

the science has been brought to the greatest degree of perfection, yet there is no system of rocks concerning the precise nature of whose origin so much doubt remains. It appears to have been produced by operations of nature very different from those under the influence of which the more ancient rocks were accumulated. The regular strata, that may be seen in all the quarries and cliffs of the ordinary sandstones and limestones, the perfection of the organic remains they contain, and the homogenous texture of the consolidated materials, prove that these are nothing more than the beds of sediment quietly, and during long periods of time, deposited on the floors of the oceans, and afterwards, by some process of petrification, converted into solid stone. But the drift, on the other hand, presents evidence of having been formed during a season when a force of some kind, not yet ascertained to the satisfaction of all investigators, was applied to the northern portion of the planet in such a manner as to grind down the surface, and transport the fragments southward. The real character of that force has been made the subject of a vast deal of discussion, and although it has for many years engaged the attention of the ablest men of the civilized world, yet it may be safely said that no theory has yet been advanced which explains all the phenomena. To those who have not studied the subject this will appear the more remarkable, when it is added that there is abundant proof that the formation is one of the most recent of all, its date being immediately before the creation of the existing species, so that the unsettled state of the problem places the Geologist in this unpleasant predicament, that while he can boldly and truly answer for events that occurred myriads of ages before the advent of his race, yet when questioned concerning that which comes almost within the period of human history, he must confess his inability to give any but a conjectural reply. That such should be the case, however, is no discredit to the science, but rather a proof that the principles already adopted are the results of mature deliberation.

As there is scarcely a square mile of the surface of Canada where some portion of the drift cannot be examined, the opportunities for studying it are abundant, but the most favorable localities are where deep excavations have been made for railway or canal purposes. In such places the lower portion of the deposit may be seen to consist of a confused mass of rounded stones of every size, from that of a small pebble to a huge boulder, weighing