

# American Canals

Bulletin of the American Canal Society

[www.AmericanCanals.org](http://www.AmericanCanals.org)

Vol. XXXX, No. 2

Dedicated to Historic Canal Research, Preservation, and Parks

Spring 2011

## From the President

by David G. Barber

One of the appeals of canals is that there is always more to discover, either individually or collectively. One example of this is a simple question like the number of locks on a particular canal. This is more a question if the canal had a long life.

Using the Delaware Division Canal in Pennsylvania as an example, the locks are numbered 1 through 24. So, the number is 24? But, Lock 1 is at the upper end of Bristol Basin and there is an unnumbered outlet lock between the basin and the tidal Delaware River. That's 25! But later, a connecting lock was built below New Hope so that boats could cross a pool in the river to reach the feeder for the Delaware and Raritan Canal. That's 26! But, not only were Locks 8, 9, 10, and 11 at New Hope individually rebuilt to wider dimensions to take two boats at a time, but Locks 15/16, Smithtown, and Locks 22/23, Groundhog, were combined and widened. That returns the number in the system to 24. However, that doesn't include the Papermill Lock below New Hope that was added as Lock 7A, bringing the number back to 25. It depends on what moment in time is being considered.

The Illinois & Michigan Canal has similar changes. Originally, it was planned to have 15 locks, which are the numbered ones. But finances forced the construction of summit level, adding a lock at each end for 17. Later the summit was removed, returning the number

on the mainline to 15. But the lock at Bridgeport was replaced when it was decided to use pumps to pump polluted water from the South Chicago River into the canal to flow towards the Illinois River and away from Lake Michigan. This does not include the lock at Ottawa on the canal's branch known as the "Lateral Canal." Nor does it clear up if there was a lock east of Lock 6 on the short feeder from the DuPage River.

The Ohio & Erie Canal is even more complicated over time with locks being rearranged at the Cleveland end, a side lock on the Akron Summit into Long Lake, a splitting of the lift of Lock 5 at Massillon into two locks, side locks at New Philadelphia and on the Trenton Feeder, the addition of two unnumbered locks at the north side of Buckeye Lake

and south of the Deep Cut when Buckeye Lake was raised in elevation to increase its capacity, and other changes I haven't learned of.

All of this keeps me reading canal histories very carefully and gives additional reason to attend canal tours.



Bill Carlsen, captain of the narrowboat *Dragonfly*, poses with the canal boat *Rosalie* in Ottawa, Illinois. Bill and his wife, Cynthia Berger, stopped here during their Great Loop trip. See story, page 9-12 and p. 23-24.

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# American Canals

BULLETIN OF THE  
AMERICAN CANAL SOCIETY

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

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

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[barths@att.net](mailto:barths@att.net).

**Material submitted to AMERICAN  
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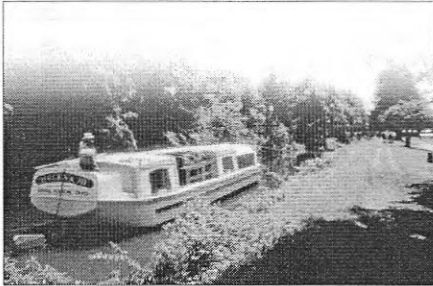
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Historic American Canals Survey,

David G. Barber, chair

## CANAL BOAT RIDES IN THE U.S.

If you will be traveling around the eastern half of the United States, you might want to visit one of the many canal boat concessions. Here is a partial list:

### OHIO

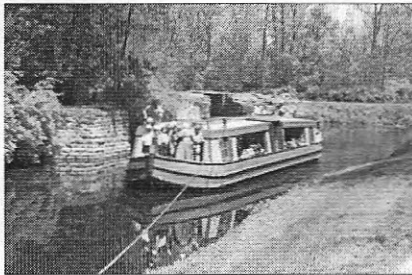


The Canal Fulton Heritage Society operates the *St. Helena III* canal boat rides in May, weekends only; June through September, daily, Tuesday – Sundays, 1, 2, & 3 pm, weather permitting. School & group charters also available. Adults, \$7; seniors, \$6, children 5-12, \$5; 4 & under, free. Old Canal Days Museum tour also available for a small additional fee. For more information, please call 330-854-3808 or 1-800-Helena3, or visit our website, [www.DiscoverCanalFulton.com](http://www.DiscoverCanalFulton.com).

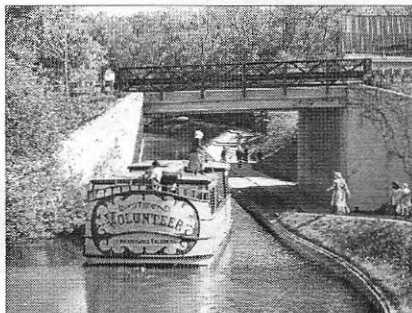


A relaxing cruise on the canal boat *Monticello III* makes a visit to **Roscoe Village** complete. This 1½-mile, 45-minute, horse-drawn ride allows passengers to experience this early mode of transportation. The captain provides insight into life on the canal during its 1800s heyday. Group rates and special charters available. 23253 State Route 83, Coshocton, OH 43812-9601; 740-622-7528; 740-622-3415 or 800-877-1830.  
[www.coshoctonlakepark.com](http://www.coshoctonlakepark.com)

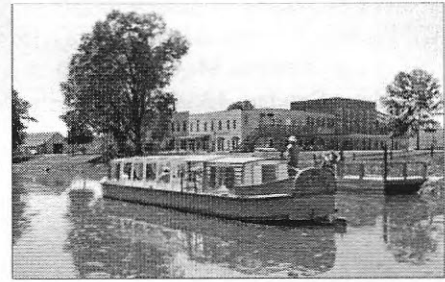
Ride the *General Harrison* at the **Piqua Historical Area**, 9845 Hardin Rd, Piqua, Ohio. April through October, Wed-Sun. Rides with crew in period clothing. Three interpreter-led rides daily, 12:30, 2:30 & 4. \$8/adults, \$4/students, 5 and under free. 800-752-2619.  
[www.ohiohistory.org/places/piqua](http://www.ohiohistory.org/places/piqua)



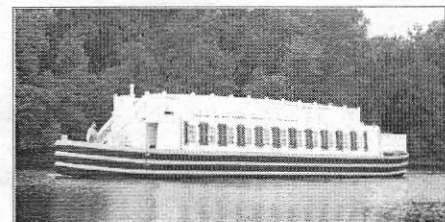
All aboard the *Volunteer* at Ohio's **Providence Metropark** in Grand Rapids, near Toledo. During the 45-minute trip, with passage through an original lock, living history characters tell educational and entertaining stories about life in the late 1800s. April 27–October 9. Canal boat tickets: \$6 adults, \$5 seniors (60 and over), \$4 children (3 to 12), ages two and under free. Tours of the Isaac Ludwig Mill, free. 13827 US 24 West (at SR 578), opposite Grand Rapids on the Maumee River. 419-832-6004. Check the website for times.  
[www.metroparkstoledo.com/metro/parksandplaces/index.asp?page\\_id=517](http://www.metroparkstoledo.com/metro/parksandplaces/index.asp?page_id=517)



### INDIANA AND ILLINOIS



Step aboard the *Delphi* for a trip down the **Wabash & Erie Canal** in Delphi, Indiana. Saturday, 11 am and 2 pm; Sunday, 2 pm, May 14–October 16; charter on all weekdays, \$100 per hour and \$50 for an additional hour. Tickets: adults, \$7; seniors and school-aged kids, \$4; preschool kids, free. Buy tickets at the interpretive center. Boat and onboard restroom are wheel-chair accessible. 1030 West Washington St., Delphi, IN; 765-564-2870.  
[www.wabashanderiecanal.org](http://www.wabashanderiecanal.org)

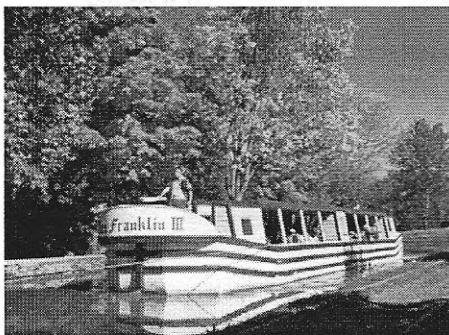


The *Volunteer* at LaSalle, Illinois, takes you on a one-hour journey on the **Illinois & Michigan Canal**, the same hand-dug waterway that 19th century pioneers traveled. Your guides, dressed as canal-era crew and passengers, will take you back in time to life on the American frontier and the Illinois prairie. Daily 10:00, 11:15, 1:00, 2:15, 3:30 pm. Buy your tickets at 754 1st St.; 815-223-1851. Adults: \$12; Seniors (65+): \$10; Youth 16 and under: \$6; Children under 3: Free; Family - 2 adults with 2 children under 16: \$33. The LaSalle Canal Boat is wheelchair accessible. [www.lasallecanalboat.org](http://www.lasallecanalboat.org)

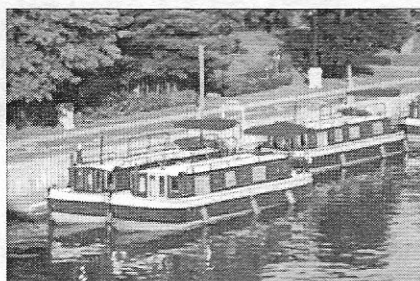
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## INDIANA AND ILLINOIS

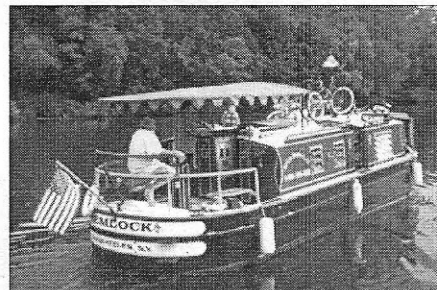
Come to **Metamora, Indiana** and take a half-hour excursion on the **Ben Franklin III**. The boat is 75' long, 12' wide, holds 80 passengers; design based on a typical line boat of the canal era.. Season: May 1-Oct 31, Wednesdays-Sunday, 12:00 noon to 4:00 PM, boats leaving every hour. Closed Monday except holidays. The one-mile ride takes 25-minutes, with a docent lecture of canal history. Rates: adults, \$4.00; seniors, \$3.50; children 3-12, \$2.00; under 3 or over 90, free; School groups \$1.00 per activity. Phone (765) 647-6512. [www.metamoraindiana.com/Attractions.htm](http://www.metamoraindiana.com/Attractions.htm).



**Champlain Canal Tours** is open May through October, with 30-minute waterfall tour or 30-minute Champlain Canal tour with locking at Lock 5. *M/V Sadie and M/V Caldwell Belle*. Day trips and overnight excursions. See rivers, canals and waterfalls on the Hudson River and Champlain Canal. Canal House, PO Box 9, Schuylerville, NY 12871; 518-695-5609; 518-695-5496, ticket office (in season). [info@champlaincanaltours.com](mailto:info@champlaincanaltours.com); [www.champlaincanaltours.com/index.php](http://www.champlaincanaltours.com/index.php).



**Mid-Lakes Navigation** offers one-week or half-week charters on its Lockmaster. You pilot your narrowboat along the **Erie Canal**. Or take the **Emita II** and let someone else do the driving. Contact: 11 Jordan St., PO Box 61, Skaneateles, NY 13152; 315-685-8500; 800-545-4318; [info@midlakesnav.com](mailto:info@midlakesnav.com) [www.midlakesnav.com](http://www.midlakesnav.com)



The **Emita II**, our double-decked tour boat, offers cruises from July 1 to September 24. With departures only minutes from downtown Syracuse at Dutchman's Landing, you can discover the legendary **Erie Canal**. ▼

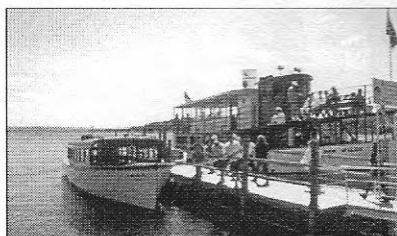


## NEW YORK STATE

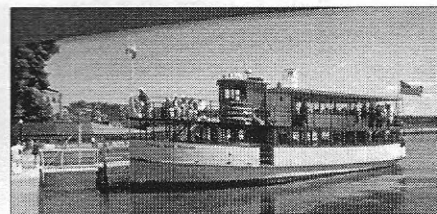


1-1/2 hour **Erie Canal Cruises** on **Lil' Diamond II**, Herkimer, NY. Fully-narrated historical cruise through a lock. A must for the history buff. Discounted rates for private groups. Public cruises mid-May through mid-October. Twice daily, 1 and 3 p.m. Adults, \$18; children 3-10, \$12. [www.eriecanalcruises.com](http://www.eriecanalcruises.com); 315-717-0350

**Erie-Champlain Canal Boat Co.** offers lock tours of the Erie or Champlain canals, family and educationally oriented, departing from the Waterford Harbor Visitor Center at Waterford, NY. 1½-2-hour lock tours. Self-captained boats are also available for hire by the day or the week (May through October). For more information, please call 518-432-6094 or visit our website at [www.eccboating.com](http://www.eccboating.com).



Mid-Lakes offers cruises each day from May 19 to September 30 on beautiful **Skaneateles Lake**, about 40 minutes from downtown Syracuse. From a one-hour sightseeing cruise in July and August to our US Mailboat to our Champagne Dinner cruise there's something for everyone!



← **Mid-Lakes Navigation's mailboat** on Skaneateles Lake

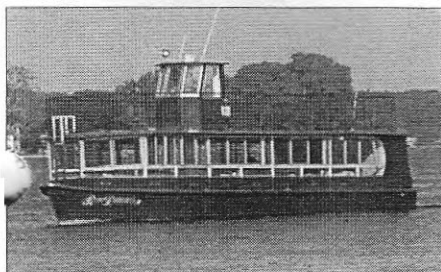
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## NEW YORK STATE

Experience **Lockport's** unique 2-hour cruise which includes "locking through" and being raised the 49 ft. elevation of the Niagara Escarpment in the only double set of locks on the **Erie Canal**. Pass under bridges that raise straight up, see water cascade over Lockport's famous "Flight of Five" 1840s locks, and travel through the solid walls of the "rock cut." You can cruise one of the regularly scheduled cruise times available daily from May 7 to October 16, or arrange special private charter times for your groups of 25 or more. Charter cruises can travel east for a relaxing canal cruise or choose our regular cruise route which includes locking through. Call us to schedule a cruise! \$16 adult; \$8.50 ages 4-10. 1-800-378-0352; 716-433-6155. [www.lockportlocks.com](http://www.lockportlocks.com).



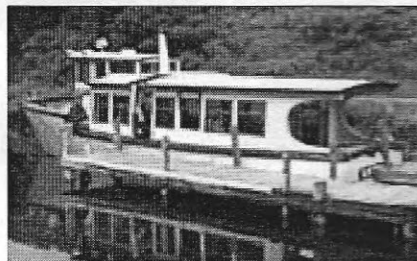
The **Rose Lummis** dinner and tour boat will cruise daily from Wooden Duck by the Gazebo at the Port of **Spencerport**. See the beauty of the **Erie Canal** from the dinner boat as you hear the amazing history of this waterway. Bon Voyage Adventures, 558 Gillette Road, Spencerport, NY 14559; 716-830-7555; [www.roselummis.com](http://www.roselummis.com).



The **Colonial Belle** has been providing Erie Canal boat cruises from mid-May through October for 20+ years. Come aboard in **Fairport**, NY, just 20 minutes from Rochester. Erie Canal Boat Tour, 400 Packett's Landing, Fairport, NY 14450. For more information, call 585-223-9470. 3 tours daily, Tues-Sat.; 2 tours on Sun. [www.colonialbelle.com](http://www.colonialbelle.com)



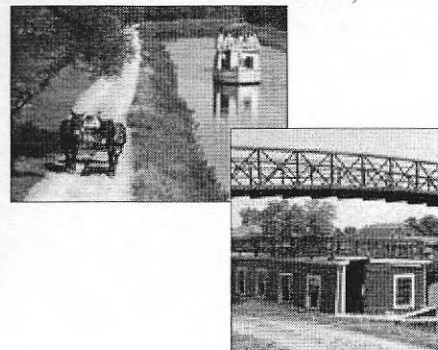
At **Camillus Erie Canal Park**, from May to October, board our turn-of-the-century excursion boat, **Ontario**, or the pontoon boat **Camillus Erie**, for a 2-mile, 45-minute trip across the newly-restored Nine Mile Creek Aqueduct. Dinner cruises leave from Devoe Road aboard the spacious **Otisco**. 5750 Devoe Road, Camillus, NY 13031; 315-488-3409; [www.eriecanalcamillus.com](http://www.eriecanalcamillus.com); [dwbbeebe@verizon.net](mailto:dwbbeebe@verizon.net).



Corn Hill Navigation, a non-for profit company, operates the historic **Erie Canal** packet boat the **Sam Patch** on the Erie Canal, and the historic wooden vessel the **Mary Jemison** on the Erie Canal arm of the Genesee River in **Rochester**. Both boats operate from May to October, offering daily public cruises and private charters. Daily cruises offered at noon, 2:00, and 4:00, and weekend dinner cruises at 6:30. All noon cruises offer a luncheon option at additional cost. Rates: \$13 for adults, \$10 for students and seniors (65+), and \$6 children ages 3-12. Phone 585-262-5661 for information and reservations. [www.samandmary.org](http://www.samandmary.org).



At **Rome Erie Canal Village**, board the **Chief Engineer of Rome** for a 40-minute cruise on the Enlarged Erie Canal. Late May through Labor Day. 5789 Rome-New London Road (Routes 46 & 49), Rome, NY 13440; [www.eriecanalvillage.net](http://www.eriecanalvillage.net); 315-337-3999;

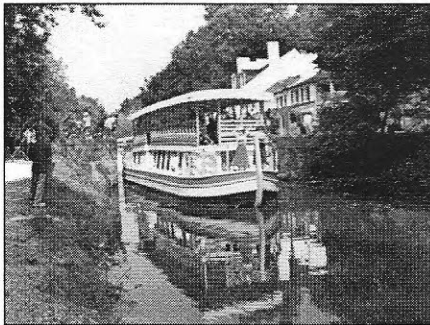


## PENNSYLVANIA



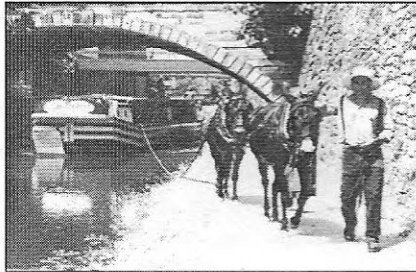
*Josiah White II* operates on the Lehigh Canal in Hugh Moore Park, **Easton, PA**. Open Memorial Day through Labor Day and weekends in May and September. Closed Mondays, except holidays. 40-minute rides begin at 11:30 AM. Last ride at 4 pm. Sunday rides start at 1 pm. Admission includes the Emrick Technology Center. 610-515-8000. [www.canals.org](http://www.canals.org)

## WASHINGTON, D.C., MARYLAND, VIRGINIA



Ride the National Park Service's mule-drawn excursion boat **Charles F. Mercer, Chesapeake and Ohio Canal NHP**, 11710 MacArthur Blvd, **Potomac MD** 20854, near Great Falls. Apr: Thu-Sat and May-Oct: Wed-Sun. Ranger-led, 1-hour rides @ 11, 1:30 & 3. \$5 for everyone aged 4 and over. To reserve space for 10 or more, call 301-767-3714. [www.nps.gov/choh](http://www.nps.gov/choh)

Ride the National Park Service's mule-drawn freighter **Georgetown** on the **Chesapeake & Ohio Canal NHP**, 1057 Thomas Jefferson St NW, **Washington, DC** 20007. Apr: Wed & Sun and May-Oct: Wed-Sun. Ranger-led, 1-hour rides @ 11, 1:30 & 3. \$5 for everyone aged 4 and over. Reserve space for 10 or more @ 301-767-3714 or (after April 1) 202-653-5190. [www.nps.gov/choh](http://www.nps.gov/choh)



Join Richmond Canal Cruises for an informative, 40-minute, historically-narrated tour of the James River and Kanawha Canal along **Richmond's** historic Canal Walk. Covered boats depart on the hour from the Turning Basin between 14th and Dock streets, on Virginia Street. April, October, November, Friday-Sunday. May and September, Thursday-Sunday. June-August, Wednesday-Sunday. For details, call 800-649-2800 or 804-788-6466. Visit [www.venturerichmond.com](http://www.venturerichmond.com) and click on Authentic Richmond Experiences.

## GEORGIA

Enjoy a guided tour on a Petersburg replica canal cargo boat along the **Augusta Canal**. One-hour tours several times daily (\$12); three-hour sunset cruises (\$20). Daily, April—November; Tuesday-Saturday, December—March. Contact **Augusta Canal Boat Tours**, 1450 Greene Street, Augusta, Georgia 30901; 706-823-0440; [www.augustacanal.com](http://www.augustacanal.com).



Dear Readers,

If you know of any canal boat rides that we have omitted, please send the information to me at 214 North Bridge Street, Somerville, NJ 08876; [barths@att.net](mailto:barths@att.net) or call 908-722-7428. Thanks so much.

On another topic, we are looking for verification as to the first canal lock. Many sources say that it was built in China, but what do our members say?

If you have news of any canal anywhere, please send it to me at [barths@att.net](mailto:barths@att.net) or 214 North Bridge Street, Somerville, New Jersey 08876.

Thanks so much.

Sincerely,  
Linda J. Barth

## NOVA SCOTIA'S SHUBENACADIE CANAL—THEN AND NOW

Story by Bernie Hart; photos by Allan Billard

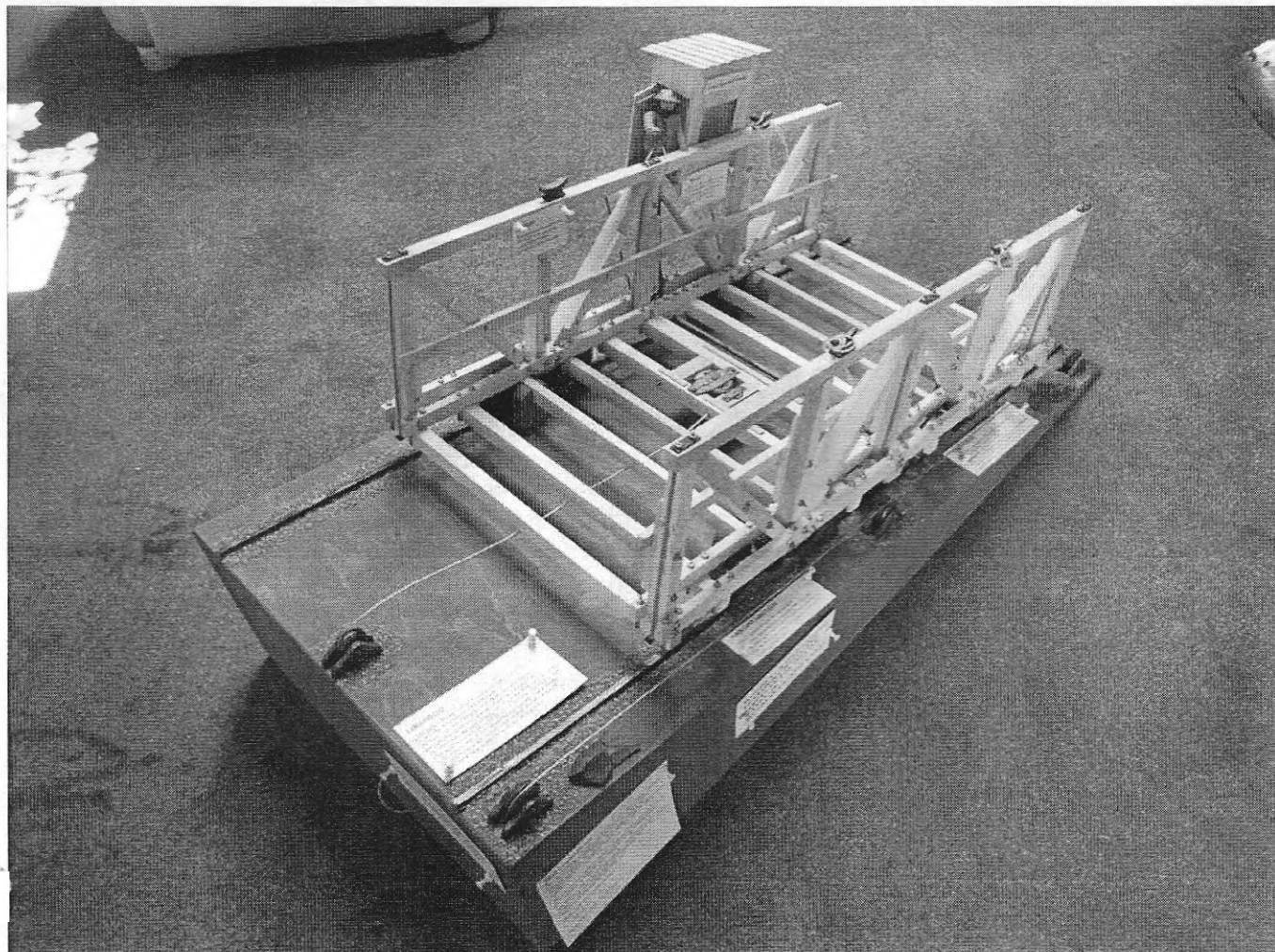
It has been almost a century and a half since Canada's first marine railways were transporting vessels on the Shubenacadie Canal. At present, what is left of the two planes lies beneath the ground. The original contours have not been disturbed, however, and extensive archaeological work has been undertaken on the below ground features.

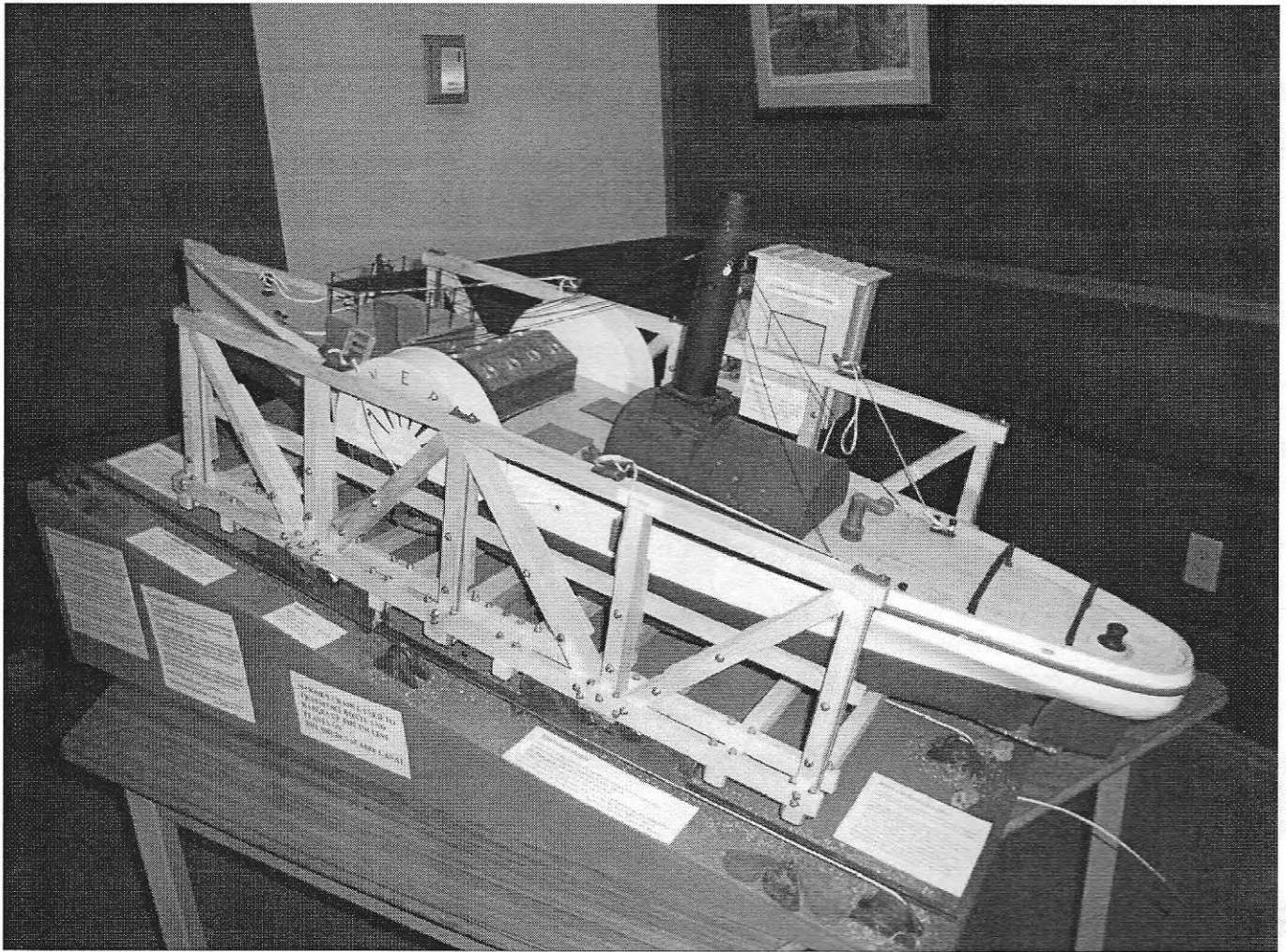
Fortunately, with support from the local municipality and an adjoining developer, the larger of the two planes, the Dartmouth incline, is about to become visible again. This will be the first time since the 1870s that people will be able to see just what our two planes looked like and how they operated.

The Shubenacadie Canal was in use between 1861 and 1870. In the case of the Dartmouth incline, located in the heart of downtown Dartmouth, it transported vessels from Halifax Harbour 1,300 feet to Sullivan's Pond, a manmade feature of the canal. This plane overcame a vertical distance of approximately fifty-five feet. The Shubenacadie Canal with its nine locks and two planes linked seven lakes and the Shubenacadie River, enabling vessels to cross the province, a distance of just over sixty miles.

If all goes well, in another year or so, people visiting Dartmouth will be able to see a life-sized replica of the original plane car, mounted on rails, sitting on the site of the historic plane. The path of the marine railway has now been incorporated into the Trans Canada Hiking Trail, which parallels the canal for a distance of approximately fifteen miles. It is hoped that the trail will eventually run the full length of the waterway.

Fortunately, the site of the incline is now a public park, and the long-range plans are for the opening of the turbine chamber so people will be able to go below ground to see how the plane was powered. The tail race, though buried, is still intact and the brick archway opening will be exposed as well.





The use of the turbine at this site extended beyond the canal era, as it was put to a number of other uses after the canal ceased operating. First it was employed to power a rock crusher used in association with the refining of gold ore. (Nova Scotia was a hotbed of gold mining for a period following the 1860s). Secondly, it ran the machinery used in the manufacturing of skate blades – in fact no less than eleven million pairs of the famous Starr Skates were shipped from this plant. The turbine chamber was also used as a source of power for the generation of electricity for the first street lights in the town. While the source of water and the structure of the chamber remained the

same, the types of turbines changed, and eventually they were replaced by a diesel engine.

But why is this article appearing in the bulletin of the American Canal Society? The two planes in use on the Shubenacadie Canal were closely patterned after those on the Morris Canal in New Jersey, and the man overseeing their construction was the well-known Thomas Talcott of Morris Canal fame. Charles William Fairbanks, engineer on the Shubenacadie Canal, spent considerable time studying the features of the Morris Canal and following this, Talcott was contracted by the Nova Scotia Company to inspect the work and

prepare a report on his findings, which is one of the important source documents for this feature.

In the early 1990s, Jim Lee and Lance Metz, of the Canal Society of New Jersey, visited the Shubenacadie Canal and were very helpful in sorting out various features of the Dartmouth incline. Most importantly, they were able to confirm that the design of the chamber resembled those on the Morris Canal. Later, in 2008, Bob Barth was in Dartmouth and was also very helpful in sorting out some of the features that were revealed during the most recent archaeological work. It was wonderful to renew the association with the Morris Canal after such a long hiatus.



The Shubenacadie Canal Commission is fortunate to have among its ranks a master craftsman, Alden Killen, who used the plans for the plane car, made available by the Canal Society of New Jersey, to construct a model which will become the blueprint for the life-sized version (see photos on p. 7 and 8). Alden laboured for many hours fashioning the wooden members and the many metal fastenings by hand. While there had to be some assumptions, by and large the model is based on the plans.

The next step will be to take this model to the local community college where digital representations will be prepared for the use of the carpentry students who, it is hoped, will do the construction of the life-size version. CN Rail has donated rails, and we have asked them to provide wheels for the cradle.

If all goes well, within two years the replica will be transported to the site where it will be mounted on the rails on the same alignment as the originals.



An artist's depiction showing how the site will look after work is done on the tail race and turbine chamber.

## FOLLOWING THE NARROWBOAT *DRAGONFLY* ALONG THE GREAT CIRCLE LOOP

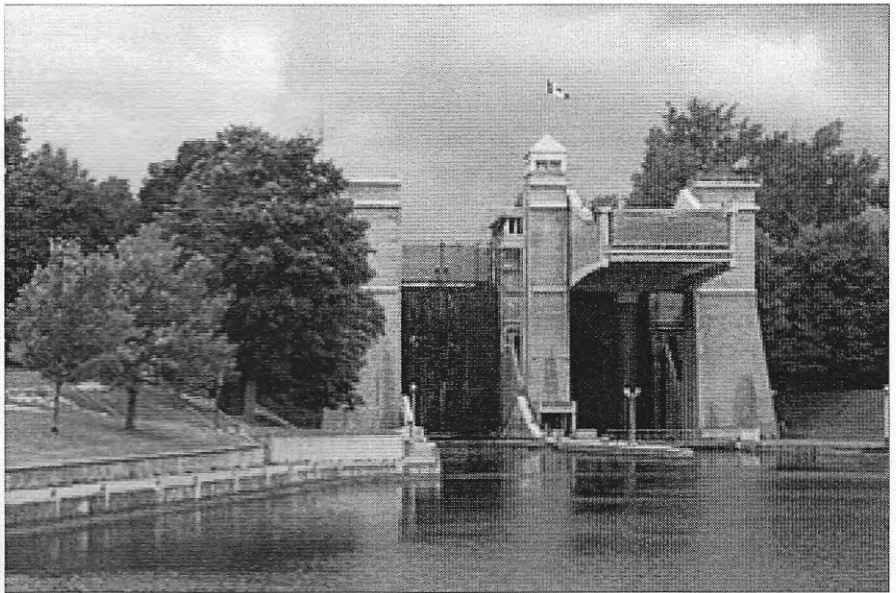
In the winter issue, we reported on the continuing journey of Bill Carlsen and Cynthia Berger as they cruise along our nation's inland waterways in the *Dragonfly*, a specially-designed narrowboat partially powered by solar energy. In our last issue we reported on the beginning of their trip in May and included excerpts from Cynthia's blog through June 8, 2010. Now we can share with you more details of their trip.

**June 23**—On Friday we left the port of Trenton, Ontario, and entered the Trent-Severn Waterway. We couldn't help comparing it to the Erie Canal. Both canal systems aimed to give commercial boats a shortcut to and from the Great Lakes. Work on the Trent started around the same time the Erie was completed. But though the Erie opened in 1825, it took 87 years to finish the Trent-Severn--by which time it wasn't much needed, what with trains and trucks and all.

**June 26**—One part of our quest is to find businesses and individuals who are doing innovative things with sustainable technologies. We happened to pick up a local magazine that mentioned an “eco-destination” on Grasshopper Island, in the middle of Rice Lake, named for the wild rice that used to grow there. We were intrigued, so, as we cruised by, we shouted, “Ahoy the island.” We visited Trudy Jo Chernuck, who operates the retreat, Island Spirit, which is completely off the grid. One of the amenities visitors enjoy is a cypress grotto fitted with a state of the art, Chinese-manufactured solar shower. Though it had been cloudy and raining for 24 hours, the water in the shower was still steaming hot. Trudy, a tall, vivacious woman who literally bounds across the landscape, is very excited about her new project. Formerly the co-owner and manager of one of Canada’s largest (conventional) lakeside resorts, she’s pursuing a new business niche.

**July 2**—When you leave Peterborough, Ontario, heading north, you encounter one of the main attractions of the Trent-Severn Waterway: the Peterborough Lift Lock (above right). Look at the right-hand side, up at the top. See the structure that looks like a shelf, in between the middle and right-most towers? That’s a big ol’ pan of water, and your boat takes a ride in it.

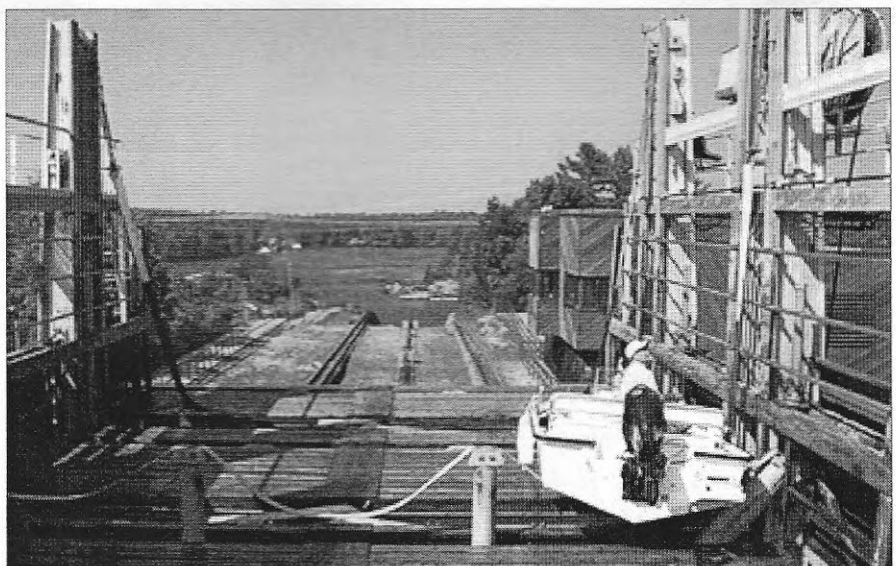
**July 9**—Humans have invented four different kinds of locks for use on canal systems. One of the cool things about Canada’s Trent-Severn Waterway is that it has **all four kinds**: 1) conventional locks, where water goes in, and your boat floats up; 2) flight locks



(that’s two or more conventional locks, all in a row); 3) lift locks; and 4) marine railways. And here’s what it looks like as your boat is being loaded onto a marine railway, the Trent-Severn’s “Big Chute Railway” (below). See the white motor boat? Our boat is just behind it, loaded onto its own set of sling straps. The railway carries as many as six boats over a hill, in the process helping boats avoid a narrow and turbulent stretch of river called the Big Chute, where water flows fast down a rocky canyon.

*Dragonfly* spent the rest of July and all of August sailing Georgian Bay (off Lake Huron) and Lake Michigan before reaching the Chicago Harbor Lock.

**September 1**—*Dragonfly* threaded the canyons of Chicago fast as a morning commuter tossing off a shot of espresso, and before you could say “Chicago Ship and Sanitary Canal,” we were heading southwest out of downtown, away from the gleaming glass towers, under the Dan Ryan Expressway, and into the industrial hinterlands. We passed



the Chicago Public Works yard, with mounds of road salt and sand, ready for the winter. A little farther on, asphalt plants vented the smell of hot tar into the humid air. We noticed a petroleum refinery, placed (with unintentional irony) directly across the river from a facility where stacks of flattened automobile carcasses were being bundled. Meanwhile, signs along the river bank read: "This water not safe to swim in. This water not safe to jet ski in. This water not safe for any contact with human skin."

You've probably read the news reports saying a segment of the Chicago Sanitary and Ship Canal had been outfitted with an "electric barrier" to prevent the obnoxious Asian carp from swimming upstream and entering Lake Michigan. I wondered, what does a fish barrier look like?

Yesterday, I got my answer, as we motored right through the section of electrified water. You can't see the "barrier" from the water, as you approach in your boat. But here's how it works.

Steel cables have been secured to the bottom of the canal. A generator sends a low-voltage, puls-

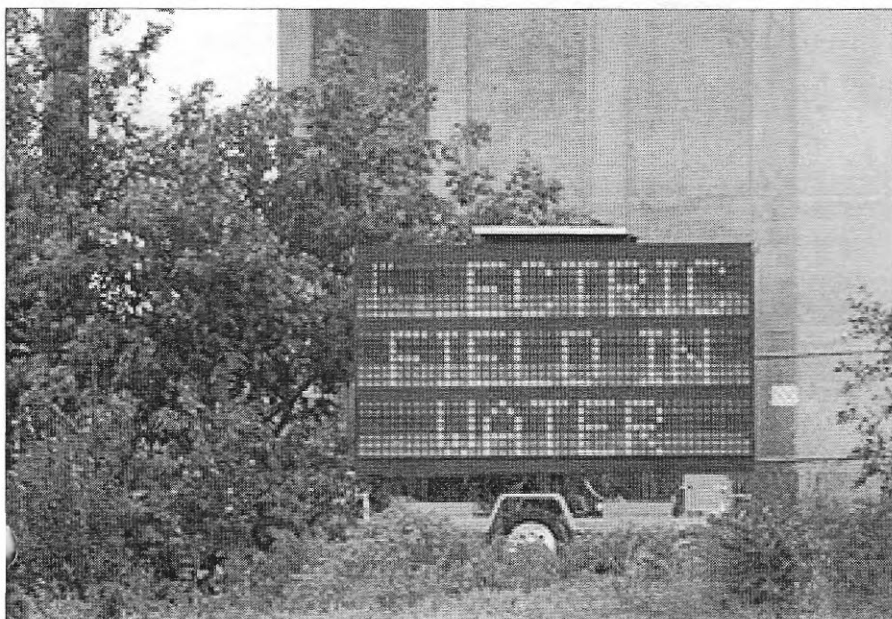
ing DC current through the cables, creating an electric field in the water. That electric field makes fish feel uncomfortable, and (theoretically at least) they swim the other way. (An Asian carp was caught above this barrier earlier this summer.) Of course electricity pulsing through the water could make HUMANS rather uncomfortable, too. So, six miles above the barrier, you start to see traffic signs, alerting you to the barrier. And there are a lot of rules you need to know before you go through. For example, in a steel-hulled boat, you should not touch any metal (we put our shoes on!).

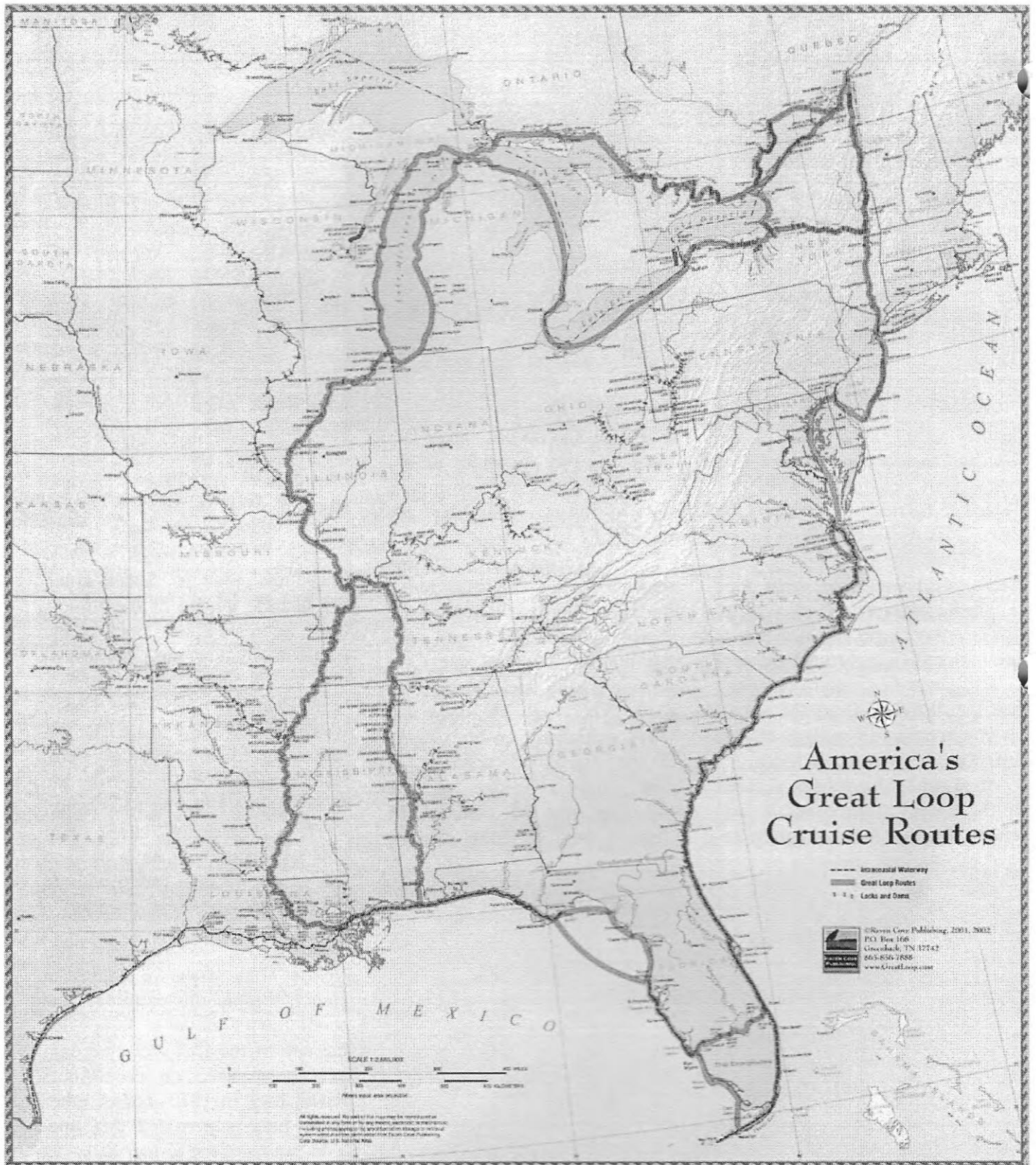
We unplugged our computers, just in case. And you are required by law to wear a Type I life preserver as you transit the area--those are the big, bulky kind. (Ordinarily we wear Type 5 jackets, which are very light and comfortable, but use CO2 cartridges to inflate if you hit the water. There are buildings and heavy equipment on both banks of the electrified segment of river, and a bridge at one end. The area that contains the "fish barrier" is quite short--a

few hundred yards--and heavily posted with warning signs along its entire length. (Yes, people have to be told, "no swimming!")

**September 6**—While we were docked in Ottawa, Illinois, we had many boat visitors. Reporters from two local papers dropped by, along with a representative of local radio station WCMY; the mayor himself, Robert Eschbach; and assistant city engineer Arnie Bandstra. Arnie is passionate about canal boats. Recently, he rescued one, the *Rosalie*. To learn what she is, where she is, and how she came to be there makes quite an interesting story. (See *American Canals* fall 2010 issue and story, p. 23 in this issue.) Ottawa citizens have a very good reason to take a keen interest in canal boats: the town is located along the historic course of the Illinois and Michigan Canal. Back in the mid-19th century, the I&M was to *this* region what the *Dragonfly's* home waterway, the Erie Canal, was to upstate New York. The 96-mile-long I&M supported westward expansion by connecting the Great Lakes with the Mississippi River. Historians agree that Chicago would not have become the great city it is today without the I&M transportation corridor.

**September 7**—*Dragonfly* felt right at home when we stopped in Henry, Illinois, this morning. This small town's claim to fame? It's the site of the first lock and dam ever constructed on the Illinois River, back in 1870. Today, other dams have superseded this one. You can enter the former lock, its crumbling limestone walls surround the gas dock of the town marina.





Pretty much everyone who sees our boat wants to know, "How fast can she go on solar power?"

Well, if you want to cruise all

day and not deplete the batteries, you have to keep her under 3.5 miles per hour. Walking pace. Follow the adventures of Bill

and Cynthia aboard *Dragonfly* at

[www.slowboatcruise.com](http://www.slowboatcruise.com)

## CRUISING THE RIVER THAMES

By Roger Squires

When I talk to friends and visitors alike, often the topic of waterway cruising comes up. All too often I am told it is easy for me as I own my own boat. They are pleasantly surprised when I explain that regular scheduled river 'steamers' cover much of the River Thames from Central London to Oxford. The small gaps are easily overcome by local trains.

Perhaps the best known steamer service is the one that travels from Westminster Pier to Hampton Court. This is a half-day trip and the nearby station offers easy access back to Central London or elsewhere.

The real hidden gems are the Salters Steamers that run services from Staines, near London Heathrow, via Runnymede, Windsor, Maidenhead, Cookham, Marlow, Henley, Reading, Goring, Wallingford, Abingdon to Oxford. This whole river journey can be made in three-and-a-half days if the timetable is studied with care, as some sections are only covered

Photo by Roger Squires



Photo from Salters Steamers

on certain days (see

[www.salterssteamers.co.uk](http://www.salterssteamers.co.uk).)

Perhaps the easiest place to start the trip is in Reading on a Saturday afternoon. Reading is connected by rail and coach from Central London.

The afternoon boat leaves at 2.30 pm from Caversham Bridge landing. This is about twenty minutes' walk from Reading station. The craft heads upstream to Mapledurham, with its Manor House and 15th-century mill,

past Hardwick Hall (Toad of Toad Hall fame) to Pangbourne, where J.K. Jerome finally abandoned his camping skiff, then on to Goring, where the river cuts through a gap in the downs. The route then is more rural through to the ancient market town of Wallingford. You arrive here soon after 5.45 pm. I suggest the local inn or a bed-and-breakfast will provide good overnight lodgings.

On Sunday morning you have some time to explore the town before catching the upstream boat that leaves Crowmarsh landing at 10.30 am. This is quite an interesting trip in that it meanders through the countryside, passing Benson Lock, Shillingford House (built by Lily Langtree), and the former toll bridge. Then on past Dorchester and Wittenham Clumps to Days Lock. This is the venue of the annual 'poohsticks' competition. Thence via Clifton Hampden and Culham Lock Cut to Abingdon, with its magnificent waterfront and Alms Houses. The boat arrives at the Nags Head



Photo from Salters Steamers

mooring in Abingdon at 1.30 pm. This gives you time for a leisurely lunch before taking the late afternoon boat, at 4.45 pm upstream to Oxford.

Its journey takes you past Carfax Conduit, Nuneham House, built in 1756 for the Earl of Harcourt. Then on past Radley College Boathouse and through to Sandford Lock. This is the deepest lock on the Thames, with a rise of 8ft 10 inches. Rose Island, and the former Swan Inn, are soon followed by Iffley church and lock. Then onwards past the various Oxford Colleges Boathouse to Oxford Folly Bridge landing. The boat arrives here at 6.30 pm. You then have a choice either to stay overnight in Oxford or to take the train from Oxford, via Reading, to Staines and stay overnight in Staines. The choice is yours as lack of time pressures on the following Monday morning do make both an option.

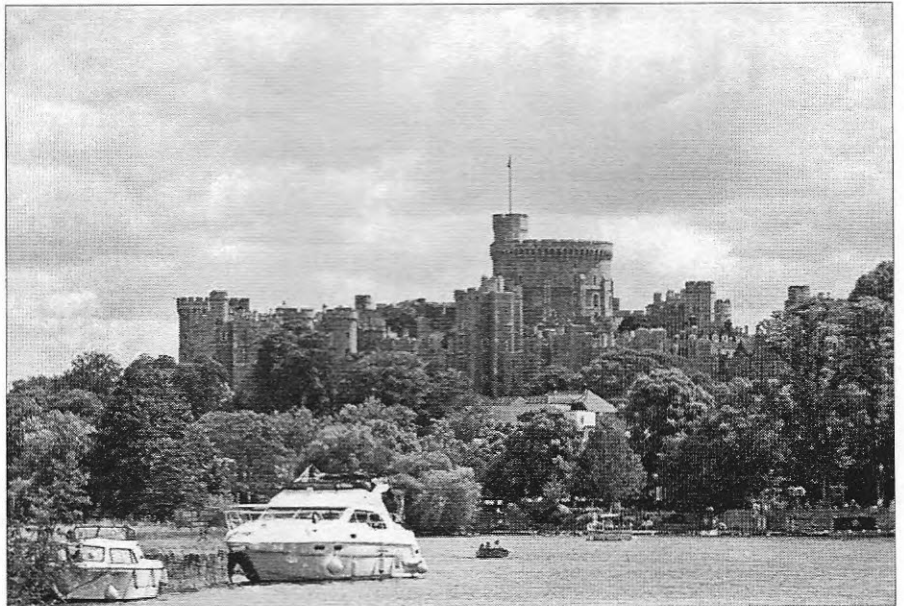
On Monday you need to aim to be at Staines, Victoria Gardens

Photo by Roger Squires

Pier, just downstream of the railway bridge, to catch the steamer that leaves for its upstream journey, at 11.10 am. After passing under the Staines town bridge, you pass the London Stone, a boundary marker after which Staines is named, to go through Bell Weir Lock. Then on past Magna Carta Island, at Runnymede, where King John signed the Charter of English liberties in 1215, to reach Old Windsor lock. Soon after leaving the lock

the river reaches Windsor Park, part of the Royal Estates. Thence on to Romney Lock and through to the Windsor mooring, just below the town bridge, arriving around 1.15 pm. You have just one hour to get a quick lunch before joining the upstream boat that leaves Windsor Bridge moorings at 2.15 pm. The route passes Eton meadow, with the wonderful view, as you look back to Windsor Castle, then on to Bovney Lock. On past Oakley Court, home of the "Hammer Horror Films," and then Monkey Island to Bray Lock. The next landmark is the famous Brunel Bridge at Maidenhead. This is followed by Boulter's Lock. The reach above Boulter's Lock is perhaps unique with the Hanging Woods in the Clevedon Estate. Cookham Lock soon follows and after a long lock cut, the former toll bridge by Cookham Village is reached. The village was once the home of the artist Stanley Spence.

The next reach, past Bourne End, is famed for its sailing club. This leads through to Marlow Lock and the Marlow, Higginson Park landing place, which is reached at around 6 pm. Again



another overnight option is available. Either you can stay overnight at Marlow, or take the train to Reading.

On Tuesday, the steamer leaves from Reading, Cavesham Bridge, on its downstream run at 11.00 am. This passes Sonning Lock and its famous arched bridge, before threading its way past islands to Shiplake Lock. The main river then bypasses the Wargrave and Hennington Backwaters to reach Marsh Lock. Henley is soon in sight, with its River and Rowing Museum. You arrive at the town mooring at around 1.15 pm. Time to explore Henley before returning to the boat landing place, in Mill Meadows, to join the downstream boat for Marlow that leaves at 4.15 pm.

This takes you along the famous Henley Royal Regatta Course and past Temple Island through to Hambleton Lock and Mill. Then onwards past Culham Court to Medmenham Abbey, created by Cistercian Monks and later the base for the infamous "Hell Hire Club." Thence to Hurley Lock and Temple Lock, before passing Bisham Abbey, to reach Higginson Park landing at Marlow at around 6.30 pm.

At this point you have covered the whole of the river from Oxford to Staines. You are again faced with another choice. You can either overnight in Marlow, or take the train back to Central London.

The main thing in taking the steamer trip is to study the time table. Normally the whole river route is fully operational from early June through to the end of September, but various sections only operate on certain days. Some sections of the route start operating in May. Here again the

Salter's Steamers web site ([www.salterssteamers.co.uk](http://www.salterssteamers.co.uk)) is the one to check. Or phone their head office in Oxford (01865 243421). Either way, the river steamers offer a most enjoyable opportunity to explore the Royal River Thames.



## 200 YEARS FOR THE STANDEGE TUNNEL

One of Yorkshire's finest examples of industrial archaeology and one of the 'Seven Wonders of the Waterways' will celebrate its 200th anniversary this April.

Two hundred years after opening on April 4, 1811, Standedge Tunnel and the Huddersfield Narrow Canal will mark the occasion with a special Bicentenary event over three days in honour of this extraordinary feat of engineering.

The public can win a chance to 'leg' through the tunnel by taking part in a radio competition in the run up to the birthday event.

Planned activities for the celebrations include:

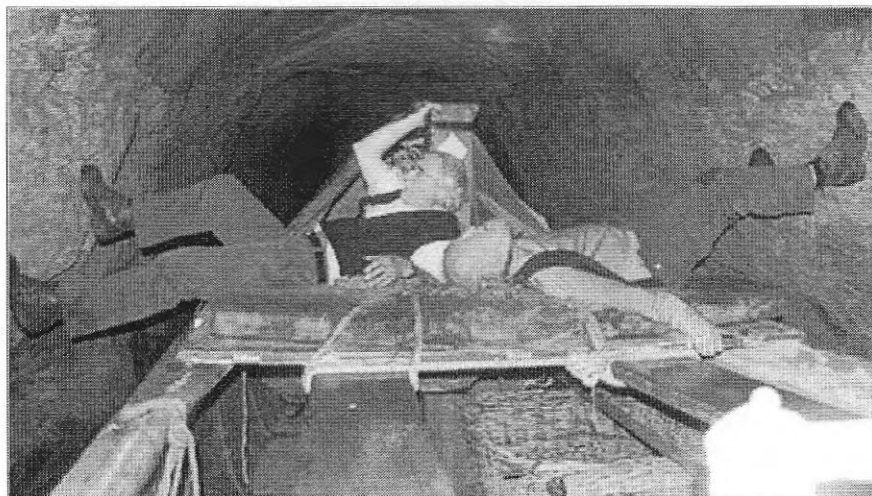
•The Horseboating Society will be 'legging' the tunnel: Saturday

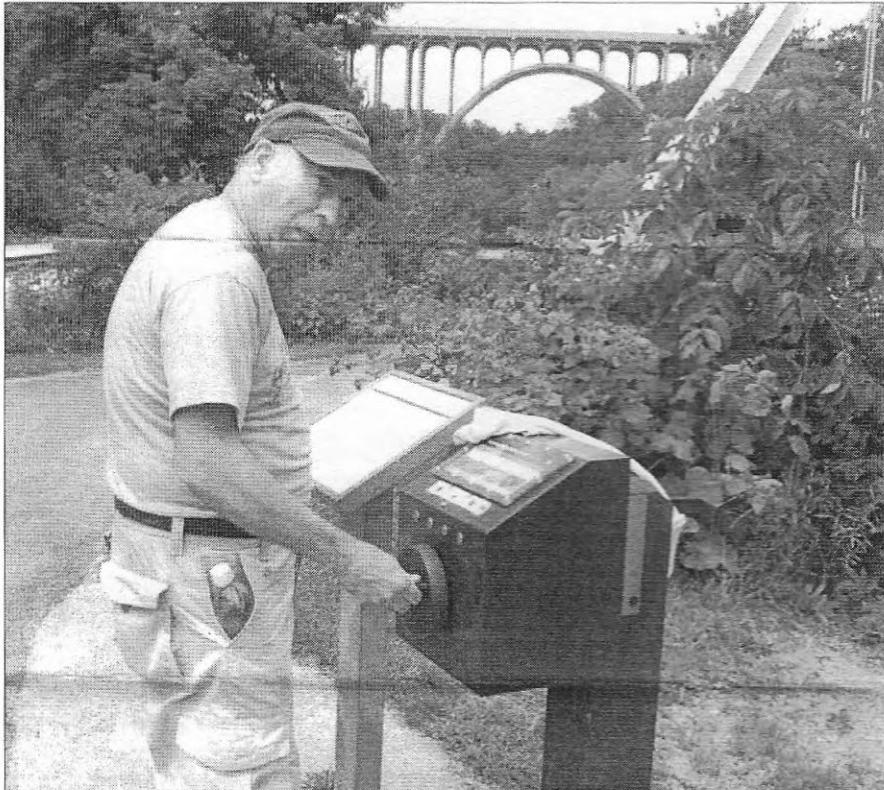
2 April: legging one boat, Diggle to Marsden. Sunday 3 April: legging three boats, Marsden to Diggle. Monday 4 April: legging three boats, Diggle to Marsden

- Guided walks on 3 days over the tunnel top following the route of the canal boat horses.
- A wildlife and sensory garden made from recycled lock gates and a new children's playground.
- Bicentenary mosaic art project
- Waterway craft demonstrations

Construction of the Huddersfield Narrow Canal was sanctioned by an Act of Parliament in 1794 and was finally finished after 16 years of hard labour, under the supervision of some of the finest engineers of the Industrial Revolution including Benjamin Outram, John Rooth, and Thomas Telford, the consultant overseeing the final section. The first boat went through the tunnel on December 10, 1810, before the tunnel was officially opened on April 4, 1811. When it opened to navigation, it became the third transpennine waterway, after the Leeds & Liverpool and Rochdale canals.

Further details are available by calling the Standedge team on 01484 844298 or visiting [www.standedge.co.uk](http://www.standedge.co.uk) and [www.horseboating.org.uk](http://www.horseboating.org.uk).





## HAND-CRANKED AUDIO IN CUYAHOGA VALLEY NATIONAL PARK

The Cuyahoga Valley National Park is testing two green, hand-cranked devices that will play a selection of pre-recorded audio tapes, providing historical and natural history information about the area. In the photo on the left, ACS Director Larry Turner is laboriously testing the device near the canal at Station Road Bridge in Brecksville.

Our thanks to the Canal Society of Ohio for permission to reprint this story from its 2010, Issue #3 newsletter.

### Here is the SCOOP on Delphi's newest canal land deal:

At year's end Paul and Margarete Brandenburg, former residents of Delphi, donated land to the Wabash & Erie Canal Association. Adjacent to the Interurban Trail and a mile southwest of Delphi, the land comprises 2+ acres. It abuts Indiana highway 25, land already owned by the city's water filtration plant, and remaining farm land owned by the Brandenburs.

Plans are being projected by the canal association and Mayor Randy Strasser to enhance this land for the betterment of visitors entering Delphi. Next spring's Project W.E.E.D. (Wabash & Erie EARTH DAY) will focus on cleanup, development and beautification of this highway roadside north of Deer Creek and nearby Trail-head Park—a public entrance to the Delphi Historic Trails system.

Assisting with the land transfer was local attorney Abigail Huffer who performed these services pro bono. This gift of land follows a long legacy of donations that community landowners have bestowed upon the Canal Association since its incorporation in 1974. All total nearly 150 acres of land, mostly in linear parkways acquired one piece at a time through donations. These parcels follow the Wabash & Erie Canal towpath and other streamways comprising ten miles of historic trails.

Three miles of canal with one mile completely renovated and rewatered now serve as the heart of the association's infrastructure. The ten miles of Delphi Historic Trails were developed by canal volunteers over the years. Much of this land was then donated by the canal association to the City of Delphi and leased back for 99 years so as to capture the land's value as local match for trail grants in the 1990s.

### DRY CANAL?

Here's a tidbit from Bill Trout.

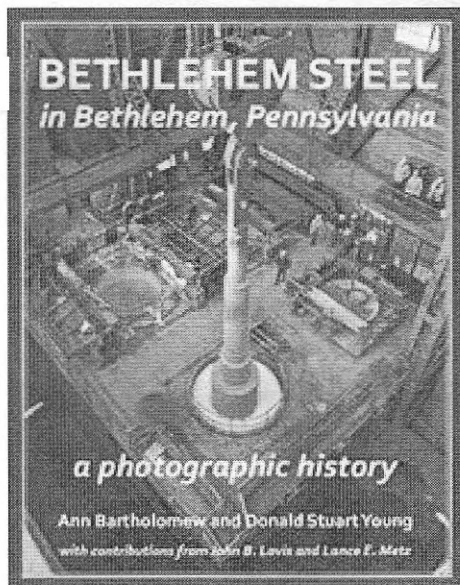
#### Are You a Dry Canal?

It seems that if you were Egyptian, about 200 AD, and didn't have a mind of your own, you could be called a "dry canal." The phrase is in the Revelation of Peter, an early Gnostic gospel discovered in a buried jar in upper Egypt in 1945. Scholars think that the original Greek phrase was "dry springs," but when it was translated into Coptic for the Egyptians (who lived in a canal-rich environment), it was changed to "dry canals."

This breathtaking information is in *Truth and Fiction in the Da Vinci Code*, p. 57, by Bart Ehrman, who probably got it from *The Nag Hammadi Scriptures*, p. 490, by Wolf-Peter Funk, which is on Google Books. Just search for "dry canals."



## BOOK SHELF



### Bethlehem Steel in Bethlehem, Pennsylvania by Ann Bartholomew and Donald Stuart Young

*Bethlehem Steel in Bethlehem, Pennsylvania: a Photographic History* (Canal History and Technology Press, 2010) uses over 650 photographs and drawings with descriptive captions to tell the story of iron- and steel-making in Bethlehem. The book spans the 130-year period from the founding of the Bethlehem Iron Company through the era of Bethlehem Steel to the last cast of iron in late 1995. Most of the images used came from the archives of the National Canal Museum. Many have never been published before.

Authors Ann Bartholomew and Donald Stuart Young are long-time Canal Museum members and volunteers. Bartholomew has edited and designed a number of earlier publications for Canal History and Technology Press. Young, formerly the foreman of Bethlehem Steel's electric furnace melting shop, is well known for his enthusiasm for steam locomotives and his popular Canal Museum lectures on Bethlehem Steel.

ISBN 978-0-930973-41-4

Price \$35.00. Discount of 10% for Canal Museum members.

## CANAL FEVER

### The Ohio & Erie Canal from Waterway to Canalway

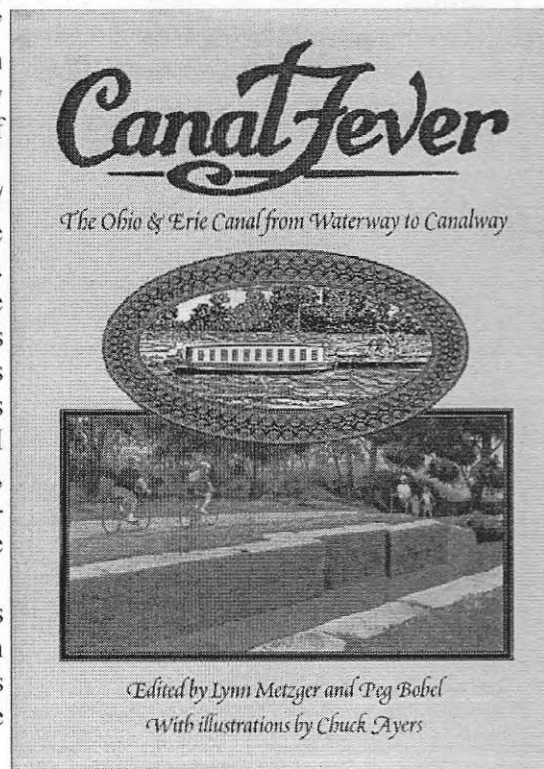
Edited by Lynn Metzger and Peg Bobel

Reviewed by David G. Barber

This book is a collection of essays by several authors on the Ohio and Erie Canal, discussing the canal from its origins through to present-day efforts to preserve and make use of the corridor. Since it is about the "heritage corridor" as currently defined, it focuses on the portion of the canal between Lake Erie and Zoar with a little mention of southward to New Philadelphia. I found the variety of subjects over the years of canal history to be very informative.

My two regrets are lack of discussion of any preservation/reuse efforts south of New Philadelphia and a discussion of the possibility of public navigation on the canal in the 21<sup>st</sup> century. Apparently the flood of 1913 has banished navigation from the list of possibilities in the vision of Ohio residents. This includes the Cuyahoga National Park where the working of Lock 38 is demonstrated without a boat. Considering all that has been and is continuing to be accomplished along the Ohio & Erie Canal, I think that avoiding the possibility of navigation is a mistake. But, these are the people on the scene. I also think that the well-documented use of the canal as a regional link needs to be extended all the way to Portsmouth on the Ohio River.

This is a very thorough and readable discussion of this canal over many decades in 382 pages. The book is available from the Kent State University Press ([upress.kent.edu](http://upress.kent.edu)) at \$45.00 plus shipping and handling or on the internet from Barnes and Noble or Amazon at lower prices.

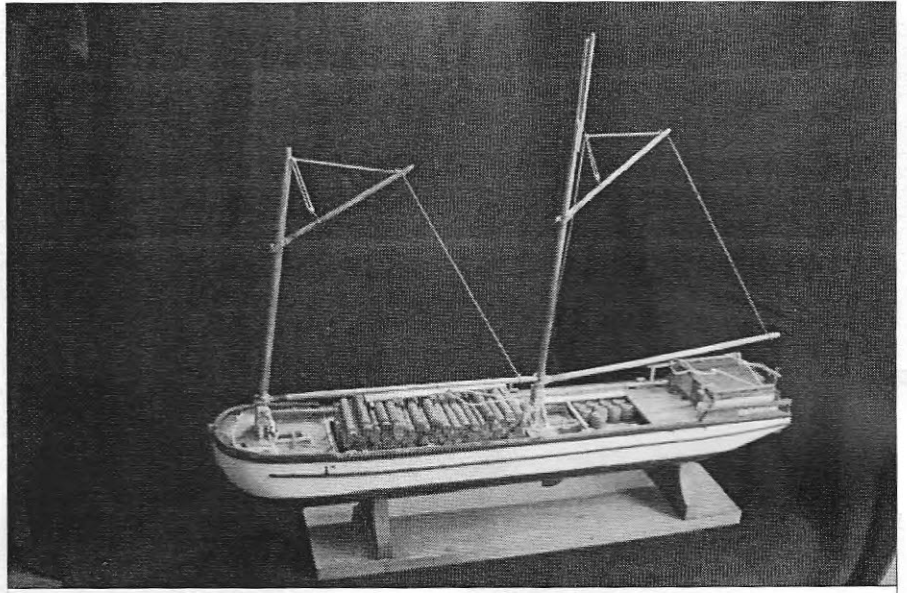


## Renaissance of America's "Other C&O Canal"

story and photos by  
Stephen R. Aylward, Ph.D.  
Department of History and Political  
Science  
Saint Joseph's College of Maine

Mention "C&O Canal" to canal fans or history buffs, and most will think of the famous Chesapeake and Ohio Canal with its fabulous National Historical Park. Less well-known nationally but cherished in a local renaissance of restoration and interpretive projects is the nation's "other C&O Canal," Maine's Cumberland and Oxford Canal. While the Cumberland and Oxford Canal proper—minus lake portions—was about one-tenth the length of its Maryland cousin, and while the Chesapeake and Ohio outlasted it by fifty years, the doughty Maine canal had two interesting aspects not shared by its southerly counterpart:

- Boats on Maine's C&O Canal were outfitted with sails and drop keels, allowing them to engage in lake and coastal trade as well as



Canal boats on Maine's Cumberland and Oxford Canal were equipped with sails for crossing the lakes. They were also poled and, on the dug sections, pulled by horses.

strict canal use, and

- Construction of the Cumberland and Oxford Canal commenced several weeks before President John Quincy Adams turned the first shovelful of earth on the Chesapeake and Ohio Canal on July 4, 1828.

Constructed between 1828-30, the Cumberland and Oxford Canal operated from 1830 to 1870. The C&O Canal linked the

port and industries of Portland with Maine's resource-rich rural lands. Lumber and wood products were the canal's most important cargo, followed by agricultural goods; however, several colorful and historic cargoes were also manifested aboard canalboats:

- Many of the original trees lining Portland's streets—earning it the enduring nickname, "the Forest City"—were transported as saplings over the canal from the woodlands around Sebago Lake.
- Much of the lumber for Portland's shipyards came over the canal.
- Dry goods, tobacco, and household furnishings for rural stores and farmhouses were transported over the canal. Novembers always saw a rush to stock rural stores with goods before the canal was drained for the winter.



This circular pattern of stone is the foundation of the old "round mill" of the Oriental Powder Company in Gorham, Maine. Water from the nearby Presumpscot River drove two upright wheels which ground gunpowder components several inches thick. The trail in the background—now spotted with mature trees—is the towpath of the Cumberland and Oxford Canal, now part of the Presumpscot Regional Land Trust.

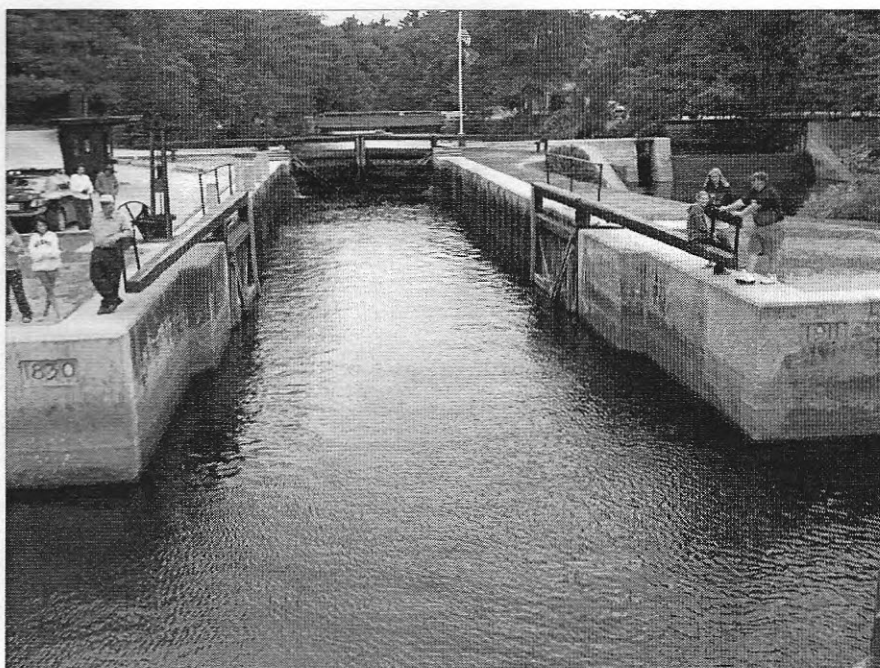
- The Oriental Powder Mills in Gorham supplied  $\frac{1}{4}$  of the gunpowder used by the Union Army during the Civil War, shipping the gunpowder over the canal.

The canal spanned the twenty miles from Portland to Sebago Lake with twenty-seven locks to raise canalboats to the lake's height of approximately 270 feet above sea level. Canalboats then could deliver cargo along Sebago Lake or traverse a 28th lock at the northern end of Sebago Lake to travel on to Long Lake. Thus, a canalboat could travel fifty miles inland. Wagon transport expanded the service area of the Cumberland and Oxford Canal even farther, allowing farmers, foresters and merchants as far away as New Hampshire to utilize the canal.

Canalboats on the Cumberland and Oxford Canal were more than the typical canal barge. Towed by horses instead of the usual practice of using mules, the sixty-four-foot C&O Canal boats had sails and twin drop keels fore and amidships to allow navigation on Sebago and Long lakes as well as along the New England coast, primarily Maine, New Hampshire and northern Massachusetts. Legend has it that one canalboat delivered a load of salt to the Bahamas... but historians customarily advise that this story be taken with a grain of the boat's alleged cargo.

More credible are reports that by raising and then slamming down the front keel while maneuvering under sail, daring boatmen were able to turn their canalboats "on a dime."

With the advent of the railroad, canal days in the United States were limited. Maine's C&O Canal survived the initiation of railroad



The Songo lock, connecting Long Lake with Sebago Lake, via the Crooked River, can be crowded with boats on a summer day. The bridge in the distance swings to let vessels pass.

services into western Maine (the Atlantic and St. Lawrence Railroad {later the Grand Trunk Railway}, 1848; the York and Cumberland Railroad, completed to Gorham in 1851 and extended further west beginning in 1853). These railroads severely hurt canal business; however, the later construction of the Portland and Ogdensburg Railroad parallel to the canal's route finally doomed the canal. The P&O RR was completed to Sebago Lake in 1870, and canal operations ceased the same year. Canalboats continued in lake service, and the 28th lock—the Songo River Lock—remains in use today, connecting Sebago and Long lakes for recreational traffic.

While much of the Cumberland and Oxford Canal is gone, happily, many portions remain extant. The recent renaissance of interest in the canal has seen several land trusts and historical

organizations preserve and improve canal sites. For directions for a day-tour of over a half-dozen areas where you can visit canal remnants, see [www.trails.org/canal](http://www.trails.org/canal), a webpage sponsored by Portland Trails, a regional trail-building land trust. Portland Trails and other land trusts have worked to provide open access to remnants of the C&O Canal. Sites you can visit today include well-preserved sections of the canal bed with evocative views of the Stroudwater Marsh and the Presumpscot River; an aqueduct; the gunpowder mills; and of course the still-operating Songo Lock, where in summer you can grab an ice cream cone and join others as they help the State Park Service warden operate the lock—a local sport worthy of a Mark Twain character!

Below the break in the towpath and canal for an inlet of the Fore River leading to Portland Harbor, you can see a number of pieces of

lumber with what appear to be mortise holes for mortise-and-tenon joints; possible signs of a second, undocumented aqueduct in Stroudwater Marsh! That might attract some more attention to Maine's C&O Canal. Your visit will be enriched by a number of interpretive signs placed by various local land trusts and historical societies. Further research opportunities are available at the Portland Room of the Portland Public Library and at the Maine Historical Society Archives in Portland. (Please contact these organizations in advance for access arrangements.)

So sometime soon, discover America's other C&O Canal. Gaze out over a still-watered portion in rural Standish, Maine, imagining yourself as an Irish canal builder or a member of his family, a canalboat captain bringing goods to market or his son or daughter leading the horse along the towpath, or a person of commerce contemplating the opportunities opened up by this marvelous new form of transportation. And drift back to America's Canal Era...

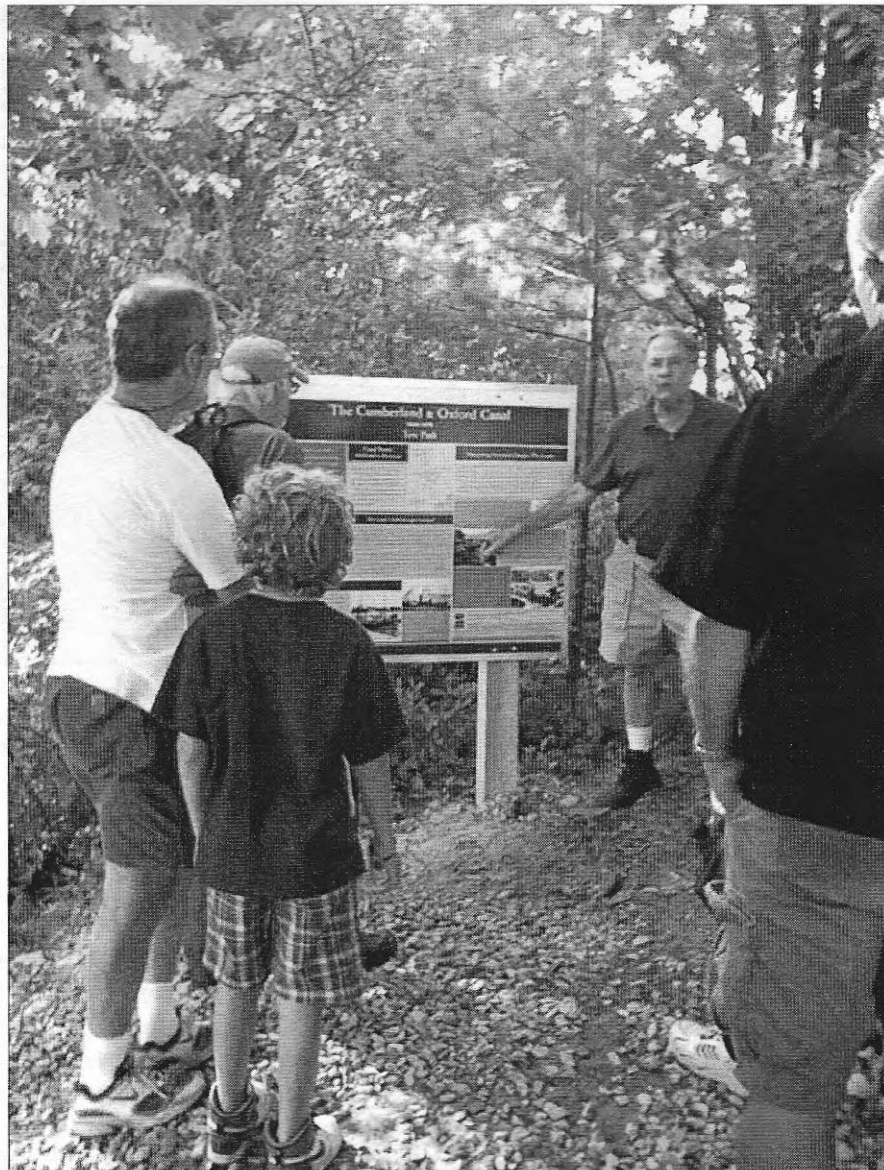
*Bon voyage!*

Portland Trails . 305 Commercial Street . Portland, Maine 04101  
207.775.2411 . Fax- 207 871-1184 . [www.trails.org](http://www.trails.org);  
[info@trails.org](mailto:info@trails.org).



**C&O CANAL TRUST  
AND NATIONAL PARK  
SERVICE KICK-OFF  
CANAL DISCOVERIES**

National Park Service rangers, in their familiar "flat hats," are American icons. They help us discover and appreciate our parks



Professor Joel Eastman, dean of Maine canal scholars, explains canalboat operations to an avid crowd of trail and canal enthusiasts during the unveiling ceremony. Dr. Eastman was the principal writer and contributed many photographs from his personal collection to the kiosks. Maine C&O canalboats were not only towed and poled, but also were designed to sail the lakes and coast with drop keels and twin sails, as illustrated on the sign."

and the stories embedded in those landscapes. But with over four million visits every year, the C&O Canal's park rangers can't be there for every visitor...until now!

*Now you can have unlimited access to your own personal park ranger!*

In 2011, the 40th anniversary of the C&O Canal as a national

historical park, the C&O Canal Trust will unveil 40 "hidden gems" over 40 weeks. Each of these "discoveries" will be narrated by park rangers and will include photos, maps, and nearby points of interest. Members of the public will be able to access all of this new content from their computer or mobile device – making their visit to the C&O Canal more fun and exciting than

ever before! Come and learn more about how you can make your own fascinating discoveries in the park. For more information, visit [www.CanalDiscoveries.org](http://www.CanalDiscoveries.org).

Founded in 2007, the C&O Canal Trust is an independent, nonprofit organization whose mission is to protect, restore, and promote the C&O Canal. As the official nonprofit partner organization of the Chesapeake and Ohio Canal National Historical Park, the trust seeks to ensure that the C&O Canal's natural, historical, and recreational potential is fully realized. For more information regarding the Trust, please visit [www.CanalTrust.org](http://www.CanalTrust.org).

The Chesapeake and Ohio Canal National Historical Park preserves and interprets the historical, natural and recreational resources of the C&O Canal. Over 4,000,000 visitors a year enjoy the opportunities for recreation and understanding that the park has to offer. For more information, visit the park's web site at [www.nps.gov/choh](http://www.nps.gov/choh).

## **WE GOT THE EUREKA LOCK DE-WATERED!!!!!!**

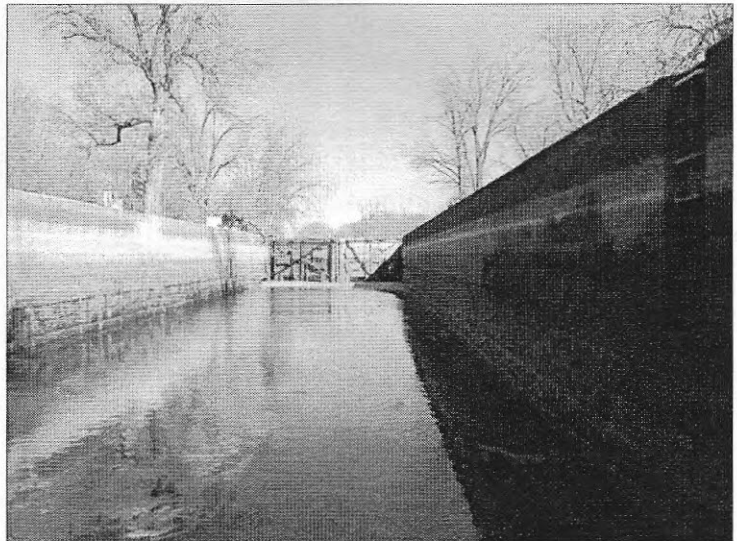
By Edward Kirchhoff  
Commodore, Berlin (WI) Boat Club

*Editorial Note: Eureka Lock is the first lock on the Upper Fox River in Wisconsin above Lake Winnebago. It was operated and maintained for many years by the Berlin Boat Club, after abandonment in the 1950s by the Corps of Engineers. It's restoration will restore navigation between the lake and Berlin, Wisconsin, where there are extensive harbor facilities.)*

On Saturday October 16th at 6:30 AM, the pumps were started after a set up on Friday morning. (Thank you Bruce & Paul.) By 8:30 we saw a drop of 16 inches, but we also saw considerable leakage on the lower stop logs.

With the help of John, Mike, and Doug of the Berlin Fire Department, we put a waterproof tarp across the lower stop logs. That seemed to take care of the major leaks. We still had some small leaks in the corners, but the pumps were doing a great job.

By noon we could see the sill on the upper



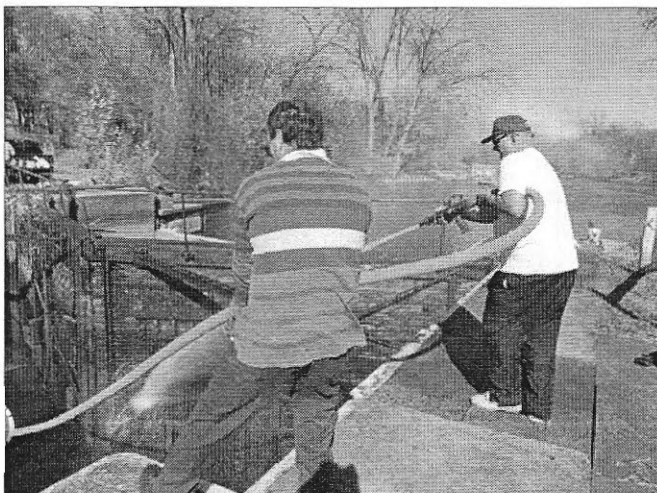
Interior of the dewatered lock looking towards the lower gates. Photo by Ed Kirchhoff

end and an awful lot of debris above the upper gate.

We were making great headway. We converted one of the fire department's four-inch pumps to a fire hose to wash the slime off the upper gates and wall to get a better inspection.

At 2:00 p.m. we noticed we were no longer making progress. After inspection of our pump, we noticed lower amounts of water coming out. Our two submersible pumps were checked to find the screens plugged up from leaves and debris. The water was getting low enough to allow all the debris to get sucked up in the pumps. At this time we got a good inspection of the upper gate, the sill and the walls. We still had sixteen to eighteen inches to go to get a clear view of the lower sill. At this point I decided to get wet and check the sills under water.

As a result of the day's work, we saw that the walls and sills will not need any major repairs. The lock



Power washing the interior of the lower gates. Photo by Edward Kirchhoff

could be de-watered without installing expensive clay dams. The gates and iron works are the only major replacement needed.

I would like to thank everyone who helped in this project or supplied material.

### **A big Thank You goes to.**

Berlin Fire Department: Supplying a 4" pump and 3 volunteers to help.

Magnum Products: Supplying a 4" diesel pump and a 75 kva generator.

Tim & Tom Trapp: Supplying a 6" electric pump.

Berlin Water & Sewer Department.: Supplying a 6" pump and hoses.

Electric Motor Service: Supplying a 4" electric pump.

All the BBC members who helped.

Denis and Phyllis from the Fox River Runners. (Thank you for the gas and food runs)

With the support of business and people like you, we do make a difference.

Thank you again.



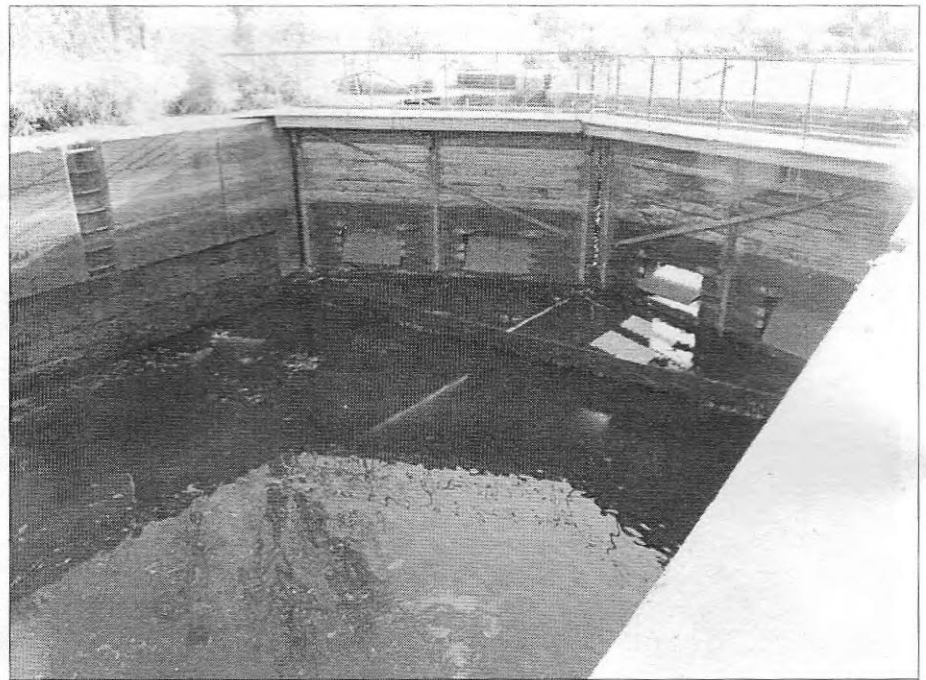
## **THE GREAT FERGANA CANAL**

by Lynn Bower

(Thanks to the Canal Society of Indiana)

Can a 167.4-mile canal be dug by hand in forty-five days? The Soviets did it in the late 1930s. The canal was to carry water for irrigation from the Syr-Darya River to the cotton fields in the Fergana Valley to assure the Soviet Union's "cotton independence." The canal is located in the city of Fergana, east of Tashkent, the capital of Uzbekistan.

Local labor was used to dig the canal, unlike the prison laborers used on the 1931-33 White Sea/Belomor Canal or the 1932-37 Moscow/Volga Canal, and the project was touted as



The upper gates and miter sill. Photo by Edward Kirchhoff

the "people's construction project" by party propagandists. At the time of canal construction, the Usbek Communist Party had just been purged, and the labor force came from Central Asia, where populations recently had been collectivized. With a new sense of nationality, the country assembled 160,000 Uzbek and several thousand Tajik collective farmers, who were eager to take on the project. Digging began in July 1939 and was completed just after WWII began. Since little mechanized equipment was available, these peasants, who were called to work by long horns, dug the trenches under the hot summer sun, using only their hoes.

In addition to the Great Fergana Canal, other canals were dug in the Fergana Valley after the war. The canals made possible industrial and agricultural devel-

opment that led the valley to become the most densely populated area in all of Central Asia. Little did the canal builders know that their creation would eventually cause one of the great ecological disasters of the 1930s: the desiccation of the Aral Sea.

The Great Fergana Canal was to have been the subject of a movie. Many still photos were taken in preparation for the film. Although a script was written, the movie was never made. Many great pictures, taken by Mikhail Grachev, can be seen at [www.katardat.org/russia/pictures/photos1939-Fergana.html](http://www.katardat.org/russia/pictures/photos1939-Fergana.html).

Calling the men to work by blowing long horns. Photo by Mikhail Grachev



## IS THERE A PATRON SAINT OF CANALS?

Just to be safe, we should have the **proper saint** keeping an eye on our canal projects, boats, and books. There seems to be a patron saint for **everything**, from archaeologists and booksellers to stone masons.

Browsing through the long list of saints on [www.aquinasandmore.com](http://www.aquinasandmore.com), you will find quite a number of saints associated with navigators, sailors, mariners, yachtsmen, and boatmen. But no one on the list seems to be specifically in charge of canals or inland waterways.

Google the subject and you will find a small riverside chapel on the Canal de Roanne a Digoin, in France, "dedicated in 1630 by the barge community to their patron saint, St. Nicolas" (from Hugh McKnight's *Cruising French Waterways*, 2005, p.178, on Google Books). A photo of the chapel is on Google Images. On the internet saint list, St. Nicholas of Myra and St. Nicholas of Tolentino are both connected with boatmen and mariners.

The most famous patron saint of mariners is St. Brendan the Navigator (or Voyager), 486-575, born in Ireland, a founder of many monasteries, and a missionary to England and Scotland. It is thought that on his seven-year voyage in search of Paradise he may have discovered America. More to the point, he is popular enough to have a variety of ready-made icons for sale, most including a boat or a ship's wheel. Some are on the [aquinasandmore](http://www.aquinasandmore.com) site.

To grace our canal library I bought a foot-high flat ceramic image of St. Brendan standing behind a sailing ship, perhaps the one with which he discovered America. It was made by St. Andrew's Abbey in California, whose website is [www.SaintsandAngels.org](http://www.SaintsandAngels.org), which makes ceramic images of saints and angels. If they can make an image of an angel rollerblading, then they could certainly do a saint of your choice holding a canal boat of your choice. But which saint? Is there a patron saint of canals?

My 10" high ceramic image of Saint Brendan the Navigator, made by St. Andrew's Abbey, appears at the right.

Bill Trout



### MORE ABOUT THE REPLICA CANAL BOAT IN OTTAWA, ILLINOIS

(from the blog of the *Dragonfly*)

Our harbor hosts in Ottawa loaned us a 60-minute Ken Burns-style film about the creation of the canal. The filmmakers needed a canal boat as a prop, so...they built one! It floated just enough to shoot the film. Then the boat went into storage in a city maintenance shed. And when that space was needed for something else, the boat was headed for demolition. Arnie Bandstra, the assistant city engineer, had another idea. He knew that right in the heart of downtown Ottawa was the last remaining canal tollbooth, a tiny white clapboard house, perched on the edge of the former canal. Why not place the canal boat by the tollhouse...and develop the area as an educational resource for local schools?

Arnie gave us a personal tour of the site. On his own initiative, he has fixed up the interior of the tollhouse with period artifacts--an old stove, a desk, a rocking chair. An antique map shows the course of the canal through town, back in its heyday. Right now the canal boat *Rosalie* sits on bare metal struts, but Arnie has plans to camouflage them with tall river grasses. Meanwhile the town is considering rewatering this stretch of the canal to make it a little oasis for canoeing and kayaking right in the heart of downtown. There's also a delightful bike path along the entire course of the canal.

At the tollhouse we met a family from Ottawa--mom, dad, two young boys who are home-schooled--who were biking the length of the canal as a history project. We took our own bikes along the stretch of the canal that runs from Buffalo Run State Park to Ottawa. This bit of canal does contain water; it's like traveling back in time. We marveled at the antique locks, made of carefully joined blocks of limestone. The locks seemed tiny, about 20 feet across. Quite a contrast to the massive locks that we've been negotiating for the last few days here on the Illinois River.

(continued on next page)

## CANALENDER

**April 10, 2011**—Canadian Canal Society Annual General Meeting, 2 pm, St. Catharines Museum, Ontario. Contact Bob Sears, 416-285-7254; [dawnofdestiny@sympatico.ca](mailto:dawnofdestiny@sympatico.ca)

**April 15-17, 2011**—Virginia Canals & Navigations Society annual meeting in Buchanan, the western terminus of the James River & Kanawha Canal, with a catered canoe/kayak voyage on the canal's Unfinished Division. Details: Phil de Vos, [phipfox@yahoo.com](mailto:phipfox@yahoo.com).

**April 28, 2011**—Lock 16 Dinner & Lecture: Morton Salt and Other Companies in Relation to the I&M Canal; Jim Ballowe. Lock 16 Center, 754 First St., LaSalle, Illinois; \$27 members, \$30 non-members. 815-223-1851; [www.lasallecanalboat.org](http://www.lasallecanalboat.org).

**April 29-May 1, 2011**—Pennsylvania Canal Society tour of the Lower Division of the Lehigh Navigation. Contact: Bill Lampert, [indnbll@yahoo.com](mailto:indnbll@yahoo.com).

**May 1, 2011**—Middlesex Canal Association Annual Meeting in the museum, at 2:30 PM. Election of new officers. Speaker: Charles Parrott, NPS in Lowell: The South Mill at Boston's Mill Pond and the Reconstruction of its Waterpower System. 978-670-2740.

**May 20-22, 2011**—The Canal Society of New York State Spring Field Trip: Champlain Canal and the PCB cleanup project at Fort Edward. Headquarters: Queensbury Hotel, Glens Falls, NY. For updates, [www.newyorkcanals.org](http://www.newyorkcanals.org).

**Saturday, May 28**—10 am. Walk the D&R Canal from Landing Lane to South Bound Brook NJ (5.3

miles). Meet at Lock 11, South Bound Brook, across from the post office. Questions? Contact the Barths, [barths@att.net](mailto:barths@att.net); 908-722-7428. This walk begins an end-to-end hiking challenge of the D&R.

**June 11**—Join the Canal Society of NJ and the Bordentown Yacht Club for a rare chance to learn about the D&R Canal while boating through Lock 1, one of the few remaining wooden locks in the U.S. Meet at the Bordentown Yacht Club, foot of Farnsworth Avenue, Bordentown. Free rides will be given between 11:00 am and 2 pm, depending on weather and tide conditions. Information will be available about other events in the area, so plan a fun-filled day in the Bordentown area. Questions? Contact Bob Barth, 201-401-3121; [barths@att.net](mailto:barths@att.net).

**June 18-25, 2011**—The Virginia Canals & Navigations Society's Annual James River Batteau Festival. A fleet of replica white-water freighters navigates the James for a week, from Lynchburg to (almost) Richmond. Camping is available at all the stops. Details will be on [www.batteau.org](http://www.batteau.org).

**June 25**—Waterloo Canal Day, Morris Canal, Stanhope, NJ. Bob Barth, 201-401-3121

**September 19-24, 2011**—World Canals Conference in the Netherlands: provinces of Gronigen, Friesland, Drenthe, and Overijssel. [www.worldcanalsconference2011.nl/home.html](http://www.worldcanalsconference2011.nl/home.html)

**September 23-25, 2011**—Tentative date for the Canal Society of Indiana trip, based in Chattanooga, TN.

**October, 2011**—October 1, 8, 15, 22, 29. The 24<sup>th</sup> annual guided walking tour of all 58.89 miles of the Delaware Canal from Easton to Bristol, Pennsylvania. 12-mile+/- sections. Visit [www.fodc.org](http://www.fodc.org) for full itinerary.

**October 14-16, 2011**—Canal Society of New York State Fall Field Trip, Western Wayne County, with headquarters in Newark. For more details, please visit [www.newyorkcanals.org](http://www.newyorkcanals.org).

**October 14-16, 2011**—Pennsylvania Canal Society tour of the Juniata Division of the Main Line Canal. Contact: Bill Lampert, [indnbll@yahoo.com](mailto:indnbll@yahoo.com).

**March 10, 2012**—Canal Society of New York State Winter Meeting and Symposium, Rochester, NY. For details, visit [www.newyorkcanals.org](http://www.newyorkcanals.org).

**June, 2012**—The American Canal Society and Canadian Canal Society's Historic Canals Conference, Hamilton, Ontario. to examine the Desjardins Canal (which will be celebrating its 175th anniversary), the Burlington Ship Canal, and Hamilton Harbour and its environs. Contact Bob Sears, 416-285-7254; [dawnofdestiny@sympatico.ca](mailto:dawnofdestiny@sympatico.ca)

**September, 2012**—World Canals Conference, Yangzhou, China. [www.worldcanalsconference.org](http://www.worldcanalsconference.org); <http://yangzhou.jiangsu.net>.

**September 22-24, 2012**—NY State Canal Conference. Please check [www.newyorkcanals.org](http://www.newyorkcanals.org).

We visited one other canal boat during our stay. It was in the historic town of La Salle, where the I&M Canal joins the Illinois River. The canal boat docked there, the *Volunteer*, is a replica. You can find her just above Lock 14. This canal boat is fully functional, and you can take a ride on it! The source of propulsion uses no fossil fuels whatsoever: It's a team of mules.