

that the observed phenomena would imply a regularity in the process of upheaval, not in harmony with our pre-conceived notions.

Between the first and second ridges, north of Toronto, I saw a section 50 feet deep in the argillaceous deposit on which all the ridges rest, or in which cliffs, corresponding in level with some of the ridges, are cut. It consisted of blue clay in horizontal thin layers, with partings of yellow sand, and at the bottom yellow clay, with some interstratified layers of white clay. I observed no included boulders, but Mr. Roy has seen them at Toronto, where deep excavations were made for the foundations of buildings. They occurred near the junction of the clay and the subjacent rocks; and he remarked that the solid rocks, on the removal of the boulder formation, were polished and scored on the surface. I could find no shells either in the clay or in the ridges. I was informed, indeed, that marine shells had been met with in the clay, but, on inquiry, they turned out to be Silurian fossils, washed out of the ancient shales.

It will be seen from the above observations, that I consider the ridges and other marks of ancient water-levels, between Toronto and Lake Simcoe, as referable, some of them to ancient beaches and lines of cliff formed on the margins of channels of the sea; others, including some of the loftiest ridges, as having originated in banks or bars of sand, formed, not at the extreme edge of a body of water, but at some distance from the shore, in proportion as the water obtained a certain shallowness by the upheaval of the land.