

AmericanCanals

Bulletin of the American Canal Society

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Dedicated to Historic Canal Research, Preservation, and Parks

Spring 2013

From the President

By David G. Barber

Recently, I have been observing a lot of discussion of canal archives. It is very important that these be preserved into the future, but saying so is easier than achieving it. Many of us have accumulated items that need a home after we pass on, but it's difficult to guarantee the future of repositories.

Fairly recently, the combined archives of the National Canal Museum and the Pennsylvania Canal Society became inaccessible due to budget cuts. But the relocation of the National Canal Museum to the Emrick Center in Easton seems to have resolved that issue. I also heard recently that many of the canal archives of the Canal Society of New York State have been moved from Albany to the Erie Canal Museum in Syracuse. In Ohio, it was reported that canal archives are present at both Wright State University and the University of Akron.

In Massachusetts, there are Middlesex Canal materials at the University of Massachusetts Lowell library at the Mogen Cultural Center in Lowell, MA and at Harvard University. Materials on the Blackstone Canal are at both the Worcester Historical Society in Worcester, MA, and at the Rhode Island Historical Society in Providence, RI. Archives on the Illinois and Michigan Canal and successors are at the Lewis University library in Romeoville, IL. I'm sure that there are others.

To help further the network, I'm establishing an archive page on the ACS web site. Please look at the page and email me at dgbarber@cs.com with any additions that need to be made. Appropriate multiple listings for any state or canal are allowed.



The National Park Service's packet boat *Charles F. Mercer*, built in 2006 by Scarano Boatbuilding, Albany, NY. This is one of the many boats included in our insert featuring public canal boat rides in the U.S. and Canada. Photo by Dave Johnson.

CSNYS Winter Symposium

The Canal Society of New York State held its annual Winter Symposium on March 2 in Rochester, NY. The meeting included presentations by Matthew Daley on *The Keweenaw Waterway: Mining, Canals & Michigan's "Copper Island" 1850 - 1930*; Ruth Naparstek Kron on *Life On and Along The Erie Canal*; Walter Lewis on *Racing Down the Rapids: Steamboats and the St. Lawrence Canals Before the Seaway*; Brian Stratton on *NY State Canals in 2013*; Kal Wysokowski on *Fairport Canal-side Development*; Ann Loeding on an *Update on the restoration of the Day Peckinpaugh*, and Liz and David Beebe on *The Canals and Inland Waterways of Belgium Fall 2012 Tour*. The meeting ended with annual elections and news of the Spring D&H Canal field trip, and the 2013 WCC in Toulouse, France.

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American Canals

BULLETIN OF THE
AMERICAN CANAL SOCIETY

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The objectives of the American Canal Society are to encourage the preservation, restoration, interpretation, and use of the historical navigational canals of the Americas; to save threatened canals; and to provide an exchange of canal information. Manuscripts and other correspondence consistent with these objectives are welcome.

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DEADLINE: Material for our next issue must be on the editor's desk no later than June 15, 2013. Send to Linda Barth, 214 N. Bridge St., Somerville, NJ 08876; barths@att.net.

Material submitted to AMERICAN CANALS for publication should be typed and double-spaced or sent by email in WORD format. You may send actual photographs (which will be scanned and returned), or digital versions may be emailed or sent on a CD.

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A VISIT TO THE GRAND CANAL OF CHINA

Photos and text by William Trout

“When 500 beautiful maidens towed boats along the banks, the capital of Changan fell and Sui was ruined and it came to be the T’ang dynasty.”

This quote from *Canals of China*, a 1963 translation of a Japanese book by the Ajita no Yume Association, seems to blame the beautiful girls for the fall of the Sui dynasty in the year 617 AD. But the Sui Emperor Yangdi did it to himself. On the plus side, he built the first waterway system to be recognized today as the Grand Canal of China. But it was at a great financial and human cost (all men over 15 had to work, and if you didn’t, your head was cut off – evidently a very effective work incentive program). Afterwards, amongst other extravagances, Yangdi made three lavish tours of the canal down to the pleasure city of Yangzhou, with a huge fleet of boats. His own dragon boat was the largest, 215 feet long with four decks and over 120 rooms, towed by men, goats, and the beautiful girls. (Two girls, according to Ajita no Yume, are worth about one horsepower.) In the end, the people revolted, and hanged Emperor Yangdi, tragically ending the career of one of the world’s most enthusiastic canal buffs.

In September 2012 I flew halfway around the world to attend the 25th annual World Canals Conference. This year it was combined with the 5th annual World Canal Cities Expo, which the Chinese have every year in the beautiful canal city of Yangzhou, near the southern end of the Grand Canal of China. Alas, we were not towed along the canal by 500 beautiful maidens (at 1/2 hp each), but we had beautiful hostesses trained to smile (according to a newspaper article) by holding a chopstick in her mouth (try a pencil if you don’t have a chopstick), dozens of policemen holding back the traffic while our buses raced between our hotel and the meeting hall, and lavish entertainment including boat rides, arts performances, and canal hikes. Each major speaker was heralded by a flourish of trumpets. There was even a “Canal Night” at the Yangzhou Concert Hall with performances of “A Meeting with the World by the Canal” and “Happy Women Soldiers.” It was a great show, we enjoyed ourselves, and we would like to think that our presence helped a little to promote canal preservation and restoration in China.

The Grand Canal is a complex network, not simply one long canal, which has evolved for more than two thousand years. Today, much of it is commercially used by long trains of boats behind a tug (you can see them on aerial photos on Google Earth). Some of the older bypassed sections are now popular tourist destinations where you can shop and take sampan rides - sculling or rowing. And then there are the archaeological sites.

We were impressed by the progress being made in Chinese canal archaeology and preservation. In Beijing, at what was once the north end of the Grand Canal, 1.2 miles north of the NE corner of the Forbidden City, a buried stretch of canal with the remains of a stone flash lock was recently re-dug and made into a water park. We learned that another stone flash lock, threatened by a canal enlargement, was moved stone by stone to a museum. These flash locks have a slot in each wall, opposite each other, where large timbers (we’d call them stop logs) were placed on top of each other to back up the water. Boatmen called them “the

(continued on page four)

Empress Cixi restored this 1755 ornamental “Marble Boat” in 1893, using funds intended for the Imperial navy. It’s in the Summer Palace near Beijing.



gates of Hell” because each flash lock released a flood of water from a long stretch of canal when the timbers were lifted out. In his massive work, *Science and Civilisation in China*, Joseph Needham showed that about a thousand years ago, the Chinese were the first in the world to invent the idea of placing two flash locks only a boat length apart, forming a modern “pound lock” eliminating the flooding and the danger. It was invented by Ch’iao Wei-Yo in 984. The first was on the West River near Huai-yin. Is it still there, over a thousand years later? Somewhere in China should be the oldest *remaining* pound lock in the world, something the Chinese should identify, preserve, and be justly proud of.

Ironically, in 1792 an ambassador from Britain took a British pound lock model to China in an attempt to impress the Emperor, not knowing that the Chinese had invented the lock centuries before. (See the February 1982 *American Canals*.) The Chinese also built slipways, which were sloping stone dams blocking a canal, where small boats were winched up the slope from one water level to the next, instead of being locked up, saving water and time. We trust that some of these slipways are still preserved in China.

The Grand Canal has a grand future. Communities along it are working together to create a Grand Canal Greenway and to have it designated a World Heritage Site (the Great Wall is already on this list). The canal is being improved for modern navigation, while taking pains to preserve some of the old sections.

I prepared for the trip by re-reading Robert van Gulik’s Judge Dee mysteries, especially *The Emperor’s Pearl*; Needham’s chapters on hydraulics and nautics (most of *Science and Civilisation in China*, Vol. 4 part 3); Dr. Roger Squires’ article in the Nov. 1989 *American Canals* #71; and books such as *The Grand Canal* (Foreign Languages Press, Beijing, 1987) and *The Grand Canal of China* (New China News, 1984). Here you will learn that the south bank of a river is called “yin” and the north bank “yang”; and that China has a “Garden of Stupid Politics.”

(continued on page five)



This iron ox outside Yangzhou was erected about 1700, along with eight more oxen, two tigers, and one chicken, to frighten away the water dragons that caused floods.

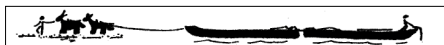


Tomas Kolarik, from the Czech Republic, with the “I Love Canal” lady during our meeting’s canal hike along the old canal in Yangzhou.

The annual World Canals Conferences are organized by Inland Waterways International, the world's canal society, www.inlandwaterwaysinternational.org. The 2013 conference will be in Toulouse, France, on the beautiful Canal du Midi, and in 2014 in Italy, with a visit to the miter-gate lock designed by Leonardo da Vinci. The World Canal Cities Expo is held annually in Yangzhou. Mayors of canal cities can apply for permission to attend!

Many thanks to the indefatigable David Edwards-May for guiding us to China's high spots on the way to the meeting – including a trip through the infamous Yangtze River Gorge and its flight of locks.

Bill Trout



CANAL TALK WITH BILL TROUT

Well, now it's time for our puzzler. Do you remember it from last time?

Of course I don't, you ask me every time, and in front of all these people! It's a little embarrassing.

Well, it's a trick question. When you go up or down the connected flight of three locks at Grindley Brook, on the Llangollen Canal, how many pairs of lock gates do you have to go through?

Since a lock has two pairs of miter gates, then three will have six pairs, right?

Not if they're connected – if they're staircase locks. The lower gates of one are the upper gates of another.

OK, so joined together, there would be one pair at the top, one at the bottom, and two inbetween. Four pairs of gates, right?

I told you that this was a trick question! The flight of locks at Grindley Brook has three pairs of miter gates, and a single gate at the top! That makes three and a half pairs!

Well, that's not fair! So who's our winner, taken from all the correct answers received this week?

Unfortunately, nobody sent in the correct answer this time. So I get to spend the \$35 gift certificate myself at our shameless commerce division. I want to get one of those secure cup holders which keeps your whiskey glass from spilling while you're steering the boat.

And that's all we have time for. See you next week!

An interesting animation of the locks is at www.surftech.co.uk/GrindleyBrookVillage/images/Locks/index.htm

SAVE THE DATE FOR THE SPOOM CONFERENCE!



Oct. 23-26, 2014 will see the Rochester Hills Museum at Van Hoosen Farm host the 2014 Society for the Preservation of Old Mills (SPOOM) Conference in Rochester, Michigan. Content will include millsites, adaptive re-use of mills, and current milling operations. The Clinton and Kalamazoo Canal's functioning as a mill race will be included. For more information, visit www.spoom.org.



Erie Maritime Museum Opens New Exhibit on The Erie-Extension Canal: Gateway to the Great Lakes

Erie, Pennsylvania. The Erie Maritime Museum invites the public to visit its new exhibit, *The Erie-Extension Canal: Gateway to the Great Lakes*, in the Museum's West Wing Gallery. The exhibit is open to the public as part of regular museum admission through June, 2013.

The Erie-Extension Canal, also known as the Erie & Beaver Canal, was the last section of a statewide network of canals to be completed in the early 19th century. When the first canal boats arrived in Erie on December 2, 1844, it marked the opening of an inland waterway that connected Lake Erie to Pittsburgh and the Ohio River, and from there to the Mississippi. The canal facilitated the growth of Erie as a port city, moving raw materials, manufactured goods, and passengers through Erie Harbor, as well as spurring economic development and growth of towns along its tow paths.

The exhibit is made possible through the generous donation of canal materials by Elizabeth Malc-Dwyer, whose former law office building was located over the bed of the Erie-Extension Canal on West Sixth Street. Her collection provides the core of the exhibit, which also includes images and artifacts from the Erie Maritime Museum's own collection, as well as from the Hazel Kibler Memorial Museum in Girard.

Pedestrian tunnel to be built along canal towpath By Joan Hellyer, Staff Writer PhillyBurbs.com

Morrisville, Pennsylvania. Bikers, runners and other recreation enthusiasts could soon have a safer path to follow along a stretch of the Delaware Canal's towpath in Falls, officials said. Plans are in the works to put a pedestrian tunnel through a railroad embankment that crosses the towpath and canal, said Rick Dalton, manager of the Delaware Canal State Park. The project is expected to cost nearly \$2.3 million.

"We are trying to help people get along the canal safely," Dalton said of the area that is just south of Morrisville between Route 1 and Tyburn Road. State park officials are working their way through the design and right-of-way process to prepare for the tunnel's construction, Dalton said. He expects the project to begin in the summer and take six to eight months to complete. The state park service will use Federal Transportation Enhancement funds to pay for the project, the manager said.

The man-made canal and its towpath are 60 miles long and run from Easton south to Bristol. The waterway is Pennsylvania's only remaining continuously intact canal built in the early to mid-1800s, state park officials said.

Joan Hellyer: 215-949-4048; email: jhellyer@phillyburbs.com;

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THE BALDWIN SHOVEL -- IT'S BACK!

by Bill Gerber, Middlesex Canal Association, Massachusetts

The shovel, which, on September 10th, 1794, Loammi Baldwin used to turn the first shovelful of earth, initiating construction of the Middlesex Canal, is back on display in the Middlesex Canal Association (MCA) museum in North Billerica, Massachusetts.

When the shovel was first used, Baldwin was quoted as praying, "May the Eye of Wisdom and the Eternal Mind aid this work designed for the benefit of this and all Future Generations." He was followed by James Winthrop and Samuel Jaques, each offering a short prayer as they each turned a shovel of earth. Tom Dahill captured the event in the scene he painted for the book *The Incredible Ditch*, seen on the next page.

Many years ago, perhaps soon after the MCA was founded, two shovels that had been used during the construction of the canal were donated to the association by different parties. I don't know the origin of the shovel we've had on display in our own museum. Fred Lawson thinks it may have been one that had been displayed in a case in the Woburn post office. (If anyone knows about this, please tell me so that we can recon-



struct the provenance of it, too.)

But, the other shovel, Loammi's own, was donated to the association by Baldwin descendants. One of the early 20th-century canal historians, Leon Cutler, photographed this shovel propped against the front door of the Baldwin mansion; see the photo below right. Likely, both of these shovels were exhibited in an earlier MC museum; but after that closed, they spent several years in the home of Bert and Fran VerPlanck, two avid MCA officers and board members. After Bert and Fran passed away, another responsible member took charge of them; but somewhere along the way, knowledge of the

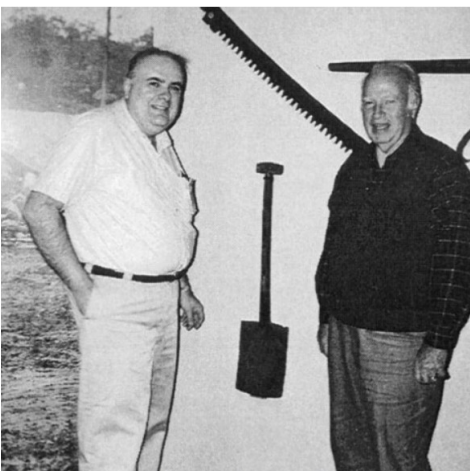
provenance of the two shovels was lost.

In May, 1997, the speaker for our annual meeting was Lance Metz, historian for the National Canal Museum (NCM) in Easton, PA, who gave a "pictorial tour" of the NCM and some of its new exhibits. Near the end of the meeting, then MCA President Nolan Jones gave Lance one of our two shovels, on an indefinite loan basis, to be exhibited among the NCM's displays. And that's where it's been for the last 15 years. This meeting, the presentation of the shovel, and a photograph of the event, were published in the September 1997 issue of *Towpath Topics*, available at <http://middlesexcanal.org/towpath/>. Sometime later, Nolan gave a talk at the NCM and Lance showed him where the shovel was displayed. This event was captured in the photo below left. As of this summer 2012, the shovel was still on display, though it had long since been moved to a large display case, along with several other vintage canal construction objects.

Most recently, Howard Winkler wrote an article about the dry docks that Loammi Baldwin, Jr. built for the Navy Yards in Boston and Norfolk; this appeared in the January 2012, issue of *Towpath Topics*. This, in turn, elicited another offer from Baldwin descendants—would we care to display the models that were built as part of the dry dock design process and the selling of it to the US Navy? (We would, and the models are currently on display in our museum.) But with the models also came a question—what had we done with the shovel that the family had donated many years before? Examination of the shovel on display in our museum at that time revealed that it was not the same one that the Baldwins had



donated—and it was then we realized that the Baldwin shovel was the one we loaned to the NCM; oh my! Lance Metz has since separated from the NCM but still maintains an active interest in it. Tom Stoneback is now the director there. When the situation was explained to them, both were gracious and cooperative with our proposal to swap shovels. The deed was done during Thanksgiving week 2012, and the Baldwin shovel is now back in our own museum. Also, the provenance for it has now been reconstructed and recorded.



Visit of Nolan Jones to the National Canal Museum to view the Middlesex Canal shovel.

Since we are on the subject of the shovel, this seems like a good teaching opportunity. Our own Tom Raphael "reverse engineered" the construction of an 18th-century shovel, to determine the process by which it was made. It would, of course, have been handmade by blacksmiths of that time. Tom notes: Back in 2004, when the VerPlanks were moving out

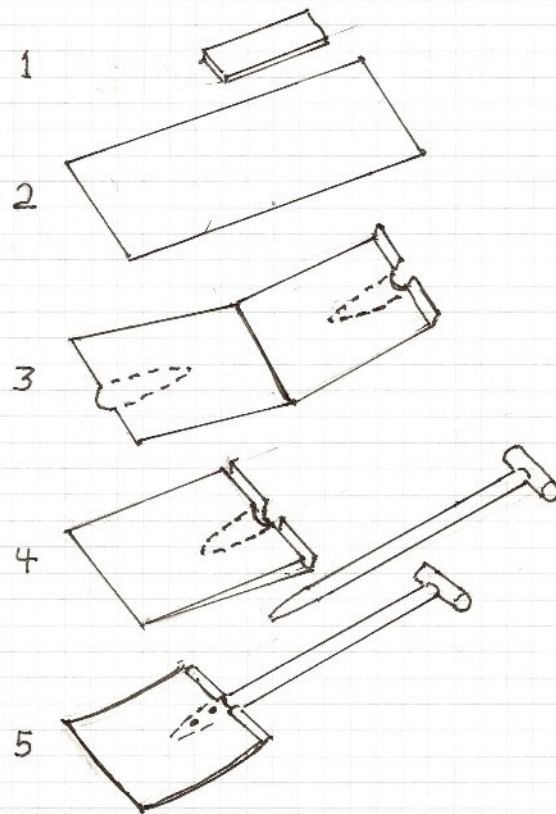
of Winchester, they had a shovel [the Baldwin shovel, as we now know]. I drew the details of its construction as Figure 5 in the diagram opposite. I then "disassembled" it, on paper, to see how it was made. Going backwards to Figure 4, it shows it was made from a single sheet of formed iron, folded in half, and with a semicircular hollow on each side to surround the base of the handle, which had two "rivets" holding it.

Since, in those days, iron only came in blocks or rods, like Figure 1, I assumed a blacksmith heated and hammered out the sheet, as in Figure 2, shaped it as in Figure 3, folded it as in Figure 4, and finished it as in Figure 5. The face of the blade was hammered to a sharp point for digging. I showed this before, and I feel sure it is one of the shovels we have. I don't know where the VerPlanks got it. (We now know where that shovel came from.)

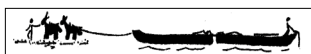
A few other observations about the two shovels, since they suggest something of an evolution in technology; call them the Baldwin shovel and the Work shovel. At the time of the exchange, the two shovels were side-by-side on a table in the NCM archives at the Emrich Center in Easton, PA (see below). It appears to me that the Baldwin shovel was a "one-off," whereas the Work shovel appeared to be much more of a production item, likely at least partially mass produced.

Tom Raphael's observation about the construction of the shovel blade holds for the Work shovel as well, but the latter blade (to the right in the photo below) is somewhat shorter, thinner, and considerably lighter than that of the Baldwin shovel; it is also more "cupped," i.e., the side edges are turned up to a considerably greater extent. The letters "MC" are stamped into the blade of the Baldwin, whereas "Mid Canal" is cut into the back of the handle of the Work shovel. The handle of the Baldwin exhibits a slight natural bend near the top; it was likely carved from a tree branch, perhaps shaped using a draw-knife or spoke-shave or similar tool, whereas the handle of the Work shovel is more uniformly round and thus was likely

MAKING A SHOVEL



turned on a lathe. The handle of the Work shovel is slightly longer than that of the Baldwin; though both handles would be considered much too short by modern standards. (One needs to lean over too far to comfortably use either of them.) At the end of the handle, the Baldwin has a "T" attached by a dowel through a mortise and tenon joint, whereas the Work shovel has no "T"; it's not clear if it's been lost or if it never had one.



Letter from Gibson Hobbs to Terry Woods, March 12, 1992.

E. H. GILL – CANAL ENGINEER

“I appreciate so much your nice letter and your thinking of me in regard to Edward Hall Gill. He is a fascinating, but little known canal engineer and later railroad superintendent. I have Shaw’s “ERIE CANAL” book and also his later book you mention. I have only skimmed parts of it and had not seen the Georgia canal reference. He obviously did not get into Gill very deeply as he is mixed up on several things.

“Gill was Irish, born in 1806, and came with his father Valentine Gill to this country in 1817. Valentine worked on the Erie in 1819, but apparently was let go by Benj. Wright and became City Engineer of Rochester. I have never been able to document that Edward worked on the Erie Canal though I think it likely as an apprentice. He left there by the time he was 19 because he did work for Wright in 1825 on the Chesapeake & Delaware Canal. Shaw may have mixed this up with the Morris Canal, which as far as I know Gill never worked on.

“As for the Alhambra* & Ogeechee Canal in Savannah, DeWitt Clinton Jr. was chief engineer when they started about 1825. Gill went there in 1826 and took Clinton’s place a year or so later. He left there in 1828, before it was finished, and married in New York City that year. As far as I know he then went to Philadelphia to work on the Schuylkill Canal before coming to the Sandy & Beaver in 1834. He came to Va. in 1838 for a survey of our eastern waters and then returned permanently in 1839. He left the canal in 1852 and was General Supt. of three Va. railroads until his death in 1868. His younger brother Washington Gill was on the S&B also and also on the Va. Canal, later becoming City Engineer of Richmond and ending up in Missouri.

“I will have to contact Shaw and see if he has any documentation on Gill and the Erie and Morris canals. Thanks again for writing. I am so glad to see your Ohio groups keeping active.

“After the canal boom in the 1820s-40s many of the stone masons went into railroad work for bridge abutments, culverts and the like. And some did building construction, as even the brick buildings mostly had stone foundations. We have a small canal cemetery near here with nicely carved stones of Irish and Scotch workers who died on the canal in the 1820s & 40s, no doubt done by these masons. Also many stones in the canal structures have interesting mason’s marks, the meaning of which no one is certain.”

Best Regards,
Gibson Hobbs

Woods’s notes.

Gibson Hobbs was perhaps the foremost authority on E.H. Gill.

CANALS FOR A NATION, 9---- Shaw, 1972. Gill and Hother Gage had made an estimate of the water sources on the summit in 1834, but wasn’t hired as Chief Engineer of the project until May of 1835.

*Editor’s note: He may be referring to the Savannah and Ogeechee Canal.

A VISIT TO AUGUSTA, GEORGIA

by David Phraner

In 2012 my wife and I spent a weekend in Augusta, Georgia and visited the Augusta Canal. In the short time available to us, we could only fit in a voyage on the Augusta Canal and a visit to its interpretive museum along with a brief motor tour of the downtown. What follows is mostly a description of the canal and its role in the post-Civil War industrial revolution in the South.

We arrived at Augusta with some misconceptions of one of its major attractions: the Augusta Canal and its interpretive museum. *The first of these myths is that the canal’s sole or major purpose was transportation*, specifically that it furnished a navigable bypass around the fall line of the Savannah River at Augusta. Furthering that misunderstanding was my belief that steamboats on the lower river would have gained access to the upper reaches of the river by way of the canal. This is not the case as revealed below. Part of the mystery was cleared up by the type of boats that were used in the canal and upper river.

While the canal in combination with upper river navigation did aid in the industrialization of the South in the postwar reconstruction period, its most important role was that of supplying water to the mills along the canal banks and within the City of Augusta. The canal was then and remains today a water supply for the city and a source of hydropower for the textile mills. Amazingly, three of the large surviving mills (Sibley, King, and Enterprise) still generate electricity using water from the canal at its upper level. A fourth mill



(Sutherland) still has the capability of using water from the canal, but its power system is hydro-mechanical and not hydroelectric. Its utility thus is vastly reduced from that of the other three hydroelectric plants, and its turbine is therefore dormant. One of the old mills is the location of the canal ride embarkation point and the museum. It generates its own electricity for its multi-use tenants and contributes its surplus into the power grid. The other two mills with hydroelectric plants also work theirs, even though their mill buildings are

currently unused, and they contribute their generated power into the grid. The museum makes frequent reference to Lowell, Massachusetts in its video and exhibits. Augusta is known as the Garden City, but it is also the “Southern Lowell,” for me at least.

The canal construction was started in 1845 and completed a year later. It was therefore essential to Augusta’s rise to prominence as an industrial city in the 1870s. The dispute between the states intervened and interrupted Augusta’s advancement for decades (at least for textile production). During the Civil War, it was host to a large arsenal and powder works. The arsenal along the banks of the canal is gone, but a trace of the powder works survives as a giant brick chimney (photo above) between the Sibley Mill and the canal. This prominent feature along the canal is the most photographed and is used extensively in the tourist and canal promotions. The Sibley Mill was built on the site of the old powder works.

It is not surprising then that most of the canal museum is devoted to the postwar industrial revolution in the South as indigenous textile production partially replaced “King Cotton,” at least in Augusta. The newly freed men came into the cities to work the mills. The canal then made Augusta, and the railroads followed to bolster its economy after the war. Augusta had all the ingredients for industrial productivity: cheap labor force, water for milling and for power, and transportation from the cotton-producing hinterland and to the deep water (sort of, at that time) Port of Savannah.....and a short 9-mile canal.

The second misconception is that the canal was a way to bypass the rapids in the Savannah River at Augusta. One of the important interpretive elements of the historic canal exhibit is the two “Petersburg Boats” that replicate the original boats that navigated the Savannah River upstream from Augusta. This constitutes the ride on the present canal. Two tours are offered: a shorter one of an hour or so and a longer “sunset” 3-hour leisurely cruise that covers the entire length of the canal from the museum to the “head gate” at the northern end. Calling it a “head gate” betrays the major function of the canal: that of a water supply and hydropower facility for the mills. In effect, the canal is an oversized millrace. Today, the gate is used for controlling the level and flow of water in the canal, but once it functioned as a full lockage to allow the Petersburg boats to enter the river.

These Petersburg craft are approximately 55’x 13’ and double-ended. In their original form they were propelled by sail, oar, and poles, the latter being the most often used method. This description sounds like a “Durham boat” on the Delaware and Mohawk rivers and something like the keel boats that Mike Fink might have skippered on the earliest inland navigation system of the Midwest. The otherwise well-informed



docents and the pilot of the boat had not heard of a Durham boat. It is possible that the Petersburg boat was derived from the Durham boats by some means in the late antebellum period. The similarities in design and function of the three types of vernacular water craft—flat, Durham and Petersburg boats—reflect a common maritime solution to the pre-towpath canal inland navigation system in early nineteenth-century America.



The replica Petersburg boats on today's Augusta Canal are electrically propelled with a set of 26 rechargeable batteries set

low in the hull beneath the deck of the craft. The batteries are recharged each night at the museum dock. The pilot controls the boat from a raised deck aft position with an operating console much like that of a contemporary whaleboat. Travis, our pilot, is certified to operate this small, low capacity, slow watercraft on a small narrow and shallow waterway. Previously he skippered small excursion boats in the Cape May area of NJ! The boat's bow thruster is very effective in maneuvering away from the dock and to execute reversing midstream in the canal (there are no turning basins remaining). A raised foredeck is identical to that in the stern of the boat, giving it a bidirectional, symmetrical side elevation. The boats appear to be double-ended with curved pointed stems fore and aft, but unlike their ancestral Petersburg craft, they operate only in a single direction. The motors can be reversed of course.

These boats were used to feed the steamboats and other craft in the lower river. There was and still is a guard lock/headgate (and extant lock house) at a dam about two miles upstream from downtown Augusta. The canal never had a navigable means for releasing the boats from the upper river into the lower segment of the river terminated inland about a mile from Augusta's waterfront. Augusta then was a break-bulk port with the teams transferring goods between the upper river Petersburg boats and the lower river steamboats.

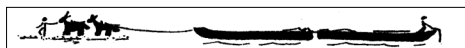
The third myth is that the canal is a single waterway. The Augusta Canal is in fact a small network of urban canals at three elevations. The main canal extant today is at the highest elevation level. The water from the main high-level canal enters the penstocks of the mill's turbines and exits through a tailrace into the intermediate level canal. That smaller and shorter canal totally within the city fed water to another set of mills with turbines that disgorged their tailrace volumes into the third and lowest level that emptied into the river. The two lower levels of the canal are barely recognizable as such and appear, where we observed them, as natural creeks. As near as I can gather, they never were used for navigation. This arrangement is strikingly similar to Paterson, NJ where the Society for Useful Manufactures used water from the river and ultimately the Morris Canal to run their textile mills and other industrial enterprises. Traces of that historic canal/water supply system still exist.

The Enterprise Mill, where the canal boat rides start and where the museum is located, also serves as an office and mixed-use residential commercial building. As mentioned above, they generate their own electricity and that working turbine is one of the interpretive exhibits. The SIA folks would have a ball in this place. Portions of the old industrial infrastructure are preserved and interpreted. One enters the museum through a lobby that once was a boiler room. The faces of the boiler are still there along with the water tubes and fire-boxes. Turn left and you go into commercial office space. Turn right and you enter the museum. Most of the museum is devoted to the late 19th century industrial revolution in the South and specifically Augusta. The canal was just a part of this transformation from agrarian to industrial commerce. Exhibits are interactive and some are clearly directed a schoolchildren. An entire section is devoted to electricity and how it is generated. A skylight cut into the floor of the mill allows observation of a very large turbine and penstock below. A replica section of the penstock is exhibited near the skylight. I stood upright in this penstock structure extending my reach upward just touching the top. Gauges mounted on the wall show the amount of current being generated. Other exhibits dealt with the life of millworkers, consumers of electricity (including a small

diorama with static streetcars peeking out of a car barn), the canal, and the other industries in the city. The reportedly excellent Augusta Museum of History downtown has exhibits and interpretation much wider in scope. That place is a must in our next trip to Augusta.

We did get to ride the canalboat and recommend it for any visitor to the city of Augusta. We purchased our senior-rate tickets for the 3:00 PM trip and were advised that because of my wife's knee disability, we could drive up to the towpath on the berm, accessed from St. Sebastian St. It was a little scary driving on the narrow sidewalk and towpath access to the canal boat dock, but it was paved and we experienced far less discomfort than if Elaine had to mount a set of 22 steps from the museum to the canal dock. Our pilot Travis pre-boarded us into our Petersburg boat. The narrative was almost continuous as we voyaged north. Our tour ended near the I-20 bridge. The three-hour tour continues to the head gate.

There is much historic preservation, vegetation (Spanish moss) and wildlife to observe on this trip. The features of the canal include a set of guillotine gates across the entire width of the waterway, several waste weirs (they don't call them that in Augusta), and three or four of the intakes to the mill headraces. These are large steel-grated structures that prevent debris from entering the millraces and penstocks. A mechanized tower sweeper (electrically propelled, of course) rides across the face of the grate to skim off debris. I was surprised at the speed and strength of the current in the canal. This is not common to a towpath canal, but more common to a water power canal. Again, this confirms the primary purpose of the canal. The large but currently inactive mills at King and Sibley are impressive, but the towering restored brick chimney of the former powder works is clearly the dominant manmade feature of canal voyage. We observe turtle, heron, wood ducks, mallards and other waterfowl. I swear I saw a gator as well and the tour guide confirmed that they do exist in the canal, but the shy beasts are seldom seen. As a bonus, we were privileged to go south (not part of the usual one-hour trip itinerary) to see the current south end of the canal, the inactive Sutherland Mill and the Walton (signer of the Declaration of Independence) Meadow Garden House Museum. After a long but satisfying day, we had supper and turned in to rest up for our return home.



Below is the first part of a two-part story about the construction of the Chesapeake & Ohio Canal. Part II will appear in the summer issue.

The Battles over the Eastern Terminus and the Naming of the Canal¹ — Part I

by Karen Gray, PhD

On July 4, 1828, when ground was broken for the C&O Canal by President John Quincy Adams, the ceremony was held where construction would begin, heading upstream, just outside the District of Columbia boundary. The official terminus at the lower end of the canal was undetermined—aside from the fact that it would be at tidewater. This should have occasioned no dismay as starting midway along a proposed canal was by no means unheard of. Indeed, the first section of the Erie to be constructed was between Rome and Utica, far from either end of the proposed canal.

As a matter of general practice, the final line of the C&O Canal was determined by surveys done just before the company prepared and let contracts for a new construction section. The surveys from earlier in the 1820s served to show that a Potomac Valley canal was feasible, and to provide a cost estimate for building it. None of those specifically included a terminus at river level in the District, although one went as far as the western boundary of Georgetown and another stopped at the market house a short distance farther into the city.²

Complex political and financial issues lay behind the decision to begin construction outside the Federal District boundary. These had already played a role in the naming of the proposed canal earlier in the decade at a great canal convention that took place in the U.S. Capitol in Washington on November 6–8, 1823. Its stated purpose was “to take into consideration the practicability and expediency of uniting, by canal navigation, the waters of the Chesapeake Bay with those of the River Ohio.”³

Already the General Assembly of Virginia had passed an act on February 22, 1823, to incorporate a

“Potomac Canal” (distinguished from the Potomac Company by the addition of “canal” to the name). The November convention quickly approved the Virginia act but “with the following modifications, viz: That, in reference to its enlarged purpose, the name be changed to the ‘Union Canal’.”⁴ But that option was discarded when it was drawn to the attention of convention participants that the name was already in use by other companies, especially the Union Canal Company in Pennsylvania constructing a canal between the Schuylkill and Susquehanna rivers. Next, the canal promoters sought a geographically meaningful name, an option that was embedded in the already-simmering controversy over the canal’s eastern terminus.

From the first, it was realized that the most critical factor to the success of a canal linking the Chesapeake Bay and the Ohio River would be financing. At the same time it was understood that only with the broadest appeal in the Mid-Atlantic states would funding be likely to be obtained. That meant that Maryland, Virginia, Pennsylvania, and Ohio all needed to be drawn in, and the cities and regions along the line of the proposed canal would need to be convinced of its benefit to their individual economies. At the eastern end of the proposed waterway, that meant that strong support was needed from the port city of Baltimore in Maryland, and from the cities within the District, which then included Alexandria as well as Washington and Georgetown.

Congressman Charles Fenton Mercer, who was leading the effort to build a continuous canal to the Ohio River, recognized the importance of keeping all four cities “on the hook.” Clearly, the best way to do that was to keep open the possibilities for each to become the major terminus and transshipment port. While the assumption from the first was that the canal would serve one or more ports in the Federal District, a Maryland connection was more complicated. It would require building a canal over the high land dividing the Potomac watershed from that of a river that drained into the upper Chesapeake Bay: the Patapsco, Patuxent, or Severn.

While a canal from tidewater in the Federal District to the Chesapeake at Baltimore made sense topographically, given that there was very little elevation to overcome, the Baltimore interests preferred an “all Maryland” canal that would turn away from the Potomac above the District to reach Baltimore and the Bay. They feared that most cargo down the canal would transship in a District port rather than continue on east if the connection was an extension from the District.

However, Parris Spring Ridge, which stretched north from the District toward Pennsylvania, was a formidable barrier. Not only was the elevation that a canal would have to overcome in crossing it substantial, but also there was no obvious water source near the summit level for such a canal.

The terminus issue aside, however, the canal’s name needed to serve a much more ambitious vision than the “Potomac Canal” in Virginia’s act, which necessarily had been limited to that state’s boundary. Now the goal was to cross the mountains to “the head of the Steam Boat navigation of the Monongahela or Ohio river.” Mercer and others wanted a name reflecting that vision.

Although canal supporters in Ohio were speaking informally of a “Potomac and Ohio” canal, the first geographic name put forward was “Chesapeake and Ohio.” In proposing this name, Mercer stated:

Though the Ohio ultimately falls into the Gulf of Mexico, yet as it is the great stream to which we propose to go, there seems a propriety in retaining its name. In adopting the term Chesapeake we wished to avoid all local feelings, and assume a broad distinctive epithet, which would not interfere with the prejudices of any section of the country.⁵

James Forrest, a convention delegate from Maryland’s St. Mary’s County, promptly questioned the reason for the name change and expressed a concern that “Chesapeake and Ohio” might result in confusion with the Chesapeake and Delaware Canal. After Mr. McLean spoke for the Ohio interests, using their “Potomac and Ohio” terminology, Forrest proposed that “Potomac” be substituted for “Chesapeake.”⁶ To this John C. Herbert from Prince George’s County responded:

There have already been given reasons for the name of the change. In this case the interests of Baltimore ought never to be lost sight of. We ought, as far as possible, to remove the prejudices and ignorance existing on this subject. They cannot be strangers to the provision which has been made for a lateral canal—the grand object of which is to afford an opportunity of a canal being cut from the Great Trunk to Baltimore.

We wish that the intercourse between Baltimore and the West be retained by this means.⁷

At that point, Forrest withdrew his proposal, although not without emphasizing that: “I feel more inclined to consider that I was in the right” and that anyway, he preferred the “Union Canal” name.⁸

But resolving the politically sensitive name issue only brought to the forefront the issue of which city would be the primary eastern anchor of the great waterway. Clearly, the District cities could not be left out, and the majority at the convention envisioned a canal terminating in the District. Branch canals, especially one to Baltimore, were expected outgrowths of the main canal, but they could come with potential problems. If, for example, water for all or part of them had to come from the main stem, the primary canal would need more water and might find it difficult to maintain its full depth in dry periods. In fact, this did become a major problem with the Alexandria Canal decades later.

But at this stage a major concern of many with an interest in a canal to the Ohio was getting and keeping as much of the business on the canal as possible. And it could not be denied that there was considerable foot-dragging on the part of many of the District delegates with regard to a Maryland crosscut canal.

In response to overt and implicit concerns over branch canals, Athanasius Fenwick of St. Mary’s County urged the convention to approve a resolution that “this meeting and the friends of the Ohio and Chesapeake Canal [*sic*] generally, disclaim and disavow all opposition to any lateral Canal which it is practicable to make, leading to or from the said Canal, or to any future extension through any of the states adjacent thereto.” Ultimately a clear provision for lateral canals was included in the final resolutions to come out of the convention.⁹

After the 1823 convention, the issue of Baltimore’s connection to the proposed Chesapeake and Ohio Canal simmered on even as the surveys of 1825 and 1827 reinforced the understanding that the main stem of the canal would go down into the Federal District.

But nothing changed the fact that Washington wanted the canal to end at the Eastern Branch (Anacostia River). Alexandria wanted it to cross the Potomac and terminate there—or if a Potomac crossing was not possible, to end at the Potomac Company’s Locks Cove terminus above Georgetown (the location of present-day Fletcher’s Cove). Georgetown supporters were divided, with some wanting it to end on their waterfront, but others preferring that it terminate up the river at Locks Cove in order to keep what they believed would be an unhealthy canal with noisy traffic from coming into their town. Among the latter was Francis Scott Key, whose home and property on the bank of the Potomac would be in the path of any canal built through the town.

Georgetown’s situation was problematic in another way: it was no longer a deep-water port due to siltation and it could serve only the more shallow draft ships that plied the Atlantic coast and the tidewater bays and rivers—not the larger trans-Atlantic vessels. And at the east end of the town, the mouth of Rock Creek formed a wide tidal flat.

So the ceremony on July 4, 1828, made it glaringly obvious that neither Georgetown, Washington, nor Alexandria could presume the great canal would terminate on their shoreline or at a place favorable to them. Nor could they even see construction bringing the canal in their direction, and this was not acceptable.

Notes:

¹ This article draws heavily from William M. Franklin’s “The Tidewater End of the Chesapeake and Ohio Canal”, printed in the *Maryland Historical Magazine*, Winter 1986, Vol. 81, #4, 289–304. Dr. Franklin was the retired Director of the Historical Office, U.S. Department of State.

² *Ibid.*, p. 298.

³ This description appears in multiple documents of the time concerning the convention.

⁴ Proceedings of the Canal Convention are available on the Internet at: <http://archive.org/details/proceedingsatgen00ches>. p. 6

⁵ *Ibid.*, p. 20.

⁶ *Ibid.*, p. 20 and 21.

⁷ *Ibid.*, p. 22.

⁸ *Ibid.*, p. 23.

⁹ *Ibid.*, p. 33.

ACS CERTIFICATE OF AUTHENTICITY AWARDED TO *CHARLES F. MERCER*

by Dave Johnson

The American Canal Society's Certificate of Authenticity recognizing the packet boat *Charles F. Mercer* (see photo on page one) was formally presented to the Chesapeake and Ohio Canal National Historical Park on May 27, 2012. The National Park Service operates the mule-drawn boat on the restored section of the C&O Canal at the Great Falls Tavern Visitor Center in Potomac, Maryland.

The plaque was presented to Park Superintendent Kevin Brandt by ACS director Dave Johnson. Also participating were Donald Harrison, president of the Friends of Historic Great Falls Tavern, and Park Ranger Kelly Fox, who prepared the nomination of the boat for the certification.

The *Mercer*, a replica of a nineteenth-century packet boat on the C&O Canal, was built at the Scarano boat-yard in Albany, New York. It was delivered to Great Falls and launched in the canal in September 2006. The overall length is 58 feet and the beam 13 feet. Seating for about 60 passengers is available in the lower deck cabin and on the upper deck, which is shaded by a canopy. The boat is named for Congressman Charles Fenton Mercer of Virginia, a member of the House of Representatives committee on canals and an ardent supporter of the Potomac route to the west. He became the first president of the C&O Canal Company in 1828, an apparent conflict of interest that was deemed acceptable in those days.

The *Mercer* replaced the old *Canal Clipper*, which had been retired after nearly thirty years of service. The *Clipper* more or less resembled a coal boat with benches. Because it was about twenty feet longer than the width of the canal, it could not be turned. It had a tiller at each end and ran back and forth like a trolley car. In designing its replacement, park officials decided to build a packet boat. Since the new boat would have a distinct bow and stern and need to be turned during each trip, its length was limited by the width of the prism.

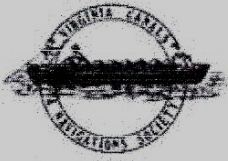
The National Park Service nominated the boat for certification in May 2011. The award was approved by the ACS Board of Directors and announced by Carroll Gantz, chairman of the Canal Boat Committee, the same month. It was planned to present it in July 2011 during the celebration of the park's fortieth anniversary, but the government had to cancel that event. Subsequent attempts to reschedule the presentation before the end of the 2011 boat season were unsuccessful. When the new season opened in the spring of 2012, it was suggested that the presentation be held at the annual picnic supper cruise for members of the C&O Canal Association and the Friends of Historic Great Falls Tavern, the two principal independent citizens organizations that support the canal. This occasion was considered particularly appropriate because the Friends led the fundraising drive that generated more than \$530,000 to build the *Mercer*. The Association, founded by the 1954 Douglas hikers, spearheaded the seventeen-year campaign to preserve the canal as a national historical park, a goal realized in 1971, and in the years since, has led or backed many preservation projects, including the restoration of the Monocacy and Catoclin aqueducts and the construction of the *Mercer*.

The ACS Certificate of Authenticity was created in 2006 to recognize and encourage historical accuracy in boats operating in canal parks. The primary criterion is that nominated boats replicate the appearance of boats on the host canal during the historic operating era. The *Mercer* is the fourth boat that the ACS has recognized with certification.

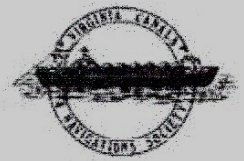
The *Mercer* provides public one-hour trips Wednesday through Sunday, April through October, with departures from the visitor center at Great Falls, 11710 MacArthur Boulevard, Potomac, Maryland 20854, at 11 a.m., 1:30, and 3 p.m. The C&O Canal NHP's other canal boat, *Georgetown*, which operated from the Georgetown, D.C. Visitor Center for the past thirty years, was withdrawn from service due to structural weaknesses. This leaves the *Mercer* as the only operating mule-drawn canal boat in the park.



Park Superintendent Kevin Brandt, Park Ranger Kelly Fox, ACS Director Dave Johnson, and Donald Harrison, president of the Friends of Historic Great Falls Tavern.



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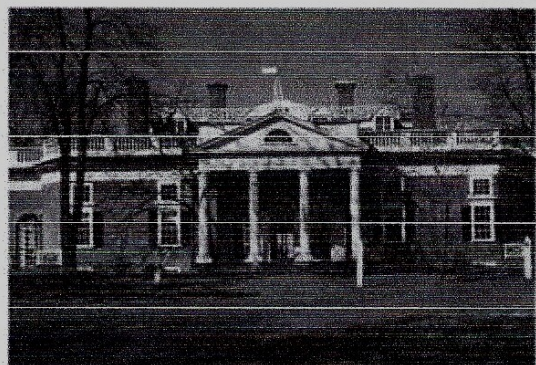


Image from History.com

Detailed information on the history of the Rivanna River can be found in the *Rivanna River Atlas*, by Dr. William Trout.

Be sure to visit the VC&NS website for updates and more information www.vacanals.org

VC&NS is a nonprofit, 501(c)(3) organization dedicated to Virginia's rich canal and river history, preservation and parks.

THE RISE OF THE ENERGY ECONOMY

by Steve Skye, Neversink Valley Museum of History and Innovation, Summer 2011 issue

At its core, our energy economy is defined by a highly integrated set of mechanisms that are used to produce, price, sell, and distribute various forms of energy and energy products. Before the 19th century there was not much of a domestic energy economy. What did exist was rudimentary at best. 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, over eight 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: Boston, New York, Philadelphia, and Charlestown. More than likely, most of this coal stayed in these ports and nearby settlements. A few hundred tons of coal did arrive from Virginia and Nova Scotia. Such as it was, this was America's energy economy. Coal shipments to colonial and newly independent America never really amounted to much. It probably met less than one-tenth of one percent of the colonies' fuel needs. Given the abundance of trees that could be used for fuel, it is not surprising that the amount of coal exported from Britain to America was so slight. Though American tariffs and the high cost of transport helped work against the export of coal to the young country, it is also undeniable that British coal simply could not compete against the seeming limitless supply of American firewood.



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. The result was that seaborne shipments of coal from Britain, Nova Scotia, and Virginia to American ports were blocked during the conflict. However, few American enterprises were hurt by the embargo. Though there were pockets of users, especially in Philadelphia, who were in despair over the coal stoppage, the British action was not a major catastrophe for American industry. Apart from some artisan workshops, a few other industrial undertakings, and a handful of other endeavors that had come to rely on coal, the embargo, overall, had no great effect. For the most part, wood was an adequate substitute for the missing coal.

Perhaps because the story of the anthracite canals was told by Pennsylvanians, the "fuel crisis" in America caused by the British embargo is afforded a significance much greater than it actually had. In all likelihood, if all the coal in America had disappeared from the surface (and bowels) of the earth, industry and home would have carried on with nary a hitch. After the war, the coal trade with England resumed but remained insignificant. As a result, most of the energy used for heating or manufacturing in the early United States continued to be supplied by wood.

Despite the common belief that the D&H Canal was built in response to the War of 1812's coal embargo, this is much too simplistic. The reason why the anthracite canals were built is much more nuanced. Basically, the canal was built by smart businessmen who saw an opportunity to make some money and quickly took it. They understood that the wood supply was not limitless and that an industrialized country needed an assured and abundant fuel source.

The world that gave birth to the D&H Canal used naturally produced, local power. Muscles, both human and animal; fire, mostly from locally cut wood and smaller amounts of locally produced charcoal; and water- or wind-powered mills were the principal sources of energy. Hay was also a significant source of the energy produced by draught animals and by the horses that carried riders and pulled carriages. All that began to change with the rise of the private anthracite canals in less than a decade between 1825 and 1834.

The first of the anthracite canals to open for business was the Schuylkill Navigation, completed in 1825. It made Philadelphia the center of trade in anthracite coal, which was shipped from its docks to New York City, Baltimore, Boston, and various other destinations. The Union Canal and the Delaware and Hudson (D&H) both followed in 1828, as did the Lehigh Canal in 1829. The Morris Canal began operations in 1831, and in

1934 the first boat crossed the Delaware and Raritan Canal (D&R). The D&H, Morris, and D&R canals allowed New York City to receive its anthracite directly from the Pennsylvania coal fields, thereby avoiding any transshipment in Philadelphia.

The six anthracite canals had an initial capitalization of over \$10,000,000 and probably cost around \$13,000,000 to build. After the banks, they were the largest private enterprises of the time. No wonder! A new source of energy had been found in eastern Pennsylvania and was gaining acceptance in America's homes and businesses. The steam revolution was gaining momentum and was developing an insatiable appetite for fuel. Later, iron smelting would be transforming America into an industrial giant and would require huge amounts of fuel to stoke its furnaces. The plentiful and accessible anthracite coal fields needed only a few canals of reasonable length (about 100 miles or less) to carry this bounty to the growing industries and population centers of the Mid-Atlantic seaboard. Canals would provide cheap transportation and make the anthracite relatively affordable.

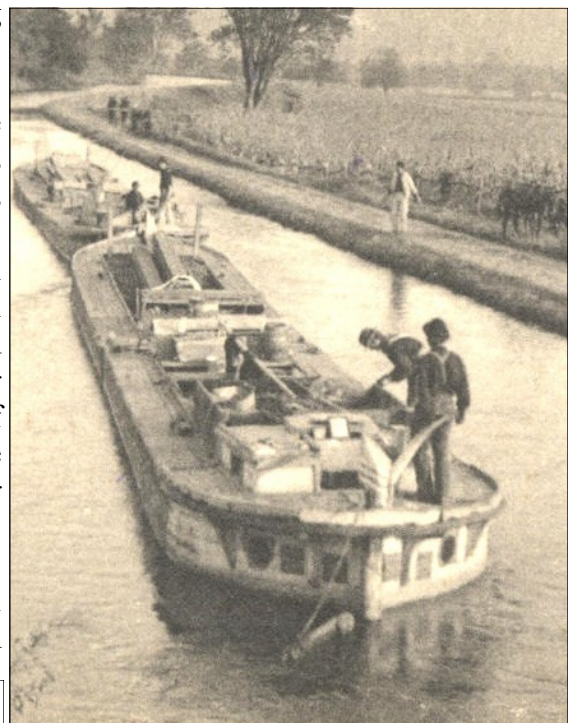
During the early 19th century there was a pair of energy revolutions taking place simultaneously. Basically, energy can be used to accomplish two different types of results. First, it can be used to heat things. This is its thermal side. It can heat a house, forge metal, or distill various sorts of liquids. A new mineral fuel, anthracite, was being introduced to America's homes to heat and cook and to the nation's mills to smelt and forge. However, besides the steam revolution, a second revolution was needed before "stone coal" could become a significant fuel source. It wasn't as simple as just throwing anthracite on the fire in place of wood.

Anthracite needed a hotter fire in order to burn. In effect, an anthracite revolution was needed before anthracite could be used to fuel steam engines, home stoves, and iron mills. These technological advances mainly took place during the first half of the 19th century and made anthracite America's preeminent energy source after the Civil War. We can trace the beginnings of the anthracite revolution to late colonial and early republican times. In 1808 Jesse Fell, a Wilkes-Barre civic leader, is said to have first successfully burned anthracite in a fireplace on an open grate to heat a home. Almost forty years earlier in 1769, Obadiah Gore, a blacksmith, is reputed to have used anthracite in his Wilkes-Barre forge, though anthracite iron wasn't produced commercially in significant quantities until 1840.

Second, energy can also be used to move things. This is its mechanical side. It can energize a saw blade, operate a loom, move a millstone, or transport goods and people. At the same time as the mineral fuel revolution was underway, there was a mechanical energy revolution also taking place. Power that was supplied to the nation's factories and transportation systems by human and animal muscle, blowing winds, and flowing water was being replaced by the steam engine. Anthracite was likewise an important player in this other energy revolution. For the first time in human history, both kinds of power, mechanical and thermal, could be provided from the same source. Anthracite, more and more during the 19th century, was proving to be that single source.

Our modern energy economy is primarily based on fossil fuels. The die was cast when the private anthracite canals arrived on the scene. Christopher F. Jones makes a persuasive case that the canals "facilitated the emergence of a fossil fuel intensive society" in his groundbreaking essay, "A Landscape of energy Abundance: Anthracite Coal Canals and the Roots of American Fossil Fuel Dependence, 1820-1860," published in July 2010 in the journal *Environmental History*. First there was anthracite coal transported by canal, then by rail. Afterwards bituminous coal took center stage and continues on today as a primary fuel for the generation of electricity. Then petroleum oil and natural gas appeared on the scene. Today, petroleum dominates our energy economy. For almost two centuries, fossil fuels have been plentiful and cheap. This has helped them dominate our energy economy. Only today, with growing petroleum scarcity and emerging environmental concerns, has our fossil fuel-based energy economy been challenged.

Canalboats traveling in tandem on the Morris Canal.



CLEVELAND TRAIL GROUNDBREAKING

from the Canal Society of Ohio Newsletter, Issue #3, 2012

In July of 2012, a host of dignitaries, including U.S. Senator Sherrod Brown and retired U.S. Representative Ralph Regula (one of the fathers of the towpath trail), gathered with 100 members of the public with their own shovels in the Cleveland flats near the Cuyahoga River to break ground for the 3100-foot, \$9.1 million northern end of the Ohio and Erie Towpath Trail.

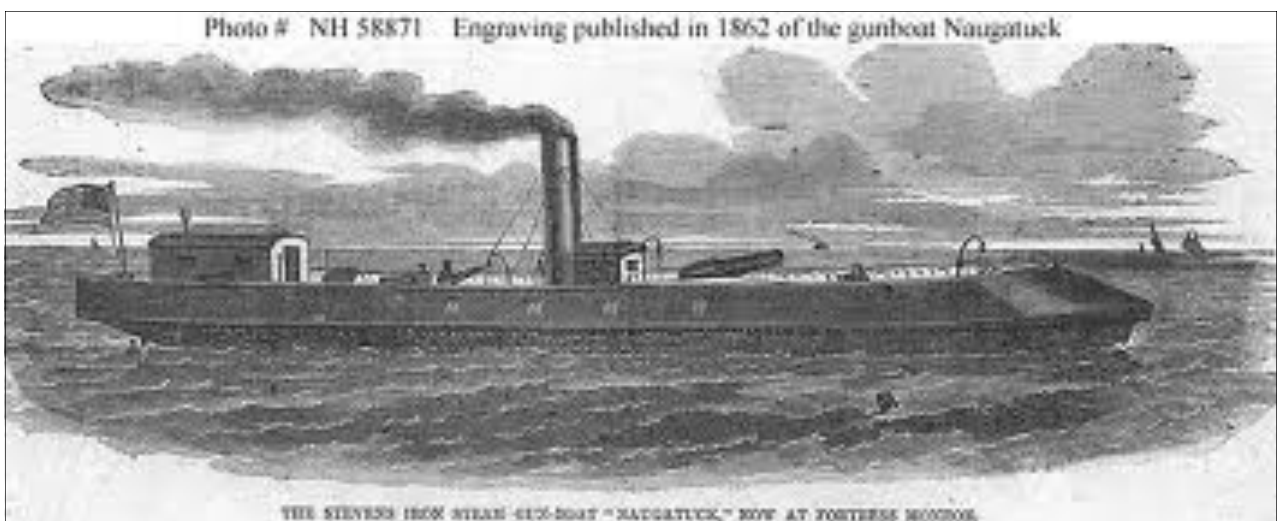
The project is being funded by grants from the Great Lakes Restoration Initiative Fund, Clean Ohio, the Ohio Cultural Arts Facilities Commission, and the U.S. Fish and Wildlife Service (for riverbank restoration for fish habitat). To date, the only section of the trail that has been built within the city is a 1.3-mile section in the Steelyard Commons commercial development. Final completion of the entire Cleveland segment of the trail is expected to take about four years, according to an article in the *Akron Beacon Journal*.

THE DELAWARE & RARITAN CANAL AND THE CIVIL WAR

Excerpted from *Along the D&R Canal*, compiled by William J. McKelvey

The current movie *Lincoln* and the recent 150th anniversary of the start of the Civil War have drawn attention to this tumultuous period in our country's history. The following tidbit of New Jersey's D&R Canal heritage, provided by Bill McKelvey, therefore seems quite timely.

New Jersey Militia, including the First, Second, Third, and Fourth Regiments under the command of Col. Jonathan Fish, were transported south through the D&R Canal in early May, 1861, in the following chartered steam canalboats: *WILLIAM WOODWARD*, *FANNIE CADWALADER*, *DELAWARE*, *RARITAN*, *TRENTON*, *PATROON*, *F.W. BRUNE*, *ELIZABETH*, *FARMER*, *FRANKLIN*, *J.B. MOLLISON*, *EUREKA*, *FANNY GARNER*, and *OCTORARA*. The troops were conveyed to Annapolis to defend the nation's capitol during the opening days of the Civil War. (Notes: Brig. General Theodore Runyon, commander of the NJ troops, made his headquarters on the *WOODWARD*; from Annapolis the troops were moved by train to Washington.) *Newark Evening Journal*, May 2, 1861. *Bordentown Register*, May 10, 1861. The fleet of twelve propellers passed Philadelphia last night at 11½ o'clock during a heavy storm. As the steamers neared Philadelphia they opened their steam whistles and in succession apprised the Philadelphians of their progress. The night was dark and stormy but some of the troops collected in groups on the deck of the transports and were faintly visible through the dim lights of the vessels. As they passed Smiths Island, sundry bells were rung on the shore. Cannon were fired from the lower decks of the transports and were responded to on the Camden side. Near the ferry slips at Camden crowds had collected. They should reach Annapolis this evening or tomorrow. *Newark Daily Advertiser*, 4 May 1861. One of the propellers, the *EUREKA*, which conveyed the New Jersey troops to Annapolis reached this city (Trenton) last evening, being the first of the expedition that has returned. *Daily True American*, 9 May 1861.



CANALENDER

April 26-28 - Canal Society of NY State/Pennsylvania Canal Society's spring tour of the D&H Canal Northern End, Kingston to Port Hyxson. In addition to exciting 19th century canal sites, including a Roebling canal aqueduct remnant, we will see the Hudson River port at Rondout where it meets the river and the historic Rosendale cement industry, a canal museum, and a maritime museum. A boat trip to a Hudson lighthouse and up the Rondout is possible as well. HQ: Garden Plaza, Kingston. See www.newyorkcanals.org.

The Annual Meeting of the American Canal Society will be held on Friday, April 26 at the Kingston Garden Plaza from 3-5 pm.

April 26-28 - Virginia Canals & Navigations Society Spring Conference and Paddling Trip: celebrating the 250th anniversary of Thomas Jefferson's trip to open the Rivanna River to navigation. Events include a paddling trip on the Rivanna, a driving tour of historic sites along the Rivanna, including lock sites and historic sites in Palmyra, and a lecture on the Rivanna River as it was then and as it is now. For complete details, see www.vacanals.org. (See page sixteen.)

May 5 - Joint MCA-AMC Spring Middlesex Canal Walk. Meet at 1:30pm; Wilmington, MA. Walk a rural section of the canal from near the Wilmington Town Park to Patch's Pond, once a canal basin. Examine grooves worn in a boulder by towropes as boats wound around the Ox Bow; also the remains of Maple Meadow Brook Aqueduct, and a quarry used in its construction. Directions: From Route 128/95 take exit 35 in Woburn. Follow Route 38 (Main St.) north 2.4 miles to the Wilmington Town Park on the left just prior to the railroad overpass. For more information see our web site, www.middlesexcanal.org or contact: Roger Hagopian (781-861-7868) or Robert Winters (617-661-9230, robert@middlesexcanal.org).

May 11 - Cooper & Santee Canal Park, Guided Interpretive Walk, 9-11 a.m. Allow our educators to show

you both the historical and natural beauty of Old Santee Canal Park. One mile walk includes stairs, boardwalk and gravel, meet at the Interpretive Center. The guided tour includes the Stony Landing Plantation house and an easy 1 mile nature hike through Biggin Swamp. Many wading birds as well as alligators, turtles, and nesting ospreys may be observed during this trip. Free with regular admission. Register by Thursday, May 24, 2012. For more information Contact: Brad Sale, bssale@santecooper.com.

May 18 - Transportation Festival. Wabash & Erie Canal, Delphi, IN. www.wabashanderiecanal.org; 765-564-2870.

May 19 - 1:30 PM - National Canal Museum Heritage Walk, Hugh Moore Park, Easton, PA. led by Charles Derr, Park Ranger, Retired, free and open to the public. The Lehigh Navigation walk will begin at the Canal Boat Store at 1:30 PM. Cancelled by inclement weather. Check www.canals.org for additional dates and information.

June 5-Sept 2 - National Canal Museum - Canal Boat Rides. Daily, Memorial Day weekend to Labor Day, then weekends only in Sept; Rides hourly, 1 - 4 PM. Adults - \$11.75; Seniors - \$10.50 (65 and older) ; Children (3 - 15) - \$9.00; Children (2 and Under) - FREE. Admission includes the Museum. See the Josiah White in action: www.canals.org/movies/canalsJosiahWhiteIII.wmv. About our mules: www.canals.org/movies/canalsMules1.wmv.

June 15-22: - James River Batteau Festival - an eight day, 120-mile trip from Lynchburg, VA to Richmond, VA event featuring authentic replicas of the 18th century batteaux, the sleek, shallow-draft merchant boats upon which the Old Dominion rode to its first era of economic prosperity. The route travels through 18th century batteau

sluices and under aqueducts. Other paddlers and spectators also welcome to participate. For complete details, see www.vacanals.org.

June 16 - 1:30 pm. Hugh Moore Historical Park, Easton, PA will sponsor a heritage walk. **The Lehigh Navigation** will be presented by Charles Derr, Park Ranger Retired. The walk will begin at the Canal Boat Store. In case of rain, the walk is cancelled. Heritage walks are free and open to the public.

June 29 - Waterloo Canal Day, at Waterloo Village, Stanhope, NJ. Canal Society of NJ, Music, boat rides, games, displays, tours. 10-5. Free; donations welcome.

July TBA - National Canal Museum -Canal Days, a weekend celebration of canal life, with activities for the entire family, will be held Sat. and Sun. Please check canals.org for information later in the spring.

July 6-7 - Canal Days. Wabash & Erie Canal, Delphi, Indiana.

July 13 & 27 - Waterloo Canal Heritage Days, Waterloo Village, Stanhope, NJ. Boat rides, village tours. bmorrell@citybloom.org; 908-722-9556; www.canalsocietynj.org.

August 10 & 24 - Waterloo Canal Heritage Days, Waterloo Village, Stanhope, NJ. Boat rides, village tours. bmorrell@citybloom.org; 908-722-9556; www.canalsocietynj.org.

Sept. 14 & 28 - Waterloo Canal Heritage Days, Waterloo Village, Stanhope, NJ. Boat rides, village tours. bmorrell@citybloom.org; 908-722-9556; www.canalsocietynj.org.

September 16--19, 2013 - The World Canals Conference in Toulouse, France on the Canal du Midi, a World Heritage site, with accompanying excursions. See www.wcc13.com/en/ for details.

September 20-22, 2013 - The Canal Societies of Indiana and Ohio will sponsor a trip to Delphi, Indiana.