

all the way of the waters of the peninsula into Lakes Erie, St. Clair, and Huron, and forming a well-defined barrier for a separate water-basin between three hundred and four hundred feet above that of Lake Ontario. On the top or back of the escarpment, south of Georgian Bay, are piled upper Silurian strata to an elevation fifteen hundred feet above the sea, in what are called the Blue Mountains. By the run of the escarpment, Georgian Bay would seem to be excluded from the region of the upper lakes, and to belong properly to the area of Lake Ontario. It and Lake Simcoe, in fact, lie in an excavation of the same lower Silurian rocks with the Gulf of St. Lawrence, Lake Champlain, and Lake Ontario, and in the prolongation of the belt of small lakes to the north of Lake Ontario. A water communication by these larger lakes and the streams which connect them, has been, in fact, accomplished by means of a system of canals, which has replaced the old portages or carrying places where no navigable water passages existed. Yet in spite of this geological and commercial connection, Georgian Bay is an arm of Lake Huron, and at a level above Lake Ontario of three hundred and forty four feet, while Lake Simcoe, which communicates with it, lies one hundred and thirty-three feet higher. The explanation of this anomaly is to be found in the rise of the surface of the lower Silurian rocks in that direction, the whole broad outcrop being covered over with a sloping plain of northern drift, among the hillocks and ridges of which lie the smaller lakes, and a barrier of which effectually cuts off all hydrographic connection between Lake Ontario and Georgian Bay. Excavated, as has been said, in the same soft rocks of the lower Silurian system, in which Lake Champlain and the Gulf of St. Lawrence have been excavated, Lake Ontario would form part of the same water-basin with them, were it not for the intervention of the Laurentian rock barrier at the Thousand Islands. There was a time, no one doubts, and that in recent geological days (when this part of the continent was submerged from three hundred to four hundred feet beneath the present ocean level), that two broad estuary connections were established between it and the ocean; the one round the Adirondack Mountains to the north, over the plain of Montreal, the other to the south, through the valley of the Mohawk. At that time, of course, Northern New York was one island, and Vermont and Western Massachusetts was another; while the north shore of the Gulf of St. Lawrence extended up along the foot of the Laurentide Mountains to the Lac des Chats.

*The basin of the Devonian lakes*, as they are called, is now to be described. The Niagara barrier seems to end at Cape Hurd, the north of Georgian Bay, but is, in fact, continued as the Manitoulin Islands around the head of Lake Huron, and the foot of Lake Michigan, through the Straits of Mackinaw, and forms those two remarkable promontory peninsulas which almost isolate Green Bay from Lake Michigan, in the same way as the escarpment isolates the Georgian Bay from Lake Huron. Geologically considered, Green Bay is yet another of the lower Silurian lakes; while hydrographically, it is but an arm of Lake Michigan. The Niagara barrier, much attenuated, and therefore low, continues