

AmericanCanals

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Dedicated to Historic Canal Research, Preservation, and Parks

Winter 2010

From the President

by David G. Barber

My interesting canal visits have continued into the fall. In early October, I attended the Pennsylvania Canal Society's fall tour along the north part of the Delaware Canal. The highlight of the tour was viewing all of the repairs done in the past year or so after three disastrous floods. While the repairs won't be complete until this coming fall, much was complete and the results were impressive. It was also interesting to hear the park manager say that he can now start thinking about further improvements beyond the situation that existed before the floods. In recent years, flood repairs have been the only consideration. Of course, the near future is adversely affected by the current tight fiscal reality facing all levels of government.

The weekend following, many of the ACS Directors and I attended the Canal Society of Indiana's tour of the central Miami and Erie Canal between Piqua and Spencerville, Ohio. Before the tour, I was able to get a short ride on the replica canal boat *General Harrison of Piqua* as well as see Lock 8 south from the boat and Locks 1 through 5 south at Lockington. The removal of vegetation and improvement in landscape maintenance as compared to my prior visit in 1997 was very obvious. It was also gratifying to hear that Lock 1 south will be rebuilt in 2010 to be followed by Lock 5 south. Both of these locks have been in danger of collapsing for many years.

On the tour itself, we saw Lock 1



"Houseboating on the Rideau Canal," by Jakob Franke, begins on page six. The

north in New Bremen, which has recently been rebuilt by the village and the framing for the replica lock house which will replace the original that was burned down in the 1960s as a fire department training exercise. We also visited Lock 13 north in St. Marys, Lock 14 north outside of town, and Six Mile Creek Aqueduct. The later two structures have recently been rehabilitated as water control structures. Lock 13 north had been under a manufacturing building that has now been removed. Rebuilding of the lock was nearly complete. It was also encouraging to hear talk that Lock 12 north, which is covered by part of a parking lot, might now be dug out. If Lock 12 and

(continued on page twenty)

INSIDE

Terry Woods, p. 3

Lance Metz; Bob Keintz, p. 4

Cleveland, p. 5-8

Houseboating on the Rideau, p. 8-10

C&O Canal Quarters, p. 10

Exploring the Upper Fox-Wisconsin Waterway, p. 11-13

Fifteen Miles on the Erie Canal, p. 14-15

Freeport's Canal History, p. 16-17

Restoring a Morris Canal Lock, p. 18-20

Canal in Italy to be Restored, p. 21

Floating Towpath Dedicated, p. 21-22

Book Reviews, p. 23-24

Canalendar, p. 24

American Canals

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The objectives of the American Canal
Society are to encourage the preserva-
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of the historical navigational canals of
the Americas; to save threatened canals;
and to provide an exchange of canal
information. Manuscripts and other
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objectives are welcome.

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CANAL BUFFS HALL OF FAME: TERRY WOODS

The Canal Buffs Hall of Fame was established by the American Canal Society in 2000 to “honor people who have been instrumental in the past in fostering this canal hobby of ours.” Any member can nominate someone by authoring the necessary biography. Nominations should be made to the president and editor. Approved nominations will be published in *American Canals* and on the website. Larry Turner has nominated Terry Woods.

Terry has been a canal buddy of mine for over thirty years and is an expert on the canals of northeastern Ohio and more. A graduate of Ohio State University with a degree in Mechanical Engineering, he received a master’s degree from the University of Akron in 1972.

He is a great family man, the father of five children and husband to Rosanne since 1966. Terry often babysits his many grandchildren and took care of his ailing parents for many years. Terry is a good guy and still takes time to share his love of canals with anyone who asks for help.

After graduating from Ohio State, Terry received an army commission and went on active duty in 1962. He served at Fort Bragg, North Carolina; Aberdeen Proving Grounds, Maryland; and Fort Knox, Kentucky. He was also company commander of the 574th Field Maintenance Company in Landes de Bussac, France. He then worked as an engineer for E.W. Bliss in Canton, OH, and the Timkin Company, also in Canton. He finally spent the rest of his working career with Goodyear Tire and Rubber Company of Akron, Ohio with thirty years of service.

Terry’s love affair with canals in Ohio started before 1966 and centered around A.L. Simpson’s Canton newspaper articles and the historic reconstruction of the *St. Helena II* in Canal Fulton, OH, a world-famous canal boat replica and tourist attraction. Terry started writing “Canal Comments” in 1969 for six different newspapers covering Ohio’s three canal boat replica rides: Canal Fulton (*St. Helena II*), Roscoe Village (*Monticello II*), and Piqua (*General Harrison*). At that time, he wrote over 150 articles on canal history and had papers published by the Canal History and Technology Symposium at Lafayette College in Easton, PA, in 1982, 1988, 1994, and 2004.

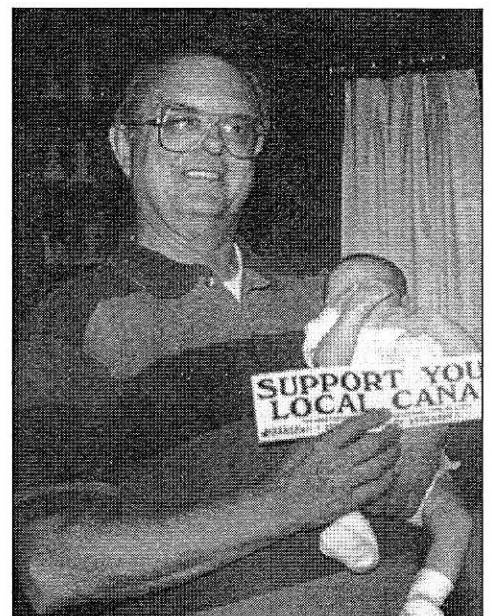
Terry taught canal history at the University of Akron and Kent State University. He testified before Congressman John Sieberling in his efforts to establish the Cuyahoga Valley National Recreation Area between Cleveland and Akron. He also worked on the canal boat building project within the Boston (Ohio) General Store, an 1840s canal-era building restoration within the NRA. Terry also worked with the University of Akron’s Archival Department in setting up our canal history collection.

Terry was editor of *Towpaths*, the quarterly publication of the Canal Society of Ohio for four years, society historian for seven years, and president for two separate terms. He was chairman of the American Canal Society’s Engineering Design Committee from 1992 to 1997 and ACS president from 1997 to 2002. He is currently chairman or a member of several ACS committees.

Terry appeared as a canal history expert on New Philadelphia’s Clear Channel 19 in May of 1982 and on Dayton’s Think TV 16 on October 1, 2005. This latter program was rebroadcast on public TV throughout northeastern Ohio. He recently starred on Western Reserve PBS on July 13, 2009 on the subject of “Stark County: A history of Stark County,” which partly was on canals.

Terry has written books and been on video documentaries. His first book, *Twenty-Five Miles to Nowhere*, the story of the Walholding Canal, was published by the Roscoe Village Foundation in 1978. A greatly expanded version was released in 1991. *The Ohio & Erie Canal, A Glossary of Terms* was published by the Kent University Press in 1995. *The Ohio & Erie Canal in Stark County* was published by the Massillon Museum in 2003. *Ohio’s Grand Canal, A Brief History of the Ohio & Erie Canal* was published by the Kent State University Press in 2008.

Terry has been a life-long student of the canals of the world.



PENNSYLVANIA FEDERATION OF MUSEUMS AND HISTORICAL ORGANIZATIONS CONFERS PROFESSIONAL AWARD TO LANCE METZ, NATIONAL CANAL MUSEUM

The Pennsylvania Federation of Museums and Historical Organizations has presented its Professional Award to Lance Earl Metz, historian of Hugh Moore Historical Park and Museums. The award recognizes Mr. Metz's strength of commitment and the institutional and community impact of his many activities.

Over the past thirty years, Lance Metz has contributed more than any other person to the preservation and interpretation of canal history and its significance to the history of the Lehigh industrial river corridor. He has been the go-to historian for local media, the anchor for documentary storytelling, and a fount of all things historical in the greater Lehigh Valley.

As historian for Hugh Moore Historical Park and Museums in Easton, Lance has shared his passion for industrial history with millions of visitors. His work extends beyond developing programs, exhibitions, and collections for the National Canal Museum, however; Lance has also written, researched, consulted, and lectured extensively.

At his core, Lance is a teacher with a savant's attention to detail. After graduating *magna cum laude* with a B.A. in history from Moravian College in Bethlehem, he taught social studies in Susquehanna and has lectured on local history at both Lafayette College in Easton and Moravian College. He instituted a series of public lectures, films, and symposia in 1979, which continues to this day. He expanded his education by earning an M.A. in history from the University of Maine at Orono, and completing the museum studies program at Lehigh University in Bethlehem.

A quote from Easton Mayor Sal Panto, Jr., sums up Lance's career with the National Canal Museum: "What started out in Lance's garage as a small library has become an internationally-recognized museum, a unique and invaluable asset to our region's quality of life, its economic development, and our future. He has become a *de facto* favorite son and historian-in-residence."

Lance Metz was honored by the National Canal Museum with a reception at the Grand Eastonian Suites Hotel on December 10, 2009.

IN MEMORIAM: ROBERT KEINTZ

Glenn Wenrich, president of the Pennsylvania Canal Society, sends this memorial on the passing of former PCS President Robert (Bob) Keintz, and his impact on those whose life he touched.

This message is directed primarily to those who did not know him, because those who did know him are already aware of many of the fine qualities this man possessed. I first met Bob in 1975 at (where else but) a Union Canal location in Lebanon County, where a group of unaffiliated canal buffs were exploring the site of a sunken (and buried) canal boat. I was not a member of PCS at that time, and I can only assume that Bob was. I was impressed with Bob's expertise and demeanor, and I thought "this is a really knowledgeable and likable guy."

I didn't see Bob again for several years, until I joined PCS, where he was serving as secretary from 1983-88. He welcomed me aboard, and we renewed our mutual experience back at the Waterworks. We became good friends then, and eventually I was elected to the PCS Board of Directors. Bob was president of PCS from 1988-1990, and vice-president after that until 2003, when he was again elected president. I had the pleasure of working with Bob over the years, and remember his dedication, passion and honesty in everything he did. He was a true gentleman in every respect. Whether it was hiking, biking, caving or canalling, he gave it his best shot. Even when his health became a handicap to his physical endurance his mental enthusiasm never wavered. Bob and I were planning to co-host the PCS Spring Trip to the middle Main Line in 2010, although I doubted he could really do the trip. When he passed away on November 17th I didn't want to do the tour without him, and it was for that reason the venue was postponed to a later date.

As recently as September and early October he was still hoping to do a mini-trip back to the Union Waterworks. I communicated with Bob frequently by e-mail and telephone and will never forget his cheery salutation of "Hello, Mister Glenn." After he had essentially lost his voice, Ryn functioned as a facilitator on the phone calls. I was surprised when he answered the phone himself when I called in early October. Again he managed a weak, "Hello, Mister Glenn." Realizing his vocal difficulty, I wanted to keep the call brief, but he wanted to talk. I don't even remember what we talked about, except his last words, "Goodbye, Mister Glenn."

GOODBYE, MISTER BOB, WE WILL MISS YOU!



New York Governor DeWitt Clinton

CLEVELAND: HISTORY OF A CANAL CITY

By Larry Turner and Boone
Triplett

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Part II

Mistake by the Lake? Hardly. Anyone with knowledge of canal story knows that Cleveland was carefully selected as the northern terminus of the Ohio Canal. By the end of the Century, the small wilderness village at the mouth of the Cuyahoga River had expanded into the nation's seventh largest city, an international commercial center with a population

There was a post-war boom of sorts in Cleveland. A village charter was granted to Cleveland (the name was spelled "Cleveland" without the first "a" on the application) by the Legislature on December 23, 1814. Alfred Kelley had recently been elected to that body and was primarily responsible for obtaining the incorporation. Not surprisingly, Kelley was chosen first president of the village when elections were held

June 1815. (Lorenzo Carter died in 1814 and his unofficial leadership position within the

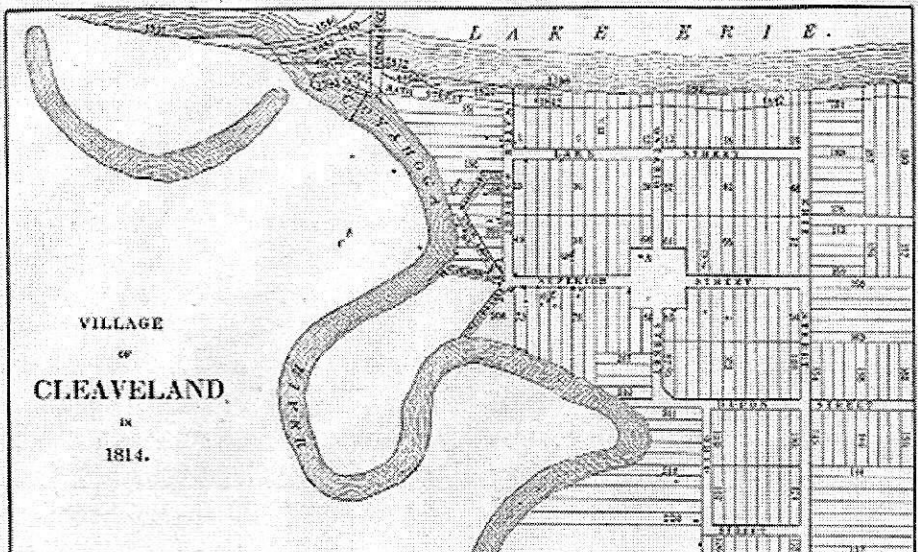
community had passed along to Kelley.) Cleveland at the time contained a grand total of 34 buildings, both public and private. Only one of these was brick, a store run by Kelley's brothers, Irad and Joseph. New streets were also laid out in 1815. Primary among these was Euclid Avenue, radiating almost due east from Public Square along the old Buffalo Road to the south of Superior Street. Others were Bank (West 6th Street), Bond (East 6th Street), St. Clair, Seneca (West 3rd Street), and Wood (East 3rd Street). The year 1815 also saw the arrival of Noble H. Merwin, who constructed a large log warehouse near what would eventually become the canal terminus.

More firsts were to follow. The Commercial Bank of Lake Erie was incorporated in 1816. A branch of the Second Bank of the United States, Alfred Kelley was named President. Kelly also brought the first carriage into Cleveland (along with his newlywed wife) from New York in 1817. Also in 1817, the first schoolhouse in Cleveland was built near the intersection of St.

Clair and Bank. Churches were also beginning to organize in the village. A seminal event occurred on August 25, 1818, when the steamboat *Walk-in-the-Water* arrived on her maiden voyage from Black Rock (now Buffalo, NY) to Detroit. The approximately 300-ton side-wheeler was piloted by Captain Joseph Fish and charged passengers a \$10 fare for transport to Black Rock. *Walk-in-the-Water*, the first steamboat to operate on the Great Lakes, was wrecked in November 1821. The first newspaper, *The Cleveland Gazette and Commercial Register*, also appeared in 1818. Sensationalistic headlines such as "The Sea Serpent Again!" notwithstanding, there was some substantial news reported in the *Register*. One article discussed construction of the Erie Canal in New York then under the direction of Governor DeWitt Clinton.

George Washington's vision became DeWitt Clinton's reality. Washington's Patowmack Company would only manage to circumnavigate the Great Falls of the Potomac three years after the general's death in 1799. Even by the early 1850s, both of Washington's canals (the Chesapeake &

1814 Village map of Cleveland. Cleveland State University Library



Ohio along the Maryland bank of the Potomac and the James River & Kanawha) stretched westward nearly 200 miles, each in a desperate grope to reach to Ohio River. Both were hundreds of miles short of that goal as the geography of the southern Appalachians was just too formidable. The situation in Pennsylvania was nearly as challenging. That state would have to resort to portage railroads to get over the mountains and by the time the Pennsylvania Main-line Navigation System was completed from Philadelphia to Pittsburgh in 1834, the Erie Canal had enjoyed a nearly decade-long monopoly on all the Western trade. DeWitt Clinton and New York were able to take advantage of an east-west gap in the mountains through the Mohawk Valley to complete the vital all-water link between the Atlantic Ocean and the Great Lakes.

DeWitt Clinton was a lifelong politician, state legislator, United States Senator, lieutenant governor, and multiple-term mayor of New York. In 1812, Clinton ran for President of the United States on an anti-war platform against James Madison. Clinton was supported by the dying Federalist Party, which stood for a strong and centralized national government and Federal money for internal improvements. The electoral tally was close, 128-89, but Clinton lost the election to Madison. Three years of war put all discussions about internal improvements on hold, but after "Mr. Madison's War" was over, the attention of the United States Congress returned to the internal improvements question. The Bonus Bill of 1817 was drafted by John C. Calhoun who stated: "Let us then... bind the Republic together with a

perfect system of roads and canals. Let us conquer space." Madison shocked the legislative branch by vetoing the bill. The President cited constitutional reasons but many believed that as a Virginian, Madison harbored resentment towards those rival "Yorkers." Calhoun was stunned by the veto. DeWitt Clinton was outraged.

Clinton resolved to do this thing himself. He was elected governor of New York in 1817 and immediately appropriated money from the Legislature for canal construction. Like George Washington, Clinton was a visionary. His "Great Western Canal" was to run 363 miles from Albany on the Hudson River to a small village at the mouth of Buffalo Creek on Lake Erie. This would later become the city of Buffalo, which, like Cleveland, was made great by the canal. Many thought Clinton to be mad and political opponents derided the Erie Canal project as "Clinton's Folly." No canal in America up to that time, or any engineering project for that matter, had been so large in scope or magnitude. But Clinton persevered. He was even voted out of the governorship during construction, only to be re-elected just in time to see the project through to completion. At the conclusion of the maiden voyage aboard the *Seneca Chief*, Governor Clinton emptied a cask of Lake Erie water into New York harbor and from that moment New York City has been America's leading commercial center. This "Wedding of the Waters" on November 4, 1825, was no less of a transportation accomplishment to its era than the driving of the Golden



Alfred Kelley

Spike to complete the Transcontinental Railroad in 1869, the first motorized flight by the Wright Brothers at Kitty Hawk in 1903, or even Neil Armstrong's first step on the moon in 1969.

Through all of this, Cleveland remained rather primitive. General Cleaveland had been dead for more than a decade but with a population of 606 by 1820, his namesake city had not yet reached a quarter of the size of Old Windham. Ashtabula (929), Euclid (809), Newburgh (756), Painesville (1,257), Tallmadge (742), Chagrin Falls (733), and Huron (651) were all larger. And with the recent organization of Brooklyn Township, a new rival community was forming right across the river. This would become Ohio City. An excellent post-War of 1812 description of Cleveland has been provided by Ara Sprage:

"I arrived a few weeks after the first census—of the village—had been taken. Its population was, at that time, but one hundred and seventy-two souls; all poor, and struggling hard to keep soul and body together...The inhabitants were mostly New England people, and seemed to be living in a wilderness of scrub oaks...There

were three warehouses on the river; however, very little commercial business was done, as here was no harbor at that time. All freight and passengers were landed on the beach by lighter and smaller boats. To get freight to the warehouses, which were a quarter of a mile from the beach, we had to roll it over the sand."

Wolves were such a menace to Cuyahoga County farmers at this time that the state was still paying \$3 apiece for their scalps.

Just before the canal era in Ohio, Cleveland achieved a couple more significant transportation landmarks. The first bridge, in what would eventually be known as the "City of Bridges," was a floating structure built over the Cuyahoga River in 1822. The state also authorized construction of the Wooster and Medina Stage Road. Turned over to private interests after canal construction was initiated, this highway was later converted to a turnpike and became one of the highest quality roads in Ohio. It is now U.S. Route 42 and State Route 3.

Alfred Kelley had been Cleveland's first lawyer, state legislator, community leader, and bank president but by 1822 was ready to assume his most important role of all. Agitation for canals had begun in Ohio. When "Clinton's Folly" was completed in New York, there would be an almost unlimited market back East for exporting Ohio products, but Ohio had almost no transportation infrastructure of its own to transport these materials to the lake. Water was, and still is, the cheapest means for moving goods, so the logic behind constructing a canal from the Ohio River to Lake Erie was almost self-evident. Alfred Kelley certainly knew this. So

when Ohio created a Board of Canal Commissioners in 1822, Kelly was appointed. Shortly thereafter, he and Micajah Williams were named Acting Commissioners who would assume responsibility for overseeing work in the field.

One of the first acts of the Ohio Board of Canal Commissioners was to employ a surveyor to run prospective lines across the state. James Geddes of New York was hired for the job. Prospective routes were: 1) Grand and Mahoning Rivers (probably dismissed early on as the southern terminus would have been in Pennsylvania), 2) Cuyahoga-Tuscarawas and Muskingum rivers, 3) Black-Killbuck and Muskingum rivers, 4) Sandusky and Scioto rivers, and 5) Maumee and Miami rivers. During 1822 alone, Geddes surveyed over 900 miles of potential canal routes. This tramping back and forth across the state, political bickering, and shameless community promotion went on for three years. Tired of the all the public debate, some in Cleveland even yawned, "Give it to Painesville or Black River (Lorain)." This certainly did not reflect Alfred Kelley's way of thinking.

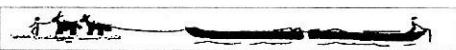
When Ohio finally announced its decision on the canals in February 1825, the political considerations were obvious. There was much sentiment for a "diagonal route" from Lake Erie down through the capital of Columbus and on to the largest and most influential city in Ohio at the time, Cincinnati. But practical considerations, namely the lack of an adequate water supply, made this impossible so Ohio decided to build **two**

canals. (Remember that Virginia had taken almost the same action some 40 years earlier.) First would be the Ohio Canal. It would start on the lake at either Black River or Cleveland to the forks of the Muskingum at Coshocton. Instead of following that river to Marietta (along the more apparent route suggested by Washington and the 1807 lottery board), the canal would continue almost due west for another 75 miles to cross the Muskingum-Scioto divide south of Newark at the Licking Summit then proceed down the Scioto River to Portsmouth. This would accommodate Columbus and the Scioto Valley. The second canal, the Miami Canal, would connect Cincinnati and Dayton. The state promised to extend the Miami Canal to Lake Erie as well, which was finally accomplished in 1845.

Most important to Cleveland was the selection of the northern route between Coshocton and the lake. This announcement was delayed for three months, likely to encourage property donation. Plus Cleveland had an "ace in the hole" in Commissioner Kelley. Finally in May 1825, a decision to construct along the Tuscarawas-Cuyahoga line was announced by the canal commissioners at a meeting in Wooster. But even then, was the canal coming into Cleveland? An 1824 plan placed the northern terminus at Newburgh near the mouth of Mill Creek with the remainder of the navigation coming down the Cuyahoga River. Another survey proposed a river crossing at this location with the final six miles of the canal along the west side of the river, terminating in Ohio City. Commissioner Kelley officially recused himself from this

decision, but the citizens of Cleveland were able to organize a land grant to the state of \$5,000—much of the property belonged to Kelley!—and the canal was routed along the east side of the river into Cleveland. At about the same time, the county seat was up for grabs but Newburgh lost again. The new Cuyahoga County Court House would be built in Cleveland, opening in 1828.

to be continued in the spring issue

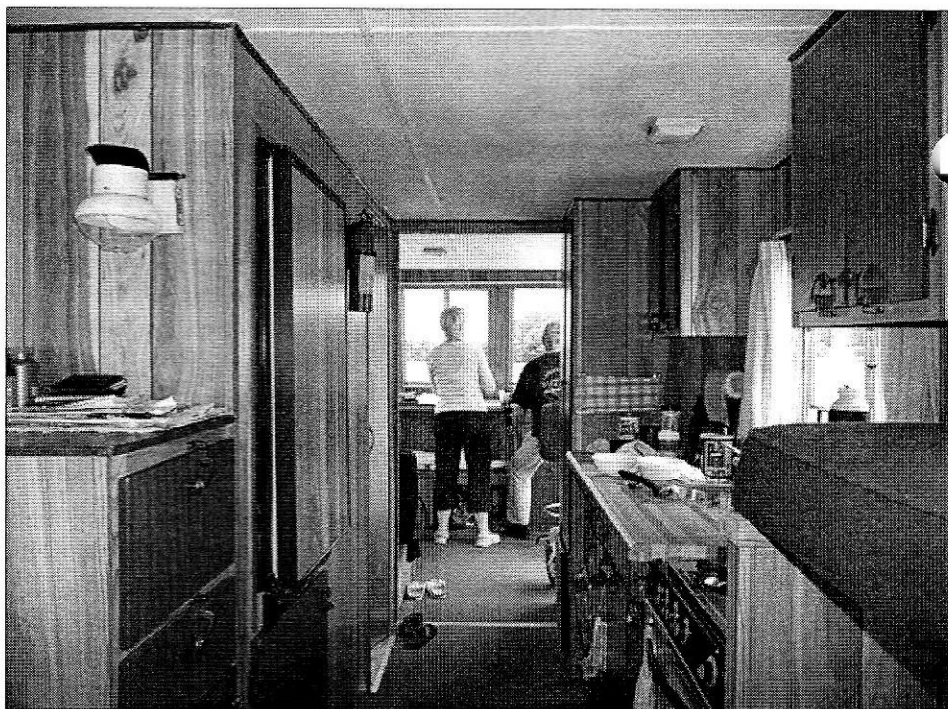


HOUSEBOATING ON THE RIDEAU CANAL

By Jakob Franke

In July of last year my wife and I and my sister and her husband rented a houseboat for two weeks in Gananoque, on the Canadian side of the St. Lawrence River (Thousand Islands region). The plan was to boat up the Rideau Waterway to Ottawa, and back. The houseboat we rented was a pontoon boat equipped with a 60-hp outboard motor that propelled us at a speed of about 6 mi/hr. It provided comfortable quarters for two couples. The navigation was relatively simple, once we got used to the fact that there was no steering power without the motor running: the boat had no rudder!

In order to get to the Rideau Canal, we had to boat about fifteen miles to Kingston, Ontario, along the north shore of the St. Lawrence River. In Kingston we entered the Cataraqui River which we followed to the first locks at Kingston Mills, a flight of three locks, plus a single lock. This is where we bought a lock pass for about \$300, which would give us unlimited lock privileges for the



Interior of the houseboat. Photo by Jakob Franke

trip. Included with the rental of the boat is free mooring at each lock station.

The Rideau Canal was built between 1826 and 1832 as a defensive waterway. The Americans could block the St. Lawrence River in times of war, and this new waterway provided a defensible bypass from Lake Ontario to the Ottawa River and Montreal. The Rideau Canal is a 122-mile chain of lakes and rivers, including twelve miles of canal cuts, that winds from Kingston to Ottawa. It is operated by Parks Canada as a preserve and became a Unesco World Heritage Site in 2007.

The canal had originally forty-seven locks (twenty-four lock stations), but has forty-five locks today: a flight of three locks in Smiths Falls has been replaced with a single modern electric/hydraulic lock. The only other electric/hydraulic locks are in Newboro and Black Rapids. The remainder of the locks are still hand-operated by a lockmaster and his staff. The locks are 26 by

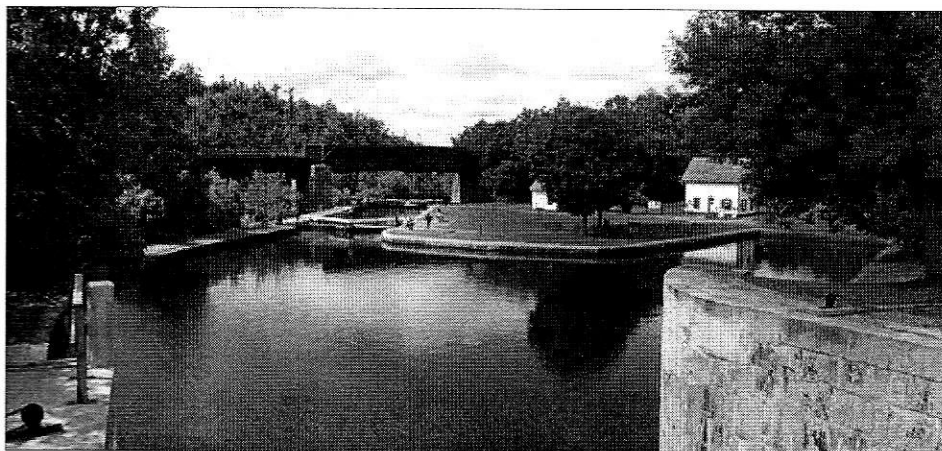
90 ft, and the lift ranges from 3 ft at the Narrows, to 26 ft at the Smithville Combined. The service is excellent. Each lock has a staff of 3-4 people who assist with the mooring, and locking through rarely takes more than half an hour. Several of the lock stations have their own little history story, and at Jones Falls we visited the blacksmith shop and the defensible lockmaster's house, and we admired the 60-ft high "Great Stone Arch Dam" which, when it was completed in 1831, was the highest dam in North America. Another evening we stayed at Chaffeys Lock, where we walked after dinner to the old Opinicon Hotel for an ice cream.

The scenery is varied. Past Kingston it passes through the Cataraqui Marsh, an extensive wetland system. At Kingston Mills the boat climbs past granite cliffs, part of the Canadian Shield. The canal passes through various lakes and wetlands, linked with locks and canal cuts, and reaches

its summit in Newboro, at Upper Rideau Lake. Past here there is more farmland, in addition to extensive marshes. At Newboro the buoys reverse: where going up the red buoys are starboard (right), and the green buoys are portside, from Newboro on down this is reversed. The canal climbs 165 feet from Kingston to Newboro, and then descends 274 feet to Ottawa.

Overnight we stayed half of the time at a lock station which all have bathroom facilities, and some times showers and electrical outlets. The houseboat did have a shower and bathroom, but we tried not to overload the system and only had to use a pumpout facility once. Other times we stayed at town docks. Although we had to pay for those stays, they did have the advantage of allowing us to enjoy a restaurant, shopping, local museums, etc. Once we anchored in a sheltered bay.

Of course we saw quite a number of birds, including loons, osprey and cormorants, and a cou-



Kingston Mills lock on the Rideau Canal.
Photo by Jakob Franke.

ple of water snakes. The loons were teaching their young to dive, and we saw one osprey nest where it seemed the two parents were teaching a young how to fly. Fishing is a popular sport along the canal, and my brother-in-law tried it once and caught enough for a frying pan full. The water is crystal clear everywhere, but strangely enough we only swam twice.

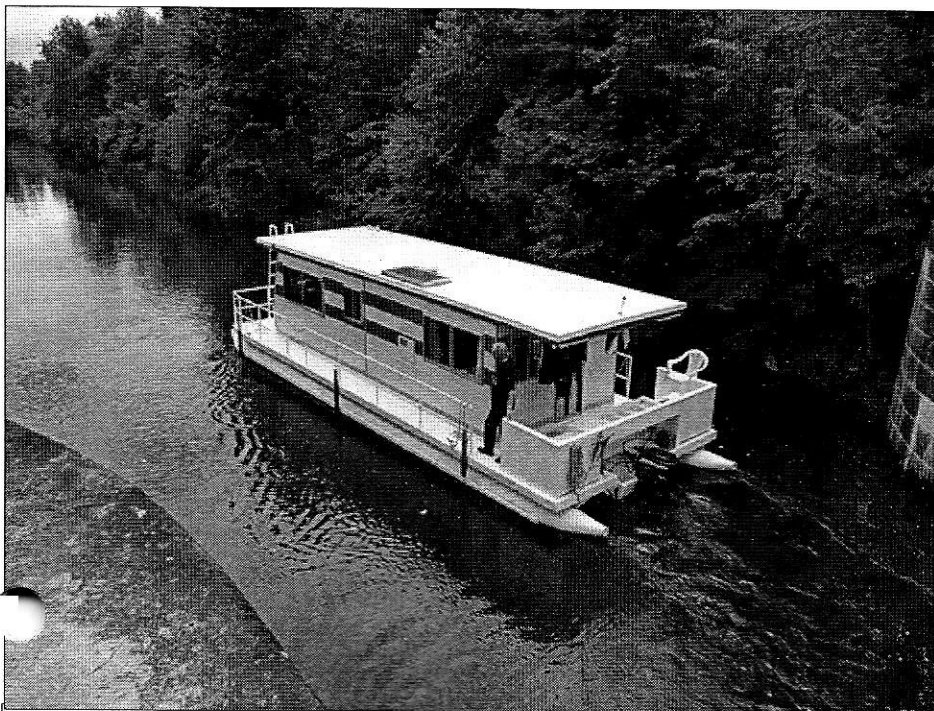
We loved the trip. One of the highlights was a side trip to the town of Perth, about 6 miles up the Tay Canal, a side canal of the Rideau Canal. Two locks raised the boat twenty-five feet

into the Tay Canal. The scenery here was breathtaking. Beautiful marshes and great skies. I guess we were lucky, because the skies were spectacular the two weeks we were boating. In Perth they celebrated the 175th anniversary of the Tay Canal, and we enjoyed live music and a fair while we were there. Perth is a pretty town anyway, and we stayed there two nights. The first night several boats were moored in the small town marina, but the second night we were alone.

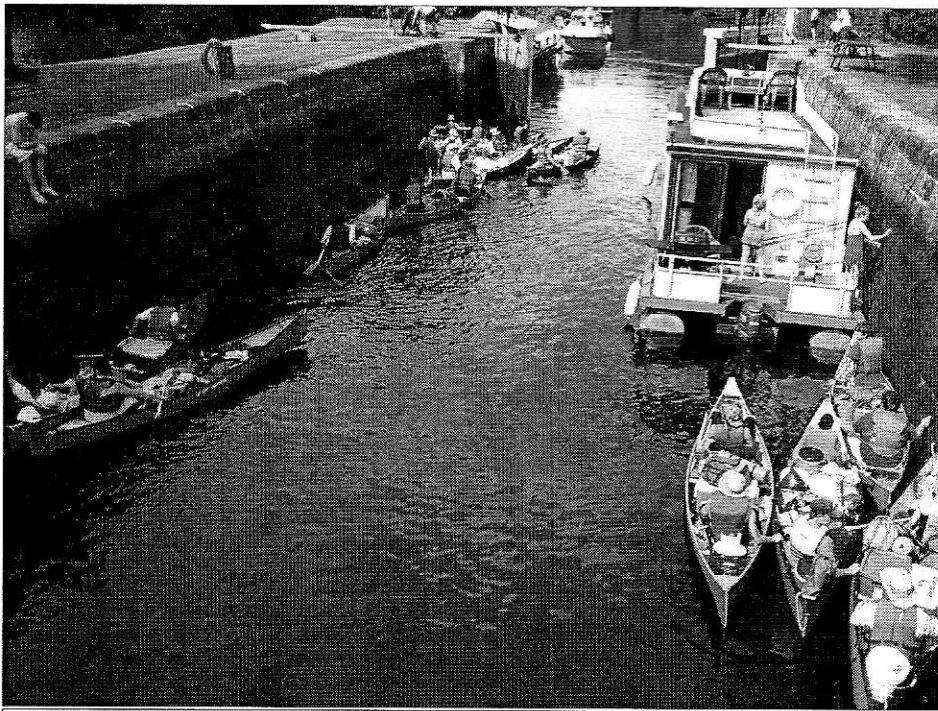
Twice we visited the town of Westport on Upper Rideau Lake, even if it was a couple of miles from the Rideau Canal route. It was a pleasant little town with all facilities, including an ice cream store close to the town marina. At most places there was plenty of room, and only once could we not get mooring space at a lock station; we had to go on to the next lock station to find a place for the night. The lock stations do not take reservations – it is strictly first come, first serve.

We did not reach Ottawa, but turned around in Merrickville, about two-thirds of the way.

Merrickville was another pretty little town with several nice restaurants and shops and old



Housboating on the Tay Canal. Photo by Jakob Franke



The houseboat and lots of canoes in the lock at Poonmalie on the Rideau Canal.
Photo by Jakob Franke

CANAL QUARTERS TO OPEN ITS DOORS

The C&O Canal Trust, in partnership with the National Park Service has begun an exciting and unique program - Canal Quarters!

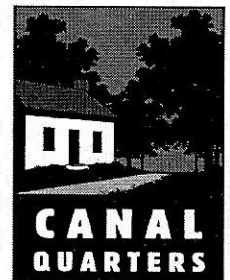
Now the iconic lockhouses are available for overnight stays. You will be able to learn and experience first-hand what it was like to be a locktender on the 185-mile-long canal and stay overnight in a historic lockhouse.

Four lockhouses - all on the National Register of Historic Places - have been painstakingly rehabilitated and furnished to evoke different eras in the canal's history. Lockhouse 22 and Lockhouse 28 allow you to see what life was like during the establishment and construction of the canal in the 1830s. The furnishings in Lockhouse 49 reflect the period around the turn of the 19th century, toward the end of the canal's operations. And Lockhouse 6 is furnished as it may have been in the 1950s to tell the story of the campaign, led by Supreme Court Justice William O. Douglas, to preserve the canal.

These houses are just a few of the more than 1,300 historic structures in the C&O Canal NHP.

They are now open to the public for the first time ever.

For more information about the open houses and the Canal Quarters program, please visit www.canaltrust.org.



homes and history. It would have taken another week to reach Ottawa, at least at the pace we were going. If we had boated every day for eight hours or more we probably could have made it, but we had many days when we decided after five or six hours to stop and go visit a town or just relax. In addition we stayed two days in Perth.

One thing that made the trip a bit more expensive than we had anticipated was the price of gasoline along the canal. While gas was about 0.95 Canadian dollars per liter on the highway, in the marinas it was 1.50 CD per liter. Doing the conversion it meant we were paying nearly 5 USD per gallon. The outboard motor used almost 10 liters per hour, which translated in almost \$50 per day for gas.

We spent our last day in Kingston, which is a nice old city with trolley tours through the city and to Fort Henry, boat tours, a ferry to Wolfe Island in the St. Law-

rence River, and nice walking tours in the city.

Post script: After returning the houseboat we drove to Ottawa to take a look at the flight of eight locks that we had missed. The canal descends seventy-nine feet into the Ottawa River. It is a great sight, and Ottawa is well worth visiting. On our way to Ottawa we also stopped on Long Island where we had lunch and looked at the flight of three locks. In addition to the locks there is a beautiful stone arch dam at Long Island.

Jakob Franke
September 10, 2009

References:

- 1 - www.rideau-info.com
- 2 - Rideau Waterway, by Robert Legget. Second edition, 1986. Publisher: University of Toronto Press. ISBN 0-8020-6591-0

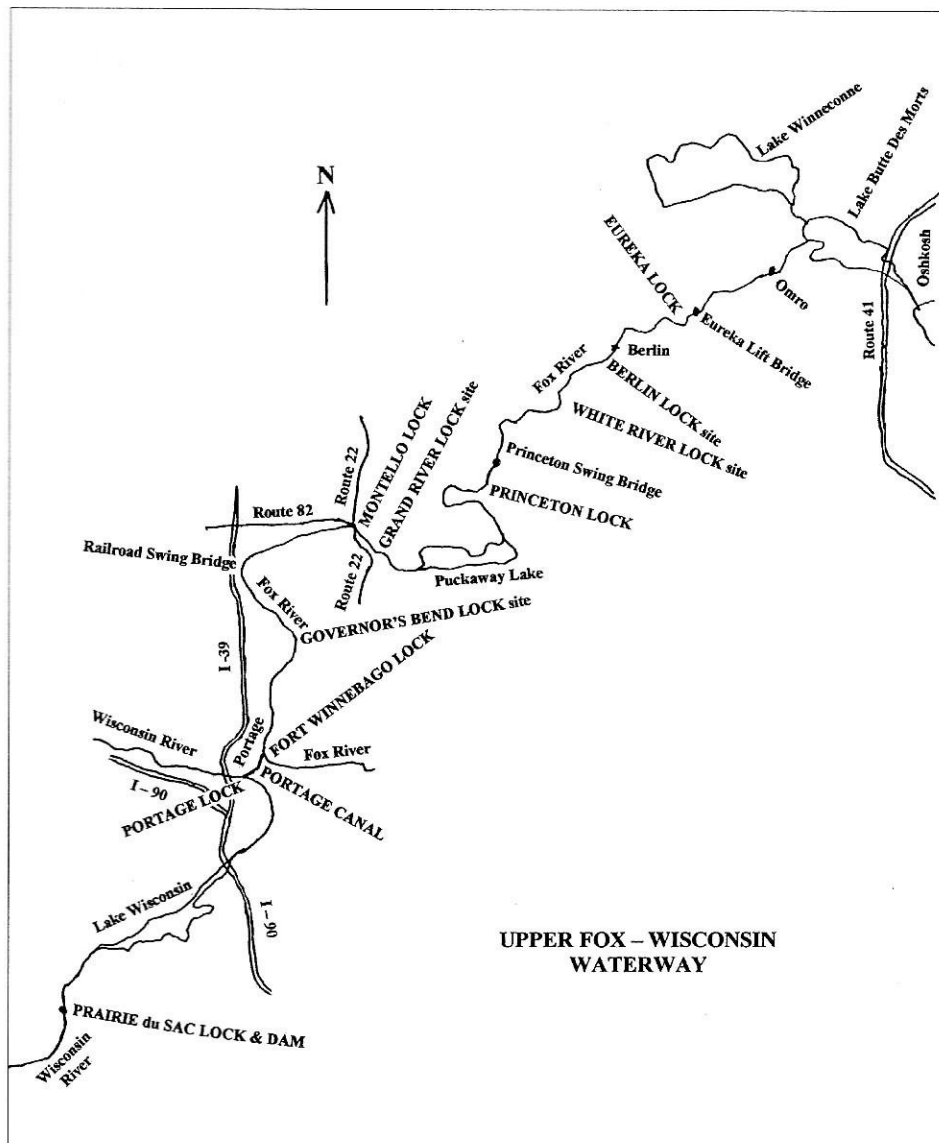
AN EXPLORATION OF THE UPPER FOX- WISCONSIN WATERWAY

By David G. Barber

In the early years of Midwestern transportation improvements, there were several proposals of water connections between the Great Lakes and the Mississippi River. Of these, only two were actually built and used. Of these two routes, the one that is now closed is the Fox-Wisconsin Waterway between Green Bay, WI on Lake Michigan and the mouth of the Wisconsin River near Prairie du Chien, WI. The importance of the potential for this route helped determine the northern boundary of the United States. The route was initially used by the fur trade in canoes and was later improved for steamboat navigation. It was closed to through traffic by the Corps of Engineers in 1954 due to low use.

Beginning on the Mississippi River at the mouth of the Wisconsin River near Prairie du Chien, WI, the route goes upstream on the Wisconsin to Prairie du Sac. This section was only improved by the Corps of Engineers with wing dams and other channeling methods, and the works were not entirely successful. Today, this section has many sand bars and is a prime flat water canoeing area.

Just upstream of Prairie du Sac at river mile 92 is a hydroelectric dam, completed in 1915. The lake behind the dam is known as Lake Wisconsin. As this dam is down river of Portage, WI and is on the long established Fox-Wisconsin Waterway connecting Lake Michigan with the Mississippi River, it was equipped with a concrete navigation lock to overcome the 34-foot elevation difference



UPPER FOX - WISCONSIN
WATERWAY

created by the dam. The site includes a power house at the west end, a log chute, a navigation lock 35 feet wide x 170 feet long, a 1,000-foot-long hollow concrete dam and spillway, and an earth embankment 1,700 feet long at the east end. The lock with steel gates appears to be intact, but it is out of use. The dam and lock are visible from a beach that is accessible from an access road on the west bank. Finding this road was difficult as the state highway along the west side of the river was being rebuilt.

Upstream of the dam, Lake Wisconsin is a prime recreation lake extending several miles

upstream. After the head of the pool is reached, the unimproved river continues to Portage. This section of the river also has many sand bars which have always been an impediment to navigation. This is particularly true at Portage where sand bars on the east side of the river block the approach to the Portage Canal.

Portage is named for the fact that the southward flowing Wisconsin River and the northward flowing Fox River come within two miles of each other with not much elevation between. In times of high water, the two have historically joined. Thus, an ancient portage was located here. The first improvement built on the



Grand River lock. Photo by David G. Barber

entire route was the construction of the Portage Canal. The canal has a concrete guard lock on its Wisconsin River end in the village and a low, mostly demolished lift lock just before the Fox River end at Fort Winnebago. Only three streets and a mainline railroad cross the canal. The canal was closed to navigation in 1959. In 2006 and 2007, the canal was rehabilitated by the city and is watered throughout. The Portage Lock is in good shape with steel gates, but is cut off from the river by a flood levee. The Fort Winnebago lock is at the end of a dirt road and consists of the sides of the lock with a "V" shaped dam at the upper gate pockets controlling flow from the canal to the Fox River. The Ice Age Trail follows the Fox downstream from the lock.

Following the Fox River downstream, the first lock site is about 15 river miles at Governors Bend County Park. The access road to the site is called Lock Road. Here,

a bend in the river is cut across by the lock cut. Not much remains of the lock, but some concrete is visible in the grass of the picnic area. An earthen dike replaces the lock. A dam remains at the river loop with about a five foot drop.

The next lock downstream is 16 river miles farther in the vil-

lage of Montello. Here the masonry lock is intact and crossed by a state highway bridge in the middle and a footbridge at the upper gate pockets. No gates remain, but a barrier at the upper end and the adjacent dam hold back the river. The area is surrounded by a park.

Next downriver is the lock site at Grand River. This is accessible via Lower Lock Road off of Route 22. Here also, a loop of the river was short cut by a lock and lock cut. The dam was recently removed allowing small boat passage past the site in the original river channel. Much of the lock has been demolished, but the upper set of gate pockets and a bridge over them remain. The site has been developed as a fishing access with launching ramps and parking.

Continuing downstream leads to Princeton Lock. This lock is a little upstream of the village and is accessed by Lock Road off of Route 23. This lock is also in a park and fishing access area. It is intact except for gates and has an



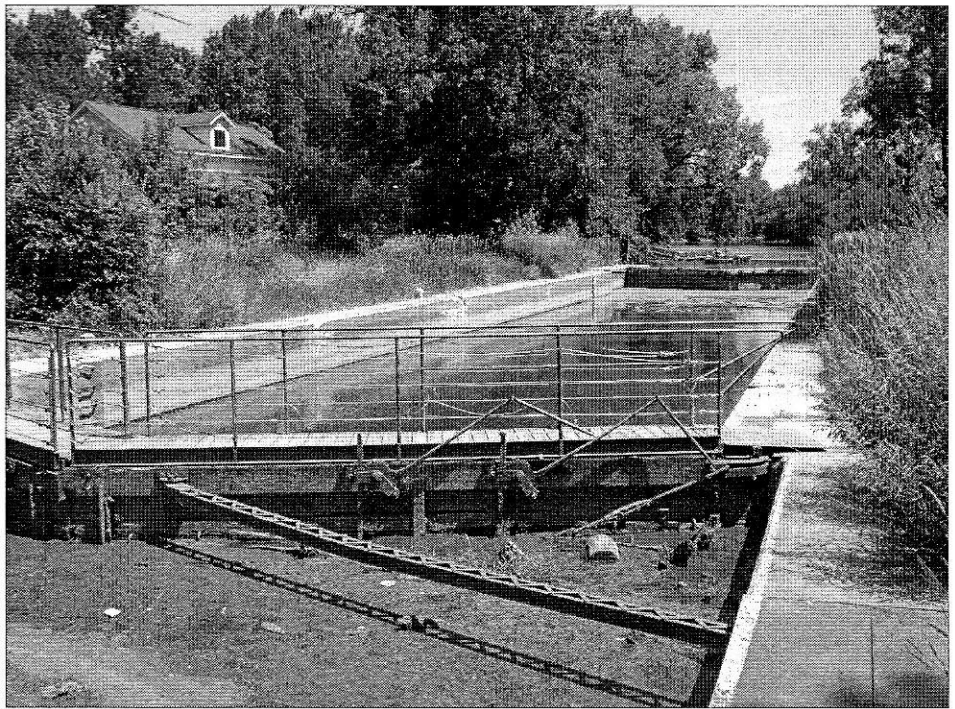
Fort Winnebago lock, showing dam at upper gate pockets. Photo by David G. Barber

adjacent dam. The upper end of the lock is also dammed and has an electrified fish barrier. On the opposite side of the village, the navigation was crossed by a railroad grade that is now converted to a rail trail. The through truss swing bridge across the river is still in place as are the remains of several wood-sided, stone-filled guide cribs in the water. The bridge is easily accessible from Route D, River Road.

The site of White River Lock is next. This is accessed by another Lock Road off of Huckleberry Road. Like the others, the lock is on a cut across a loop in the river. Much of the lock has been destroyed in an apparent program to naturalize the old sites. The dam has recently been removed, allowing navigation in the original channel past the site. The upper end of the lock and a bridge across the chamber remain. This site is all out in the country.

Next downriver comes the site of Berlin Lock which is accessed via Morris Street at the southwest corner of Berlin. Here, the lock has been removed and replaced by a pipe culvert. The dam remains, but is submerged and can be crossed in both directions by boats. Again, the site has been converted to a park.

The last lock on the upper Fox River is Eureka lock. This is reached via Eureka Lock Road from the village of Eureka. The lock is intact with gates and operating equipment. There is even a boarded up lock house. When visited, the grass badly needed a mowing. After the closing of the navigation, the lock was operated for several decades by the Berlin Club. It has been closed for the last few years, but there are hopes to rehabilitate it and reopen

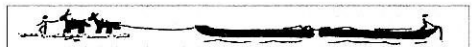


Eureka lock on the Upper Fox-Wisconsin Waterway. Photo by David G. Barber

it. Part of the reason for closing the lock was the installation of a handicapped access walkway on the upper gates by the state. Reportedly, when the walkway was installed, the vertical rods that hold the gates together were extended by welding. Later, some of the welds failed, allowing the rods to drop and drag on the lock floor, restricting gate movement. Very recent investigation found that the gates need replacement. Hopefully, this will happen in 2010. Also in the village of Eureka, the main street crosses the river on an intact bascule lift bridge.

With prior research, I found all of the sites accessible. I also noted much boating on the various reaches of the navigation. The gradual slope of the river has allowed some of the lock sites to be bypassed by dam removal. With the reopening of Eureka Lock and the construction of small, boater operated locks at Princeton, Montello, Governors Bend and Fort Winnebago, shallow draft boats

could navigate all the way from Portage to Lake Winnebago. Reconnection of the Portage Canal to the Wisconsin River would require a gate in the flood wall and continual dredging of the channel through the sand bar. I don't know what would be needed to make the Prairie du Sac lock operational. With only a few short portages, the route appears to be currently navigable by shallow draft power boats.



CANAL FACT:

In 983 A.D., Chiao Wei-Yo, of China, developed the first canal lock, which used two flashlocks to create an equalizing chamber to hold boats in dock. This technology is not developed in the West until 1396.

Can any of you canal buffs offer evidence to prove or disprove this fact?

“FIFTEEN MILES ON THE ERIC CANAL”

By Doug McCray

Well, maybe a little bit more, but with a 50-horsepower diesel pushing a thirteen-ton steel hire boat, no speed records will be broken.

During the last week in September, my wife Annemarie, my sister Janice, and friend Loisanne loaded up the *Cayuga*, our Mid-Lakes Navigation canal boat for a week on that famous waterway. The hire base is located in Macedon, NY, a few miles east of Rochester. The standard one-week rental arrangement had us leaving at two in the afternoon on a Saturday and returning the boat by nine am one week later.

About an hour before departure, we parked the car a few feet from the dock and lugged our bags aboard. Annemarie and I got back into the car and headed to a local Walmart to buy food stuffs and drinkables for the first part of the trip. Annemarie is a recent graduate of a culinary school and volunteered to be the galley chef as long as other would help with the food chores.

Mid-Lakes provides everything needed except edibles: bedding, towels, pots, pans, mugs, navigation charts, info on canalside towns, and even birding books. Binoculars and rain gear for those standing duty at the tiller are also provided – that rain gear came in quite handy on this trip!

A brief description of the vessel might be appropriate. The Erie hire boats are built along the same lines as British narrow boats, albeit shorter and wider. 41 feet in length, and about 10 feet wide, our *Cayuga* had full overhead clearance bow to stern, full galley/kitchen, a shower, a com-

partment with double bed and toilet, and another space with double bunks and its own toilet or head, as nautical folk say. The settee-futon in the galley can sleep an adult comfortably.

Three of us were old canal hands, having done previous trips on this enlarged version of “Clinton’s Ditch” as well as on the British waterways system. For Loisanne, it was an entirely new experience. Before we cast off, Mid-Lakes gave us a complete safety and operating orientation, including a trip through nearby Lock 30.

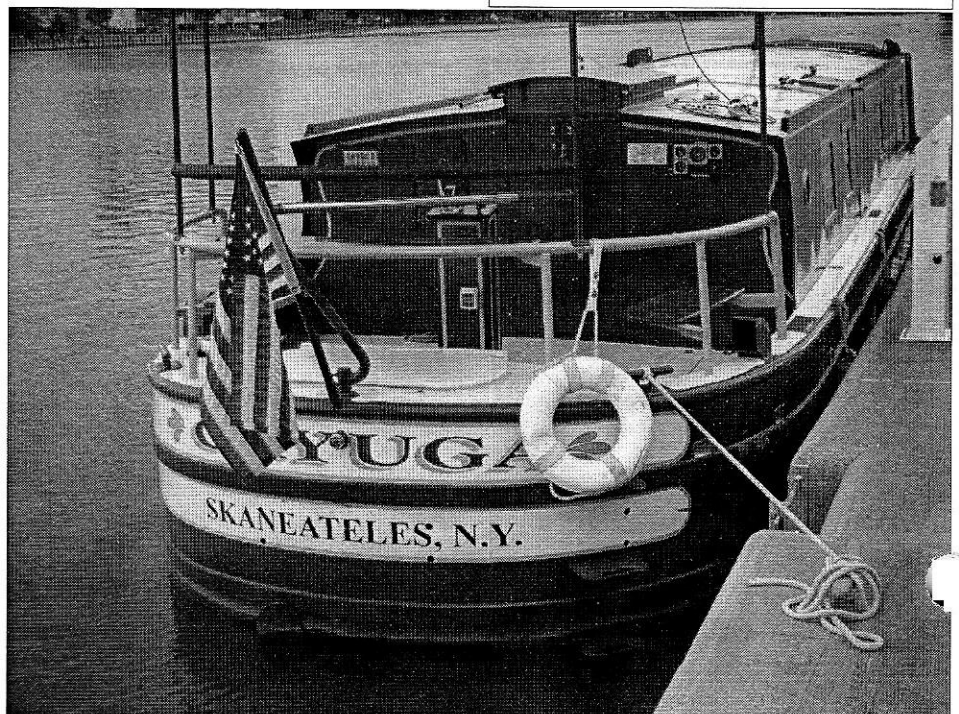
Locks and lift bridges are operated by friendly and helpful staff who will gladly answer questions concerning the locale and canal details. The start-off orientation will provide all the information you need to communicate with them and how to comfortably ‘lock through.’ All locks, by the way, have safe mooring places for side trips for checking out historical remnants of the two previous versions of the Erie Canal.

Our first destination was

Seneca Falls, via the Cayuga-Seneca Canal, which runs south from the main line east of our starting point. This town was the start of the Women’s Rights movement, the subject of a national park museum, and has an excellent visitor center, a canal and industry museum, and good mooring with utilities and shops and eateries close by. By the time we saw everything, it was too dark to travel, so we spent another night at Seneca Falls, supposedly the inspiration for the fictional Bedford Falls in the movie “It’s a Wonderful Life.” The industrial, canal, and infrastructure history of this community is well covered and very interesting to those of a technical bent.

Our intent was to continue along the canal, cross the top of Seneca Lake and spend a night in Geneva, but strong southerly winds blowing up the length of this long lake can build waves too high for a sluggish canal boat to safely negotiate, and we were advised to stay off the lake.

Our Mid-Lakes hireboat, the *Cayuga*.
Photo by Dave Feiden.

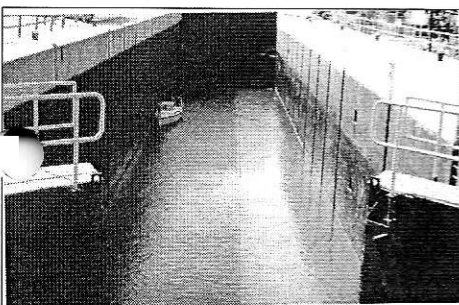


Returning along the Cayuga-Seneca Canal, we noticed that the lock walls here were covered in barnacles! Surprising, as we thought them to be only salt water creatures. Well, they are! It seems that the water in Seneca Lake is brackish due to the enormous salt deposits in this part of New York State.

When we hit the main canal again, we turned back west and stopped at the Macedon base to top off water and make some adjustments before overnighting at Fairport. This town has taken the canal to heart and created a really pleasant waterfront, also with electric and water hook-ups along the mooring wall and with a good supply of interesting shops and restaurants. Fairport sports an interesting lift bridge that crosses the water at an angle and also on a slant. It creaks its way open and closed on a schedule as the road it supports is very busy.

And the trains! The main rail route west follows the same flat, river valley route as the Erie for many miles and accommodates multiple diesels hauling long strings of freight cars at high speed. The tracks are only a couple of short blocks from the Fairport waterfront, so the frequent roar and whistle blowing were a sleep interrupter. Did I mention that the lift bridge had an open grate deck that made another sleep interrupting noise? Well, we can always catch a nap en route the next day.

West we chugged, eventually



coming up behind a canal company tug and barge right where we wanted to turn north into the Genesee River. A dredge was operating at the junction, and the tug radioed to say we could pass her stern as she slid next to the dredge. The tug slowed a bit sooner than expected, and as I turned away from it, I ran lightly aground on the mud. Churning astern, I pulled back and made the turn toward Rochester.

On a canal visit to Rochester five years ago, we found the waterfront not a place where we would want to spend the night. How things have changed! Perhaps it was the impetus from the upcoming 2010 World Canal Convention, but the city has had attractive growth in the Corn Hill area, where the principal moorings are. A very long tie-up wall, again with utility service, is located in what is now an area of new condos and apartments, shops, and restaurants. A new waterfront hotel has cropped up just south of the Corn Hill area complete with its own short mooring wall and hook-ups.

We stayed the night and the next day took a taxi through the good-looking downtown to the excellent Museum of Science, which was featuring the traveling Titanic exhibition. We attempted to visit the George Eastman House, but upon arriving, found it closed for a special event. Bah.

Left Rochester continuing east and eventually stopped in the afternoon for our last overnight at Pittsford, tying up at the town's small mooring dock. There are many specialty, gift, and food shops within a few minutes' walk. The closest restaurant is built into the bottom of

an old coal silo. Creative repurposing has also transformed another group of co-joined grain silos into an office tower. An Erie Canal public tour boat, the *Sam Patch*, operates from Pittsford carrying visitors arriving by road on daily water trips on the waterway.

That night I was standing on the dock and saw a bright light appear shining through the trees to the east – it was moving! What the heck? As it approached I could see red and green running lights and realized it was the head-on view of a vessel of some size. Turned out to be the *Colonial Belle*, a public dinner boat that runs from Fairport and back traveling at a speed about twice what we could manage.

The *Cayuga* got underway early as we had just enough time to make the distance back to Macedon by the 9 am return time. Made it about a half hour late, docked, packed our gear to the car, cleaned the boat, and departed.

Our best way home was via the NY Thruway to Syracuse and then interstates to NJ. Since we had to go through that city, a stop at the Erie Canal Museum was a must. Built into the only remaining weigh-lock building, it is full of information about the Erie and has a full-sized replica boat of the mule-towed era, an elevator that simulates locking-through, and a short movie, in addition to many well-presented artifacts and display groupings.

The Erie Canal Cruise Lines motto is "Life in the Past Lane," which is perfect for this relaxed, go as you wish mode of vacation travel. www.midlakesnav.com; www.canalcruises.com; www.nyscanals.gov.

FREEPORT, PA, CELEBRATES ITS CANAL HISTORY

By David Farkas
Pittsburgh History & Landmarks
Foundation/The Freeport
Leechburg Apollo Group

The town of Freeport has a long and rich history. Much of its past and former prominence has to do with its strategic position at the confluence of two rivers. This has made Freeport an attractive location for river-related industry for a long time. Settled in 1796 and incorporated as a borough in 1833, Freeport is so named because of a proclamation by one of the town's founders, David Todd, that it should remain a free port, where any boat either traveling the Allegheny River or the Kiskiminetas could dock for free. Around the time of its incorporation, Freeport was also a major hub along the Pennsylvania Canal's Western Division, which connected Johnstown, PA to Pittsburgh. Some remnants of this canal past can still be seen today. The homes along Walnut Way, which borders the train tracks where the canal used to pass, have two façades. The original façade is what is now the back of the house which at one time bordered the canal towpath. When the Pennsylvania Canal closed, owners of these homes redesigned the back of their homes to be the new front.

In addition to its colorful past, there is also now a bright future for this former canal town. The Freeport Leechburg Apollo Group (FLAG) is working to restore Freeport's central business district to its former glory. FLAG's program is concerned with improving conditions in three com-

munities: Leechburg, Freeport, and Apollo. FLAG's approach is focused on helping business owners currently located in the central business districts to attract new ones and to bring under-utilized buildings in the downtown areas back into useful service. FLAG has partnered with Pittsburgh History & Landmarks Foundation (PHLF) to help oversee its five years in the Main Street program, which has been key to putting the restoration of important buildings at the top of the group's agenda.

As a participant in Pennsylvania's Main Street program, FLAG receives funding from the state to subsidize operational costs and administer a matching façade grant program. FLAG is comprised of four committees, each focused on a unique aspect of downtown revitalization. These committees include: Economic Restructuring, Design, Promotion, and Organization. Together, volunteers

from the three communities work on these committees to bring sustainable change to their towns.

Pittsburgh History & Landmarks Foundation has developed an expertise in helping local Main Street organizations maximize their time in the state's program. PHLF is assisting FLAG in setting up a real estate revolving loan fund that would allow the group to make loans to businesses in need of making repairs or other improvements to their businesses. This fund will compliment FLAG's façade grant program through which building owners in Freeport, as well as Leechburg and Apollo, can get funds to restore the facades of their buildings, purchase awnings and lighting, and make other capital improvements. Another benefit FLAG has realized through working with PHLF is the access the group has to PHLF's staff, who have a diverse background to aid in revitalization efforts. These

Packet boat outline in Freeport,
Pennsylvania. Courtesy, The Freeport
Leechburg Apollo Group



personnel include individuals with experience in community development, historic preservation, planned giving, construction management, and educational programming.

The canal history of the communities has been highlighted in new gateway art projects. The Allegheny Ridge Corporation was an instrumental partner in planning and facilitating these projects, as was the Armstrong County Community Foundation, which provided some of the necessary funds. Allegheny Ridge Corporation works to interpret and promote heritage and natural resources through the Pittsburgh-to-Harrisburg Main Line Canal Greenway™, a 320-mile corridor of heritage sites, hub communities and outdoor recreation opportunities that follows the path of the historic canal system and is linked by land and water trails and scenic ways.

Freeport and Apollo chose to construct projects that hearken back to their town's involvement with the Pennsylvania Canal. In Freeport, a vacant lot was turned into a public park. In addition to landscaping work, the site is now home to an outline of a packet boat, the type of boat primarily used along the old canal. The packet boat was constructed using various types stone. Visitors to the park can pretend they are steering the boat along the Kiski River. A combination of volunteer, including members of Freeport High School football team, and assistance from borough employees allowed this project to come in under budget.

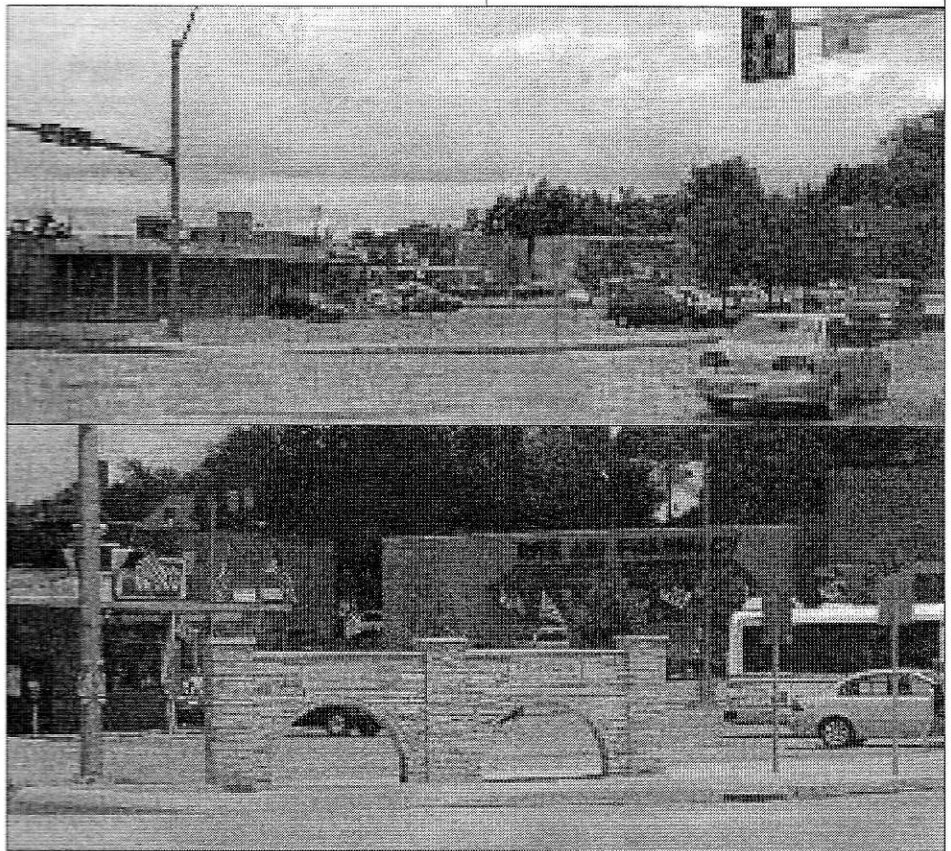
In Apollo, a new sculpture in shape of a canal bridge welcomes visitors to the town. Apollo was located along the Western

Division of the Pennsylvania Main Line Canal. This segment was built to initially connect Pittsburgh and Freeport in 1826, with subsequent sections being built along the Kiskiminetas between Freeport and Johnstown, including Apollo. The sculpture in Apollo is located at the corner of North Warren Avenue and 1st Street.

One of the main objectives of FLAG is to increase the number of people that visit the Kiski Valley area where the three towns are located by increasing outdoor recreational opportunities. A number of river and trail outfitters have opened in recent

years, including The Rivers Edge Canoe & Kayaks in Leechburg. Owner Neill Andritz says that in the three years since he opened, business has doubled each year and that people from many different states and countries have come to the region to enjoy the outdoor recreation opportunities. Although the Pennsylvania Canal is no longer in operation, people are still utilizing the waterways and pathways the canal used to include, but for a recreational use.

In Apollo, Pennsylvania, a new sculpture in the shape of a canal bridge welcomes visitors to the town. Before and after view. Courtesy, The Freeport Leechburg Apollo Group



GOOD NEWS FROM MASSACHUSETTS!

The entire Middlesex Canal is now listed in the National Register of Historic Places. The Middlesex Canal Association congratulates Tom Raphael and Susan Keats for thirteen years of tenacity, hard work, and all else (and there was much!) that went to make this possible.
Bill Gerber

More news in the spring issue!

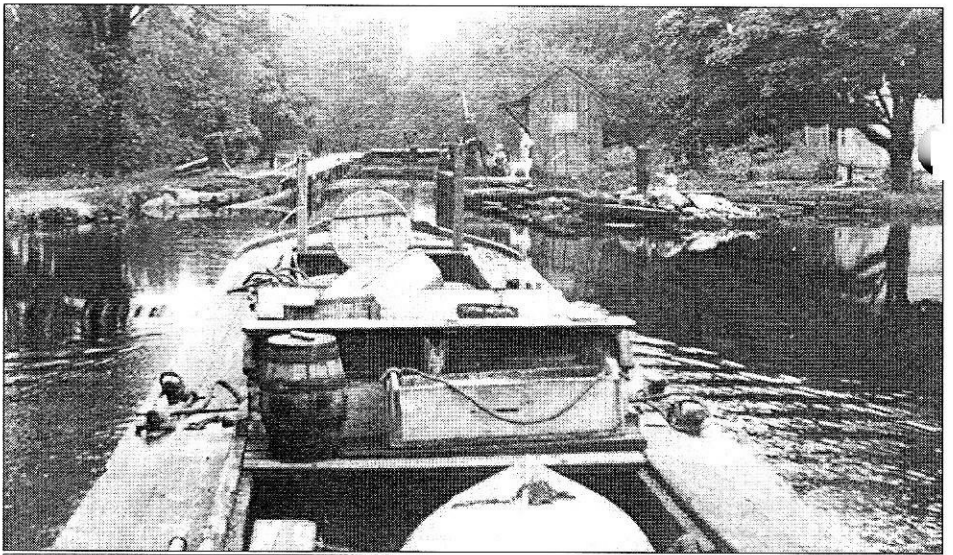
MORRIS CANAL LOCK 2 WILL BE RESTORED

By Denis McMullan

The Morris Canal was constructed between 1825 and 1831 between Newark and Phillipsburg, New Jersey. Lock 2E, "Bird's Lock," was constructed to overcome an elevation change of eight feet and was the second lock located east of Lake Hopatcong. It was one of twenty-three locks along the canal and is located in the Borough of Wharton in the north central region of the state. In 1929, the lock was filled in by the State of New Jersey and the upper four feet of the lock were removed as part of the Canal decommissioning. It was later purchased by the Borough of Wharton and is currently a part of Hugh Force Park, which provides recreation to the area residents.

In 2008, a Historic Site Master Plan was completed by HGJA Consulting of Montclair and provided a recommendation to "restore and reconstruct the lock to an operable condition..." The borough has retained the consulting engineering firm of McMullan & Associates to provide the design for the restoration of the lock. The design team consists of Denis McMullan P.E. and Doug Bond P.E., with invaluable advice from Abba Lichtenstein P.E. The local firm of Medina Consultants is providing critical civil engineering services, including valuable assistance in coordinating with the Department of Environmental Protection (DEP) and with the numerous permit applications. The first priority for McMullan was to determine the construction details and condition of the lock walls.

According to a drawing of a typical lock for the Morris Canal obtained from the Canal Society



Vessel enters Lock 2E at Wharton. (Canal Society of New Jersey-Vought collection)

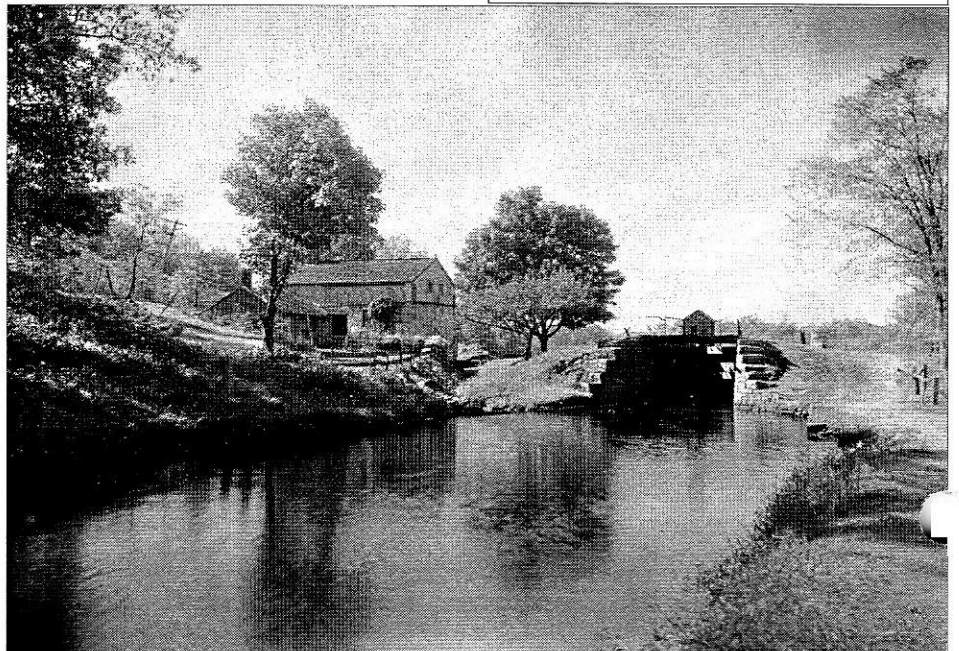
of New Jersey, the typical lock walls were built as gravity retaining walls with buttresses 8'-6" apart. The typical lock walls were to be constructed of coursed rubble stone masonry and founded on wood timbers approximately 10 inches x 12 inches at 24 inches on center and covered by a layer of 2-inch wood planking. Both the timbers and the planking were to extend across the lock under both stone walls.

The Morris Canal began an improvement program in 1841 that included enlarging the locks

to 95 feet long by 11 feet wide. The enlarged lock walls were to be constructed with coursed rubble stone masonry as a continuous stepped retaining wall and faced with two layers of wood planks that were fastened to a timber embedded into the face of the wall.

Both the 1823 and 1845 drawings indicate that mitre-type lock gates were to be used with the mi-

Historic Photograph of Lock 2E of the Morris Canal. This view is of the eastern entrance to the lock with the lock tender's house just south of the lock. (The Canal Society of New Jersey)

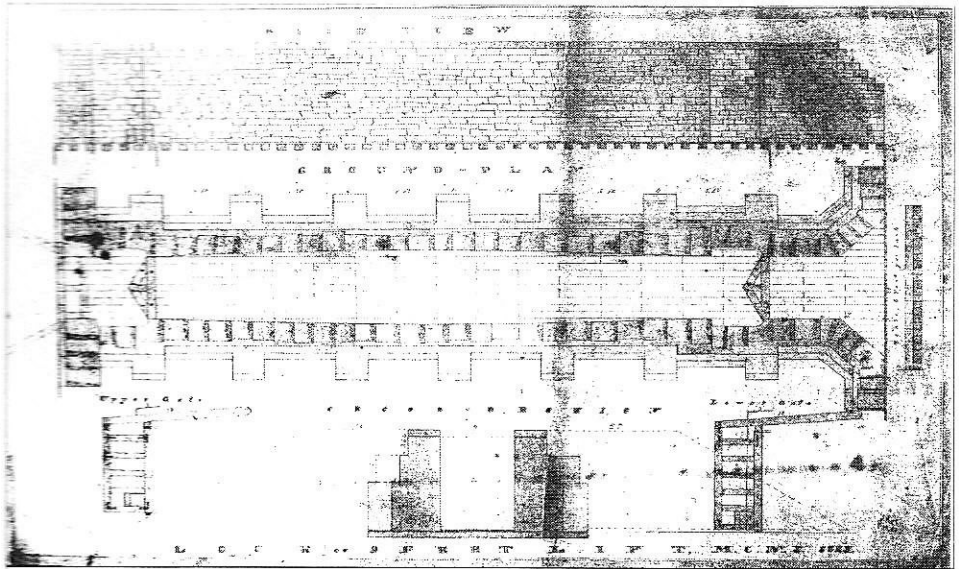


tre gates being operated by a balance wood beam; however, historic photographs of the lock taken near the turn of the century show that the downstream gate was a lever gate mechanically operated with a ratchet mechanism and the upstream gate was a mechanically operated drop gate.

As part of the design effort, McMullan with the assistance of the borough's Department of Public Works excavated a test pit to investigate the condition of the lock walls and floor beams and to determine if Lock 2E was constructed in accordance with the historical data.

The test pit, excavated near the middle of the lock, revealed much about the construction of the walls. The south wall was constructed in a manner similar to that indicated on the 1823 drawing. There was a continuous stone masonry wall four feet thick reinforced with stone masonry buttresses along its length that extend back from the wall another 3 feet 4 inches. The buttresses were nine feet apart. The stones of the rubble coursed stone masonry were generally large stones, with a surface profile about 16 x 36 inches. The joints between large stones were filled with smaller stones or mortar. On the surface of the wall, a hard mortar was smeared along many of the joints. The interior mortar was much softer and was easily scraped with a metal tool. There were several large voids between the stones. These may be related to the lock water washing out the mortar. There was no indication of wood planking on the interior face of the wall.

At the north wall, the stones on the inside face of the wall were smaller, about 12 x 6 inches, and



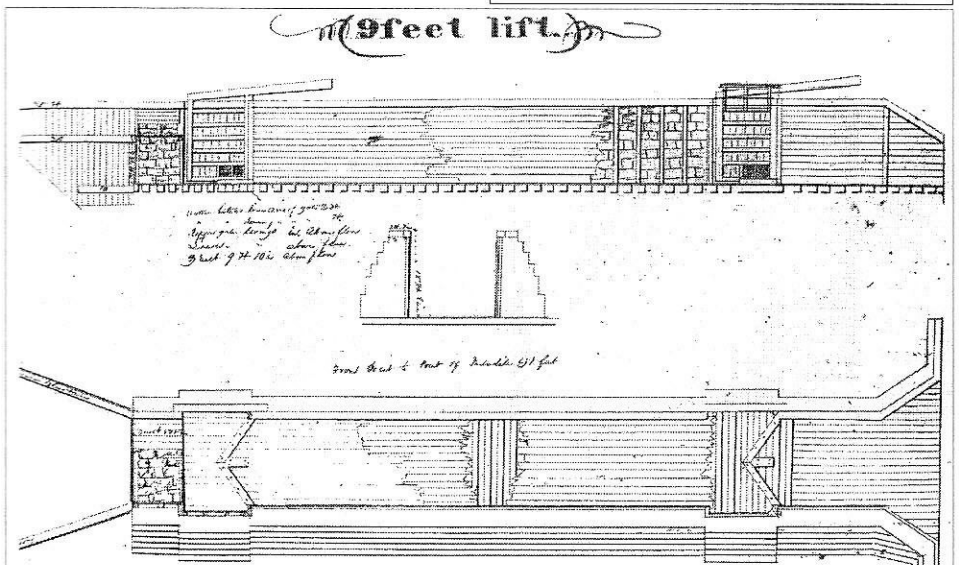
1823 Plan, Elevation, and Sectional Diagram of Original Typical Lock Construction. (The Canal Society of New Jersey)

the mortar between the stones was much stiffer. The stones on the back of the wall were larger, more similar to the south wall. To avoid digging in the towpath, ground-penetrating radar was used to confirm that the base of the north wall was at least eight feet thick. The back of the wall had a series of steps in the wall thickness as the depth increases. About three feet down, the remains of wood timbers were found in the recesses along with the ends of iron bars bent into the recess. These bars were embedded into the masonry and ap-

peared to have held the recessed timbers in place. About six feet below the ground surface, remains of a single layer of horizontal 2-inch thick wood planking was found. As the excavation extended below the ground water line, the quality of the wood planking and recessed timbers improved.

Using continual pumping, the water level was drawn down enough to access the interior of the lock and a steel digging bar was used to probe through the

1845 Plan, Section and Elevation of Typical Lock Construction (The Canal Society of New Jersey)



muddy water. Wood planking was found at the base of the lock and although the top ½-inch of wood was soft, the remaining thickness of planking was firm. Based on this finding, the timbers below the planking are believed to be in good condition.

Many large stones were pulled from the excavation between the lock walls. Some of the stones appear to have been the original wall cap stones. Apparently when the lock was filled in, the upper portion of the lock wall and the soil behind it was used as the fill.

It appears that the south wall of the lock was built similar to the 1823 typical lock drawing and may be part of the original 1831 lock wall construction. The north wall of the lock appears to be constructed similar to the 1845 lock wall drawing with the timber planking on the lock face of the wall.

Once the results findings from the test pits are fully evaluated, the next steps will be for McMullan to develop a schematic design for the lock restoration and a cost estimate for review and approval



The outside face of the south lock wall has stone buttresses that protrude from the face of the wall. These allow a thinner wall between the buttresses.

of the Borough of Wharton. Final design and construction start date has not yet been decided, but assuming sufficient funding, it is hoped to start work in 2010.

Wharton Borough's vision is to create an outdoor museum at the Lock 2 East site by running mule-drawn boat rides along the canal and by demonstrating lock operations and engineering through a

fully functioning Morris Canal lock. In addition to ongoing engineering, the borough will be installing interpretative signage at the site this summer to be available for its annual Canal Day, be held on August 22, 2009. The Canal Day Festival is an old-time country fair that celebrates the Morris Canal and its contributions to the development of the communities along its banks. The festival is now in its 34th year and will benefit the restoration of Morris Canal Lock 2 East. This year's festival features a juried craft show, food, educational events, and performances from thirteen of New Jersey's best homegrown artists. For more information, visit <http://canalday.org/canalday.html>.

NEWS FLASH: The Borough of Wharton has received \$582,000 from NJDOT for the restoration of Morris Canal Lock 2 East.

Inside face of the north lock wall. There are recesses in the wall for embedded timbers and the remains of horizontal wood planking near the bottom of the wall.



CANAL CRUISES INTO PAST PROVE SHAKESPEARE WAS RIGHT

The restored Naviglio Grande Canal in Milan

By Richard Owen, *The Times*, London

Italy is to reopen medieval and Renaissance inland waterways so that tourists can travel more than 500 kilometres (300 miles) by boat from Lake Maggiore to Venice via Milan.

Last summer engineers started clearing eight kilometres of canals from the southern end of Lake Maggiore at Sesto Calende to Somma Lombardo. Alessandro Meinardi, of the Navigli Lombardi (Lombardy Canals) company, which is overseeing the project, said that the aim is to make navigable the whole of the 14th-century 140-kilometre stretch of waterways from Locarno in Switzerland to Milan.

The restored canal system would eventually link up with the River Po, winding its way to Venice by way of Pavia, Piacenza, Cremona, and Ferrara.

Whereas the waterways used to transport goods, they would now enable visitors to take 'the slow route' to Venice, 'drifting past the Italian Renaissance landscape'. The billion euros project aims to revive what was once a main transport artery, as confirmed by casual references to Milan in Shakespeare's plays as an inland port.

Francesco Rusconi Clerici, a Milanese engineer, said the first part of the route was originally used to transport marble from quarries at Candoglia in the Val d'Ossola in Piedmont to build

Milan's Gothic cathedral, the Duomo, which was begun in 1386. The trip, using horse-drawn barges known as cagnone, took two weeks, with each barge carrying up to 50 tonnes of stone.

The canals of Milan were first built in the 12th century by Benedictine and Cistercian monks, and later expanded in line with designs by Leonardo da Vinci, linking the city to the sea. Leonardo turned his hand to waterways after painting "The Last Supper" at Milan's church of Santa Maria delle Grazie.



FROM THE PRESIDENT

(continued from page one)

the canal through the parking area plus a bridge at South Chestnut Street were reestablished, there would be three rehabilitated locks in a row with plenty of water and 5½ miles of canal from the St. Marys Aqueduct to Lock 14. Hmmmmm!

We also visited some other interesting sites such as the stone Lock 8 north. Stone locks were rare in this part of Ohio due to the scarcity of stone. Timber locks were more common. Some of the timber locks were replaced by concrete ones in the very early 1900s.

Also of interest on this tour was the opening of the towpath to hiking, signage at each lock site, and the direction and encouragement that the Miami and Erie Canal Corridor Association is providing. On the tour, we observed a Saturday volunteer force pulling junk out of the canal in downtown

Spencerville. On Sunday, if I had the time and my hiking gear with me, I could have joined the annual Walk With Nature along various parts of the canal. This event included shuttle buses on frequent schedules so people could walk parts of the canal and get back to their cars. The scope and variety of initiatives that MECCA and its partners are involved with is most impressive.

There was much that time did not permit me to see in the area of this tour. I need to return for a more extensive visit.

UNION CANAL TUNNEL

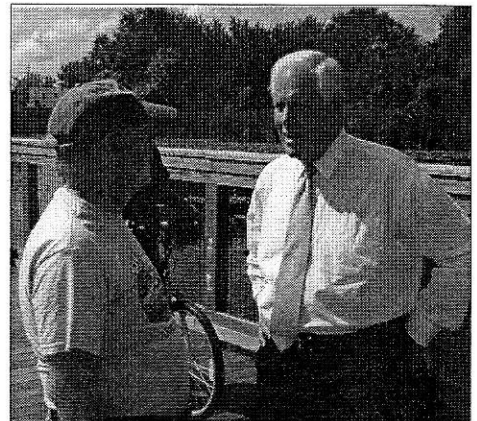
The Friends of the Union Canal Tunnel Park plan to build two pavilions, one at each end of the tunnel, as well as picnic areas, at the park in North Lebanon Township, PA.

One pavilion will be used to instruct students about the canal's history before they board the boat for a ride through the historic tunnel.

FLOATING TOWPATH ON OHIO & ERIE CANAL DEDICATED SEPT. 4, 2009

See story on p. 21

Akron Mayor Don Plusquellic speaks with ACS Director Larry Turner at the opening of the floating towpath.



FLOATING TOWPATH ON OHIO & ERIE CANAL DEDICATED

By Jim Guest, CSO/PCS

A unique section of the Ohio & Erie Canal was dedicated along the southeast side of Summit Lake in Akron. This important link, a simulated floating towpath linking the Summit Lake Community Center and Waterloo Road, was

chosen as the most economical solution, since the City of Akron does not own the lake frontage required.

In constructing the O & E Canal, Summit Lake was lowered six feet, creating a very unstable area on the east shoreline. No amount of fill would stabilize the ground to support a towpath, so a floating towpath was constructed of logs to

traverse the lake.

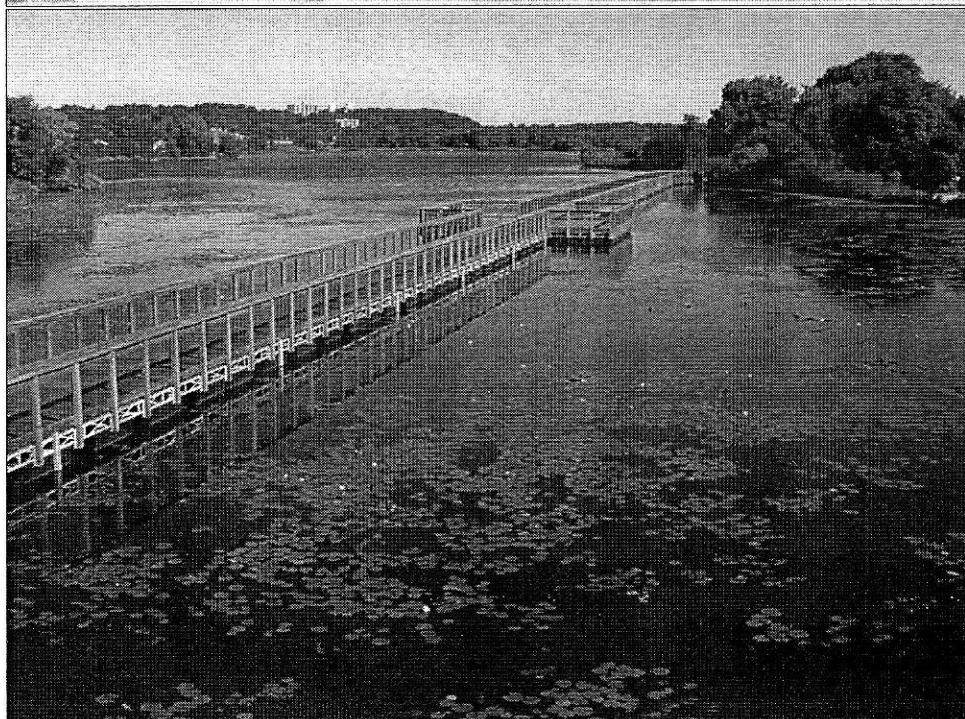
The new path is fourteen feet wide and one-third mile long. It is supported on polyethylene floats anchored to the lake bottom in sixteen to eighteen inches of water. A Brazilian hardwood decks the surface with 4½-foot railings with mesh fencing.

With the completion of this project, there remains only one half-mile section (behind the



SUMMIT LAKE

A clever engineering feat was the floating bridge across part of Summit Lake for the tow path of the Ohio Canal. It consisted of heavy timbers covered with rough planks floating on the water. This feature was in use from 1827 until it was abandoned in 1913.



Floating towpath, then and now.
Courtesy of Jim Guest

Advanced Elastomer Systems plant) to complete the trail from north Akron to south Akron. Work on this stretch is scheduled to be completed by July 2010.

There are approximately eighty-two miles of the 117-mile Ohio & Erie Towpath Trail completed between Cleveland and New Philadelphia. The remainder is mainly at the northern and southern ends.

The Cuyahoga Valley National Park is drawing about three million visitors per year, which ranks the park ninth in attendance for all national parks.

Canal Fever

Reviewed by Terry K. Woods

The Kent State University Press, which has a long tradition of publishing books on Ohio's Canal era, has recently published *Canal Fever*.

This one is a bit different. The canal in the title is that portion of the Ohio Canal that ran south from Cleveland through the Cuyahoga and Tuscarawas valleys. *Canal Fever* describes the enthusiasm generated among the local populous, first from the building of the canal, then the railroad, and finally, the 'sustained enthusiasm' required to convert the lands along and adjacent to the canal and railroad into recreational areas and bicycle trails.

Another difference in this book is that it is an anthology containing eighteen articles (plus seven sidebars) written by seventeen different men and women. The book is divided into three parts: *The Historic Ohio & Erie Canal*, *The Long Twilight*, and *Cultural Preservation to Canal Renaissance*.

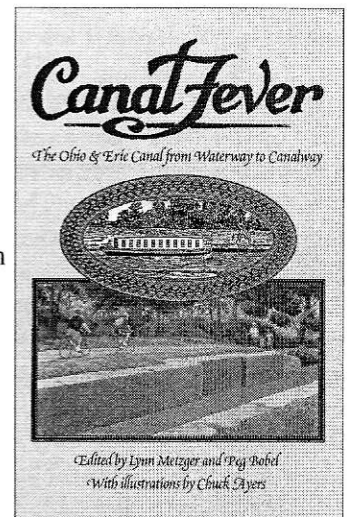
Most of the contributing authors have been intimately involved in some aspect of the recent conversion of transportation routes into recreation areas. A goodly number of them, including Dr. George Knepper, Sam Tamburro, and Jack Gieck, will be recognized for their previous highly regarded historical works.

Few of the authors delve deeper than previously published works for their references, but the various articles are well researched, and there are relatively few contradictions between articles. There is even a fine retelling of the story of a trip taken on the Ohio Canal in 1834 by Maxmillion, Prince of Wied. This latter tale is taken directly from a recent translation of the original German manuscript and contains a very detailed and interesting set of end notes.

Two of the contributing authors, Peg Bobel and Lynn Metzger, are also the editors of this book and have done a fine job in keeping the basic theme and high literary quality intact throughout the many articles.

The length of the book, (382 pages, including index) and the cost (retails at \$45.00) may tend to discourage some readers from trying it. Anyone interested in the Ohio Canal, the subsequent railroads in the area, or the birth of Ohio's only national park is urged to at least pick up a copy at your local library and scan through it. You are bound to find something of interest, and you might also just catch a bit of the canal fever that Peg and Lynn have, and decide to add this book to your permanent, personal library.

Books can be purchased from THE website, www.kentstateuniversitypress.com or by calling 419-281-1802. If local bookstores don't have it in inventory they can order it and it can be purchased from Amazon and the Barnes & Noble websites. The book has a suggested retail price of \$45.00 and shipping depends on the customer—UPS is based on weight and distance, USPS would probably be \$8.00 or so but there is no traceable element here.



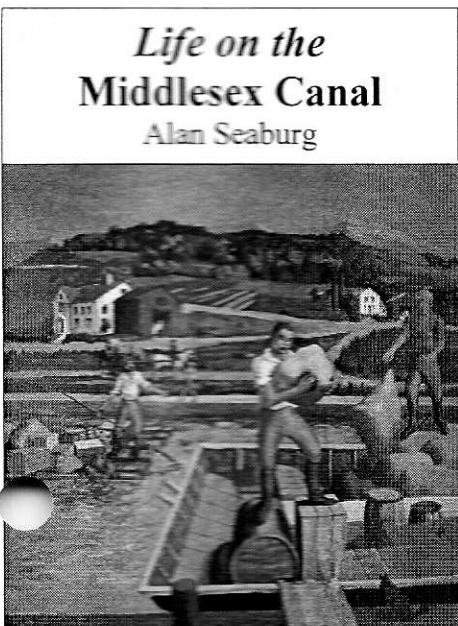
Life on the Middlesex Canal, by Alan Seaburg, illustrations by Thomas Dahill

Anne Miniver Press, 2009. 99 pages. Reviewed by Howard Winkler, Proprietor, Middlesex Canal Association

This book fills an important gap in the documentation about the Middlesex Canal. The four major canal books, that is, the ones by Roberts, Lawrence, Clarke, and by Seaburg, Seaburg & Dahill, all describe the canal, its location, construction, and its place in America's transportation history. This latest book by Alan Seaburg tells us about the people who interacted with the canal, as well as contemporary thinking about the value of the canal to the commercial activity of the region through which it passed. This new book is a wonderful example of scholarly sleuthing replete with foot notes. It has nine stand-alone chapters, (they are not numbered) and nine lovely original drawings by Dahill.

The first chapter begins appropriately at Blanchard's Tavern where the first meetings were held by the men who were to become the proprietors of the Middlesex Canal Corporation. We also learn a little about the economics of operating a tavern, and its place in the social fabric of the community. Dahill's drawing of the tavern, which he created from an earlier drawing with a different perspective, are amazingly crisp and detailed. In chapter two, Seaburg writes how the canal was used to convey people from Boston to an early 19th-century version of *playland*, on and around the shores of Horn Pond in Woburn.

I started to read the next chapter (the third) about the 1825 watercolor paintings of the Mill Pond at Billerica Falls with some misgivings. Did I really care who painted them? What was important to me was the detail in the scenes



presented by the artists. I learned about the buildings in the scenes, the people who lived in them, their relationship to each other, and the surprising relationship of the artists. The following chapter provides details about the commercial activities around the Mill Pond where the floating bridge was located. In the fifth chapter, we learn about the only cargo that was carried by the boats that can still be seen today. Certainly the consumables were digested, the perishables discarded due to age, and the timber rotted or eaten by insects. It is only the granite cargo used in construction that remains. The author tells us where the buildings are. The sixth chapter tells us about the goods carried on the boats, and the charges for their transportation. Seaburg found an incisive period comment about the economic viability of the canal: "Its value to the territory it served was great, but that territory was too small and thinly settled to yield adequate returns." As we know, the Middlesex Canal was a financial disaster. The proprietors did not have an adequate business model, in modern parlance. In the seventh chapter, Seaburg has mined the literature for first hand write-ups and recollections about the canal, and this is continued into the next chapter. These memories make one nostalgic for the good old days. The last and shortest chapter, and the one of least interest to the general reader, is about the founding and closing of the first and short-lived Middlesex Canal Museum.

Seaburg's book could only be improved by the addition of more of the graphics he cites, but, in fairness, he does tell the reader where to find them. This book makes a significant contribution to the literature of the Middlesex Canal.

The book is only available from the author, Alan Seaburg, at 4 Riverhurst Rd Unit 207 Billerica Ma 01821. The cost is \$16 and check must come with order and check must be made payable to Alan Seaburg. The price includes shipping expense and any other appropriate charges such as sales tax.)

CANALENDER—2010

February 1-28—*Lincoln and I & M Canal* exhibit. For information, contact Katie MacKay, 815-220-1848 or reservations@canalcor.org. Lock 16 Visitor Center 754 First Street LaSalle, IL 61301.

February 25—*Canal Corridor Association Annual Luncheon*, Drake Hotel in Chicago. For an invitation, contact Katie MacKay, reservations@canalcor.org or 815-220-1848. Lock 16 Visitor Center 754 First Street LaSalle, IL 61301

March 6—Winter Symposium, Monroe Community College, Rochester, NY. Contact: tgrassol@rochester.rr.com.

March 13—C&O VIP Work Party, 9 to 12 noon. Painting the Georgetown canal boat. Contact Jim Heins (301-949-3518 or vip@candocanal.org)

March 13—Canal History & Technology Symposium, Easton, PA. Call 610-559-6613; www.canals.org.

April 9-11—"Hoosiers on the Move"-Headquarters: Comfort Inn, Richmond, Ind., 765-935-4766; room rate: \$61.60 includes tax. Tour will cover the Whitewater Canal, National Road, Quakers, Politicians, and Underground Railroad in Wayne County, Indiana. Carolyn Schmidt, indcanal@aol.com; 260-432-0279. Canal Society of Indiana.

April 9-11—Virginia Canals & Navigations Society spring conference, Harper's Ferry, WV. Sat. field trips. Bill Trout, 252-482-5946; bill@vacanals.org

April 16-18—Pennsylvania Canal Society Spring Field Trip: Upper Grand section of the Lehigh Canal. Contact: Bill Lampert, 215-262-5506 or indnbll@yahoo.com.

April 17—Annual Douglas Memorial Hike and Dinner. Hikers will have three different length options with bus transportation provided. Cumberland to Spring Gap area with dinner and evening program at the Orleans Volunteer Fire Dept. Dorothea Malsbary, 301-942-2528; Programs@CandOCanal.org.

April 23-25 or April 20-May 2—"Bridging the Tuscarawas Gap" - See trail development along the Ohio & Erie Canal, restored toll house, Trenton dam and feeder & Lock 15 Park. Contact Larry Turner, towpathturner@aol.com; 330-658-8344.

May 1—I & M Canal Walk/Ride. Join the Canal Corridor Association in Morris, IL for the third annual I & M Canal Walk or Ride Celebration. Walk one to five miles or bike ten to twenty-five miles during this fun, family event. Bring a group

from your business or invite some friends and make it a team effort! Contact Katie MacKay, 815-220-1848 or reservations@canalcor.org.

May 22—Dedication of restored Nine Mile Creek Aqueduct, Camillus Canal Society, Camillus, NY. Contact Dave and Liz Beebe, dwbeebe@verizon.net.

June 19-20—Heritage Transportation Festival, Delphi, (IN) Canal Park. 1850 transportation, canal boat rides, high-wheel bicycles, carriage rides, etc. Info at mccain@carlnet.org.

September 19-24—World Canals Conference, Rochester, NY. www.worldcanalsconference.org.

October 1-16—Study tour of south German waterways. Contact www.canalsnys.org.

October 8-10—Pennsylvania Canal Society fall tour. Destination to be announced.

October 22-24—"River boats, Pirates and Caves." Headquartered in Evansville, IN. Bus tour of southeastern Illinois, Cave In Rock, Garden of the Gods, Ohio River locks, Paducah, Kentucky flood wall murals (possibly Quilters Hall of Fame and the Civil War Museum) on Saturday. Friday of LST in Evansville, Sunday Wabash & Erie Canal in Warrick County, Indiana. Carolyn Schmidt, 260-432-0279; indcanal@aol.com