

Niagara County Geography And Geology

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By William Aeberli

The glacier ice sheets gouged their way across Niagara County like plow-shares and in their mysterious alluvial wake, a terrain peculiar with the extreme end of northwestern New York State was formed.

However, by no means did Mother Nature's spectacular effects render the surface across Niagara a barren wasteland. In fact, besides an abundance of tillable soil and climate tempered by surrounding waters, a legacy in the form of geologic monuments would remain from Nature's primordial activities.

Furthermore, in the process of glacial movements, the actions of the ice sheets laid the foundations for two of the most famous roads in New York's post-colonial history.

Among the world-renowned natural features of Niagara County's Great Falls and River Rapids is its Niagara Escarpment. This steep slope or long cliff that resulted from erosion runs in an almost unbroken chain from east of Royalton Township's northern section to the brink of the Niagara River.

As a unique, glacial landmark the Escarpment characterizes the county

individually in comparison with other adjoining glacial features of Orleans and western Monroe Counties.

By now, we should have become familiar with the ancient lake that once covered all of New York State and beyond. In this week's article we shall concern ourselves with the origin of the Niagara Escarpment in relation to local geography and the western extremity of the Ridge Road.

To begin with, after the water levels of the last retreating glaciers retreated northward, the Escarpment emerged as a division or vast retaining wall (or dike) between two bodies of water.

To the south of the Escarpment became Lake Tonawanda on the Huron Plain and to the north of it became Lake Iroquois on the Ontario Plain; perhaps the latter plain is more familiar to residents of Monroe and Orleans Counties.

Thousands of years later, the Indians cut pathways atop the higher elevations (made up of glacial moraines) adjoining the Escarpment in preference to traversing the swamplands or former beds of the ancient lakes that had receded.

One of the branches of these primitive, wilderness highways became the Lewiston Trail. Some of the very first white men to use it were French missionaries.

Keep in mind the difference between Niagara County's Lewiston Trail and the old familiar Ridge Road (overlooking the Ontario Plain) is glacial formation and content. Route 104, also known in the history books as The Old Ontario Trail is primarily a "beach" ridge or shoreline.

If possible, we suggest reviewing the Brockport Post, Oct. 22, 1975 issue; The Origin of the Ridge Road, which introduced the Cobblestone Series and also the recent Oct. 13, 1976 issue.

Now concerning the Ridge Road's counterpart. Over two-thirds of the Lewiston Trail, following along the eastern half of Niagara County and directly across the greater share of Royalton Township comes into the county south of the Escarpment.

The base of the trail is made up of a series or chains of moraine ridges. The content or material consists of an accumulation of boulders, stones and other debris that fell as "till" from the cliffs of the melting ice sheets.

But, to the west of the city of Lockport and the remaining distance to Lewiston, the trail runs upon a beach ridge or the shoreline of ancient Lake Iroquois on the Ontario Plain.

There is quite a bit of geographical diversity in Lockport Township and much more pronounced (in its given area) than Orleans and Western Monroe Counties.

Remember, it is here in Lockport where a series of locks for the original Erie Canal had to be blasted out and dug by hand before the route was able to continue on to Tonawanda Creek.

It was one of the many engineering feats of Canal history when thousands of workers cut through the Escarpment by primitive means and methods. Another case in point, the canal route had to follow along the Escarpment's terrace before turning south into Lockport.

The glaciers created a lower level to the main cliffs. To be more specific, there is a lower level to the north of the upper level chains.

The lower level or (terrace) parallels (northeast and southwest) the upper level cliffs which the latter, by itself, curves counter-clockwise in relation to the lower level. This formation occurs a little above the downtown section of Lockport. Then the two levels run full length from this point to the Niagara River.

If this has become confusing, think of two separate railroad tracks, though seemingly independent of each other (due to neighboring coursing,) as actually belonging to one system and becoming evident when paralleling at a certain point.

As the Old Lewiston Trail enters Lockport Township on high ground (over gravel deposits), the trail crosses both the upper and lower Escarpment levels and their fissures and continues in a northwesterly manner above the nearby center section of downtown Lockport until making a junction point with the Ridge Road at the extreme northwest corner of the township or Cambria-Lockport Townline Road. This area is made up of an ancient sand beach or what glaciologists and geologists call "Ancient Newfane Beach."

The Lewiston Trail still exists today, though paved in modern macadam, and traceable under six different names before reaching the junction point at Warren's Corners at Cambria Township's eastern line. They are the Lewiston Road, Chestnut Ridge Road, Cold Springs Road, Old Niagara Road, Stone Road and at the junction, the familiar Ridge Road or last section towards Lewiston.

The Ridge Road is another matter! It crosses the entire length of Hartland Township as a "beach ridge"; the road belongs completely in the Ontario Plain as compared with the Lewiston Trail coming up from the Huron Plain.

Upon entering Newfane, the Ridge Road curves upwards, then meanders down along near the southeast corner of Newfane. The "curve" marks the "eastern end" of ancient Lockport-Newfane Bay of Lake Iroquois.

When the Ridge meets Route 78 (or the Lake Road to Olcott) at Wright's Corners (4 miles from the city of Lockport), it is in the neighborhood of glacial deposits or end-moraines left behind by glacial activities north of the Escarpment chains.

At this point, the Ridge continues directly west for two and a half miles to Warren's Corners. In between, Eighteenmile Creek crosses the Ridge and cuts a deeper channel, then a gorge three miles further downstream.

Keep in mind we are following the "sand ridge" that travels the entire length of Cambria Township's extreme northern section. This was once a giant harbor of Lockport-Newfane Bay.

The bay itself was formed by glacial action, the erosive forces of Lake Iroquois' waves and the ancient Lockport River (not Eighteenmile Creek) which poured through

the Lockport Valley after cascading over the Niagara Escarpment.

In the aftermath of receding waters, the lowlands became shallow bays, marshes and swamps. Large areas of these wetlands were still very much in existence when settlers first established along the Ridge in this section of Niagara County.

For instance, where the Ridge comes into Newfane (or the present hamlet of Ridgewood), trees were felled and a plank road was laid for better access to the Ridge across the soggy level of the former north lake bed. This is present day Hess Road, named after two of Newfane's earliest settlers who built the plank road.

To the west, the Ridge (between Wright's Corners and Warren's Corners) would later become known as "The Long Causeway Turnpike." This section of the Ridge was a part of the eastern section of the former Indian trail laid out (or rather improved) across Cambria Township in 1808.

In 1812 the thick forests in the area furnished material for a log (corduroy) road that was laid over the soft earth and sandy material between the present Cambria-Lockport Townlines and Wright's Corners in Newfane.

In 1824, the logs were removed and the bed of the road widened for a chartered toll road. But by removing the original log material, the soft bed of the road was found not capable of handling the increased traffic of heavy wagons and stagecoach travel. For improvement, a thick covering of gravel was laid which sufficed to a degree, yet the Long Causeway Road or Toll Highway became victim to the canal, and later still to the railroads, yet it lingered until 1870.

To be continued next week



Former F. J. Hill cobblestone on the Ridge in Cambria is a charming example of Late Period workmanship. Walls were veneered with ovate, lakewashed stones; material was cleverly sorted to be practically exacting. Study gable end which faces the road. Stones are of various colors, but grays and browns predominate. But when bathed in full sunlight, walls have an overall sheen. Cobblestones were set vertically in continuous "V" channels without embellishing the vertical joints. Notice Elliptical fan at Gable's Peak with curve of fan enhanced with then stones for artistic sake.

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Cobblestone Series:

Continued from last week
Needless to say, the road was never a financial success. In summation, the Ridge was not always a "free-way" in a sense of the word, at least in this particular section of the county.

Traveling along the Ridge today is a composite of what we have discussed. In Cambria Township, we can see the Lower Escarpment as a pleasing backdrop to Niagara's continuing agricultural belt but with additional grape-growing districts not found elsewhere.

Route 425 (also called the Lower Mountain Road) runs almost directly atop the elevation, making a crossroads with the Cambria-Wilson Road (Cambria Center) which intersects on the North with the Ridge Road at Streeter's Corners.

To be precise, the Ridge is now the original western end of the Lewiston Trail from Batavia. But the road is also the extreme western end of the Old Ontario Trail (overlooking the Plains) of Greece, Parma, Clarkson, Murray, Gaines and Ridgeway.

of the Ridge where the Hinkleyville Road comes in near Parma Townline. The only difference is the Escarpment--now close enough to--block out a southern view.

As the Ridge in Lewiston Township follows below the lower Escarpment, crossing the bottom level for three-quarters of a mile, the prominence of the Escarpment resembles a canyon wall in the Far West--yet one is not completely closed in!

Crossing above the modern Robert Moses Parkway into



Cambria's only cobblestone contribution on the Ridge Road. It is located on the north slope of the road, west of the Beebe Road; dwelling is the last cobblestone building of our tour on our way westward to Lewiston.

Either way you describe it, up this way the road runs for four miles across Cambria's lower farm-belt plain. Looking out towards the south, the traveler can rarely escape the presence of the blue-green hues of Niagara's glacial Escarpment.

Yet, when we enter Lewiston Township via the Ridge, we are still following an ancient shoreline for at least a considerable distance across a lower elevation. Then the picture changes and the road becomes a lengthy section of an abrupt rise.

As we come closer to the Escarpment, we realize that we are running along a terrace of the long glacial chain which permits an almost unobstructed view of the vast Ontario Plain. In Monroe County, we can compare the scene with that

the Village of Lewiston, the Ridge is the village main street and terminates below the hill.

The entire scenery is the fused remnants of the Glacier Period that created the Escarpment, the vast Ontario Plain, the deep channel walls of the Niagara River and the Falls. We are in historic country first under the domain of French-speaking people. Future articles will delve deeper into this phenomenon and its effects on state history.