

## THE GREAT ICE AGE AND SUBSEQUENT FORMATIONS AT OTTAWA, ONTARIO.

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Among the most interesting and captivating subjects which attract the attention of even a casual observer in the realms of geological science, few are so full of interest and afford so much information as researches amongst the most recently deposited strata. Besides this interest, there is carried with it the fact of its practical importance, so that the economic aspects of the question have likewise to be taken into consideration.

There are numerous questions which press themselves one upon the other in examining the marls, sands, gravels, clays, boulders and kindred materials which constitute the Post-Tertiary deposits of a district. The following are some of the more important questions which we will attempt to consider with regard to our own locality:—

At what period in the Earth's History did the Glacial Epoch or the Great Ice Age make its appearance?

What were the causes which led to it, what phenomena characterized it, what was its duration and what traces did it leave behind? And again, specially, to what extent was this continent submerged, for how long, and what traces of animal life has that period left behind it; and, further, are there unquestionable proofs of a period of subsidence followed by another of elevation carrying us on to the present day, during which time numerous and varied lacustrine or alluvial deposits were laid down, and in the lapse of which man made his appearance.

Then, in which of the newer deposits are traces of the existence of certain tribes of the American Indians to be found? What are these traces? To what extent do they assist in forming an estimate of the degree of civilization to which these aborigines attained? What customs and modes of life are exemplified by the implements of various kinds found in what has been very appropriately termed the Human Period? At what time and for how long did these inhabitants occupy the land before the intrusion of the whites, and what was their history?