

which the Niagara passes, below the falls, is nearly a mile wide with almost perfect mural sides.”—*Transactions of the Albany Institute*.

In Mr. Loudon’s Magazine of Natural History, March, 1830, there is an account of the falls of Niagara, and of the physical structure of the adjacent country, by my son, Robert Bakewell, junior. I preferred making the above extract from Mr. Henry’s description, as it confirms the general accuracy of the drawing in the frontispiece. Below will be seen a statement of the levels and the extent of the North American lakes.* These lakes may justly be styled seas of fresh water. Though their present surface is considerably elevated above the level of the ocean, the bottom of some of the largest lakes is much below the tide line; and were these lakes situated nearer to the Atlantic, we might easily imagine that after the fresh water had subsided to the sea level, they might be subject to frequent irruptions of salt water, which would produce a change in the nature of the inhabitants of these lakes; or, in other words, would occasion alternations of marine with freshwater strata, without any change in the relative level of the land and sea.

In England and France, there appears to have been a considerable interval between the deposition of the chalk, and of the lowest beds of the secondary strata; for the surface of the chalk is deeply furrowed and broken, apparently by the action of torrents, or inundations, and the hollows filled by the tertiary beds. In some parts of the Continent, however, the line of separation between the secondary and tertiary strata is not so distinctly marked, and they are both elevated together, conformably.

The tertiary strata form the outer crust of the globe, and have, every where, been subjected to erosion from torrents and inundations, that have swept over parts of its surface, and transported the fragments into distant countries or into the ocean. We cannot, from the present localities of the upper strata, determine, with any precision, the boundaries of the inland lakes or seas in which they were deposited. Many of these strata have, evidently, once extended far beyond their present limits; but have been so completely destroyed, that we can infer their former existence, only by a few remaining detached portions.

* From Lake Erie to the falls of Niagara, the distance is 21 miles. From the falls to Lewiston, at the mouth of the chasm, the distance is 7 miles. From Lewiston to Lake Ontario the distance is 7 miles.

	Elevation above the sea. Feet.	Mean depth. Feet.	Length. Miles.	Mean breadth. Miles.
Lake Superior	- 641	900	300	80
Lake Huron	- 596	900	200	95
Lake Michigan	- 600	900	300	50
Lake Erie	- 565	120	230	35
Lake Ontario	- 231	492	180	30

Total quantity of square miles covered by the lakes, 72,930.