

ON THE LEVEL



THE CANAL SOCIETY OF NEW JERSEY

LEHIGH CANAL BOAT 249

As the canal era came to an end, thousands of canal boats became useless artifacts of a bygone age. Those that made it to the end of the line ended their days in canal-boat graveyards; others were abandoned in place along the routes of the canals they once served. Near Northampton, Pennsylvania, an abandoned limestone quarry along the Lehigh Canal offered an easy place to dispose of a large number of unwanted boats.

In 1931, more than 40 canal boats were gathered up and floated into the old quarry immediately adjacent to the Lehigh Canal near Lock 33. Boulders were pushed off the lip of the quarry and bottom boards broken to send the boats to the bottom. Although they soon disappeared from sight, they were not forgotten.

The Northampton Tri-Boro Sportsmen acquired the quarry containing the submerged boats from the Martin Marietta Cement Company in 1970. When club members noticed parts of boats sticking out of the water, divers investigated and reported that boats were stacked one on top of another in water

as much as 90 feet deep. Undaunted, they decided that saving one of the boats would be a great Bicentennial project. In 1980, representatives from the William Penn Museum in Harrisburg visited the site to give encouragement and advice. However, efforts to find a salvageable boat and then rescue it from the quarry were going to be a long and complicated undertakings. It would be an effort that would first succeed but, in the end, fail to preserve the boat for future generations

Hull 249 lay beneath 35 feet of water and was partially filled with a mixture of mud, ash and cinders. With the help of a local diving club, tow truck operators,

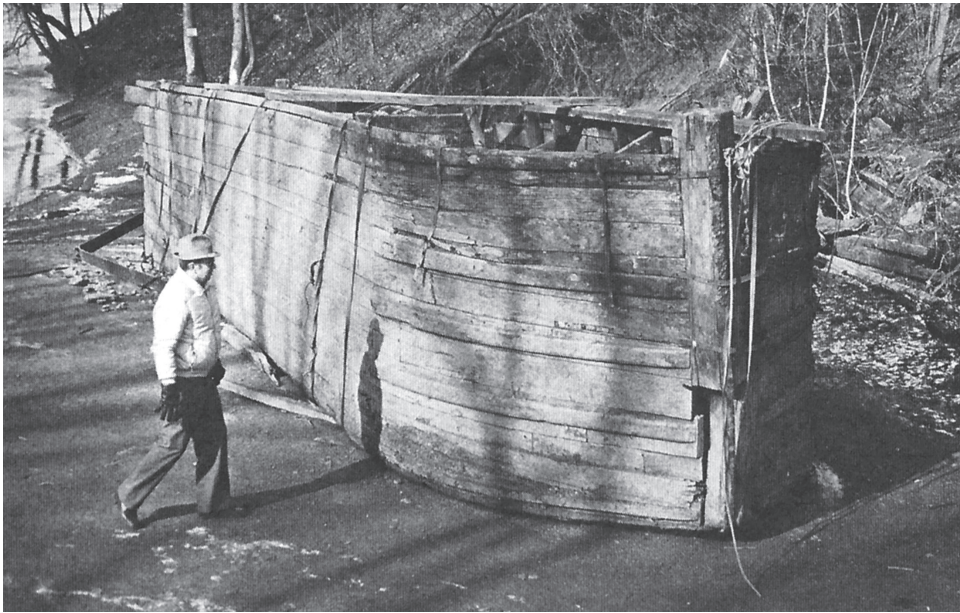
and volunteer firemen, the muck was cleared. The hull was then reinforced with steel bands and floated to the surface with air-filled bags and 50-gallon drums. The rescue was done with volunteer labor and took five years to accomplish. Things kept breaking, the mud was more persistent than anticipated, and the divers could work for only a short time before underwater visibility was diminished by stirred up silt.

Even when its bow appeared above the surface, the boat resisted every effort to be pulled from its grave. One day early in January 1982 a layer of ice on the quarry was broken and three tow trucks were hooked onto the hull. Club
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Lehigh Canal boat 249 on the grass near Lock 33 after repairs by the Northampton Sportsmen.

LEHIGH CANAL BOAT 249



ABOVE: Lehigh Canal Boat 249 is seen here resting on dry land after enduring the many efforts to rescue her from the depths of the Northampton quarry.

BELOW: This interior view, taken at about the same time as the photo above, shows the boat's frame and heavy planking. The light showing between her planks indicates the oakum that once sealed her seams had long since rotted away.



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members had long since lost track of how many weekends this job had taken so far. But that was the day the boat was finally dragged up and onto the shore.

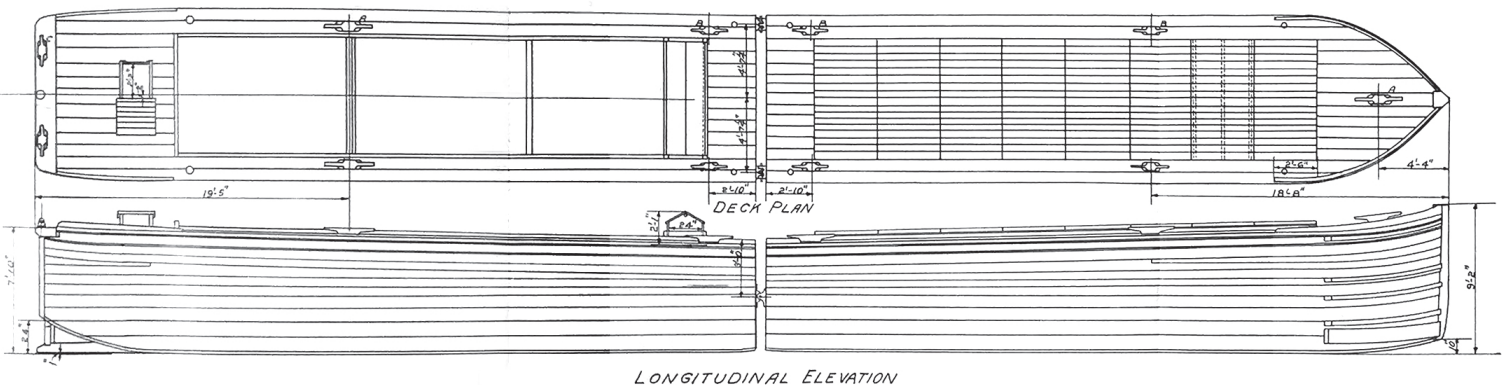
What had been preserved was the bow section of a typical Lehigh Coal and Navigation Company hinged section boat, probably built in the boatyard at Weissport. Fortunately, its round company logo and registration number were still visible and the craft could be identified. The hull measured 48

feet long, 10.5 feet wide and 9.5 feet from deck to keel. It was heavily built and sheathed with two-inch-thick southern yellow pine planks to withstand years of abuse hauling heavy cargos of coal and iron ore. It was very similar in size and construction to Morris Canal boats but deeper in the hold for added carrying capacity. In comparison, photos of the Lehigh boat's construction match the framing of our Highlands canal boat on exhibit at Waterloo.

With the boat now on dry land, repairs were made and damaged planks replaced using historically appropriate lumber from the demolition of a nearby mill building. It was also planned to wrap the boat in black plastic to prevent it drying out too quickly. Finally, in October 1998 the boat was positioned in a permanent resting place along the Lehigh Canal near the remains of Lock 33. Plans were made for an exhibit including a viewing platform and possibly a roofed pavilion to keep off rain and snow.

CSNJ President Joe Macasek learned about the boat not long after it was pulled from the quarry. He visited the site to take pictures and measurements. On later visits he found the boat on the grass by the canal with a new coat of red paint. However, there was never interpretive signage to tell what this marvelous wooden boat was all about. Soon the paint peeled, the wood began to dry rot,

The drawing below, dated 1909, shows plan and elevation views for a Lehigh Coal & Navigation Company standard wooden hinged boat, 100 tons capacity.



LONGITUDINAL ELEVATION

and the frame began to sag.

Over the years, Lehigh 249 continued to deteriorate until the Sportsmen's club members began to think its remains were no longer worth saving. Fortunately, Mauch Chunk Museum founder and director John Drury took an interest and offered to save what he could. The museum, opened in 1989, offers displays and artifacts that tell the story of Mauch Chunk and its canal, railroad, and anthracite coal mining history. (The name of the town was changed in 1954 to honor native American athlete Jim Thorpe.) A section of the bow was carefully cut away and reassembled as an exhibit in the museum.

The discovery of the remains of a wooden canal boat is rare but not unheard of. In 2016, the CSNJ learned that a canal boat hull had been found under a house in Highlands, Monmouth County, New Jersey. When investigation showed that it was a Morris Canal boat,



When most of Lehigh Canal Boat 249 had fallen apart, the bow section was saved and is now on display at the Mauch Chunk Museum in Jim Thorp, Pennsylvania.

the CSNJ acquired ownership of the remains. Like Lehigh Boat 249, what we had was the front half of a section boat. Although it had been cut down for use as a barge, it is still a massive wooden construction. Moving it, even in pieces, was a job for experts with the right equipment. Thanks to Bill McKelvey and rigger/flatbed truck owner Phil Francis, the

boat was carefully moved to Waterloo Village where it is safely housed in a dry indoor environment and is now part of an entire canal boat exhibit that is open to visitors and school groups.

The project taught us many lessons. Until you have actually handled the remains of a real canal boat its difficult to
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Raritan River Vessel 98

In 2019 the CSNJ was contacted by Richard Grubb & Associates seeking help in identifying the remains of a canal boat that had been abandoned along the north shore of the Raritan River near Perth Amboy. This archeological investigation was part of a New Jersey Transit North Jersey Coast Line Raritan River bridge replacement project. The mystery canal boat was arbitrarily identified as Vessel 98, one of many hulks of boats of every description that once cluttered New York Harbor. However, harbor cleanups and the vestiges of time have eliminated many historic wrecks.

In November of that year, CSNJ President Joe Macasek and Vice President Tim Roth visited the site to look for remains of the abandoned boat. They combed the beach west of the current railroad bridge, but all above-ground remains of Vessel 98 had long since disappeared. After a little digging around, Tim came up with some timber that turned out to be the boat.

Later, a professional archeologist dug in the same area and uncovered the entire bow. Their research determined that it was a Schuylkill Navigation Boat,



ABOVE: Archeologists use a pump to lower the water level while they clear sand to expose the bow of Vessel 98.

RIGHT: Tim Roth digs in the wet sand to find buried boat timbers.

one of many sunk along the shoreline to form a breakwater. Before the bridge replacement project disturbs the area, the remains were carefully documented and once again covered with sand. ■



DICK TITUS: MORRIS CANAL WUNDERKIND

By John Prieto

When Dick Titus was 99 years old, he was made an honorary member of the Canal Society of New Jersey. At a ceremony in Morristown, he was given a special nametag pin which he wore proudly. Although 80 years had passed since he last worked on the Morris Canal, his memory of those days was vivid.

Born in what is now Netcong in 1888, Dick was one of fourteen children. He began working on a farm at age seven and never had a chance for a proper education.

But he learned a lot in the following years. At age 9, he was hired as a mule hand by Morris Canal Captain Johnny White. He made three dollars a week. After about two years, he joined the boat of Captain Bill "Buttermilk" Cook. Titus said that Cook drank heavily and used to drink buttermilk after a bender. Cook often let Titus take charge of the boat. "I was a mule boy but I used to run the boat better than he did," Titus recalled. His experience handling a canal boat was put to the test in 1903, the year of the great flood in New Jersey.

In October their boat was moored at the Ludlum Steel and Iron Company dock at Pompton when, after three days of heavy rain, the river level was rising rapidly. Upstream, the dam at the Ramapo Ironworks failed sending a torrent of water down the river.

When news was sent by telegraph warning of imminent danger, the Ludlum Steelworks blew its steam whistle warning everyone to head for high ground. Despite the danger, Dick Titus got the mules to safety, then can back to get Buttermilk Cook off the boat. The flood carried away the steelworks dam and most of the bridges downstream. The canal boat was never seen again. Cook noted Titus's skill in handling the situation and told him he was ready to be a boat captain, which he accomplished at age 14. Titus later got his own canal boat at the age of 16.

Titus said he mostly carried coal on his boat, making deliveries to places like the licorice works in Newark, sugar works in Jersey City and several coal yards in Paterson. His coal deliveries included a few river trips hitched to a tugboat that took him to Carlstadt and Poughkeepsie, NY. He also carried bricks to Dover and occasionally brought horse manure from the city to

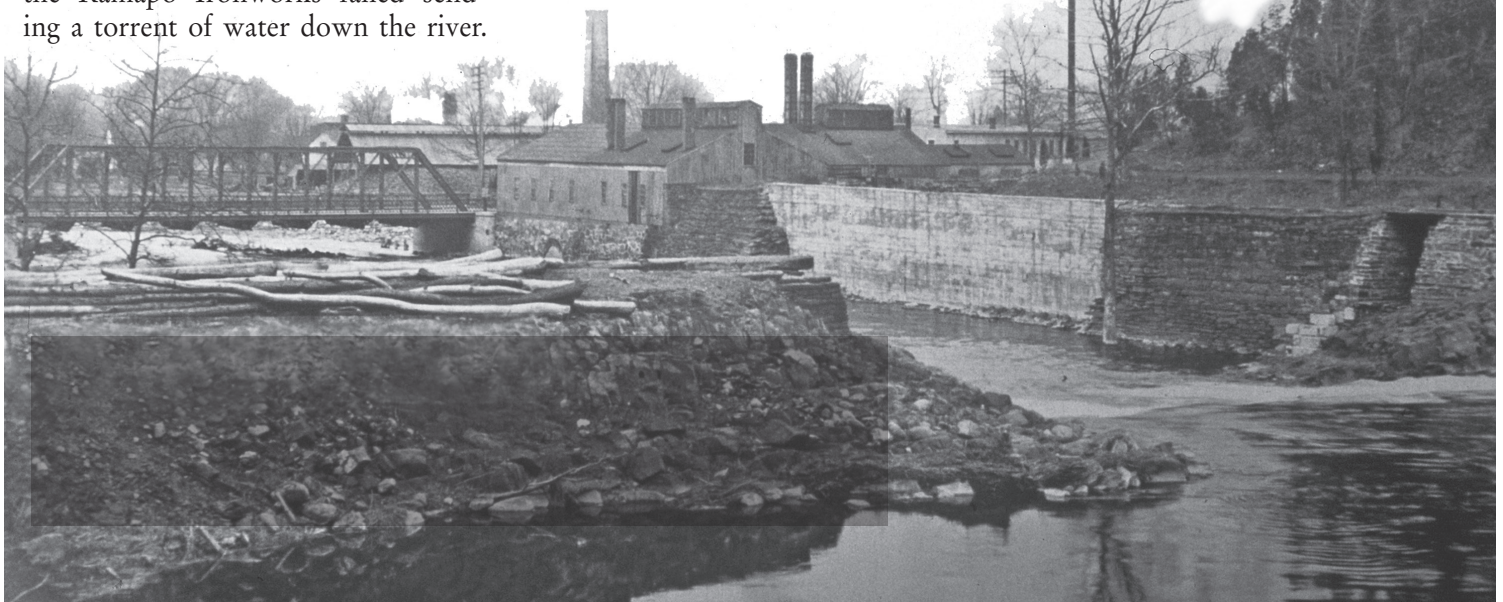


CSNJ Board Member Joe Hannen presents Dick Titus with a proclamation from the Canal Society of New Jersey honoring him on his 105th birthday.

the farms along the canal. He remembered the names of the workers at some of the canal's locks and planes.

As captain, Titus made 89 cents a ton. He recalled stopping at stores along the canal route to buy food to cook on the boat. In winter months, he sometimes would work for an ice-
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In the picture below, the remains of the washed-out steelworks dam are on the right with the Ludlum works and the new Paterson-Hamburg Turnpike bridge in the background on the left.



THE MYSTERY OF THE SUSSEX CANAL

By Tim Roth

While New Jersey's two tow-path canals, the Morris and Delaware & Raritan are well-known, there were other lesser-known canals that also contributed to the state's history.

The Canal Society recently received two newspaper clippings from California member Charles Elliott. One, dated 1861, told how his great-great-grandfather, Adam Elliott, was awarded a contract to dig a "22 feet wide by 7 deep" canal between Newton and Lafayette. Another, placed by his son Walker Elliott in 1862, offered laborers a dollar a day for work digging the "Sussex Canal". However, what was the Sussex Canal and why was it built?

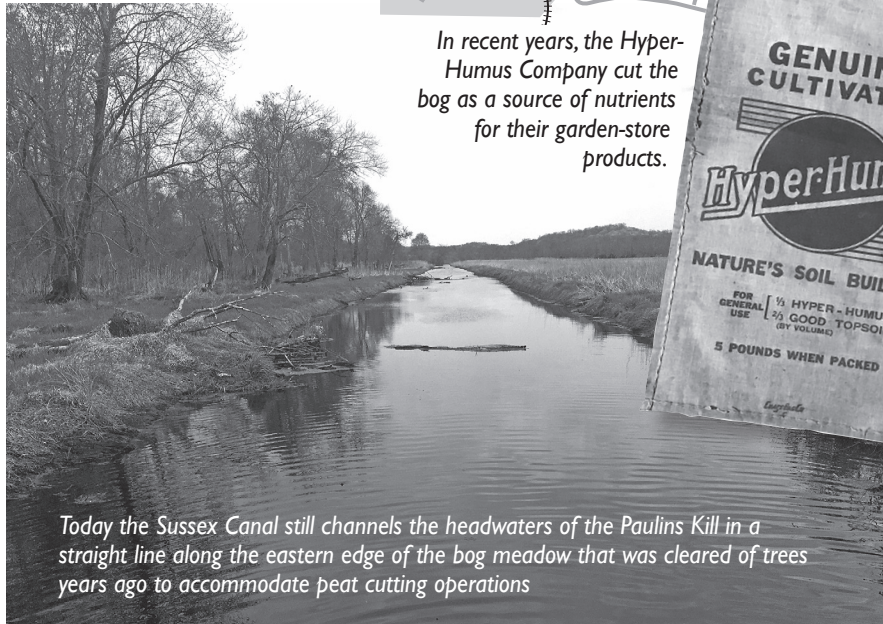
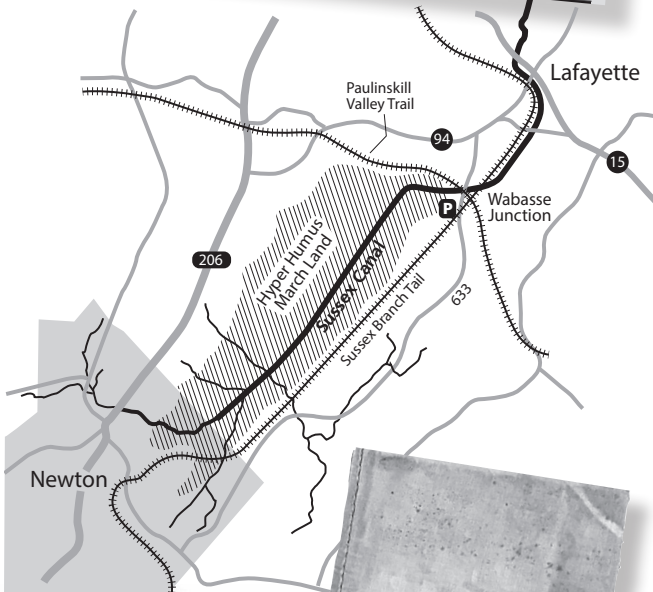
For the answer, we reached out to the associates of the Hyper Humus Project, a group dedicated to restoring the land along the Paulins Kill north of Newton. The group derives its name from the Hyper-Humus company, a peat cutting business that once owned the property. The historical documentation they provided included a passage from the 1858 New Jersey legislative session which vested the landowners with the authority to "widen, deepen and straighten" the west branch of the Paulins Kill in order to "keep the same open, and the flowage thereof clear of obstruction...". With the canalized river running straight along the eastern edge of the property, the rest of the land was cleared of trees and pits dug to harvest the peat. The peat was cut into blocks and transported by a narrow-gauge railroad to sheds where they were dried and sold to be burned for heating and cooking. The nearby Sussex Branch of the Delaware, Lackawanna & Western and the New York, Susquehanna & Western railroads were available to carry the finished product to market. The Sussex Canal was never used for navigation. The Hyper-Humus Company continued

\$1 Per Day.
WANTED—Laborers to work on the
Sussex Canal. Apply immediately to
WALKER J. ELLIOTT,
226 West Bank st.
 1c21-2w*

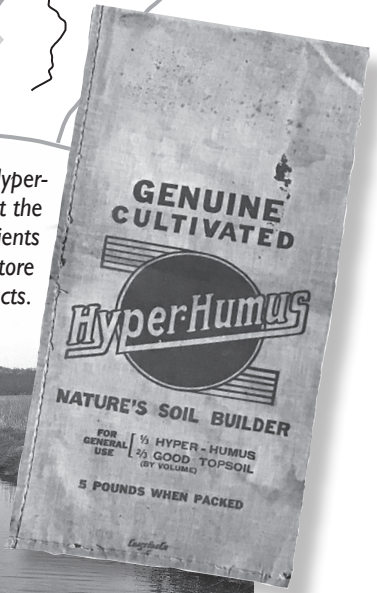
Mr. Adam Elliott, of this city, has been awarded a contract for digging a canal from Newton to Lafayette, Sussex county. The excavation is to be 22 feet wide by 7 deep, and about three miles long, Mr. Elliott's offer is 9 cents per cubic yard, for excavation. By this canal about 2000 acres of land will be drained at a cost of \$14 per acre.

the operation of selling the nutrient-rich, decaying plant matter from the peat bog to the nursery trade until the US Environmental Protection Agency halted the practice of peat cutting more than a 40 years ago.

Today, the area is an open wetland frequented by hikers and bird watchers. The DL&W and the NYS&W are now the Sussex Branch and Paulins Kill Valley rail trails. The both trails and the canalized Paulins Kill intersect where they cross Route 633 at Warbasse Junction a short distance south of it's intersection with Route 94. A hikers' parking area makes a good place to start a canal/rail-road/wildlife adventure. ■



In recent years, the Hyper-Humus Company cut the bog as a source of nutrients for their garden-store products.



Today the Sussex Canal still channels the headwaters of the Paulins Kill in a straight line along the eastern edge of the bog meadow that was cleared of trees years ago to accommodate peat cutting operations

LANCE METZ

PEOPLE TO REMEMBER

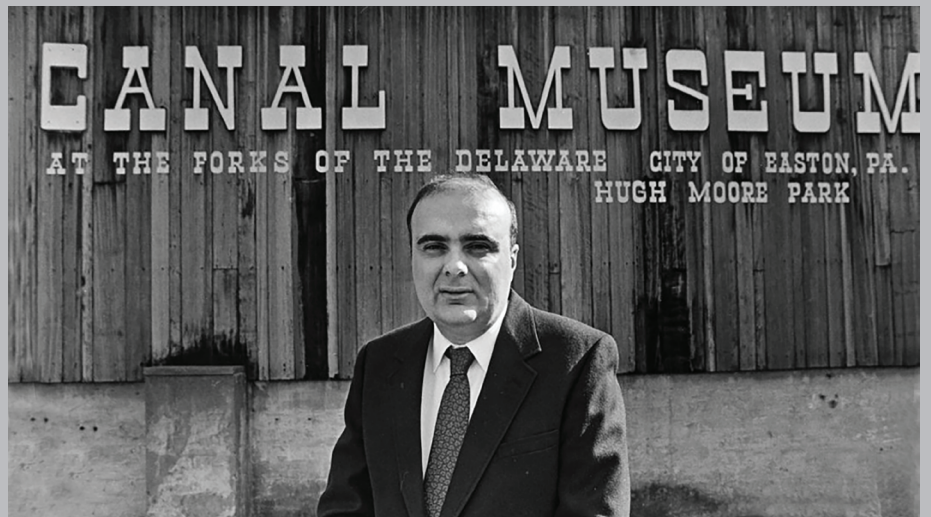
By Martha Capwell Fox

Lance was the historian for the National Canal Museum for 29 years, but that one-word title doesn't begin to describe what he did with that job. As everyone who knew him knows, his intellect was incredibly broad and his memory was legendary. The NCM is today the result of Lance's energetic cultivation of a large circle of friends, colleagues, and contacts.

Lance broadened the original mission and collections of the National Canal Museum from a focus solely on canals to one encompassing the entire story of how the 19th century transport of anthracite coal transformed not only our region, but all of the U.S. into an industrial and economic powerhouse.

At a time when there weren't many repositories for industrial history, Lance collected and saved from destruction hundreds of documents, records, photographs, maps, and artifacts of the coal and canal companies, railroads, iron works, steel mills, foundries, bridge contractors, engineering and mechanical firms, and textile mills. Basically, Lance never saw historic material he didn't want. To be fair, in a lot of cases, it was Lance or the dumpster. This could include volumes of company record or a 90-foot-long bowstring truss bridge.

He also collected and documented the stories of the people who founded, invented, worked in, and ran those industries. Lance taught us that history is about people who were just like



Lance Metz at the original Canal Museum in the William's Port section of South Easton.

us, what happened to them, and what they did.

As Bethlehem Steel's future began to become doubtful, Lance became the team leader for the Historic American Engineering Record survey team that recorded many of the 19th-century buildings at the Bethlehem plant, and led the comprehensive photo documentation of the plant and its workers. In 2005, he received the Society for Industrial Archaeology's highest honor, the General Tools lifetime achievement award, for his work in preserving the legacy of Bethlehem Steel and the Bethlehem plant.

Lance's passion for history was an essential part of his character. The annual Canal History and Technology Symposia, which ran for thirty years, were partly the result of his love of getting together with history people and adding to the pool of history scholarship—both amateur and professional. His historic photo lectures and commentaries on old

industrial, railroad, mining, and canal films were engaging and information-packed. He could both stun you with minutia on a topic and pull you into a sweeping story of how the events of the past have brought us to where we are today. That vision was what led Lance and the leadership of what was known as Hugh Moore Historical Park and Museums, then the umbrella organization of the Canal Museum, to strongly advocate for the creation of the Delaware & Lehigh National Heritage Corridor, which was achieved in 1988.

Today, the Museum is a signature program of the Corridor, where the images, records, and artifacts tell the stories of our past and give us guidelines for our future. Because of Lance, many people learned to appreciate the depth, breadth, and immense significance of the history of our region to the entire United States. ■

DICK TITUS

(Continued from page 4)

house. He once said of his canal career, "I liked being captain."

Titus also experienced some misadventures during his canal days. At age 12, four of his toes were accidentally severed, but were successfully reattached. He also was the target of stone-throwers and name-callers in West Paterson; he retaliated by firing a shotgun loaded with beans. He enjoyed the camaraderie among the boatmen along the canal and occasionally gave rides to hitchhikers.

Titus left his job on the Morris Canal in 1907 and subsequently worked until the mid-1950s at various positions: iron miner, livery stable hand and building light fila-

ments for General Electric. He also worked for many years at the Federal Shipyards in Kearny where he helped build ships used in World War I and troop transports used in World War II.

In later years he lived with his daughter Ruth Hannon in Nutley. Titus credited his longevity to hard work and keeping a positive attitude. It was in 1990 that the Canal Society interviewed Titus on the grounds of the town's historic Kingsland Manor. He wore a hat sporting his age at the time, 102 years. Fortunately, he was still able to recall details of his canal past, such as the 17-mile-level endpoints, as well as his boat number: 743.

In 1993, he was honored on the occasion of his 105th birthday by New Jersey State Senator John Scott, the Canal

Society of New Jersey, and the Five Generals reunion, a group of World War II Coast Guard veterans who sailed on ships worked on by Titus. At the gathering, he was presented with a Proclamation designating his date of birth, July 17, as "Captain Dick Titus Day."

Titus passed away in 1995, just shy of turning 107. His ten years on the Morris Canal, though a brief span in his long life, were memorable years, indeed. ■

MEETINGS

Back to Meeting Online

With COVID once again becoming an issue, for everyone's safety, we are returning to an online format for our January program meeting. All Canal Society members and friends will receive an email invitation with a registration link to click on. Please fill in the form to receive the link to join the meeting. We are disappointed that we won't see you in person in January, but look forward to being together later in the spring.

Friday – *January 21, 2022 at 7:30 p.m.*

RESTORATION OF WHARTON'S LOCK 2 EAST

BY MARGARET M. HICKEY A.I.A.

The restoration of a historic canal site is a long and complicated undertaking. In this presentation, preservation architect Margaret Hickey will take us behind the scenes to see how she and her team have been working with the Borough of Wharton to bring the archeological remains of a Morris Canal lock site back to life. When completed, the restoration will include the lock with its gates and operating equipment in working order, the lock tender's house, and the lock site reconfigured to match working and living conditions in the 1800s. All this is being done with historical accuracy while complying with twenty-first-century specifications. Join us to hear how it's all been accomplished.

Margaret M. Hickey, A.I.A. is the Principal Historic Preservation Specialist for Connelly & Hickey Historic Architects. She holds a Master of Science in Historic Preservation from Columbia University and a Bachelor of Architecture from the New Jersey Institute of Technology. Prior to moving into private practice, she gained experience in fundraising for historic preservation while serving as a Program Officer at the New Jersey Historic Trust. Margaret co-manages Historic Preservation projects from planning through construction. In the past she has worked on a long list of projects for the Canal Society of New Jersey

CANAL BOAT 249

(Continued from page 3)

imagine its true physical size and strength. On the other hand, we've come to understand how fragile a 100 year-old wooden boat can be.

Google Maps Time Machine

Although you can no longer visit Lehigh Boat 249 in its resting place along the canal in Northampton, you can still see the boat in dilapidated condition but all in one piece using Google Maps. On your computer locate [Northampton, Pennsylvania](#), and zoom in on the intersection of West 21st Street and Canal Street. Place the Street View icon on the map and travel north along Canal Street until the road bends to the left and crosses the water-filled canal into the grounds of the Tri-Boro Sportsmen club. At the bend, the boat will be on your left. By clicking and turning the compass icon you will be able to view the boat from many angles.

Of course you can also visit the actual remains of the bow at the Mauch Chunk Museum at 41 West Broadway, Jim Thorpe, PA. ■

D&R Canal Watch Paddling Committee

By Tim Roth

Unlike the Morris Canal, which has very few watered sections left, the D&R Canal is still completely watered, and most of its 44-mile main canal and 22-mile feeder are available for paddling by canoe or kayak. However, this requires access points where people can easily launch their vessels, as well as available parking.

The D&R Canal Watch has recently appointed a committee to serve two purposes. The first is to document these access points and create reports on paddling trips that can be taken, including launch spots, distances, time, and difficulty. Some of these trips are loops, which means that half is on the canal and half on adjacent rivers, such as the Raritan, Millstone, or Delaware. These reports will eventually be available on the D&R Canal Watch website (www.canalwatch.org).

The second purpose of the committee is to perform maintenance to improve paddling. This includes clearing brush on and along the canal, and maintaining the numerous docks at the launch areas. This endeavor was thrown a huge curveball when Hurricane Ida hit last September. The wind brought down trees and the rapid surge of water ruined or totally displaced docks that were located along the main canal.

The Canal Watch committee has been hard at work the past few months clearing trees and rescuing and rebuilding docks. The dock at Griggstown has recently been rebuilt and is available for use. Another dock was found in the brush south of Blackwell Mills. It was disassembled and much of the



ABOVE: A group of paddlers enjoy an afternoon on the D&R Canal.

RIGHT: Docks like this allow paddlers to easily launch their canoes and kayaks.



materials saved for future use. Most recently, a dock that broke loose at Kingston was found near Rocky Hill. Plans are in place to rescue it and hopefully rebuild it at Kingston.

Stay tuned for further updates from the D&R Canal Watch Paddling Committee. ■

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