

of the earlier investigators of our geology, and, notably, by Mr. Roy, in his much-discussed paper on the terraces of Lake Ontario, communicated to the Geological Society of London, in 1837.* The difficulty of finding a satisfactory location for a barrier of this kind, led Sir Charles Lyell, however, to reject the idea of an original lake extension, and to refer the formation of our terraces entirely to the action of the sea, during the slow uprise of the land at the commencement of the present epoch. In this, he has been followed by all geologists who have subsequently examined these terraces. The difficulty may perhaps be surmounted, by assuming the earlier and greater elevation of that portion of the country lying to the east of the gneissoid belt which connects our northern Laurentian district with the Adirondack Mountains of New York. The subsequent depression of this region would open an eastern outlet to the lake-waters, and gradually lower these to their present levels. But whatever the explanation, the undoubted fact remains, that, at the close of the Drift period, a vast fresh-water sea extended over the greater portion of Western Canada, and at a level of at least 500 feet above the present surface of Lake Ontario.

Whilst the mollusca of this ancient lake were identical with existing species, its shores were peopled by the mastodon and the mammoth, and probably by other extinct forms of life, together with various species that still survive. A great question remains to be solved. Our gravel beds may perhaps reply to this, and reveal to us, that here, as in Europe, man and the departed mammoth once trod the earth together. Could this be established, the discovery would be fraught with even deeper interest than that which attaches itself to exhumed human relics of the ancient plains of Picardy and the gravel-beds of Suffolk. Our Indian arrow-heads are disentombed by hundreds: the connecting link of the extinct tooth or bone may not be long forthcoming.†

* See likewise the paper already referred to, by Sandford Fleming, C.M., on the physical characters of the Nottawasaga Valley.—*Can. Jour.* First Series, Vol. I. L. Roy's paper, I believe, was never printed.

† Since writing the above, Albert Koch's account of the discovery of the Missouri mastodon has come under the author's notice. In this account, published in 1841, it is stated that the mastodon bones were found in more or less immediate association with large arrow-heads. The same writer also attests to the discovery of wrought implements in connexion with Edentate remains in Gasconade county, Missouri.