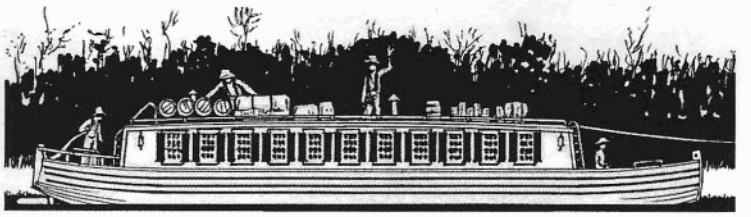

AmericanCanals

Bulletin of the American Canal Society

www.AmericanCanals.org

Vol. XLV No. 2 Dedicated to Historic Canal Research, Preservation and Parks Spring 2016

From the President

By David G. Barber

It's been a very mild winter in Massachusetts with the few snows melting away rapidly and allowing walking in the woods at frequent intervals. Now, it is officially spring and the woods are wide open. So there is little reason not to walk along and explore our canals regardless of the condition of the towpath.

Along with this issue of *American Canals* is the annual listing of canal boat rides that are available in warmer weather. I hope that you will visit and ride on some of them in the coming months to enjoy the trip and to support the operation. These are great ways to introduce others to the canal history that we enjoy.

At Canal Futon, OH, is the replica boat ***St. Helena III***, which is one of those you can ride. Its predecessor, ***St. Helena II***, is on the bank next to the canal. ***St. Helena II*** is all wood and is considered to be the first of the replica boats. Carroll Gantz, an ACS director, who died last November, was deeply involved in that project. He also designed the mastheads of *American Canals*, both the current one and its predecessor. He will be missed.

In This Issue

This issue includes the annual 8-page CANAL BOAT RIDES IN THE U.S. AND CANADA. It features over 30 parks, towns and cities with canal and river boat rides and tours.

The Wabash & Erie Canal's ***Delphi*** (left) is one of the boats featured in the guide.

American Canals

BULLETIN OF THE
AMERICAN CANAL SOCIETY

Managing Editor: Steve Dean
Contributing Editors: David G. Barber, John Wunderle, Sr.

www.americancanals.org

For memberships, subscriptions, change of address, and other business matters: c/o Charles W. Derr, 117 Main Street,Freemansburg, PA 18017; deruls@aol.com; 610-691-0956.

For CANAL CALENDAR items and news of local, state, and regional canal societies: c/o Steve Dean, PO Box 132, Saint Leonard MD 20685; 301-7904-9068; 184.5_miles@comcast.net

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.

An annual subscription to ***American Canals*** is automatic with ACS member-ship. Regular Single Membership, $25; Dual Membership, $35; Sustaining (no change) $35; Patron, $50; Life Membership $500.00. Single copies, $3. Four issues per year. Printed in the United States of America. ISSN 0740-588X.

Other Publications: *The Best from American Canals; American Canal Guides,* William E. Trout III, editor and publisher

DEADLINE: Material for our next issue must be on the editor's desk no later than June 15, 2016. Send to Steve Dean, PO Box 132, Saint Leonard MD 20685, Editor, American Canals; 301-904-9068; 184.5_miles@comcast.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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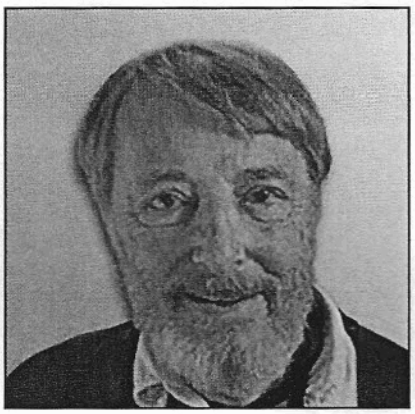
Membership Update

The membership secretary reports that numerous members have not renewed for 2016. Some members have not even renewed for 2015. If your membership is not current, please make an effort to bring it up to date. Your membership supports our efforts to provide advocacy, preservation and historical research of canals and canal parks. Also, your membership needs to be current to continue to receive the ***AMERICAN CANALS*** newsletter.

A membership renewal form is available for download on our website at www.americancanals.org/Membership/acsmembership.htm. Thank you in advance for your attention to this renewal request.

Carroll Gantz, FIDSA

Carroll Gantz passed away on November 18, 2015. He was a United States industrial designer born 1931 in Sellersville, Pennsylvania. He received a BFA in Industrial Design from Carnegie Institute of Technology in Pittsburgh, Pennsylvania, (now Carnegie Mellon University) in 1953. Carroll served in U.S. Army with the National Security Agency as a cryptanalyst from 1953 to 1956. He became designer and later industrial design manager for the Hoover Company in North Canton, Ohio from 1956 to 1972 before he joined Black & Decker (B&D) U.S. Power Tools in Towson, Maryland as Manager of Industrial Design. In 1980, he headed industrial design for a new B&D Household Products Division in Easton, Maryland. In 1984, after B&D acquired General Electrics' Small Appliance Division in Bridgeport, Connecticut, he became Director of Design for the new combined B&D Housewares Group in Shelton, Connecticut until 1986. He organized about 25 B&D designers around the world and established corporate design standards.



From 1987 through 1992 he was Professor and Head of the Design Department of Carnegie Mellon University, where he established a unique multidisciplinary design course for engineering, marketing and design students. He also established a consulting business, Carroll Gantz Design. Gantz was a frequent lecturer and author of numerous design history articles and is listed in Who's Who in America.

Gantz holds 30 U.S. design and utility patents. He invented/designed many well-known consumer products including Hoover's 2100 Portable Cleaner (1964), their Dialamatic upright vacuum cleaner (1966), and B&D's cordless Dustbuster hand-held vacuum cleaner (1978), with sales of over 100 million units by 2000. He is a recipient of national design recognition from the Industrial Designers Institute (IDI) in 1964 and from the Industrial Design Excellence Awards (IDEA) in 1993.

Gantz became a member of The American Society of Industrial Design in 1961, which became Industrial Designers Society of America (IDSA) in 1965. In 1974 he became a Fellow of IDSA. He was President and Board Chairman from 1979 through 1982 and was awarded IDSA's distinguished Personal Recognition Award in 1986. He retired to Seabrook Island, South Carolina in 1997, where he continued to serve IDSA as Chair of the Design History Section.

Gantz became involved with canals during the construction planning for the *St. Helena II* boat in Canal Fulton, Ohio in 1967. He was instrumental in the creation in a set of working blueprints based on photographs and a scale model. Gantz continued to stay in touch with canals by consulting on the construction of boats and being involved with the American Canal Society and the Canal Society of Ohio. In 2012, he wrote the book "Building the *St. Helena II* – Rebirth of a Nineteenth-Century Canal Boat" which took a look at how the *St. Helena II* came to be. He was a director of the American Canal Society and the chair of the Society's Canal Boat Committee.

– James Guest

American Canal Society Sales

The Society has the following items for sale:

Best from American Canals #2	published 1984	$4
Best from American Canals #5	published 1991	$4
Best from American Canals #6	published 1993	$5
Best from American Canals #7	published 1996	$5
Best from American Canals #8	published 1998	$6
American Canal Guide #1: West Coast	published 1974	$1
American Canal Guide #2: South, NC to FL	published 1975	$2
American Canal Guide #3: Lower MS & Gulf	published 1979	$3
American Canal Guide #4: WV, KY, Ohio River (Photocopy)	published 1988	$3
American Canal Guide #5: DE, MD, VA	published 1992	$3
20 year American Canals Index 1972-1992	published 1992	$3
Canal Boat Construction Index (12 pages)	published 1992	$2
Picture-Journey Along the Penn. Main Line Canal	published 1993	$10
ACS Burgee (blue on white cloth)		$15
ACS cloth sew on patch (2" x 3" red, white & blue)		$3

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Threat to the Restoration of the Chesterfield Canal from High Speed Rail Development

By Alan P. Newman - School of Energy, Construction and Environment, Coventry University, UK

James Brindley is widely recognised as a pioneer of the British canal system and this year is the 300th anniversary of his birth. His last project, representing the culmination of his working life's experience, was the construction of a canal from the River Trent to Chesterfield an important industrial town in the centre of England. Local iron, coal and lead could thus be transported by water to be transferred to seagoing vessels on the river, and the canal was later to be the means by which most of the dolomitic limestone used for the rebuilding of the Houses of Parliament after the 1834 fire made its journey to London (Radley 1965, Richardson 1997). The important engineering features of the Chesterfield Canal included early use of extensive multi-flight locks, the earliest examples of large earth cored canal embankments and the longest canal tunnel in Britain at the time, the 2367 meter (m) Norwood Tunnel (Coles *et al.* (2010)). This tunnel was necessitated by water shortages at the summit of the limestone ridge that was the main barrier to the route (Richardson 2001). See Chesterfield Canal Trust (n.d.) for a plan of the route.

The 74 kilometre (km) canal was first surveyed in 1768, approved by Parliament in 1771 and completed to Chesterfield in 1777 some five years after Brindley's death. After the depression in the United Kingdom, brought on by the cost of the American Revolution (Cook 2011), the canal was reasonably profitable at first. Dividends were paid at 3% in 1797 and up to 8% by 1830 (Richardson 2016). It was a "narrow canal," with a 2.13 m beam limit from Chesterfield to Retford, but originally had a 4.26 m limit from Retford to the Trent after interests in Retford agreed to pay the extra cost of the wider canal. However, Atkinson (1977) reports (unfortunately without citing his sources) that, after being taken over by the railway company in 1846, the company reduced the 4.26 m limit to 2.4 m by adding pinch points at bridge holes, which are now all currently removed. Whilst, strictly speaking, this did not form an illegal barrier to navigation, it would have contributed to the decline of canal traffic already suffering from railway competition including from within the company which owned it.

Following the 1907 tunnel collapse, which had been preceded by many years of gradual lowering of the tunnel roof caused by mining subsidence (Richardson 2001), the inland (western) section fell into disrepair. By the 1960s the inland section was, in parts, either in-filled, left without water, or kept as an unnavigable water feeder to supply local industry. Parts of the disused section were also destroyed by surface coal mining. The section between the eastern tunnel portal and Worksop, losing its commercial through-traffic and with coal transport from Shireoaks Colliery stopping in 1949, became disused and eventually an unnavigable feeder to the rest of the canal. All commercial traffic stopped in the 1950s. By the 1960s the canal was in a sorry state and the government were planning to close it (Hansard 1962).

In contrast to the current situation, the canal attracted opposition rather than support from the local member of parliament, Frederick Bellinger (Hansard 1962), but the navigable part of the eastern section of the canal (at that time barely so) was saved by the efforts of the Retford and Worksop Boat Club, which campaigned successfully to obtain statutory protection for that portion of the canal under the 1968 Transport Act (Atkinson 1977). The change in the positions of the local politicians, which seems to have started around the mid-1980s, perhaps reflects the difference in attitude to canals and canal cruising in the UK compared with the 1960s. Currently most local members of Parliament and, importantly, the local authorities, are very supportive of the restoration of the canal. Every local authority which has part of the canal is a member of the Chesterfield Canal Partnership (which also includes the CCT and the Canal and River Trust, formerly the British Waterways Board [BWB]) and has taken active steps to assist in restoration and pres-

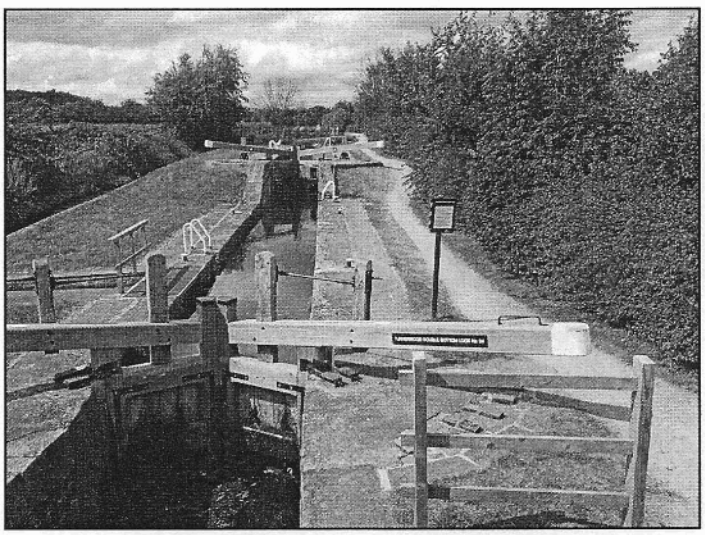
ervation (Chesterfield Canal Partnership n.d.). With tremendous effort by the Chesterfield Canal Society (CCS, later to become the CCT) and belatedly, with support from individuals on the British Waterways Board staff (Atkinson 1977), the section of canal from Worksop to the Trent was in satisfactory condition by the time of the bicentennial celebration rally in 1977. Further efforts by CCS/CCT ensured that the whole canal east of the Norwood Tunnel to Worksop, including 22 locks, was restored to full navigation in July 2003 (Anon n.d. [2]). This includes a new, fully serviced mooring basin occupying the site of the coal loading dock at the former Shireoaks Colliery. This length of canal is often said to be one of the most beautiful in the country (Figures 1 and 2) and the multiple lock flights here are very significant examples of the transitional nature of this canal's engineering approach. Vacation rental boats are available at West Stockwith and the return journey from there to the eastern tunnel portal and back requires about 60 hours of cruising time and involves over 60 locks, making this isolated waterway an interesting but viable part of a vacation in the UK.

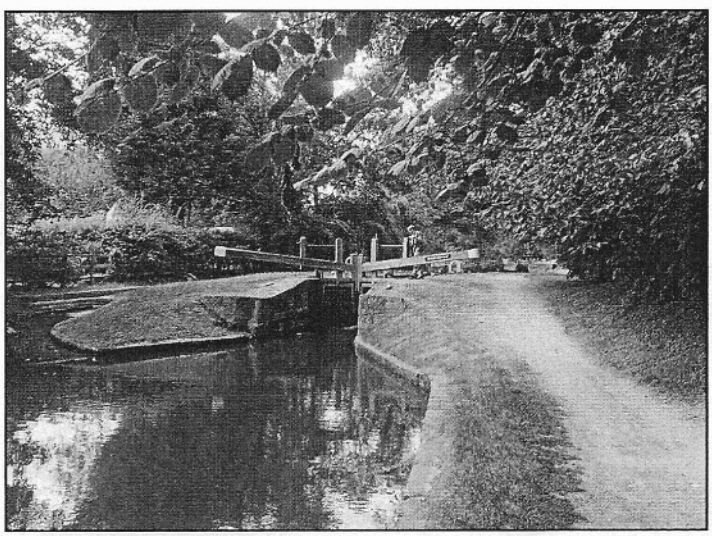
The restoration of the disused inland section of the canal was initiated on the outskirts of Chesterfield at Tapton Lock. Restoration has progressed towards both the tunnel and Chesterfield centre, where an up-market waterside office and residential development is currently underway (Chesterfield Waterside n.d.) The restoration effort at Tapton followed a 14,000 strong petition to the local authority in 1987 in response to plans to destroy any hope of restoration of the waterway by building a bypass road. Derbyshire County Council had purchased the Tapton section of the canal to facilitate the road building, not to protect the canal, but has subsequently become fully signed up to the restoration project, the first step being granting permission for use of volunteer labour to restore the lock.

The restoration of the 8 km section (sometimes known as the Chesterfield to Staveley Cruiseway) since 1990, when Tapton lock was re-opened, has required the restoration or construction of four locks, including one lock completely destroyed by surface coal mining. Two images are shown in Figures 3 and 4. Whilst residential boat rental is not available on this section, two trip boats are operated by the CCT and mid-week the boats are often available for private charter with crews provided by the trust. The National Trail Boat Festival is due to be held on the cruiseway in late May 2016.

Beyond the current head of navigation at the new Staveley Basin the restoration faces serious complications. If it had been possible to simply restore the existing line by digging out the in-fill from the canal, the next step would have been an uncomplicated 10 km level; progressing nearly all the way to the 13-lock (currently inoperable) Norwood flight which approaches the western tunnel portal.

However, close to Staveley Basin, mid-20th Century railway building has resulted in the need to drop



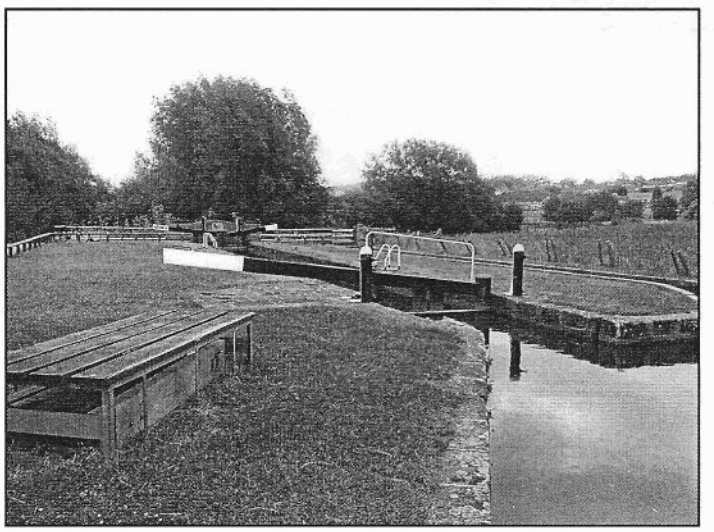


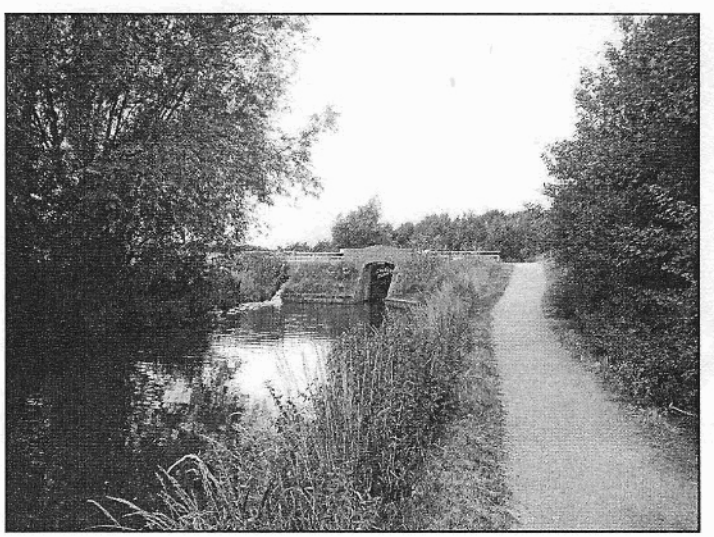
Figures 1 (left) and 2 (right): Views of the restored section between Worksop and the eastern tunnel portal are shown in the two above photos. The section features multi-flight locks including several lock staircases set in a peaceful rural location.

the elevation of the canal from just west of the basin to the northern side of a currently disused railway bridge (which must be left capable of reinstatement at current elevation). To allow canal boats to pass safely under the obstacle a 1.5 m change in water level is required; requiring the construction of two entirely new locks. The first of these was under construction in early 2016. Figure 5 and 6 shows images of the new lock under construction by volunteers of the Waterway Recovery Group and CCT working party. The transfer of water, between the two canal levels, is currently proposed to be via a siphon tube but this may require a more technologically demanding solution. For a valuable description of the works and an excellent series of photographs readers are recommended to visit the CCT's photo gallery.

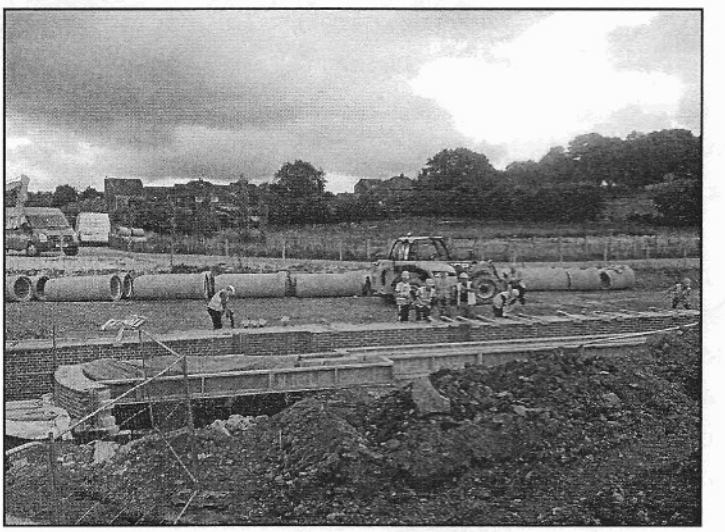
The collapsed tunnel also presents a major barrier to full restoration, but this has been compounded by the fact that in the 1970s the British Waterways Board (BWB) allowed both new houses to be built and the rear gardens of existing properties to be extended across the path of the canal in Killamarsh, the village closest to the western tunnel portal. Figures 7 and 8 show some of the most notable examples of these barriers to restoration.

The very ambitious proposed solution involves diverting the canal about 1.6 km westwards involving: a 30 m drop in elevation via new locks, threading the canal between existing buildings, and a tunnel under a busy street. This will take the canal to an existing artificially created lake in a nearby local authority owned park (to form a mooring basin) and a further series





Figures 3 (above) and 4 (below): Dixons Lock, newly constructed to replace one destroyed by surface coal mining.



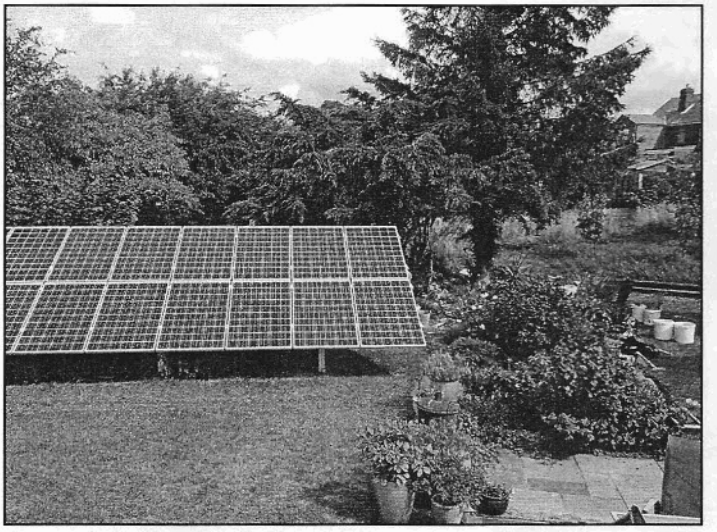
Figures 5 (above) and 6 (below): Chesterfield Canal Trust work party and Waterway Recovery Group work party constructing the Staveley Town lock. Figure 6 courtesy Chesterfield Canal Trust.

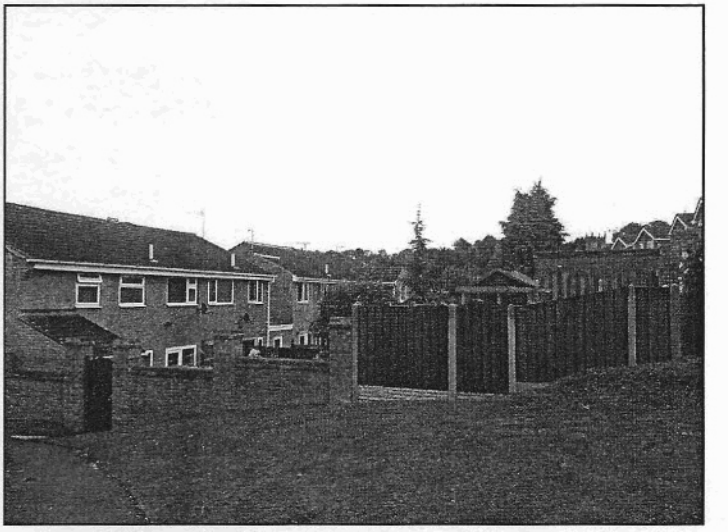
of new locks will lift the canal its original elevation (Coles *et al.* 2010).

The planned means of overcoming the problem of the collapsed tunnel is equally ambitious. Total restoration of the tunnel is impracticable and the plan involves taking the canal over the summit of the limestone ridge. The construction will involve several new locks (about 10 m of ascent) as well as repair to the existing Norwood flight of 13 locks. The plan also requires taking the canal under the M1, a major freeway which runs along the summit ridge, via an existing farm underpass, and finally more locks to take the canal down to tunnel level into a cutting which will connect with a small section of tunnel retained for its historical interest. Readers are directed to Coles *et al.* (2010), which show the plans great in detail. The previously mentioned water supply problems faced by Brindley will be overcome by back-pumping to allow a surface route to be established.

All the factors required to complete the restoration of this important historical waterway were starting to take good shape with major funding streams identified and much local political support when a potentially devastating new barrier to restoration appeared. A new high speed rail line (HS2) was initially proposed between London and Birmingham, but in January 2013, despite the fact that the construction of the line had not started, the UK government announced the "preferred route" for two extensions including one via Sheffield to Leeds (see HM Govt. 2015). The obvious route for any railway to progress from Birmingham via the English East Midlands to Sheffield is through the Rother valley. This valley was the route taken by the Great Central Railway, the last mainline railway to be constructed from the north to London. The published "preferred route," in parts, makes use of the disused rail bed where it runs next to the canal and, because of the width of track bed required, it is set to directly impact of the canal (at water level) over two sections of 800 m and 1200 m in length. It will also impact the historically important Puddle Bank embankment and the maintenance depot infrastructure may affect Staveley Basin.

This announcement was a serious blow to the restoration project. Despite the fact that this proposal may never happen (the UK Government has a track record for cancelling expensive projects) the proposal has been disastrous for the canal's funding stream. A £400,000 grant had recently come from the Landfill Tax Communities Fund Scheme – a very forward thinking scheme which allows a proportion of landfill tax receipts to be utilised for local community and environmental projects within a certain distance of the landfills which generate the tax. This grant requires a guaranteed 25-year life for any funded project and the CCT were forced to return the money. Most grant awarding bodies in the UK have similar longevity requirements leading to a funding blight on the restoration at least until the detailed answers on routing are provided.





Figures 7 (left) and 8 (right): Solar panels installed in the extended rear garden of a former lock keeper's cottage in Killamarsh, directly on the in-filled lock basin and houses built directly on the line of the canal.

It is possible, but by no means certain, that political, and possibly legal, pressure will result in the canal restoration being taken into account as part of the construction of the HS2 railway with engineering solutions being found where necessary. The attitude of the HS2 company has been largely one that the Chesterfield Canal is "not our problem" (Pers. Com, Rod Aughton [Secretary of the Chesterfield Canal Trust], 2015). They also seem oblivious to the fact that the 1771 Act of Parliament authorising the canal was never repealed and that opinion of many locals is that the penalty for interfering with the canal, transportation to the colonies, should be enforced on the HS2 board.

Until decisions are finalised and the Government's final position on the canal is clear, the efforts of the CCT remain largely frustrated. The ambitious plans to overcome the final obstacles to full restoration are now on hold as major funding streams have been halted by the prospect of a barrier being imposed by the HS2 rail line and engineering decisions cannot be made until the line of HS2 has been finalised. There is no technical reason why the canal and a new railway cannot live side by side. Hopefully UK politicians will take due notice of the historical, social and economic value of the canal, apply the lessons of history, and ensure that the company building the rail line take steps to accommodate the canal in the same way that the constructors of the Great Central Railway were forced to do in the 19th century.

Photos by Alan P. Newman except as indicated.

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Windsor Locks Canal Repairs

By Harlan Levy, reprinted courtesy of *Journal Inquirer*, Manchester, CT

A joint effort between the towns of Windsor Locks and Suffield is underway to repair the locks and banks of the Windsor Locks Canal.

Windsor Locks First Selectman Chris Kervick and Suffield First Selectwoman Melissa Mack have proposed to canal owner Ahlstrom Nonwovens, a private company situated along the waterway, that it agree to give ownership to a nonprofit organization that would take on the project.

The 6.5-mile canal was opened in 1829. It runs from the Route 190 bridge in Suffield just north of the old Enfield Dam downstream to the Dexter Coffin Bridge on Interstate 91 in Windsor Locks.

The canal has problems with its banks and the three-step locks on both ends that lift or lower boats to the water level of their destination, the parallel Connecticut River.

"A lot of trees and shrubs have roots starting to dislodge the stone lining the banks," Kervick said. The locks themselves are in disrepair, he said, "and the area is so overgrown you can't even see the locks when you drive down Main Street."

Ahltsrom tried to keep up with maintenance "as best they can," Kervick said, "but the canal is deteriorating and needs significantly more attention to maintain and preserve it."

In a first meeting Jan. 4, Ahlstrom officials expressed willingness to discuss the proposal, Kervick said. To facilitate the fix-up, the two towns have asked Enfield-based cultural resource development consultant William Hosley, of Terra Firma Northeast, to advise them on the possibilities for transferring the canal to a nonprofit group.

Kervick and Mack want Hosley to provide a feasibility study for having a historical trust or similar organization acquire the canal to preserve, restore, and develop it for use as a cultural resource.

"It's a wonderful resource for both of our towns," Mack said. "It's a beautiful historic structure and a lot of history that's relevant to the area."

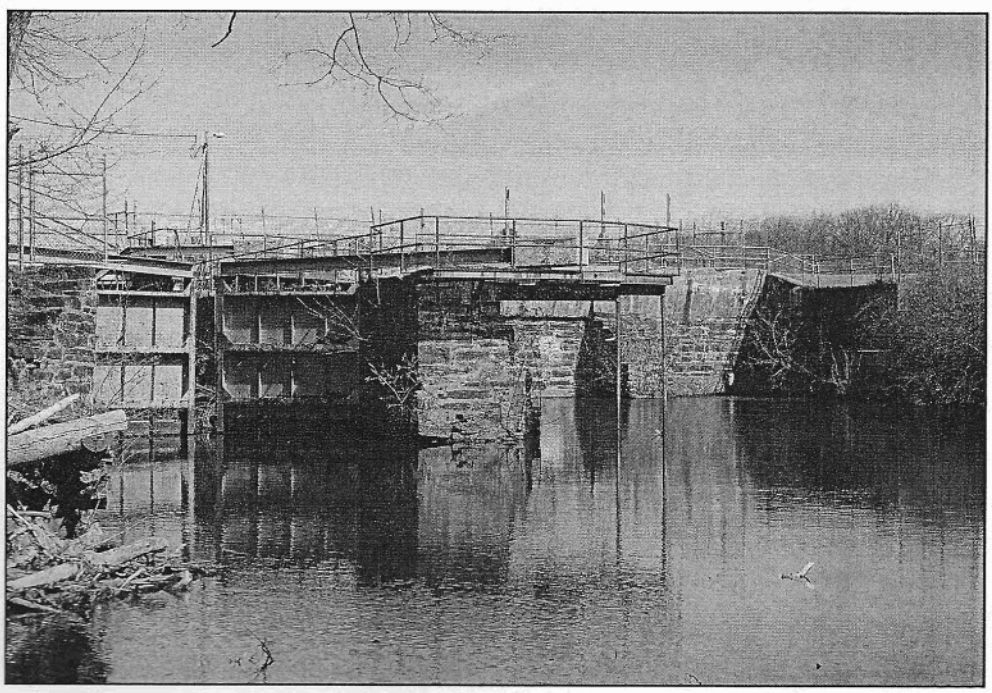
Hosley, former director of the statewide museum and preservation organization Connecticut Landmarks, said the canal "has been caught between a rock and a hard place where the owner controlling it has particular needs and interests but not a larger vision or responsibility for making this thing work."

An appropriate organization with a "deft and imaginative approach is something that the town, state, and other stakeholders can decide it makes a lot of sense to invest in," Hosley said.

"Perhaps the best use would be to expand the trails and perhaps have a river boat, some really nice amenities for our towns," Mack said.

Kervick suggested one way to supplement the cost could be the lease of hydropower rights. Ahlstrom and Windsor Locks-based Algonquin Power still draw water from the canal for industrial purposes, "so it may be possible to receive income from their use of the canal," Kervick added.

He also said that as a nonprofit organization, the canal would be able to pursue grant funding. Ahl-



Windsor Locks - Jared Ramsdell/Journal Inquirer

C&O Canal Boats and Boating 1850–1889

by Dr. Karen Gray

History is the witness that testifies to the passing of time; it illumines reality, vitalizes memory, provides guidance in daily life, and brings us tidings of antiquity. **Marcus Tullius Cicero (106–43 BCE), *Pro Publio Sestio***

The following Accompanied by the Past *article is reprinted from the C&O Canal Association's* Along the Towpath *and is the result of Dr. Karen Gray's research along with analysis conducted by Karen Gray and Bill Holdsworth of canal boat records that were transcribed by William Bauman.*

The era when only parts of the canal had been opened to navigation (1832–1850) was a time when river boats—those built for navigation on the Upper Potomac River (i.e. above tidewater)—dominated canal traffic. With the opening of the canal to Cumberland in 1850, a new era began, dominated by the increasing numbers of large freight boats designed specifically for the canal but also capable of being towed by tugboats on the tidal waters of the Federal District rivers and the federal coal wharf farther down the Potomac at Indian Head (a location unserved by any railroad).

Details of this 1850–1889 era are being revealed as never before by the compilation of newspaper articles being developed by William Bauman in files for specific years. Two recent columns drawing heavily on Bauman's work have already focused on important aspects of these years, such as the use of steamboats in the 1870s. In this column I am selecting a variety of reports that help us understand the canal better than we did before and show the value of these additional resources—provided gratis by one of the Association's most dedicated and hard-working members.[1]

Mercerville in 1852

On March 20, 1852, a *Baltimore Sun* article with a Sharpsburg byline reveals the importance at the beginning of this era of Mercerville. That town was located 2 ½ miles from Sharpsburg, for which the primary canal wharf was one mile distant at Snyders Landing (Mile 76.65). Mercerville never grew into the village expected to develop at this site when it was named for Charles Fenton Mercer, the primary force behind the creation of the C&O Canal and the company's first president. Eventually the area became known as Tay-

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Windsor Locks (continued from previous page)

strom, as a private company, isn't eligible for most grants. "I look forward to making progress working with Ahlstrom," Mack said. "There is a need to get the process moving so this resource does not continue to deteriorate."

Ahlstrom officials could not be reached for comment this week.

Park planned for canal trail

On Tuesday, March 29, Windsor Locks Library will host Town Planner Jennifer Rodriguez, who will present plans for a new town park on the 3½-mile trail accessible from Canal Road in Suffield and off Route 140 in Windsor Locks.

The presentation, to begin at 7 p.m., will be part of the regular meeting of Friends of the Canal, and the public is welcome to attend.

Reprinted from Journal Inquirer, March 18, 2016

Windsor Locks - Jared Ramsdell/Journal Inquirer

lors Landing, with the name "Mercerville" found only in historic records and on old maps.

Located at Mile 81 on the canal, the Mercerville area included a boatyard owned by Otho Baker that is described as building "the largest, strongest and prettiest boats that float upon the waters of the canal." While boatyards were developing and building rapidly at Cumberland in the 1850s, Baker's yard was no slouch. Having just launched a boat at the time of the article, it was reported to have three more in the final stages of construction that were expected to be ready for sale within a month.

The article further states of Mercerville that Mr. Piper, who owns property there, has ...

> Some 15,000 barrels of flour in and around his capacious warehouses, 5,000 of which he shipped off in the short space of three days. He does a heavy business.

It is not obvious which mill is producing this flour, but it is very possible that Piper had a mill somewhere nearby or that he served to warehouse and ship flour for several mills in the region.

It is further said of the Sharpsburg area that:

> A number of our enterprising citizens are engaged in the coal transportation business, which must be lucrative, since a fleet of some twenty boats is owned by persons in the town and neighborhood.

Of course, this part of the canal had been open since 1835 (although the towpath along Big Slackwater would not be available until 1839). We know nothing of the design of Baker's boats, but likely they were built specifically for the canal and not for operation on the often-shallow and challenging waters of the upper Potomac and its tributaries. Boats built for the C&O specifically would have been, for efficiency's sake, of the maximum size that could pass through the smallest of its locks—that is, shorter than 90 feet in length, and narrower than 15 feet in width.

Early boatyards along the canal were reported at Williamsport and Hancock. However, there is no indication that either of them had the capability to build more than one boat at the same time, as had the Baker boatyard at Mercerville.

Of the 20 boats said to be owned by local people in 1852, it is unlikely that all were built after 1850, and those that were older were likely designed for operation in both the Upper Potomac and the canal, and therefore would have been very shallow and both more narrow, and shorter.

Canal Operations and Changes in 1871 and 1872

Some twenty years later, Bauman's 1872 Canal Trade file provides a picture of the canal as it enters its busiest and most financially successful period. A long article in the January 3 *Cumberland Alleganian* notes:

> In twenty-two years, extending from August, 1848, to May 30, 1870, the company had paid accrued debt and interest and dividends, $234,807.04, while in the past eighteen months the amount paid to the same creditors, was $441,333.33.

The previous year (1871) had seen the canal clear nearly $420,875 in profit and, compared with 1870, had handled almost double the general cargo carried on the canal while increasing the coal tonnage by 238,530 tons. This is especially impressive given that:

> From March 10th to December 1st there was a total of fifty-two days suspension of navigation, embracing eighteen days by breaks and leaks, thirteen days by strikes, fifteen days by raising sunken boats, and six days by repairing lock gates.

It should be noted that the damage to lock gates, when done by a boat being improperly locked through, merited a substantial fine. In 1871, over $315 was collected in fines, according to a February 9 report in the *Cumberland Alleganian*, and these monies were given to the Boatman's Benevolent Association by the Canal Company.

The picture we get from the newspaper articles at this time is of a busy canal that is nevertheless subject to certain kinds of disruptions. In addition to those in the quote above, mention is made of the effect on shipping caused by a drought as well as "a scarcity of sailing vessels" at Georgetown that resulted in the coal wharves being "stocked to capacity" with no space for additional shipments. Interestingly, it was expected that this type of disruption will be alleviated by anticipated connections with the Western Maryland

Railroad at Williamsport and the Cumberland Valley Railroad at Powells Bend wharf at mile 97.44.

The experience of the canal at this time begs comparison with the state of the railroads and their operating experiences ca. 1870–72. They also experienced disruptions from strikes, damage to infrastructure, weather, accidents, etc. When the data can be found, it is surprising how often the railroad experience and that of the canal in the nineteenth century are parallel. This is not to deny the superiority that railroads developed in terms of speed and efficiency as they underwent continual improvement (especially in the last quarter of the 19th century). Among the differences are that: the railroads commercially operated the equipment using them, whereas the canals collected tolls on boats owned and operated by others; the railroads were increasingly efficient due to changes in their technology and industry, while the C&O Canal was ultimately frozen into its form at completion; and the canal ceased to operate for three to four months in the winter, while the railroads operated year-round—although subject to the vicissitudes of winter weather.

The diversity of cargo shipped on the canal in both directions is shown from the following report for 1871 appearing on January 17 in the *Alexandria Gazette and Virginia Advertiser*:[2]

> During the year 1871, there were 2,276 arrivals of boats at the port of Alexandria, bringing 280 bushels oats, 3 tons furniture, 32 perches wrought stone, 6 tons sundries, 408,500 hoop-poles, 2,696 perches rough stone, 2,562 barrels (bbls.) cement, 1,460 railroad ties, 227,947 tons coal, 1,840 perches limestone, 254 tons sand, and 32 cords wood.
>
> During the same time there were 2,257 departures of boats, carrying 8 bbls. cider, 1,052 bbls. fish, 2,800 bushels oats, 2 hogsheads bacon, 1 ton furniture, 3 tons general merchandise, 300 melons, 2,700 sacks salt, 18,000 feet lumber, 7,523,375 bricks, 330 tons plaster, 7 tons sash and doors, 20 tons sand.

The total tonnage of this general cargo is 233,982 descending and 15,871 ascending. That reflects the imbalance between downstream and upstream cargo that was readily understandable in the days of river transportation but that continued to be significant in the use of the canal.

The rapidity with which boats were being built is indicated by this quote from the *Cumberland News* that appeared on February 27, 1872 in the *Alexandria Gazette and Virginia Advertiser*:

> Considerable activity prevails at the various boatyards in Cumberland, Md. From each a number of fine new boats have been launched during the winter, and more are on the stocks being rapidly hurried to completion. The addition of new boats to the coal trade the coming season will be upwards of fifty from the Cumberland yards alone, besides a large number built at various points along the line of canal.

One greatly wishes that details of the other boat builders had been given. It is one of those areas where the dearth of information severely limits our ability to fully understand the practice of this craft and full extent of this industry in these years.

The critical dates of important events are often established by newspaper reports, and such is the case in a *National Register* article on April 13, 1872 that Bauman included in his 1872 Canal Trade file. It contained the full text of a letter from C&O Canal Co. president James C. Clarke to the Governor of the District of Columbia, H.F. Cooke, in which Clarke makes the case for the company's selling of the 1.3 mile branch canal from the Rock Creek basin to the Washington City Canal at 17th Street. As Clarke notes:

> In prosecuting the great and comprehensive improvements now being done in Washington, in order to make the seat of the national capital worthy of the nation, the time must soon arrive when all that portion of the city south and east of the President's house will be improved to the river front.

This is, of course, a clear recognition that it was time to abandon the old idea of Washington City as one of three eastern termini of the C&O Canal. That concept had been part of a September 1828 compromise intended to resolve the competition between the three Federal District cities (Georgetown, Washington, and Alexandria) for the canal's eastern end.

The compromise envisioned the Rock Creek basin as Georgetown's terminus, a C&O Canal Company branch from the Rock Creek basin to the Washington City Canal, giving Washington a terminus; and C&O support for Alexandria in its bid to get substantial federal assistance to build an independent canal between the C&O and Alexandria, satisfying that city's interests. The C&O Canal Company also agreed to build, for an Alexandria canal, the abutment and connection to the C&O on the District side of the Potomac River.

The Canal in 1888

On January 7, 1888 *The Cumberland Daily Times* included an article about the Government's desire to acquire that Georgetown abutment for the now-defunct Alexandria Canal and the C&O Canal Company's willingness to transfer ownership to the government. The article notes that the abutment had been built between 1836 and 1846 (the year the Alexandria canal opened) for a cost of $40,060 and it was currently valued at $40,000 with the land it occupied being worth $5,000.

At the same time, on February 9, the *Daily Times* provided news on the effort by the holders of the 1844 construction bonds to get a bill through the state legislature that would result in the sale of the canal under the mortgages held by Maryland. This is especially interesting given the importance of these bonds in the final decisions concerning the canal after the company's bankruptcy in late 1889.[3]

On May 6, *The Civilian*, Cumberland's Sunday paper, reported that a rock slide below the tunnel had been cleaned up the previous Monday when a second, more extensive slide occurred at the same place and was expected to take a week to be removed. A review of newspaper reports over the years reveals that the slide problem below the tunnel was a periodic one—which is perhaps a comforting historical context for the C&O Canal National Historical Park's experience of the same.

Among the most valuable benefits that we get from the Bauman transcriptions is a source for realistic, fact-based data on the canal's capabilities and limitations, successes and failures. These are a substantive corrective to the distortions and inaccuracies in sweeping statements about the canal, such as the oft-heard-or-read statement that it was obsolete by the time it reached Cumberland because the B&O had reached the city eight years earlier (which reflects a deep misunderstanding of the primitive state of railroads at that time and of the customers that the canal would serve throughout its history while the railroads did not).

In this year, 1888, the papers carried lists day after day of coal boats departing and arriving, and of a city concerned for the negative economic impact on it should the canal close. A February 13 interview with an unnamed canal official or employee ,who was familiar with the canal's financial records, sought to explain the ways that the canal contributed to Cumberland's economic life. After reviewing the money it brought to the town's economy, the speaker concluded: "Cumberland can't afford to lose the canal."

Within a little more than 15 months, the city would face the possibility of the canal's permanent closure in the aftermath of the "Great Flood" of June, 1889, concerning which I will write in future columns.

Notes:

1. The information below draws on William Bauman's Canal Trade files of 1852, 1872, and 1888. Many of these Canal Trade files can be found as pdf documents on the C&O Canal Association website or are available on request from Karen Gray, volunteer in the C&O Canal NHP headquarters library most Tuesdays and Thursdays at 301-714-2220 or by email at karen_gray@partner.nps.gov.

2. In the quoted material below, the specific values for barrels and hogsheads vary, but a common value for a barrel was around 40+ gallons and that of a hogshead was about 60+ gallons. Hoop poles were straight slender lengths of green sapling wood, usually of hickory or white oak, that were used as stock for barrel hoops.

3. Although it will be seen in later columns that I intend to write on the rulings of the courts ruling on the C&O bankruptcy that Maryland's claims to those mortgages are legally questioned by 1889.

A Sandy and Beaver Hike from Long Ago

By Terry Woods

Long-time readers of this column may remember one describing several of my contacts with William Voudrey Jr. of East Liverpool. I met Bill one afternoon back in June of 1971 at his "away place" in Fredericktown, Ohio. That morning I had been at the Ceramics Museum in East Liverpool interviewing the museum's Curator, H.B. Barth. The ceramics display at the museum was beautiful and impressive, but the real reason I was there was to look at Mr. Barth's private collection of documentation concerning the Sandy & Beaver Canal. Mr. Barth had developed a life-long interest in the Sandy & Beaver. I made extensive notes from his memories of the canal during the 20s, 30s, and 40s in Columbiana County.

I don't remember how Mr. Barth and I first became acquainted. He may even have contacted me. I had a little (with emphasis on little) bit of a reputation because of my CANAL COMMENTS column. He wanted publicity for his museum and may have thought a mention in my column would be helpful. The fact remains that, when I showed up, he had a reporter from the East Liverpool paper there to record how I had come a long way to interview H.B. Barth and see his museum. As luck would have it, the reporter, Jon Baker, and I were previously acquainted. Jon had worked for the New Philadelphia Times-Reporter a few years before and had asked me to point out the then existing Ohio Canal locks in Tuscarawas County for a Sunday Supplement article. Jon was a history nut and provided me with a great deal of canal history information from his old county. A few years after 1971, Jon went back to the New Philadelphia's Times-Reporter and years later provided a great deal of information for my paper on the Ohio Canal and Zoar.

During the course of our mutual interview, Mr. Barth mentioned that he was one of a party that had hiked the entire length of the Sandy & Beaver Canal years before with Clark Firestone and a couple of other companions. He also mentioned that a goodly number of photos had been taken during that hike and he called in another gentleman about his own age to verify details of the hike. This man was the photographer. Unfortunately, at that time the photographs were unavailable and I don't remember that gentleman's name.

Since I had originally been born in Canton, I asked Mr. Barth if they had ventured up the route of the Nimishillen and Sandy. He enthusiastically told me tales of taking a side hike up the N & S. It wasn't as well constructed as the Sandy & Beaver, he said, and he described several of the locks he had seen on that canal as "more like piles of dirt with planked interiors."

During my visit with Harold Barth I also obtained copies of several contracts for work done on the canal that helped with my research over the years. And I used his information a great deal when I hiked over and wrote a guide to the western division of the Sandy & Beaver Canal in the mid-1990s.

Some years after 1971, from somewhere, I located a copy of an article from a September 25, 1925 copy of the *Cincinnati Inquirer* written by Clark Firestone concerning a hike he and three companions, had taken "not last year, or the year before" along "*An Abandoned Canal in North East Ohio*."

Well, now! I may have doubted Mr. Barth's fanciful recounting of his jaunt up the Nimishillen, and Mr. Firestone's article never mentioned that side hike, but, obviously, the Sandy & Beaver hike had taken place.

Then, during a recent stint of "Grandkid sitting," I was "thumbing" through some internet sites and discovered one containing 73 photographs taken during a hike along the Sandy & Beaver Canal by Clark Firestone, Robert Brooks, Harold Barth, and Dale Thomson. The photos had been donated to the Sandy & Beaver Canal Association by one of the society's founders, the late Jack Lanam of East Liverpool.

The photos are just a bit of a disappointment. Apparently the photographer was more interested in snapping the hike participants and the architecture of the towns they passed through than the remains of a

long abandoned and rapidly disappearing canal. BUT, we do have 73 more photos of the Sandy & Beaver than I thought we did.

And now maybe comes the fun part. Few of the 73 photos carried any identification. I looked at the photos on the internet and have come up with some guesses. Seven of the photos are identified on the internet as "Lusk's Lock." This lock is, perhaps, the best preserved structure on the eastern division. Its state is because the family whose property it was near "took care of it" over the years and it is now in Beaver Creek State Park and has protectors. This lock is unique in design in that it has twin stone steps leading from the top of the lock down the lower end on each side. Four of the seven photos either show these steps or other distinguishing features. Three other "Lusk Lock" photos may be of other well preserved lock structures in Beaver Creek State Park.

Photo No. 3 had the marking on the back "Lodi Basin." Now Lodi was a town on the opposite (left bank) of the Big Sandy from Troy, or Malvern. It was a canal town before the project was shut down in 1837 and again after 1840. When the project was resurrected in 1845, the canal was rerouted through Oneida and Malvern. There was a basin between Locks 19 and 20 east of Malvern. I believe this photo may have been of that basin.

Photo No. 5 may be of the western abutment to the Big Tunnel. Photo No. 22 is identified on the internet as Bolivar. The hikers ended their jaunt in Zoar. The berm bank looks more like the Zoar area than Bolivar to me.

Photo No. 42 may be of the crossing of the canal embankments by the fore-runner of Route 30, high above Cold Run, west of Lisbon. Photo No 45 may be of Furnace Run road near a quarry above "Camp McKinley."

Photo No. 46 could be of the Culm Pile – rock fragments – pulled up out of the Big Tunnel Exaction from the digging shafts. I've seen the remains of these three piles, one greatly reduced, during a 1989 hike over Big Tunnel Hill.

Photo No. 48 has been identified as the dry, present Guilford Lake. Photo 49 has been identified as the "McKinley Homestead" at the foot of Furnace Hollow.

Photo No. 50 is an intriguing one. It shows a nearly perfect set of lock miter gates. An obvious conclusion is that it is of the guard lock to the canal section west of Waynesburg that supplied water to Elson's Mill in Magnolia. Keeping in mind the probable date of the hike, it could also be of lLck 19 that supplied water to the Malvern Mill until the mid-1940s.

Photo No. 51 jibes with Firestone's account of coming across a parade in Magnolia. Photo 58 might be the Zoar Gardens at the end of the hike. Photo No. 73 seems to be correctly identified as Hanoverton.

There is still some minor confusion about the year the hike was made. Mr. Barth told me in 1971 that the hike was in 1901, the internet dates the hike as September 28, 1914, and Clark Firestone's article states the hike took place over six days in the month of October, but doesn't give the year.

The hikers ended up traveling along the towpath of the Ohio Canal from Bolivar to Zoar. One photo shows a number of boats with sun-shade awnings and at least two teams on the towpath. It is doubtful if there were many operating boats and teams on the Ohio Canal as late as the fall of 1914. Mr. Barth died in 1974 at the age of 89, so that would have made him 16 or so in 1901. He and Dale Thomson look young in the photos, but maybe not 16 young. Still, Firestone's article describes two of his party as "little more than lads" who "ran along the towpath leaping and hurrahing" after they were in Tuscarawas County and away from people who knew Clark Firestone.

On the other hand, photo No. 61 shows an open automobile adjacent to a lock's left side and obviously newer than an '01 model.

Now – how about the rest of you 'archaeologists' looking at these photos and coming up with answers of your own. The photos are part of the Sandy & Beaver Canal Association's Facebook site. They are also, somehow, related to the East Liverpool Historical Society's site. I happened to stumble across the photos by typing "JACK LANAM AND THE SANDY & BEAVER CANAL," as I knew Jack had acquired the photos many years before his death. I hoped they had been preserved, and they have been.

Good hunting and HEADWAY to you...

Five Mile Lock on the Ohio Canal

By Terry Woods

Long time readers of the "new" CANAL COMMENTS will remember that one of the previous subjects of the column was the Four Mile Lock south of Cleveland. In it we mentioned, that as late as 1824, the Ohio Canal's terminus was slated for Newburgh, some six miles up the Cuyahoga River from Cleveland. A vote of the Canal Commissioners at Wooster early in 1825 led to the canal being extended down the right bank of the river to the village of Cleveland where its lake port facilities were being improved by the Federal Government. Contracts for extending the canal down the right bank of the river from the "Lower Rapids" was initially let on February 9, 1826. That new stretch of canal was divided into Sections 110 through 116. Stone locks were to be constructed in Sections 110 and 111. A wooden outlet lock into the river was planned for Section 116.[1]

Persons Rathburn obtained the contract for the lock in Section 110, Five Mile Lock (No. 41), and the firm of Johnson, Finn, and Johnson received the contract for the Four Mile lock (No. 42) in Section 111.[2] Later, on the 27th of February, 1827, contracts were let for additional two sections of canal, 117 and 118. These sections bracketed what became known as Murwin's Basin and contained two stone Sloop Locks, Numbers 43 and 44.[3] Apparently these two stone Sloop Locks replaced the wooden Outlet Lock into the river originally planned for section 116.

The northern section of the Ohio Canal, from Akron to just above Lock No. 43, was opened for commercial traffic on July 4, 1827, and aside from some water shortage problems in the early fall of that year, navigation went well. However, the canal suffered severe flood damage that winter (1827–1828). $10,000 was authorized for repair of that damage to the canal channel and structures, and to add protection against future flooding. One aspect of this protection was the driving of 30 protective pilings each at the sites of 20 of the locks, Numbers 17 through 42.[4]

During canal days, the area around Five Mile Lock was a particular scenic one. The forerunner of Harvard Avenue crossed the lower end of the lock upon a high, narrow bridge. A favorite "watering hole," "Tiebolts," or the "Dutchman's" was located here along the towpath. There was also a widewater, or basin, just below the lock. Just north of the lock was the location of the Austin Powder Works. The Austin brothers, who had produced black powder in Akron since 1833, acquired the property of the Cleveland Powder Company here in 1867 and proceeded to build a large explosive manufacturing facility. Boatmen in the latter days of canal operation would literally "hold their breath" until they were safely past this area.

The "Powder Works" experienced a series of explosions, often fatal, over the years. Several were boisterous enough to break plate-glass windows in Cleveland, more than five miles away. Finally, in 1907, the operation was leveled by an explosion and never rebuilt. A new plant was constructed in the Solon/ Twinsburg area known as Glen Willow, but shifting population eastward from Cleveland forced the operation to be moved to rural McArthur in southern Ohio in the 1930s.[5]

An undated listing of the northern division's locks and lifts by Henry Howe states that "the Four Mile Lock at Cleveland (No. 42) was removed and the life "transferred to Cleveland." The Board of Public Works Report for the year 1837 lists an expenditure of $26,312.62 – "for raising Four Mile Level." There was also an expenditure in 1840 of $1,182.16 for that same project.

An item in the Board of Public Works Report for the year 1879 states,:

> "Boats were permitted to draw three feet six inches of water during the entire season. Were it not for the condition of Five Mile Lock some parts of the season, a good boat could go into Cleveland with safety and ease, drawing much

more than three feet six inches. The mitre sill of this lock is now situated that, in order to draw more than three feet six inches, it is necessary to swell the boat out of the lock."

The Public Works Report for 1906 stated that the Five Mile Lock was cut down to a four foot lift (confirmed by Howe's undated report) when Lock No. 42 was removed.[6] We speculated in the previous column that the canal was raised by removing the Four Mile Lock and reducing the lift in Five Mile Lock probably, to minimize flooding in the canal in the canal immediately above Cleveland. The low lift of Five Mile Lock became a problem, however, when one of the goals of the early 1900s attempted refurbishing of the northern division of the Ohio Canal was to dredge that portion of the canal to a minimum depth of five feet.

The Board of Public Works Report for the year 1907 states:

"It will be necessary to take out all of Lock 41 and lower the bed timbers about fourteen inches. This entails an expenditure not contemplated at first as the lock is apparently in nice condition, and only needed slight repairs, but it was found impractical to get a depth of five feet on the mitre sill except by sinking the lock"

We don't have many first-hand accounts of "boating," but thanks to Pearl R. Nye, we do have the following account of running through Five Mile Lock around 1888:

"Now that we are actually in the canal again, we pass first through the Dog Pond. Great piles of cord-wood line the Heel Path bank along here. Next we pass the paper mill in Newburgh, then the Powder Mill and Stink Works (Fertilizer Plant).

"The canal north of the Valley Mills usually runs red with waste water from the Newburgh steel mills. It makes the hulls of the canal boats iron color (red) wherever it touches them. Many north-end boatmen have had their boats painted iron red so it won't be so noticeable. You can usually tell a north-end boat by their red hulls. Southern division boats are usually nice and clean – white hulls with cabins trimmed in green or black

"Five Mile Lock is coming up next and Tiebolt's – (The Dutchman's) Saloon. The house here at Brown's Basin is empty. I never saw that before as it is such a pretty place. But many changes are taking place along the canal these days. I remember one time we were coming out of Cleveland with match lumber on and a boat was sunk here in Brown's Basin. The Captain refused our help in raising her, said the State Robber (State Maintenance boat and crew) were expected any minute. Well, that was the beginning of his end, for he contracted pneumonia and he died in Cleveland. I was told this by a boatman who knew all about it."

The remnants of Five Mile Lock now lay buried beneath the Harvard Avenue Bridge, and little is left of the canal, itself, in the general area. Modern Harvard Avenue is heavily used by commercial traffic and the chances of excavating the site for archaeological purposes seem slim.

Notes:

1. *Annals Of Cleveland*, *The Cleveland Herald*, January 26, 1826.

2. *Annals Of Cleveland*, *The Cleveland Herald*, February 10, 1826.

3. *Annals Of Cleveland*, *The Cleveland Herald*, February 12, 1828.

4. *Annals Of Cleveland*, *The Cleveland Herald*, April 25, 1828.

5. *The Ohio & Erie Canal In Cuyahoga County*, a tour booklet published for the Canal Society of Ohio's October 1999 tour of the area.

6. The *Rebuild of the Ohio Canal*, Frank Trevorrow, *Towpaths*, Issue No. 1, 1990. In this reference, Engineer Paul calls Lock No. 42, Three Mile lock.

CANALENDER

May 13–15, Spring Tour: The Legacy of the WPA in Stark County, Ohio. Tours and activities featuring many interesting, historically significant O&E Canal artifacts. Jointly sponsored by Canal Society of Ohio and the Pennsylvania Canal Society. For further info contact Dan Schuster, Tour Chair at 440-237-9005 or danschusterCSO@aol.com

June 11, Morris Aqueduct Industrial Heritage Walk: Sponsored by the Morris County Park Commission For information email macgraphicsl@verizon.net or call 973-292-2755

July 10 – 17, 2016 Parks & Trails New York's Cycle the Erie Canal. 18th Annual Bike Tour Buffalo to Albany. www.ptny.org/cycle-the-erie-canal/annual-bike-tour

July 10, Ledgewood's Inclined Planes 2 & 3 East Industrial Heritage Walk: Sponsored by the Morris County Park Commission For information email macgraphicsl@verizon.net or call 973-292-2755

September 18-21, World Canals Conference 2016, Inverness, Scotland: Celebrating Scotland's five canals, hosted by Scottish Canals on the Caledonian Canal. inlandwaterwaysinternational.org/world-canals-conference/

October 5-10, C&O Canal Through Bike Ride: Explore the full 184.5-mile C&O Canal towpath from Cumberland to Georgetown on an intentionally leisurely-paced ride, averaging about 31 miles a day. No sag wagon provided. Reservations required, no later than September 1. Limited to 20 riders. Contact: Pat Hopson, 703-379-1795 or phopson727@verizon.net.

October 6-8, New York State Canal Conference: "Port Byron, Montezuma, Jordan, and beyond" Hosted by the Canal Society of New York State. Geneva, NY, Host Hotel: Holiday Inn, Auburn www.newyorkcanals.org/explore_canalconf.htm

October 7-9, Allegheny Portage Railroad National Historic Site, Gallitzin, Pennsylvania. Jointly sponsored by the Pennsylvania Canal Society and the Canal Society of Ohio. Further info at pacanalsociety.org or contact Dave Wright at dwright@alleghenycounty.us

March 4-9, 2017 Panama Canal Trip: RoadScholar trip number 990RJ "Grit & Glory: Exposing the Panama Canal." Sign up via RoadScholar 877-426-8056. Notify Bob Schmidt at indcanal@aol.com after signing up.

September 24–28, 2017: World Canals Conference 2017, Syracuse, New York. September 25-28, celebrating the bicentennial of groundbreaking for the Erie Canal and the centennial of its still operating successor – the New York State Barge Canal System. Co-hosted by the New York State Canal Corporation, Erie Canalway National Heritage Corridor, and Visit Syracuse. inlandwaterwaysinternational.org/world-canals-conference/