

we might suppose an obstacle to its conveyance of the common and natural quantity of alluvial matter. This obstacle may have existed in some of the Upper Lakes, as Lake Erie, intercepting the supply. If the original level of its bed was nearly the same with that of the other lakes, the quantity of alluvial matter intercepted, must, indeed, have been great. But this is uncertain. Whereas, it is certain that all the tributaries of the parent river that flow through the less elevated land, present us with phenomena precisely similar; all alike exhibiting an incomplete process, the end of which is in them foreseen, but which end, in the countries of the old world, has already been generally attained. If this view be correct, it might be inferred as an obvious consequence, that the streams of the more elevated, and consequently older regions, would be marked with a corresponding difference in the phenomena in question, would have their borders more definitely traced and would be found much less frequently to swell out in irregular and shallow swampy excrescences. This is unquestionably the fact, though other causes besides the accumulation of alluvial deposit are admitted to have conspired for the production of it: such as the gradual deepening of the beds of streams by the action of their waters, when they happen to flow through accumulations of sand and clay, and by the enlargement of the fissures in the compact strata that originally assigned them their determinate course. But these assist only in the way of draining. They deposit nothing; whereas, it is the quantity and consistence of alluvium deposited that form the specific distinction between the meadow lands of the older and the shoals and swamps of the more recent or lower streams.

It is perhaps worthy of remark, as serving to increase the evidence for the comparatively recent elevation of the lower levels, that the earliest traces of the human race are only to be observed in the more elevated tracts. In the townships of Brock, Whitechurch, Markham and King, where the general level is higher than perhaps any other like extent of country, the relics of ancient pottery are to be found here and there in various masses; and it has often been matter of observation that they are never found in the lower, and as it is inferred, more recent tracts. In the form of urns, composed of clay and triturated granite or quartz, resembling in almost every respect those relics of ancient art to be found in every part of the Old world, and to which it is apprehended neither precise date has been assigned, nor ownership ascertained, we have the traces of the primitive inhabitants of the Continent, certainly differing in manners and origin from the present Indian tribes, and the time of whose possession of the country, we should from such evidence of the limitedness of their occupation, refer to a period when its geographical boundaries were quite different from the

present, when indeed, the more elevated regions were islands scattered here and there, constituting an extensive Archipelago.

There are certainly but few instances of the formations of the earliest Geological periods, prevailing through such an extent of country, as they are found to do in Canada. With the exception of the blue clay and alluvium of more ancient and modern date, the transition series appears with an ever recurring constancy from the shores of Lake Huron to the mountainous regions that constitute the Eastern barrier. Rich in shells and limestones and prodigal of clay, nature has preserved a certain geological monotony throughout; and all the lower tracts bearing, as is inferred, the traces of a comparatively recent emergence are yet stamped with characters of the remotest antiquity, the same characters which during the same period have been distributed over every part of the round world. Of the numerous families of Ammonites we have all the genera and species found in the earliest transition strata. Orthoceratites and Belemnites, allied to Ammonite, are abundant. Trilobites are less frequently met with, but are nevertheless found in various distant localities. Graptolite, whatever it is, often occurs: fossil corallines are very abundant and several genera of Crinoideans. Fossil Ferns indicating the carboniferous series are very abundant in some parts of the lower province. No remains of a vertebral animal have as yet been detected, nor any trace of one except the footsteps of deer on ravertine above Fenelon Falls.

It need not however be matter of wonder that either the smaller Mammalia and gigantic reptiles of the Secondary or the enormous Pachydermata of the Tertiary series, should have hitherto escaped observation. Even in the absence of any considerable parts of those systems of stratification that appertain, or can with certainty be referred to those periods, the extensive alluvial deposits of the more ancient date in all probability conceal the skeletons of past generations; and it is to be remembered that the precise situations in which they are probably to be found, are those least apt to be disturbed by the usual operations of mankind. In an untitled and thinly inhabited country, a long interval of time may have elapsed before such discoveries shall have been made, supposing the land to be rich in those wondrous products of the ancient earth.

Something was intended to be added respecting the mineral resources which the prevailing system of stratification may be supposed to promise or deny, and in particular respecting the removal of certain difficulties from the Mosaic account of the Deluge, of which the hypothesis here adopted readily furnishes an explanation—"See *hæc hæterus*."