

A River Ran Through It By Robert Williamson

If you stand on the escarpment edge of Hamilton Mountain at the Jolley Cut and look northwest from viewpoints in Sam Lawrence Park, you will see a spectacular panorama of the Dundas Valley. To the untrained eye it has the ingredients of a beautiful post card. To a geography specialist, it is a landscape with a spectacular story to tell. Essentially, it is a huge, six kilometer wide cut in the Niagara Escarpment at the head of the Lake Ontario basin.

According to researchers, this awesome escarpment gap is the result of massive ancient erosion. Because of its size compared to other valleys in the area, it must have been caused by a very large river pre-dating the Wisconsin glacial period between 10,000 to 70,000 years ago.

It is believed that this giant river was the predecessor of the present Grand River / St Lawrence River system draining the vast area of western Ontario and beyond. As it tumbled over the edge of the escarpment into what is today the Lake Ontario basin, it would have created a waterfall comparable to today's Niagara Falls. During its life-time, the ancient falls would have eroded a gorge in the escarpment at least ten miles (16 km) long up to the vicinity of present day Copetown.

This mighty river of the Dundas Valley vanished along with its tributary that created the Red Hill Valley during the last glacial period known as the Wisconsin. This giant continental glacier totally reshaped the geography of Canada, redirecting river systems. A lobe of the Wisconsin glacier moved westward from the basin now occupied by Lake Ontario about 50,000 years ago.



A hypothetical representation of the Dundas Valley and its huge waterfall 100,000 years ago by Robert Williamson.

It spread into the Dundas Valley, widening it and pushing debris ahead like a bulldozer, building a ramp to climb over the escarpment. This process partially filled in the valley and buried the site of the ancient waterfall at the head of the valley.

As that glacier melted, the present drainage system of the Great Lakes was created. Now the Grand River flows into Lake Erie with today's Niagara River channeling the water that once flowed through the awesome Dundas gorge over the Niagara Escarpment.

Test drilling over the last decade has traced the route of this ancient buried river bed looking for a potential source of ground water for Dundas.

The next time you drive down the Jolley Cut and the vista of the Dundas Valley opens before you, recognize the tremendous geological forces of pre-history that have shaped the landscape all around you.

Mountain Memories, written by historian **Robert Williamson** for the Hamilton Mountain Heritage Society, appears monthly in the Mountain News