

Unearthing economy of region's limestone quarry operations

Under the hills and valleys of Carroll County geologists find an odd assortment of rocks – products of earth's complex geologic history. Limestone, a sedimentary rock, is one we have in abundance. Often it has been a blessing, sometimes a bit of a curse.

A walking trail at the northern end of Wakefield Valley on the western outskirts of Westminster offers a glimpse at the role limestone played in the County's past. Park your car along Tahoma Farm Road just off Rte. 31 to see the remains of two huge lime kilns built into a hillside. Through much of the 1800s, owners of those kilns and a nearby quarry produced vast quantities of lime for agricultural use by farmers and even for someone wanting to whitewash a backyard fence with "paint" made of powdered lime and water – just like Tom Sawyer!

The kilns and quarry on Tahoma Farm Road represent the very large operation of Wm. H. Orndorff, farmer. In 1877 he advertised he "also has for sale Lime Stone and Lime, one and a quarter miles southwest of Westminster." There were many smaller quarries and kilns scattered across the western part of the County which probably served just a couple of farms if you didn't want to buy from Orndorff. When Carroll was still covered with sizable forests, it was relatively easy for a farmer to build a kiln and burn a mixture of limestone and wood to produce the white powder he needed to increase the productivity of his fields. The slaked lime was usually referred to as "manure," and it basically had the same effect on the soil as barnyard manure – minus the odor!

Whitewash, another byproduct of burning limestone, was an inexpensive way to cover interior surfaces as well as exterior ones. Used inside barns or even in homes, whitewash offered mildly antibacterial properties to surfaces where it was applied. As the whitewash flaked off walls, ceilings of barns, etc. it carried dirt and grime with it. You simply applied a new coat of whitewash. Voila! Everything looked bright and clean once more. There is an old saying that goes, "Too proud to whitewash and too poor to paint," but whitewash offered other benefits besides being cheap.

When the cement industry began to boom in the early 20th century, people discovered the limestone around Union Bridge had the right chemical composition to produce Portland cement. Tidewater Portland Cement Company, headquartered in eastern Pennsylvania, began quarry operations on a vast scale about 1910, turning the town into a miniature Pittsburgh with huge quantities of lime dust covering everything in sight. If the dust settled on the fields, it presented no problem, but on tin roofs in town it quickly turned into thin sheets of cement after a rain and came crashing down onto the sidewalks. While discovery of this high-quality limestone for cement production had a positive economic impact on the town and county, the health effects on the population were definitely negative!

Today there is still a cement plant operating in Union Bridge – Heidelberg Materials. But after supplying stone for roughly 100 years, the Union Bridge quarries were played out and

Heidelberg needed a new source of the same quality limestone for the 21st century. Luckily there was some just south of New Windsor.

A conveyor belt, stretching roughly five miles above and below ground, now delivers crushed limestone to the plant in Union Bridge where it is turned into cement, but under conditions much improved from those of a century ago. The plant must meet today's strict industry standards in terms of air pollution, noise pollution, potential damage from blasting, etc. While the mammoth quarries do nothing to improve Carroll's landscape, giant berms hide them from sight when driving along Routes 31 and 75 in the New Windsor and Union Bridge areas. Heidelberg Materials wants to be a good neighbor. It offers tours to groups interested in knowing more about the cement industry and its local operations.

Limestone continues to have a positive impact on the local economy thanks not only to creating jobs, but also to shipping cement out of Carroll via the Maryland Midland Railroad. One serious drawback, however, is the traffic entering and leaving the plant. Coal, sand, gypsum, and fly ash, crucial ingredients in making cement, all arrive at the plant by truck, and huge trucks leave to deliver cement wherever it is needed within driving distance. Utilizing Carroll's limestone probably will never be a total win-win situation for the County even with all the environmental improvements over the last one hundred years.

To better appreciate Union Bridge and its early cement plant, visit Original Pizza on Main Street in Union Bridge to see the Monteleone family's collection of old photographs and local memorabilia hanging on the walls of this homestyle eatery.

Sinkholes are one aspect of limestone over which mankind has little control. Longtime residents of Carroll County probably remember reading stories in this paper about them when they appear from time to time along the length of Wakefield Valley. The limestone beneath the valley slowly dissolves in ground water over the course of thousands of years. When the stone near the surface can no longer support the weight of overlying soil or a roadbed, the ground collapses and a sinkhole appears. They can prove deadly as one did thirty years ago. On a night in March 1994 a sinkhole suddenly opened in the middle of Route 31 between Westminster and New Windsor; a car plunged into it; and the driver died. Today, drones monitor where sinkholes are likely to develop so state highway crews can prevent such accidents in the future.

There is much more to the story of limestone and its local impact from the earliest time to the present than this, but it is important to know something about the rocks beneath our feet. Traveling from the western side of the County you pass through iron-rich red sandstone and shale around Taneytown to the white limestone around Wakefield Valley. Along the eastern edge of the County between Finksburg and Sykesville, miners discovered rocks with a blue-green color due to their copper content. You'll remember the geology of this area if you think of it as red, white, and blue.

Mary Ann Ashcraft is a volunteer at the Historical Society of Carroll County.

Image 1: Submitted photograph Caption: An early limestone kiln, probably built and operated by one or two farmers, along Green Valley Road between New Windsor and Union Bridge.

Image 2: Submitted photograph Caption: Looking into the 600-foot-deep limestone quarry operated by Heidelberg Materials on the outskirts of New Windsor. From this site, a conveyor belt carries the crushed stone to the cement plant in Union Bridge.

Image 3: Submitted photograph Caption: A 2014 view of the cement plant in Union Bridge from Quaker Hill Road.