

line. Everywhere it is easily recognized, here as a cliff; there as a high strand line (strandwall), then again it develops into a spit or a dike—an old sandbank—across the front of a little valley. We were thus convinced that we were following the same higher shore continually. After following it for forty-five kilometers we measured its height at Cooksville, finding it forty-five meters above the lake, and when I was visiting the interglacial deposits at Scarboro' Heights with Prof. Coleman a few days later, I met the Iroquois shore line sixty-nine meters above the lake. It rises, therefore, thirty-five meters within a distance of seventy-five kilometers as the bird flies, that is to say in round numbers 0.5 m. per kilometer in a northeasterly direction. The old surface of the lake as shown by the Iroquois shore line is inclined towards the present one at an angle of almost two minutes. It is out of the question that such an inclination of a water surface could exist, or that at the time of the formation of the Iroquois line the surface of the lake could differ to such an extent from that of to-day. We must therefore assume that since the origin of that shore line the district has been tilted up by a movement of the earth's crust. This is the same movement indicated by the beach lines in the Gulf of St. Lawrence. Canadian geologists have found that the marine formations here ascend in the direction toward southwest. Their greatest height (250 m.) is reached in the neighbourhood of Quebec. This is the middle point in a great arch-like upheaval, which has affected the whole St. Lawrence region along with the great lakes of North America since the ice age, and which, as Gilbert has lately shown, is still going on.

The excursion with Gilbert, several trips around Toronto under Prof. Coleman's guidance, finally an excursion which a number of members of the British Association took to Niagara Falls on August 22nd, all gave me an excellent opportunity to learn the character of the shore of Lake Ontario. It is gently rolling and cleared to such an extent that only a few patches of the original primeval forest remain. Everywhere stretch waving fields of grain, the well-to-do farmers' houses are often hidden in orchards, and indeed even the vine is successfully cultivated in Canada in the Niagara Falls district. The soil is almost everywhere fruitful. It is formed for the most part from the glacial deposits of the ice age, which are distributed over flat Silurian strata. On the northern shore of the lake these strata are of shale, on the south they are of limestone, giving a configuration to the country like that of the Swabo-Franconian Jura. This is the Niagara limestone formation at the foot of which Lake Ontario occupies a position similar to that of the Neckar district at the foot of the Rauher Alp. At the point where the Brock monument is built upon it, giving a wide lookout, this peculiar situation of the lake was very well shown on Aug. 22nd by Prof. Wm. Morris Davis, the distinguished American physical geographer. He expressed the opinion that the land surface around Lake Ontario, as indeed in all the region of the great lakes (except Lake Superior) has the features of a steppe-like landscape formed by subaerial denudation, and not much modified by glaciation, although the latter, as the disclosures at Scarboro' show, has been twice repeated. It has blocked up the old water-courses, as for example, a valley that coming from the west emptied into the lake near Hamilton. The rivers have thus been obliged to find new channels, and have not yet fully cut them out. The mighty Falls of Niagara bear witness to the youthfulness of its course. It has not yet cut through the Niagara limestone formation.

The various trips on Lake Ontario were only a prelude to the great excursions which were arranged for the members and guests of the British Association after its close. There were four of them. They all had as their objective point the island of Vancouver on the west coast of the British Dominion of Canada, but to send all the numerous participants thither at the same time would not only have been mechanically impossible, but also from scientific reasons impracticable. For a scientific excursion to be instructive must be strictly limited in its numbers. Consequently the company was divided into groups, each of which had a specialist as guide. One left Toronto as early as the 26th, conducted by Dr. Wm. Saunders, director of the Experimental Farms of Canada. It was specially intended for botanists and geologists. The next day the geologists and geographers set out. Our guide was the distinguished geologist of Canada, Dr. G. M. Dawson, who presides over the Geological Survey with equal practical intelligence and scientific breadth of view. He had himself explored a great part of our route, and as the