing the measures of the Trenton at a high angle to the horizon on the east side of Mackay's Bay. The Black River formation here, as in other places about Ottawa, is characterised by beds of dark blue and grey impure limestone affording good building stone, almost throughout its whole measures. At this exposure the lower measures of the formation are tilted at an angle of 90° where they come in contact with the Utica formation, then proceeding eastward the beds are seen to dip at various angles to the east, the angle gradually decreasing until the summit of the bluff and the cemetery are reached, where they are practically horizontal, dipping but slightly to the east.

Amongst the organic remains found here may be mentioned *Tetradium fibratum* (Safford), *Helicotoma planulata* (Salter), *Psaronius* (Salter), besides lamellibranchiata and bivalve entomostraca in great numbers requiring further study.

Trenton Formation.—In this tolerably well known and interesting formation some points of interest are always sure to come up, both as regards its palaeontological record and local stratigraphical significance. At Ottawa and vicinity the Trenton, like its closely related formations, is affected by a number of faults, and it has been pretty conclusively ascertained from flexures in the strata, accompanied by faults, exhibiting what is generally termed a monocline structure, or simply a "monocline"—that there has been in most instances a downthrow on the west side of the faults, which have a general north and south bearing at right angles to the course of the Ottawa River. The Trenton formation, as exposed at Nepean Point and old "Barrack," or now "Parliament Hill," presents many interesting faults and flexures.