

Potsdam Sandstone

by Sally Lynch

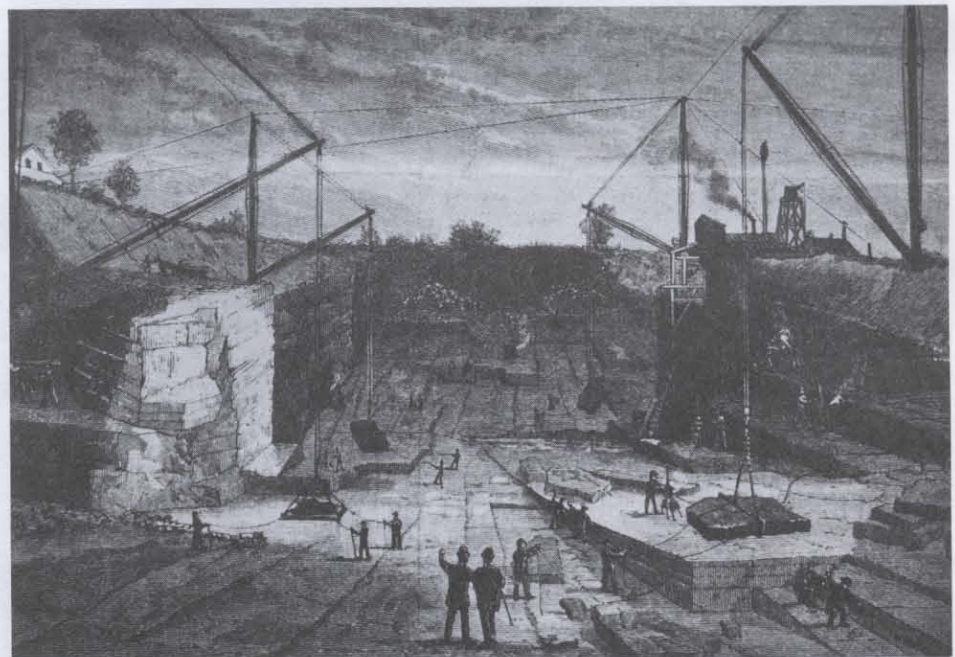
Potsdam sandstone, a sedimentary rock of the Cambrian age, is found in northern St. Lawrence County. Slabs gleam under clear rivers, and outcroppings are common along the area's riverbeds. In 1777, the British Sir William Johnson noticed it along the Racquette River, as he fled north to Tory Canada.

Named for the Town of Potsdam, the reddish-brown stone was first quarried along the Racquette River in 1809. Potsdam is one of 10 townships south of the St. Lawrence River: in 1787 the townships were auctioned off at a coffeehouse on the corner of Water and Wall Streets, New York City. The townships were an attempt to buffer the valuable Mohawk Valley from Sir William Johnson's terrible raids, using Tory troops settled on the north side of the St. Lawrence River. The Clarksons, a New York City family whose shrewd mercantile dealings and luck in a British lottery made them wealthy, became majority owners of the town of Potsdam. In 1803 Benjamin Raymond, the Clarksons' surveyor, landed a bateau near what is now Waddington, on the St. Lawrence River. His chain and axe men cut their way through the forest, arriving near what is now Potsdam. They floated a raft to some falls and built a hut and sawmill, using mill irons they brought with them. Roads were laid out, and settlers cleared farms. Most of the village buildings built before 1920 have sandstone foundations, often of scrap stone.

Potsdam sandstone was first quarried by Captain Nathaniel Parmeter, who built his entire 1809 house of it, using the slab and binder technique of smooth horizontal slabs and vertical binders. The house, on Back Hannawa Road, belongs to eighty year old Mrs. Dorothy Gordanier, who with her husband bought it in 1935. It had been a rental six years before the Gordaniers bought it, and was in terrible shape. The roof leaked and had been patched with old suitcases and corsets. "An old lady, a Parmeter niece, came by and explained how the house had been. She remembered her mother cooking cornmeal mush in one of the two upstairs fireplaces, during the 1870's." The shallow fireplaces throw heat very well, and Mrs. Gordanier uses them frequently. One of the massive stone chimneys curves between two upstairs windows. The cellar's fireplace has the original cast iron cooking crane. "It makes a fine stew," says Dorothy, walking around her grandchildren's rabbit cage. The large fireplace has a brick lined, beehive shaped baking oven built next



A natural site of Potsdam sandstone near the Racquette River. (Courtesy of the St. Lawrence University Archives)



*Quarrying Potsdam sandstone as drawn for *The Scientific American* in 1893.*

to it, with a lower hole from which hot ashes were shoveled to provide the upper oven's heat. Axe hewn beams support the wide plank ceiling, unplastered to let the kitchen's heat rise, and traces of original whitewash mark the walls. Half of the sandstone cellar was a kitchen, with a full-scale door opening outside. The other half was a

root cellar with sandstone slab shelves for preserved goods. The double sandstone walls are filled with stone chips. A sandstone half circle tops the front door's fanlight window. A sandstone watering trough is now a flower planter, and the Gordaniers built a patio from slabs of stone on their land. "They were probably from a barn foundation, and



A worksite along the Racquette River. (Courtesy of the St. Lawrence University Archives)



Moving and stacking slabs of Potsdam sandstone. (Courtesy of the St. Lawrence University Archives)

the frost heaved them up. There was an old dump, too, which turned up old china and glass pieces, a metal cream skimmer, and a child's toy maple syrup yoke, carved in wood."

Mrs. Gordanier grins at the elegant Dutch colonial home next door. "The henhouse is gone, but that was the barn. We had horses, pigs and cows. During World War II I made butter and sold it on the black market."

The first commercial use of Potsdam sandstone was in 1821, a store built in Potsdam. It has always housed businesses, and is now a jewelry store at the corner of Market and Elm Streets. The attic still has a wooden wheel and pulley, once used for hoisting objects.

Outcroppings of Potsdam sandstone were once as much as 70 feet thick. Soft when cut but very hard after exposure to air, it proved easy to quarry. Sheets of rock up to 30 feet square were raised with wooden, and later, rolled steel derricks, operated as a mast and boom.

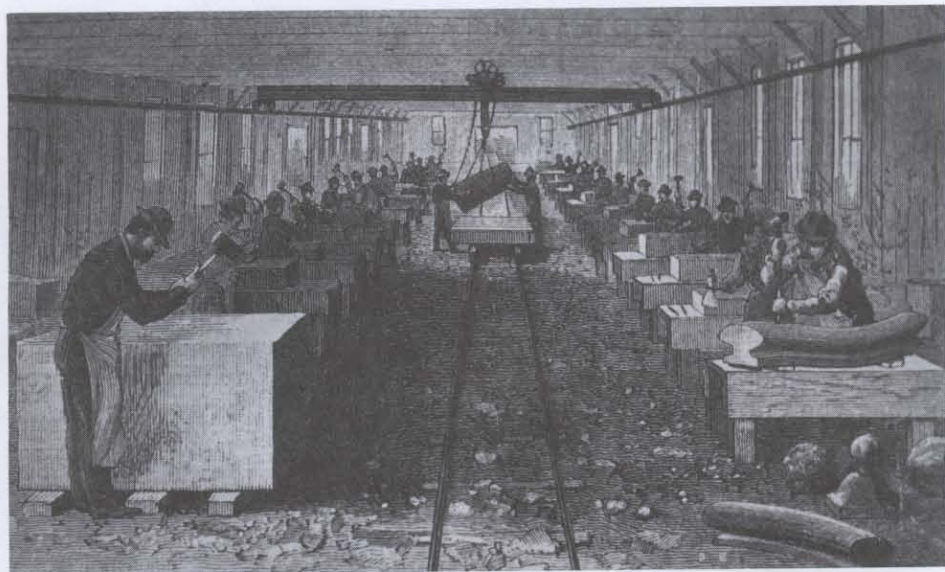
The quarries were south of Potsdam, on both sides of the Racquette River. There were three major operations: the Clarkson Sandstone Quarries, Potsdam Sandstone Company, and the Potsdam Red Sandstone Company. Smaller quarries existed, and by 1821 sandstone was one of Potsdam's major industries.

Quarry workers and stone cutters were often Irish immigrants, and skilled Italian stone carvers who used wooden mallets and chisels to sculpt details. Stone workers probably spent winters in cutting shops, whose locations are uncertain but would be marked by many stone chips. Sadly, many stone workers died before the age of 30, from chronic stone dust exposure. The deaths

are listed as "consumption" on old census lists, and were probably from silicosis, often complicated by tuberculosis. The two ethnic groups lived in separate communities in Hannawa Falls.

Originally drawn by oxen, and then horse teams, the sandstone was later shipped on covered New York Central Railroad flatbed cars. It was used in construction throughout New York State, in eastern Canada, and as far away as Detroit and Washington, D.C. Paint manufacturers patented paints imitating the shades of Potsdam sandstone. Ottawa's Parliament buildings have Potsdam sandstone door and

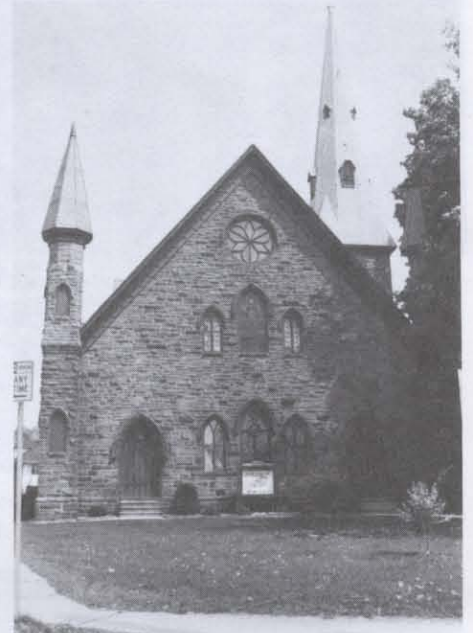
window casings. Potsdam and the surrounding area have many sandstone buildings, although unfortunately some fine old buildings have been leveled. An old print, Western View of Potsdam, shows a three story stone grist mill where a donut shop now stands. Some of Potsdam's sidewalks are huge sandstone slabs, often heaved by old maple roots. Ripples in the stone show water's effect on the original sand. Sandstone was also used for trim, facades, walls, flagstones, breakwaters, hitching posts, carriage blocks, and to line graves. Bayside Cemetery, on the back Hannawa Road, is enclosed by iron fences and has sandstone headstones, some carved



Stone-cutters at work. (Reprinted from The Scientific American, vol. 68 January 21, 1893)



The old Parmeter House, built in 1809 by Captain Nathaniel Parmeter, on the Back Hannawa Road south of Potsdam, now the residence of Mrs. Dorothy Gordanier. (Photo by Marian O'Keefe, SLCHA Archives)



First Presbyterian Church, 1872, Lawrence Avenue at Elm Street, Potsdam, New York. (Photo by Marian O'Keefe, SLCHA Archives)



The first commercial use of Potsdam sandstone was in the construction of this building in 1821 at the corner of Elm and Market Streets, Potsdam, now a jewelry store. (Photo by Marian O'Keefe, SLCHA Archives)



The Herring-Cole Library, now a reading room and archives at St. Lawrence University. (Courtesy of the St. Lawrence University Archives)



Caretaker's Lodge, Bayside Cemetery, on the Back Hannawa Road. (Photo by Marian O'Keefe, SLCHA Archives)

Woodstock Lodge, 1827, formerly the home of Augustus L. Clarkson, on the campus of Clarkson University. (Photo by Marian O'Keefe, SLCHA Archives)



with weeping willows, urns, fans, and the eye of God. An infant boy's one month and six days are chiseled in a small sandstone marker, obscured by lichen. Iva Ramsdell, Clarkson University historian, remembers her husband Frederick choosing the sandstone for their future headstones.

Sandstone, due to its great hardness and fire resistance, lined furnaces in which iron was melted at about 2,300 degrees Fahrenheit. Powdered sandstone was used as flux in making colored glass in Redwood, New York.

Robert Wyant, a retired engineer and sandstone buff, spoke while sitting in front of his Main Street house's handsome sandstone fireplace. The stones were laid by the late Lloyd Kingston, a mason who learned his craft in Scotland. The colors run from the deep red

unique to the Potsdam stone, to beige and salmon with bands of contrasting hues. It is built in the rough ashlar style, of irregularly hewn but carefully balanced shapes and sizes, a style which became popular after 1850. Changing light creates dramatic shadows.

"I've spent many hours poring over old deeds in the county courthouse. My eyesight isn't what it was, and the handwriting is hard to read, but I can tell you that sandstone rights were on some of the old deeds."

Mr. Wyant described two types of quarries: one is a hole in the ground, not too far from the river, and cleared by pumps. In 1894, Thomas S. Clarkson died from a leg crushed while trying to save workmen from a wildly swinging pump. Misses Elizabeth, Lavinia and Frederica Clarkson closed the quarry

soon after the death of their beloved brother, although they continued to donate stone occasionally. In 1894, the forerunner of Clarkson University was founded in memory of their brother. It has numerous sandstone buildings, some built on the original 1803 "gospel and literature" lots set aside in the 10 townships.

Woodstock, one of the Clarkson sandstone homes, had a kitchen in the cellar. Underground passages connected it to a barn so that produce could be brought in easily. Older people remember playing in the passageways as children. The late Elmer Gordanier, Clarkson class of 1933, underwent fraternity initiation rites in the tunnels, now filled with rubble. Although the north country was strongly abolitionist, the tunnels did not go to the Racquette River or serve the



The Omohundro house, Hannawa Falls, formerly the Gardner Cox home. (Photo by Marian O'Keefe, SLCHA Archives)

underground railroad, as rumored. There was a "safe house" in nearby Chase Mills.

One of the finest examples of sandstone construction is Trinity Church, built of stone donated from the Clarkson quarries, and graced by seven Louis C. Tiffany windows, recently restored. In the early 1900's, townspeople crossed the Racquette River's bridge to Fall Island to see Trinity's interior banked with spring flowers from the Clarkson greenhouses. Carved mullions of sandstone separate the "petals" of Trinity's rose window. Other examples of Potsdam sandstone construction are Potsdam's St. Mary's Church and the Presbyterian Church, outlying large and small farmhouses on Route 11B, All Saints Cathedral in Albany, and St. Lawrence University's Herring Cole Library, in Canton.

The second type of sandstone quarry involved taking rock off the wall of a gorge. Initially dangerous, giant shelves were cut, creating a stairway effect. Old quarry "steps," now obscured by trees and dirt, are still visible in early spring, before the foliage leaves out. Old drill marks are still visible, too. Wooden water wheels, which could be raised or lowered according to the water level, hoisted stone out and powered pumps.

Wealthy Potsdam citizens competed for Hannawa Falls' water power, and in 1920 were generating electricity there. A coal powered locomotive ran from Hannawa to Potsdam, starting at the lowest "step" of the quarry. Old railroad supports still cross the Racquette River at close intervals, and canoeists paddle with care between the stone pilings.

The Potsdam sandstone industry waned by the 1920's, due to high shipping and labor costs, and the relative cheapness of terra cotta, brick, cast stone and concrete. Two major attempts to revive sandstone quarrying, one in

The Robert Burns home at Main and Division Streets, Potsdam, built by Liberty Knowles before 1837. (Photo by Marian O'Keefe, SLCHA Archives)



The Garner home, built in 1814 by Captain Parmeter, on the Back Hannawa Road. (Photo by Marian O'Keefe, SLCHA Archives)

the 1950's and one in the 1960's, proved unprofitable despite modern equipment. Sandstone slabs and gravel are still available commercially on a small scale. The valuable cut stone is used over and over; sandstone from Potsdam's torn down opera house was recycled in the civic center.

Not all of the quarry locations are known, and hydroelectric dams flooded some of them. Robert Wyant pointed

out on his topographical map, the location of a hole-in-the-ground quarry, now filled with water. People now swim there, and pick wild strawberries where foremen once dynamited huge slabs of sandstone off the steep pit's sides. I literally stumbled onto the sandstone remains of a Clarkson building, overgrown with daylilies. It is all that is left of a greenhouse where the Clarkson ladies sipped their afternoon tea.