

THE CANADIAN MAGAZINE.

VOL. I.

JULY, 1893.

No. 5.

THE BIRTH OF LAKE ONTARIO.

BY PROF. A. B. WILLMOTT, M.A., MCMASTER UNIVERSITY.

“The waters wear the stones.”—*Job*.

ALTHOUGH the mother of Lake Ontario has long since passed away, and without unfolding the secret of her daughter's birth, the history of our lake is not wholly wrapped in obscurity. Indeed, a voluminous autobiography has been given us, written on the rocky pages that surround her very form. Unfortunately, however, we are yet unable to decipher with certainty her ancient hieroglyphics. In some cases the sculpturing is of ambiguous meaning, and in others the writings are washed away, or covered with soil.

That the lake has not always had its present form, is easily recognized. One has but to recall its known fluctuations in level and to note the many old beaches, now several miles inland, to realize that our lake was once even more ocean-like than it is now. There was a time when the waters rolled fifteen to twenty miles farther north, and the site of Toronto was the feeding-ground of fish.

That the surface level has also been lower is equally evident. Rivers cut but a few feet below the surface of the lakes or seas into which they empty. Shallows usually mark their mouths. The present Niagara River has excavated the rock to a depth of

only twenty-four feet at its débouchure into the lake, but is much deeper a short distance up stream. Burlington Bay and Dundas Marsh are the remains of an ancient river, now choked with clays and gravels. Wells sunk at Hamilton city show that a channel was excavated in the solid rock for at least 250 feet below the present surface of the lake. Such a prodigious cut could only be made when the lake waters were at a much lower level. Similar sub-lacustrine watercourses are found near Port Dalhousie, Rochester and Cleveland. All point to a former lake (or river) level much below the present one.

Although measurably true of the ocean, one cannot apply the famous lines of Byron to our fresh-water sea:—

“Time writes no wrinkle on thine azure brow,
Such as Creation's dawn beheld, thou rollest
now.”

In the current language of to-day, the lakes, like all else terrestrial, have been subjected to the processes of evolution. Lake Ontario was born, has grown to maturity, and is now in the gradual decline of old age.

Three theories, as to her origin, may be stated. Each has its warm defenders. Some see, in the hollow of the lake, a valley, formed by the crump-