

The Delaware and Hudson Canal Company

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Introduction by Richard Foy

The story of the Delaware and Hudson Canal Company is peripheral to the story of the Payne estate. While processing early deeds in 2001, I noticed that a Maria Wurts purchased the land now under the Payne mansion in 1820 and held it until 1837 when she sold it to John D. Pell. I hoped to connect her to the Wurts brothers Maurice, William and Charles who spearheaded the construction of the Delaware and Hudson Canal. By 2011 I have given up hope of making the connection.

If you Google or Bing the D & H, you will find a great many sites describing the canal, some of which are accurate, many of which are misleading statements or judgments on the history.

Carrere & Hastings developed the Payne estate dependent on coal for heating and also used coal to generate electricity. There was a single electric generating plant for the estate, but each building had its own furnace powered by coal.

Near the river landing owned by Mrs. Pratt, there was a large stone building with a wooden roof we called the coal dock. This was built when the estate was developed. The coal was downloaded from barges, stored in the stone building, then trucked up to the buildings. Trucks would follow the older path from the dock to the Pratt house and maintenance area along a serpentine path originally designed to reduce the uphill climb for horse and cart in the Pratt era.

There was some coal on the floor of the building in 1942, but we never used that system. It was abandoned in favor of railroad

delivery well before the Marist Brothers purchased the grounds in 1942.

When my brother Peter and I first attended Marist Preparatory in September 1942, (he a sophomore standing 6'4" and I a freshman reaching 4'11"), students were expected to help out to maintain the grounds. Peter and several taller, stronger students were often selected to take an ancient truck named *Molly* to the Esopus railroad station and unload coal from a waiting car, then distribute it to each building.

Among the taller and stronger students were Peter Stafford, Jimmy Bree, Gene Connelly, Vinny DiMaso and my brother. This group also often were assigned the task of splitting the logs used to supplement the coal, as coal was somewhat at a premium during the war years.

There is a time disconnect between the year that the D&H Canal ceased transporting coal from Pennsylvania (1904) and the Payne estate was developed (1911). So we don't know how many years the coal dock was used, or whether the coal came from Kingston.

When I returned during the summers of 1951 - 1954 to work on construction of additions to the English Village, coal was used for heating the buildings, but gas lines had been strung from route 9W to power the stoves. Eventually all the buildings switched over to oil heat.

Excerpts from Arthur G. Adams, *The Hudson Through the Years*

The Delaware & Hudson Canal, completed in 1828, was the brainchild of two brothers, Maurice and William Wurts, who owned extensive anthracite fields in northeastern Pennsylvania. At that time anthracite was not generally recognized as a feasible fuel.

The Wurts brothers demonstrated its clean burning qualities to a group of investors in New York City in 1823, and immediately gained backing for construction of a canal from the coal fields to tidewater at Rondout Creek -- a total of 108 miles. There were to be 109 locks, fifteen aqueducts, and fourteen boat basins. The canal was to be 4 feet deep and 20 feet wide at the bottom and 36 feet wide at water level. The bed was to be lined with clay to prevent seepage and care was to be taken that this would not be undermined by otters, beavers, muskrats, moles, or other aquatic animals. The line was to be paralleled by the new telegraph and this was to be used for dispatching.

Philip Hone, soon to become Mayor of New York City, was elected the first President of the Canal Company in 1825. He was a personal friend of Washington Irving's and a close observer of contemporary life. His famous diary is a valuable source of information on the period. The new town at the coalfield end of the canal was named Honesdale in his honor. This engineering marvel was worked upon by such famous engineers as John Bloomfield Jervis, Horatio Allen, America's first locomotive engineer, Benjamin Wright, a famous surveyor, and John Roebling, developer of the suspension bridge and builder of Brooklyn Bridge.

Honesdale was connected with the mine area by a gravity railroad, whereon the loaded cars rolled down to the canal by gravity. The empty cars were hauled by a combination of cables and winches on inclined planes in the steep sections, and by one of the first steam locomotives used in the United States, the Stourbridge Lion, in the less steep sections. The locomotive was built in England. Horatio Allen, the first locomotive engineer, was also a practical mechanical engineer -- not merely an engine driver. He later made many practical improvements in locomotive design, starting a tradition on the Delaware & Hudson. On August 8, 1829, he drove the first steam powered train to move in America.

From Honesdale the canal followed along Lackawaxen Creek to Hawley and Lackawaxen, on the Delaware. Here it crossed the river and followed the north bank of the Delaware downstream to Port Jervis, along the foot of the towering Hawks Nest Cliffs. A right of way had to be blasted out of sheer rock faces, and the hard-drinking Irish construction workers had numerous bloody fights with the raftsmen on the Delaware, who resented the canal as an obstruction to navigation. From Port Jervis the canal followed the Neversink River, Basher Kill, Homowack, Sandburg, and Rondout Creeks to Eddyville, near Kingston. At Rondout was located the famous Island Dock where the coal was unloaded from the canal boats and was stored prior to transshipment via coastal schooners and river barges, pulled by tow boats, such as the old sidewheeler Norwich. This made Rondout the major port on the mid-Hudson, and home base of the famous Cornell line of towboats.

The canal followed the northwestern foot of the Shawangunk Mountains for many miles. Many remains can be seen in the form of old locks, earthworks, and bridge abutments. However, there are very few water-filled sections left. It is largely paralleled by Routes 97, 209 and 213, although it would be necessary to often use secondary roads to follow the route more closely. The old Canal House Tavern at High Falls has been restored and reopened as a restaurant, and the Delaware & Hudson Canal Society operates an interesting museum at High Falls.

Eventually the dam which had been built across the Delaware River at Lackawaxen, to provide slack water in the river upon which the canal boats could be ferried across, proved too much of a hindrance to river navigation and too expensive to maintain, and was replaced by a suspension bridge that carried a water-filled trough. This Roebling Aqueduct was completed in 1848. It was designed by John Roebling and consisted of four spans varying in length from 132 ft. to 142 ft. It is still in use today as a vehicular bridge, the water trough having been removed, and has been designated a National Historic Landmark. A toll is

charged. the Roebling Bridge takes PA route 590 across the Delaware to connect with NY route 97. Roebling later used the same suspension bridge technology to build the Brooklyn Bridge and the Niagara Falls suspension bridge

Other Roebling suspension bridges were at Lackawaxen Creek (1848-228 feet in two spans), Cuddebackville, across the Neversink River (1850-170 ft. in one span), and across the Rondout Creek at High Falls, where remains of the stone foundations of the viaduct and several old locks may be seen.

From Lackawaxen, the route was as follows: Barryville, Pond Eddy, Mongaup, Port Jervis, Huguenot, Godeffroy, Roses Point, Cuddebackville, Westbrookville, Haven, Wurtsboro, Summitville (formerly Beatysburg), Phillipsport, Ellenville, Napanoch, Wawarsing, Kerhonkson, (formerly Middleport), Alligerville, High Falls, Bruceville, Lawrenceville, Rosendale, Creeklocks, and Eddyville. The highest point between the Hudson and the Delaware was at Summitville. The first through shipment of coal was received at Kingston on December 5, 1828. In 1842 the canal depth was increased to 5 feet, enabling the boats to carry an additional 10 tons. In 1847 the depth was again increased to 6 feet

Boats were hauled by mules as the bow wave from a steamboat would damage the banks and barges tied up in the basins. The only steam vessel was the paymaster's launch Minnie. The captain and his family lived on board the canal boat in a cabin measuring 12 feet square. The trip from end to end took a week, and the canal was closed on Sundays. Whole families grew up, lived and died, on the canal. The "canallers" were a rough and tumble lot, and hard drinking was the norm, with many taverns along the line. They were also a musical lot, singing at their work. Popular songs included, *As I Went Down to Port Jervis*, *Haul On The Bowline*, and the comic *Mule Song*, with its concluding verse-"Never take the hind-shoe from a Mule."

Always essentially a single commodity canal, traffic began to dwindle with improvements in the parallel railroads, which could operate year around. In November 1898 the Delaware & Hudson Canal Company sent the last load of coal through, and in 1899 reincorporated as the Delaware & Hudson Railroad. They sold the canal to S. D. Coykendall of Kingston, who operated towboats on the Hudson and was a leading developer of the Wallkill Valley Railroad and the Ulster & Delaware Railroad. He operated the canal between Rondout and Ellenville until 1904 for the transport of Rosendale cement and general merchandise. The canal was totally abandoned in 1904.

Commentary by Stephen Skye, President of the Board of Trustees of Neversick Valley Museum of History and Innovation, Cuddebackville, NY.

All in all, the colonial fuel supply came mostly from wood which was in much greater supply than coal. For the most part the coal that was consumed was not mined in the colonies and the ships that carried it to our shores were probably not owned by colonists. In 1769, for example, almost nine thousand tons of coal were imported into the American colonies from England according to contemporary British records. Three quarters of this coal went to just four ports, the colonies' largest settlements: Boston, New York, Philadelphia and Charlestown. This relatively modest amount probably represented less than five percent of the fuel used by the households and businesses in these cities. More than likely, most of the coal stayed in these ports and nearby settlements. A few hundred tons of coal also arrived from Virginia and Nova Scotia. Such as it was this was America's energy economy.

Except for shipments from England, there were no other significant sources of coal. At any rate, this coal trade was halted during the War of 1812 when the British instituted a trade embargo. After the war, the coal trade with England resumed but remained relatively modest. As a result, most of the fuel used for

heating or manufacturing in the early United States continued to come from locally cut wood and smaller amounts of locally produced charcoal. It took a while for coal use to take hold.

In 1850 coal only made up ten percent of the nation's fuel supply. Wood remained the predominant fuel source making up almost ninety percent of all the fuel we used. The steam power revolution was still in its early days and muscle power made up about two-thirds of all mechanical power with wind and water making up another quarter. Even as late as 1885, wood still accounted for about half of the fuel used in the country's homes and workplaces though it barely accounted for less than ten percent of the fuel used by railroad locomotives.

Excerpts from David Kirby, *A Main Artery of the 1800's*, Travel Section of the New York Times, Sunday, August 25, 2002

... The 160-mile journey from Carbondale, Pa., where anthracite coal was mined, to Kingston, NY, where it was loaded onto boats for New York City and elsewhere, is an odyssey into another America, when time was measured more in months than minutes, and when transportation technology was based largely on mules and gravity.

... Carbondale is the site of America's first underground anthracite mine, started not long after the end of the war of 1812 when 'black diamonds' were mined here by two brothers from Philadelphia, William and Maurice Wurts. The war had ended with heavy restrictions on the export of British coal to America and, in 1824, the enterprising brothers brought anthracite to New York, where they heated a Wall Street coffeehouse with the newfangled fuel. Investors were so impressed, they bought out the million-dollar stock offer that day. ...

The company built an ingenious way to convey coal from mine to market. A *gravity railroad* was built to carry anthracite over Moosic Mountain and other ridges from Carbondale to Honesdale,

Pa., where the canal began. Cars were hauled up a series of inclined planes by stationary steam engines at the head of each plane; they then were lowered down a series of planes on the other side of the mountain with an ingenious system of pulleys that brought the empty cars back up as the full ones glided into Honesdale. ...

Though the original source of the region's wealth, Carbondale today seems to be prospering the least. It's a somewhat sad, forgotten old company town with a bingo hall and thrift stores. Still we loved its stoic beauty and faraway feel, its classical turn-of-the-century buildings and friendly residents

Somehow, Honesdale escaped Carbondale's fate, and today is a vibrant town, its handsome Main Street lined with stately banks, antiques shops and homespun cafes. Old stone churches, some built on land donated by the D & H Company, grace the skyline. Even though the canal here was filled in long ago, Honesdale was its loading dock and served as an important link in the system, a badge it still wears proudly. ...

A 20-minute drive on Route 6 winds through deep woods and along the Lackawaxen River to Hawley, a lovely old canal hamlet. Antiques stores and architectural jewels, like the 1890 Presbyterian church, built in Queen Anne Stick style, abound. With 52 miles of shoreline, nearby Lake Wallenpauack is the largest body of water in the Poconos and popular among anglers, boaters and campers.

Heading east on Route 590, we got our first glimpses of the D & H, with the canal on the left (partly filled in) and the river on the right. We realized we were actually driving on the old towpath....

At Lackawaxen, the canal met the Delaware River. In the 1800's the Delaware was slowed by a slack-water dam, allowing barges to be pulled across by rope. But timber-rafters on the river had to shoot rapids over the dam, and accidents were frequent. ...

John Roebling, of Brooklyn Bridge fame, is the star architect of a major part of the D & H. When the canal was widened and upgraded in the 1840's, the company hired him to build aqueducts to traverse four different rivers, including the Delaware. ... Roebling's Delaware crossing, the country's oldest existing wire suspension bridge, was expertly restored by the National Park Service from 1985 to 1995 .. The thought of coal barges crossing high above the river is astonishing. ...

Next morning ... we crossed Roebling's bridge (on the paved canal bed) to New York. The 21-mile drive south on Route 97, along the Delaware, is terrific with many appealing stops for eating, fishing or canoeing, many with quirky names: Quicks Eddy, Pond Eddy, Sparrowbush.

Hawk's Nest is a spectacular stretch, reminiscent of the Rhine Valley, leading into historic Port Jervis, an important D & H town with rich canal heritage. ... Much of the D & H in Port Jervis was filled in around 1900, after a drunken city elder supposedly toppled in and drowned. But accessible stretches of the canal bed and towpath remain, which the historical society is preserving as a public greenway.

Heading northeast on Route 209 to Cuddebackville, we stopped at the Neversink Valley Area Museum. Roebling built another aqueduct here, across the Neversink River, and his stone abutments remain. ... we walked the mile of fully restored towpath and water-filled canal, alone in the chill but entranced by the pastoral landscape. ...

Other canal towns we visited included Wurtsburo (named for the brothers)' Ellenville (whose library has a D & H collection) and Accord (formerly Port Jackson).

Arriving in High Falls, about 20 miles from Kingston, I checked into Locktender Cottage, a tiny, saggy but utterly appealing three-room antique-filled B & B. It sits next to Lock 15 near

another Roebling aqueduct ruin on Rondout Creek, its rusty ironworks visible in the stonework. ...

We visited the splendid D & H Canal Historical Society and Museum in High Falls, with its working models of a lock and a gravity railroad, excellent photos and paintings, and canal artifacts.

"Finally we traced the remaining miles of canal. At charming Rosendale, we took Creek Locks Road, past more towpath and locks, until we hit Lock 1, in Eddyville. A tidal lock, it opened onto Rondout Creek, where barges completed the journey to Kingston on the Hudson, with its still vibrant waterfront and maritime museum.

Lock 1 marked the end of the canal, which closed when railroads rendered the mule barges obsolete. The lock stands as a final glorious ruin, a sentinel of a long-past marvel whose memory and remains so many still try to preserve.

Sources:

Arthur G. Adams, *The Hudson Through the Years*, Third Edition, New York, Fordham University Press, 1996, pp. 73 - 78. Available Marist College Library

David Kirby, *A Main Artery of the 1800's* Travel Section of the New York Times, Sunday, August 25, 2002. Available on the internet

Many other articles on the internet

Stephen Skye is presently writing a book on the history of the D&H Canal. The excerpts posted above are draft copies of some of his text, which is scheduled for publication in 2014.

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