

AmericanCanals

Bulletin of the American Canal Society

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Dedicated to Historic Canal Research, Preservation, and Parks

Fall 2010

From the President

by David G. Barber

A major problem in the field of canals and other navigations is communications. While many know about their local sites and active waterways, we don't communicate well to the larger audience. *American Canals* exists to work on this problem, as does our web site and various waterways magazines. This is also the purpose of the World Canals Conference and the semi-annual meetings of the various state canal societies. I urge you to attend.

But, this past summer and on other trips, I saw several sites that are unheard of or where earlier lock structures have been removed while boating continues on both sides. We continue to not understand what the possibilities are and to not communicate those possibilities to a wider audience that can provide the counter pressure to those who think that returning sites to some vision of "natural" is the way to go. We thus lose historic structures and waterways, and the boating community loses opportunities.

It's not that these waterways would be unused. In places where small boat waterways survive, they are well used. Maybe that is part of the problem. Once a waterway is closed to navigation, maybe the owning governmental bodies fear the impact that restoration might have on their budget. But, I believe that there are thoughtful ways to deal with finances.

We need increased communication to figure out better ways to



Contestants prepare for the only tug-of-war across the Mississippi River. See story on p. 14.

make use of our historic waterways and develop a wider movement.



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If you have an email address, we ask that you please send it to barths@att.net so that we may send information in a timely manner between issues of the newsletter.

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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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Ottawa, Illinois, canal boat

CANAL BOAT MAKEOVER MADE POSSIBLE BY VOLUNTEERS

05/23/2010

by Angela Accomando,
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By 10 a.m. Saturday morning, Ottawa's replica canal boat was halfway through its makeover.

Volunteers had the replica canal boat nearly half painted. The boat, designed after a 19th-century Illinois and Michigan Canal boat, was constructed for the 2006 Scott Ackman film, "Prairie Tides."

Arnie Bandstra, history buff and Ottawa's assistant city engineer, knew of the boat's storage location and felt a strong need to "bring it back to life."

"It was being stored in an abandoned storage facility owned by the city, so I thought... the

boat needs to be seen and the city could use the storage space....,"

Bandstra said.

So he and many volunteers, as well as local business sponsors, launched the boat revival project in hopes of using it to educate and attract visitors interested in the I&M Canal history.

The I&M Canal is a fully man-made canal that was constructed for mainly commercial transportation between the years 1836-1848. It provided passage from Lake Michigan to the Mississippi, thus increasing trade options while lowering costs. It also allowed for higher population along the route.

Thanks to lumber donated by Golden Rule Lumber, volunteer Travis Schwarz, was able to make needed repairs to the boat.

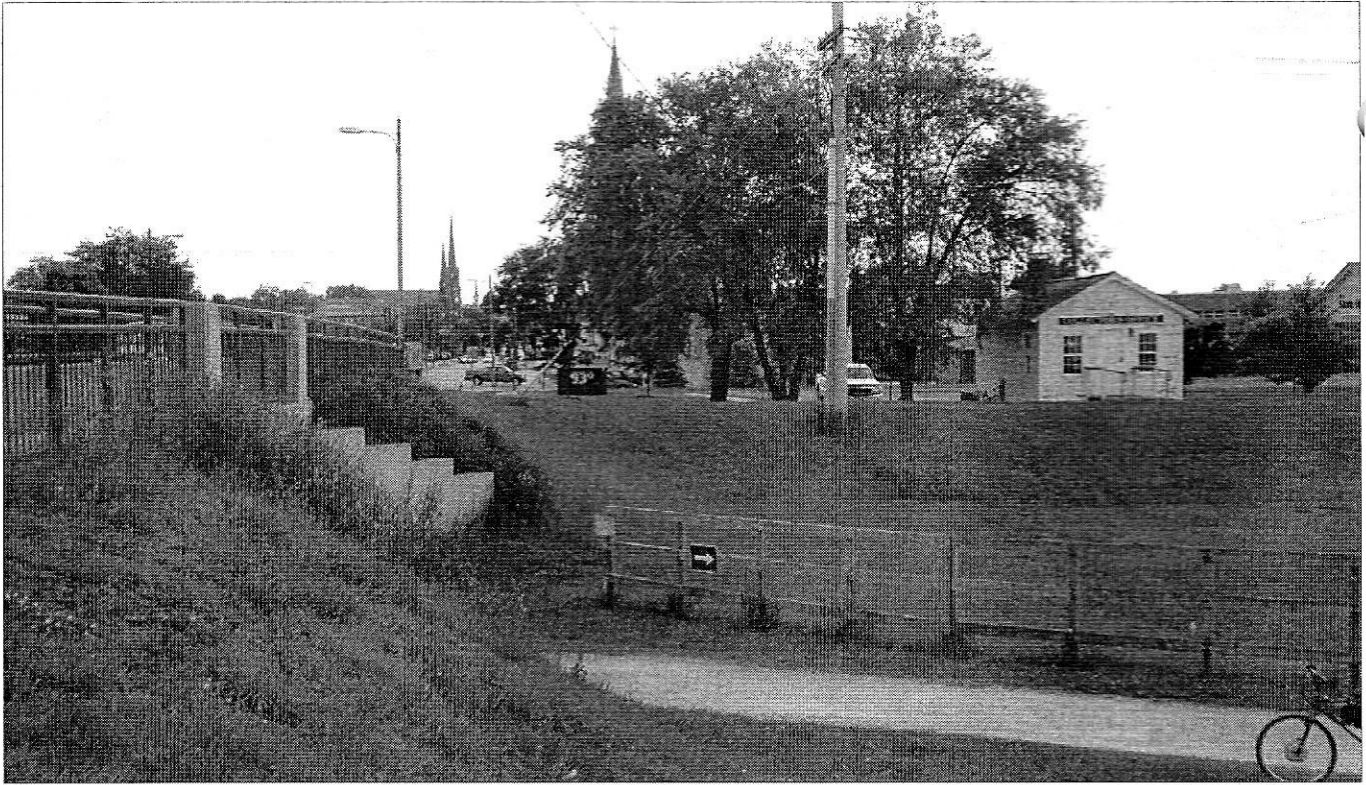
"I worked a little over a week on carpentry and repairs for the boat, even in the rain," Schwarz said.

According to Bandstra, the boat would be finished by noon and await its new location at the Columbus Street tollhouse. Bandstra believes since the tollhouse has been restored, the canal boat will complete the historical marker. Along with some signage from the city — and nearby attractions — "It should make for a wonderful tourist attraction."

Bandstra wanted to make sure the volunteers got their due appreciation saying, "Please print all of their names, this really was a labor of love."

Names of volunteers and sponsors provided to The WebTimes included: Ottawa Sherwin-Williams, Golden Rule Lumber, Dave Bradley, Carl Moore, Travis Schwarz, Jeff Zahn, Byron Perry, Farley Andrews, Rich Jensen, Diane Sanders, Nancy and Vince Peffley, Mark Carsten, Dave and Andrew Noble.

(see photos page 4-5)



ROSALIE "SAILS" TO ITS DOCK ON THE I&M

**July 7, 2010—Charles Stanley, 815-431-4063
charless@mywebtimes.com**

On July 12, the *Rosalie*, a replica of a 19th-century canal boat that once plied the Illinois and Michigan Canal, was moved to a permanent dock.

The new home for the boat will be next to the historic toll collector's office in Ottawa, Illinois between Columbus and La Salle streets.

Prior to the vessel's arrival, four concrete pillars were installed in the dry canal bed near the tollhouse for the boat's placement. The pillars actually will extend into the boat through holes cut in the bottom of the hull.

When finished, the boat should sit roughly at the height it would have floated during the heyday of the canal. Earth will be packed around the base of the boat, where a decorative flower bed, designed by Ottawa Garden Club

This toll house is on the Lateral Canal In Ottawa, IL, about one block south of the I & M main line; it is just south of W. Superior St., and just east of Canal St. (The lock in the Lateral Canal was at W. Superior St.)

president, Twila Yednock, will be planted.

The boat was loaded with two forklifts onto a flatbed truck and driven to Columbus Street, then north to the south bank of the canal and parked next to the pillars. Then, two more forklifts hoisted the boat up placed it on the pillars. Spectators watched the boat's installation, said Arnie Bandstra, Ottawa's assistant city engineer and the chairman of the Ottawa Canal Association, a small committee of businessmen and officials aimed at improving the toll collector's office area.

Bandstra said that several local firms donated material and manpower to the project. They include:

Marquette Steel for re-bar fabrication.

Ruiz Construction for providing re-bars and pouring concrete.

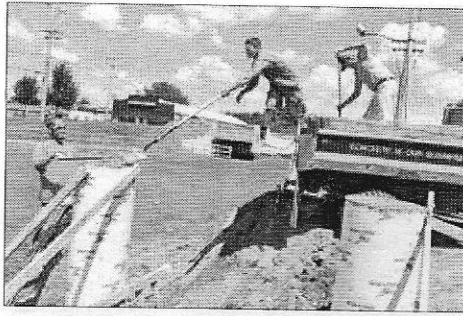
Both River Redi Mix and Western Sand and Gravel for providing concrete.

McClure Engineering for providing structural design and construction management.

Dave Erwin, Ottawa Water Department backhoe operator.

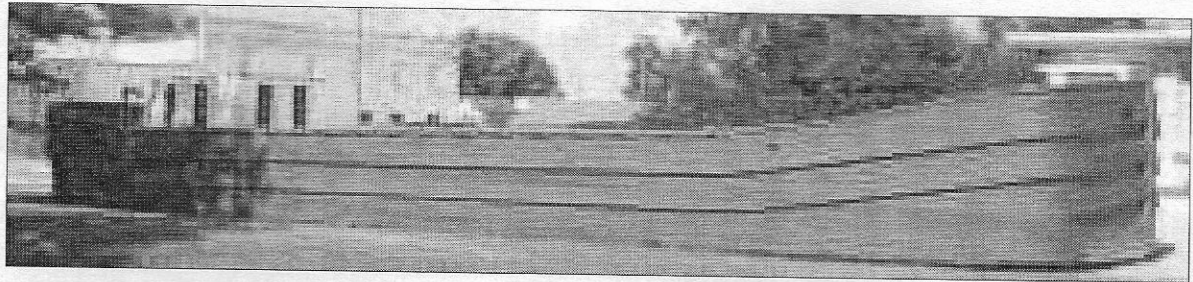
The Ottawa Canal Association's goal is to complete the project as much as possible with community support. Those who wish to offer cash, in-kind donations or other assistance should contact Bandstra at Ottawa City Hall by calling 815-433-0161, ext. 41.





Construction workers create the last of four concrete pillars for the
 ◀ installation of the Rosalie.

The Rosalie, designed after a 19th century I&M Canal boat, was constructed for the 2006 "Prairie Tides." In July it began a new life as a tourist attraction and landmark next to the historic toll collector's office in Ottawa between Columbus and La Salle streets. ▼



ALABAMA HOPES TO PROTECT SEAPORT WITH MAKESHIFT LOCKS

Thirty-one miles long, ten miles wide and no deeper than ten feet or so where it isn't dredged, Mobile Bay resembles a big, shallow bathtub. The nation's ninth busiest seaport lies on one side, multimillion-dollar homes stand on the other and a broad pass at the bay's mouth leads directly to the Gulf of Mexico, where a massive oil spill is slowly spreading.

Because of that geography and the bay's slow-moving currents, protecting it from being inundated with oil is trickier than keeping the gulf spill away from New Orleans, which sits a safe, 120 miles upstream from the mouth of the Mississippi River. It's a mission that took on extra urgency in early May when oily blobs started arriving at Dauphin Island, which guards the entrance to the bay.

Yet Alabama officials believe they've found a solution as simple as a barn gate to guard the

crucial passage, scene of one of the Civil War's most famous battles. Drawing on a concept that goes back to the early days of river navigation, Alabama officials are using oil-blocking booms to construct what amounts to a lock system at the mouth of Mobile Bay, which is four miles across.

Pilings are being driven into the bay's squishy bottom, and two gates will be attached once they're in place. If oil gets to the mouth of the bay—and officials believe it will if the spill isn't plugged off Louisiana's coast—ships will enter through the first gate, get a scrubbing, and exit through the second.

Separately, on the western side of the bay, booms are supposed to keep oil from entering the bay from the Mississippi Sound. Previous barriers in the same area were swamped by rough seas, but officials hope securing them to the pilings of a three-mile bridge to Dauphin Island will make a difference.

Nicole Reed hopes the work pays off. She's already nervous about the water quality in Mobile Bay, and the sight of dead

catfish rotting on the shore as oil swirled miles away was enough to convince her to keep her two preschool daughters out of the bay near their home in Fairhope, on the high-dollar eastern shore. "I don't think there's any way they can say the oil won't get up this far, and that's scary," said Reed.

The stakes are just as high for Jimmy Lyons. As director and CEO of the Alabama State Port Authority in Mobile, he runs the nation's ninth-busiest port based on shipping volume. He thinks most anything is worth a try at this point. "You can get some dicey conditions at the mouth of the bay with winds and currents and swells. Maybe the pilings they are putting up will hold it together," he said.

The gating and cleaning process should take about two hours, Lyons said, which isn't much compared to the cost of shutting down a port or cleaning up oil.

Associated Press, May 9, 2010



MONTREAL'S SHORT LACHINE CANAL- FORERUNNER TO THE ST.LAWRENCE SEAWAY

Story and photos by Bruce J. Russell

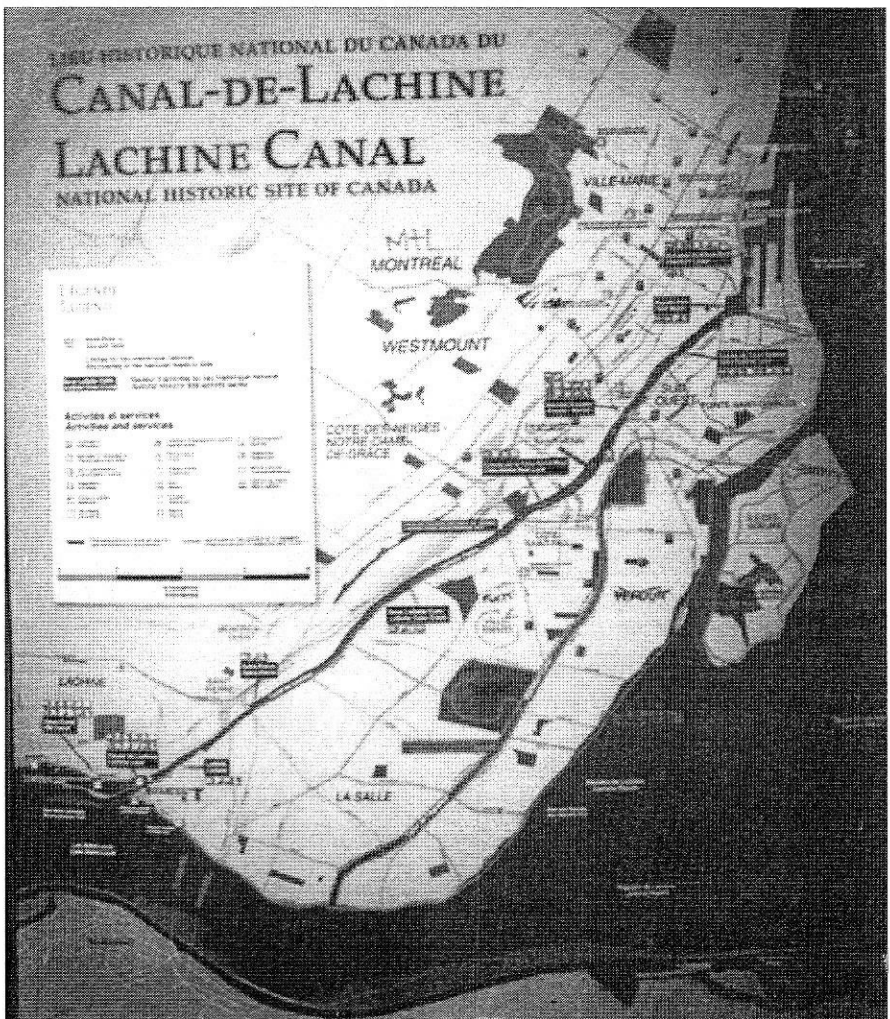
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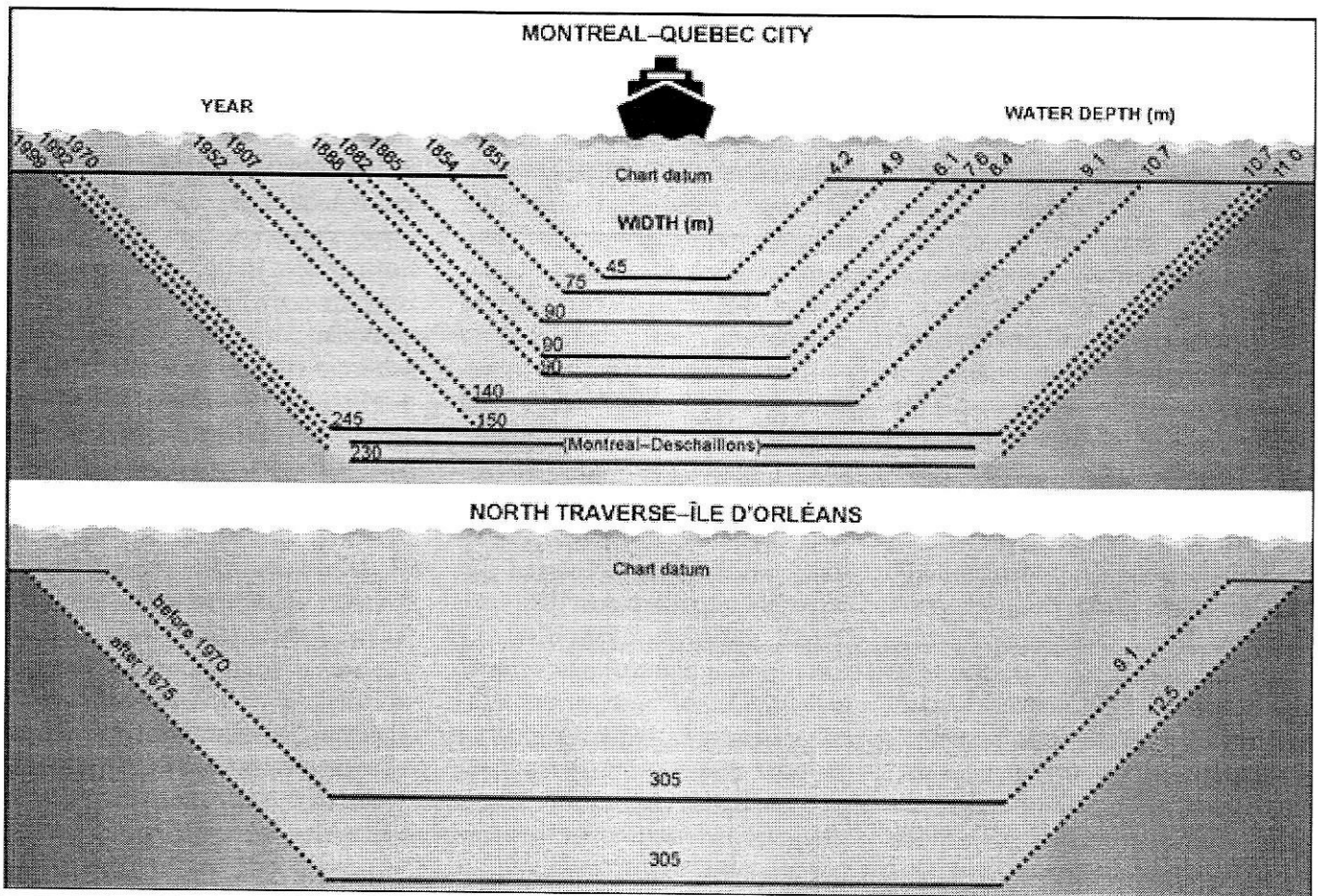
The contract to design an artificial waterway to bypass the Lachine Rapids was awarded to Thomas Brunett, a Canadian engineer who had studied canals in England. His plan was to excavate a nine-mile long channel across the eastern corner of the large island upon which Montreal is situated. This land mass, topped by Mount Royal, was originally chosen by Champlain because it was bordered on its southern shore by the wide St. Lawrence River, and on its northern by the narrower Riviere des Prairies or Prairie River, and could easily be defended from both Native Canadian and British attackers. Many years later in 1776, the besiegers would be Americans under Benedict Arnold.

Construction commenced in 1821 using mostly Irish laborers, sometimes referred to as "navvies," and was finished in 1825. Practically all of the work was done by hand with shovels plus horse-drawn wagons. As originally built, the Lachine Canal, named after the rapids it permitted vessels to circumvent, consisted of seven locks, each 100 feet long and twenty feet wide. Although a towpath was built to accommodate animal-drawn boats many of which were non-powered sailing vessels, it was designed primarily for self-propelled steamboats, using either side paddlewheels or screw propellers. By the 1820s the technology of steam boilers had been improved to the point where they were reliable and

could be used as a vessel's sole means of propulsion. Once the Lachine Canal opened for business, following appropriate ceremonies, it became possible for either sail- or steam-powered boats of 100 feet or less in length to completely bypass the rapids. No longer would cargo have to be portaged from one part of Montreal Island to the other. Within a couple of years, commerce along the St. Lawrence River from Quebec City to the part of Montreal west of the rapids increased rapidly. Almost immediately, plans were announced to continue improvements to the river by constructing additional bypass canals with locks of the same dimensions around other sections containing

dangerous rapids, such as those at Soulanges, several miles beyond Montreal, and at Cornwall across the border in Ontario. These new channels, finished in 1830, enabled sailboats and steam-powered vessels to travel the entire distance of the St. Lawrence River from its origin at the Gulf of St. Lawrence hundreds of miles into Lake Ontario. Much of this work was done under the supervision of two American engineers-Benjamin Wright of Erie Canal fame, and John Mills. Of equal importance, upon exiting the Lachine Canal, boats could also proceed west to Ottawa on the Ottawa River, where short bypass canals had also been constructed to facilitate through navigation. And finally, in 1829 the First Wel-





This diagram shows the continuous dredging between Montreal and Quebec City since 1851. Courtesy, Bob Sears, editor of *Canals Canada*, the newsletter of the Canadian Canal Society. See Bob's comments on p. 11.

land Canal was finished, permitting boats to circumvent the falls of the Niagara River by means of a multi-lock canal. It was now possible to make a continuous journey by water from the Atlantic Ocean to the Upper Great Lakes.

Until the coming of the railroads, transport of merchandise and people by water was dominant. Furthermore, the St. Lawrence River route was a much faster means of reaching the North American heartland than the use of either the Erie Canal or Pennsylvania Main Line system, both of which required unloading of cargo from ocean-going ships to small canal boats, and then reloading it onto Great Lakes or Mississippi River steamboats. In the 1830s, the main cargo carried in-

bound was machinery from England, and the primary outbound cargo was Canadian wheat and lumber.

By 1840, business on the Lachine and other St. Lawrence River canals, as well as those on the Ottawa River, had increased so much that an enlargement program was justified. Beginning in 1843, the seven original Lachine Canal locks were removed and replaced with five new ones, having a 200-foot length and 45-foot width, and constructed, like their predecessors, with locally quarried limestone blocks. These five new locks enabled vessels to be lowered or lifted approximately fifty feet, equal to the drop or

rise of the Lachine Rapids. This doubling of lock capacity was necessary not only to enable larger vessels to pass through, but also to match the size of those on the recently enlarged Welland Canal between Lake Ontario and Lake Erie. In addition, the depth of the channels used by the boats was increased to nine feet.

At this time the locks on the original Erie Canal, or "Clinton's Ditch," were being increased to the same dimensions. By the 1860s substantial traffic in coal developed between the United States and Canada, as the latter nation switched from burning wood for fuel to using Pennsylvania anthracite. This coal originated in the Scranton-Wilkes Barre area and traveled by inland waterway to New York State, using the Junction Canal to Binghamton, and the Chenango Canal

to Utica and the junction of the Erie Canal. After traveling west on the Erie as far as Syracuse, it proceeded north on the Oswego Canal to the port of the same name on Lake Ontario.

Here steam tugs towed the loaded boats across Lake Ontario to Kingston, where they continued their journey to Canadian destinations, including Montreal, by then a heavily-populated city. Obviously, it was a time-consuming operation, but prior to the development of the railroad network, water transportation was considered both practical and economical. Until well into the 20th century, Ontario and Quebec were major markets for Pennsylvania hard coal, which burned clean, producing very little smoke. Therefore, it was necessary for the St. Lawrence River locks, including those of the Lachine Canal to be equal in size to those of the Enlarged Erie (110' x 18').

In 1854 a development occurred which resulted in a much greater use of the St. Lawrence River route from the Atlantic Ocean to the Great Lakes. In that year the Reciprocity Treaty was signed between the United States and Canada, marking the final end of hostility between the two countries, and permanently fixing the borders. By this time, Canadians were assuming governmental control of their nation from the British, in preparation for the 1867 establishment of the Dominion of Canada. The Reciprocity Treaty made it possible for American vessels, by then entirely steam-powered, to travel the entire length of the St. Lawrence River. Westbound cargo on the Erie Canal was transhipped at Albany. On the St. Lawrence, ocean vessels could now penetrate to the

heart of the continent without unloading. In 1856, the Grand Trunk Railway, using a five foot six inch gauge, began service between Montreal and Toronto. The railway quickly acquired the bulk of the passenger business, as patrons were no longer content with the leisurely pace of steamboats.

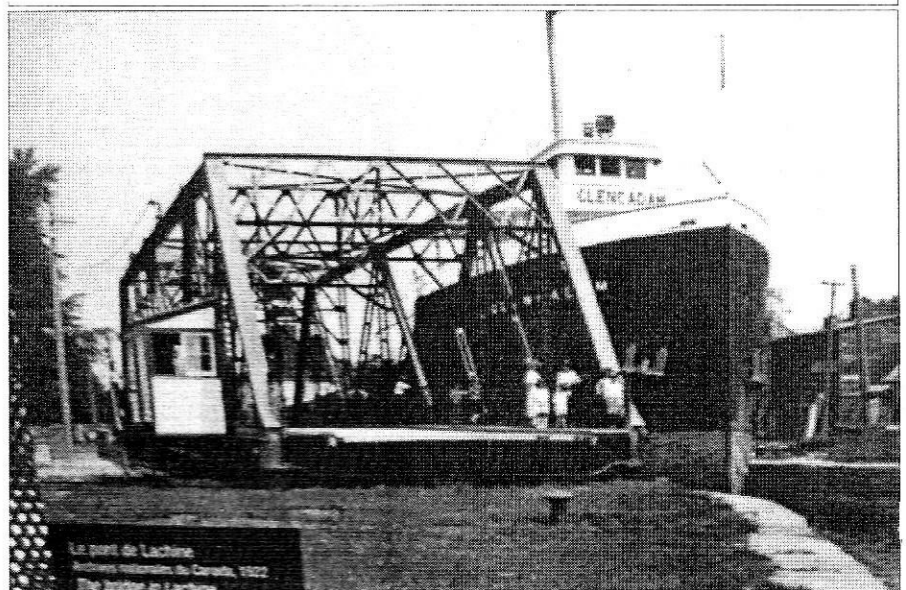
Technological change was also occurring: the four-masted schooner disappeared, as did the sidewheel steamboat, to be replaced by vessels with screw propellers. After 1860, wooden hulls were being replaced by iron, and later by steel.

As stated above, in 1867 Canada was created as a sovereign nation, still part of the British Empire but able to manage its own affairs. One of the first acts of the new government was to again increase the lock chamber dimensions of the St. Lawrence River canals, including the Lachine, from 200 to 270 feet in length, while retaining the 45-foot width. In addition, the depth of the canal channels was increased from nine to fourteen

feet, making it possible for small and medium-sized ocean-going vessels to travel directly into the Great Lakes.

Because Canada experiences extremely cold winters, its canals are frozen for at least four months each year. Therefore, it's necessary to move as much cargo as possible during the eight months when they're usable. The only way to accomplish this is to use bigger vessels with deeper holds and greater carrying capacity. Furthermore, the canal was widened and its sides lined with stone blocks to prevent bank erosion. By this time sailing ships were long gone, and steam-powered vessels using paddlewheels and propellers could damage unprotected banks. The final reconstruction of the nine-mile-long Lachine Canal was completed in 1885, permitting it to remain in use for many more years until, in 1959, its function was taken over by the St. Lawrence Seaway, the most recent improvement of the St. Lawrence River.

An old picture showing the cargo-carrying vessel *ClenCADAM* working its way through the Lachine Canal. The bridge on the left has swung open to permit passage.



The reconstructed Lachine Canal begins at the Old Port of Montreal, and proceeds westward to Lake St. Louis, a widened section of the St. Lawrence River beyond the treacherous rapids. One of its five locks, containing a double chamber, is situated at the Old Port. This is the most historic part of Montreal, and it is where Champlain established his first settlement of colonists from France. It's filled with 18th- and 19th-century buildings, many in a French-inspired Victorian style. It was here that commercial vessels entered the canal, after waiting at Alexander Basin, which still exists and is used by modern pleasure craft. One mile west is the St. Gabriel Lock. The canal then proceeds on a level section to the St. Paul Lock, followed by the St. Pierre. Three and a half miles farther is the Lachine Lock, which gives access to Lake St. Louis. The combined lift of the five Lachine Canal locks is approximately fifty feet. They were originally opened and closed using traditional balance beams, but sometime following the 1885 enlargement, a mechanical system was installed, first using steam-powered winches and later hydraulic pistons. By this time, the gates were too heavy for one or even two men to move.

In addition to its transportation function, the Lachine Canal was used by the many industries that lined its banks. Southwest Montreal, through which the canal passes, rapidly evolved into the city's major manufacturing area. Factory after factory drew water from it using short, narrow diversionary canals. Some of it turned turbines connected to drive shafts that powered machines, in much the same way as those in Lowell,

Massachusetts. In other instances, water drawn from the canal was used for cooling or to flush away wastes. During those times, when children worked ten hours per day, six days a week in factories, nobody cared much about pollution. Consequently, the Lachine Canal didn't have the sweetest tasting or most fragrant smelling water. Those who swam in it did so at their own risk, and some probably contracted diseases. Many of the ships, most nearly 270 feet long and using the entire capacity of the rebuilt lock chambers, discharged their garbage and sewage into the 14-foot deep waterway. Because the canal was viewed as essential to Canadian commerce, the government no doubt turned a blind eye to its numerous environmental and ecological violations. Maintenance work on the Lachine Canal occurred primarily during its winter shut down, from early December until the end of March. During October and November, boat after boat filled with Canadian grain and lumber, passed through, destined for Europe. Many of these were steam-powered, and their tall stacks emitted thick black smoke. Following passage of the last boat through the Lachine Canal, the canal was drained and repair work performed on its five locks, as well as on the stone walls lining its banks. Since the channel traversed an urban area, there was much garbage on the bottom that required removal; this was done initially by horse-drawn wagons, and later by trucks. At many points, both railroad and road bridges crossed the Lachine Canal, the latter occasionally carrying streetcar

tracks. During the winter their turning or lifting apparatus was lubricated and, if necessary, repaired. Bridges stuck in the closed position don't help canals! The expense of this work was partially paid for by the canal, and partially by the railroads or the city.

By the mid-1930s, railroads had captured some of the St. Lawrence River traffic, but by no means all of it. Water transport remained the most economical means of moving bulk cargoes, and Canada's farms, mines, and industries generated plenty. World War II may have been the busiest time for the Lachine Canal and its sister waterways along the St. Lawrence River. The Canadian and American defense industries manufactured ships on the Great Lakes, and many of these passed through the Lachine Canal on their way to the Atlantic Ocean. A common practice was to build them in two sections that were moved separately through the canals. Once in Montreal, the two portions were then taken to a shipyard and either bolted or welded together.

One of the most fascinating vessels to move through the Lachine Canal was the German submarine U-505, captured in late 1944 off the coast of Africa and donated in 1946 to the Museum of Science and Industry in Chicago. Once it reached the shoreline opposite the museum, it was moved a quarter of a mile on temporary railway tracks to its grounds. Over sixty years later, it remains the museum's most popular exhibit. Many of its former crew members, including its captain, have visited.

The Lachine Canal served a useful purpose until the long planned St. Lawrence Seaway, a

joint American-Canadian project, was opened in 1959. In the planning stage for decades, the seaway consists of improved sections of the St. Lawrence River as well as artificial channels, dams, and hydro-electric generating stations. Its locks are 859 feet long, permitting the passage of 730-foot vessels from the Atlantic Ocean to the Great Lakes and vice versa. When the Seaway was built, it could accommodate 80% of the world's ocean shipping. In order to efficiently compete with railroads and highways, ships must be as large as possible.

Once this joint Canadian-American project was completed, commercial traffic on the Lachine Canal immediately declined. Shippers ceased using the 265-foot long, 1920s and 30s era cargo carriers, in favor of the enormous ones handled by the new seaway. In addition to siphoning business away from the 1885 vintage Lachine Canal, the seaway also enabled ships to bypass Buffalo and its port. Previously, ships carrying grain from various Great Lakes ports unloaded their contents at Buffalo onto either railroad cars, or barges that used the 1918-era New York State Barge Canal, successor to the Enlarged Erie Canal. By the late 1960s, however, both the older St. Lawrence River canals and the New York State Barge Canal had lost practically all of their traffic. Maintenance declined, and both the Canadian and American governments were reluctant to continue spending money to keep them in operation, much less in good working order. By 1967, segments of the Lachine Canal had been filled in, eliminating the possibility of through passage. (In New Jersey, a similar fate befell the Delaware & Raritan

Canal, taking out its middle portion through Trenton, ending its usefulness as a water route between the Delaware and Hudson Rivers. Many years later, the enormity of this mistake has been universally recognized.)

Only at either end was the Lachine Canal still navigable, mainly to serve a few remaining industries plus a couple of marinas and boat yards. In 1970, the City of Montreal and Province of Quebec declared the Lachine Canal officially abandoned, and all of its remaining movable bridges were welded into permanently closed positions. Plans were subsequently made to fill in other portions.

Fortunately, there were concerned citizens in Montreal and throughout Canada who refused to permit this to happen. Instead, they devised a scheme to reopen the Lachine Canal for its entire length, and to convert it into a waterway for pleasure and recreational boating. After the post-war boom, Canada has become much more prosperous, and many of its citizens now have discretionary income to own yachts and powerboats. In the 1970s, many expressed a desire to make long, overnight journeys from Montreal to Ottawa and other points on the St. Lawrence River as far as the Thousand Islands and Lake Ontario. Consequently, an intense lobbying effort was begun, and by the mid-1990s it had paid off. The government agreed to do whatever was necessary to reopen the Lachine Canal and restore it to full working order. This meant uncovering filled-in portions, making bridges moveable again, and dredging it to at least a nine-foot depth, more than sufficient for

pleasure craft. The reconstruction of some of the locks involved making them shorter by installing new hydraulically operated gates closer to their mid-sections. The work progressed for several years, during which time responsibility for the waterway was turned over to Parks Canada, the agency in charge of Canada's other historic canals including the Chambly, Rideau, and Trent-Severn. In 2002 the Lachine Canal reopened for its entire length, from the Vieux or Old Port to Lake St. Louis, for pleasure and recreational craft, not commercial shipping. Its rebirth was hailed by canal and inland waterway enthusiasts throughout the world as an example of what can be accomplished if sufficient motivation, drive, and funding exists. What a contrast to states like New Jersey, where a still usable canal such as the Delaware and Raritan languishes for lack of interest and support.

(to be concluded in the next issue)

Editor's note: Some New Jersey canal enthusiasts do not share the author's pessimism; instead, they look forward to the reopening of the D&R someday. If you would like to support this movement, contact barths@att.net.

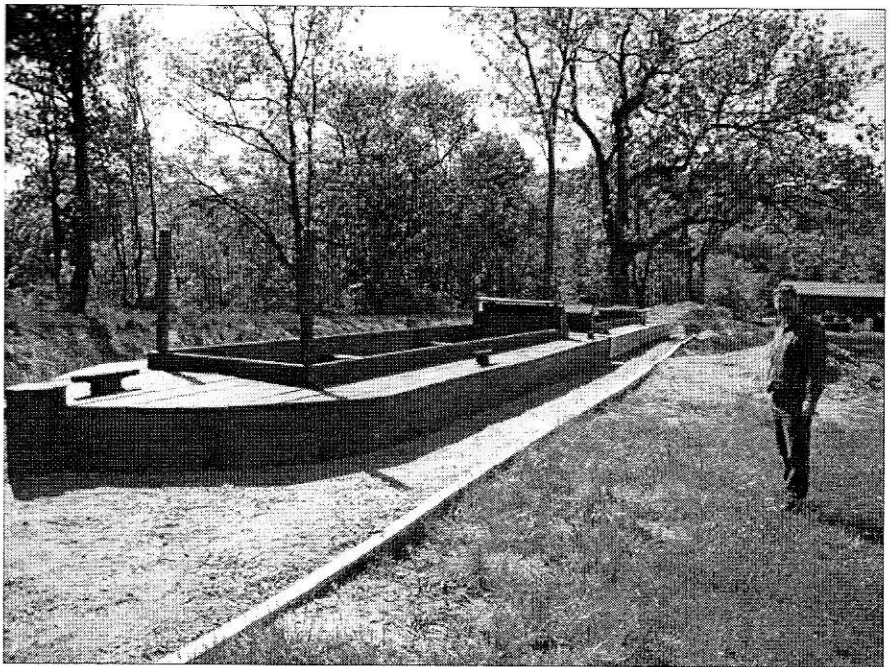
Canadian Editor's note: In 1995 a referendum was held on whether Quebec would remain in the Confederation or become an independent nation. It was close, 50.8% of Quebecers voted to remain with Canada. In the post-referendum period the federal government looked for ways of making its presence known. There was much flag waving and money was found for projects to remind Quebecers that they benefited from being part of Canada. Two years after the referendum a

plan was put forward to revitalize the derelict Lachine Canal, and federal money was combined with provincial and city monies to complete the project. The cradle of the Canadian Industrial Revolution was preserved and accessible green space enhanced for the local community.

Additionally, I would like to correct this statement in the summer issue:

“From the Gulf of St. Lawrence, which empties in the Atlantic Ocean, as far west as Montreal, the St. Lawrence River is a deep water tidal estuary upon which vessels of any size can travel. Upstream of Montreal, however, it becomes narrower and contains dangerous rapids.”

In fact, the St. Lawrence is not tidal to Montreal. The tide only goes to Trois-Rivieres and one of the continual maintenance problems has been to deepen and straighten the natural course of the river to allow deep-draught vessels to reach Montreal. The diagram on p. 7 shows the continuous dredging between Montreal and Quebec City since 1851.



Highlands Project Director David Detrick proudly admires the canal boat.

boats and what it would have been like to pilot such a vessel through the narrow (40') canal.

The Highlands Project is a non-profit corporation formed to provide opportunities for young people of Warren County to participate in educational service programs that benefit the citizens of the region. The program provides the juvenile court system and other educational entities a place for students and youth to participate in structured and guided community service projects, coupled with environmental, cultural, and vocational educational curriculum.

The aim is to provide participants with these opportunities so they;

- * learn the satisfaction of contributing positively to others.
- * experience the satisfaction of a job well done
- * practice in vocational skills in a truly productive way
- * communicate and interact with people of various ages and backgrounds
- * view work as a positive life-enhancing endeavor

In addition to the outdoor boat, students have created tabletop models of an inclined plane, Oxford Furnace, and Shippen Manor, once the home of the ironmaster.

The Highlands Project Inc. was formed in June 1998 by five Warren County educators with the assistance and guidance of Captain Kent Bergmann of the Warren County Prosecutors Office. The present trustees are all either employed or retired educators who bring a wide variety of skills and interests to the project.

Mr. David Detrick teaches reading and is a New Jersey Licensed Professional Counselor.

Mr. Peter Lynah teaches environmental science and brings with him a wide range of adventure skills.

Mr. Mike Post is a middle school principal who formally taught English.

Mr. Ray Tobaygo is a retired geography teacher who now provides career and college counseling services through Devon White



ALONG THE MORRIS CANAL GREENWAY

Photos by Robert H. Barth

The Highlands Project, in New Village, New Jersey, has been constructing the full-size deck of a Morris Canal hinged boat, along with a cabin for the crew, as part of Bread Lock Park.

When complete, this exhibit will enable the public to fully appreciate the large size of the canal

Inc.

Mr. John Halmi is retired from Warren Hills after teaching and administering for over 30 years.

These trustees are joined by a growing group of volunteers.

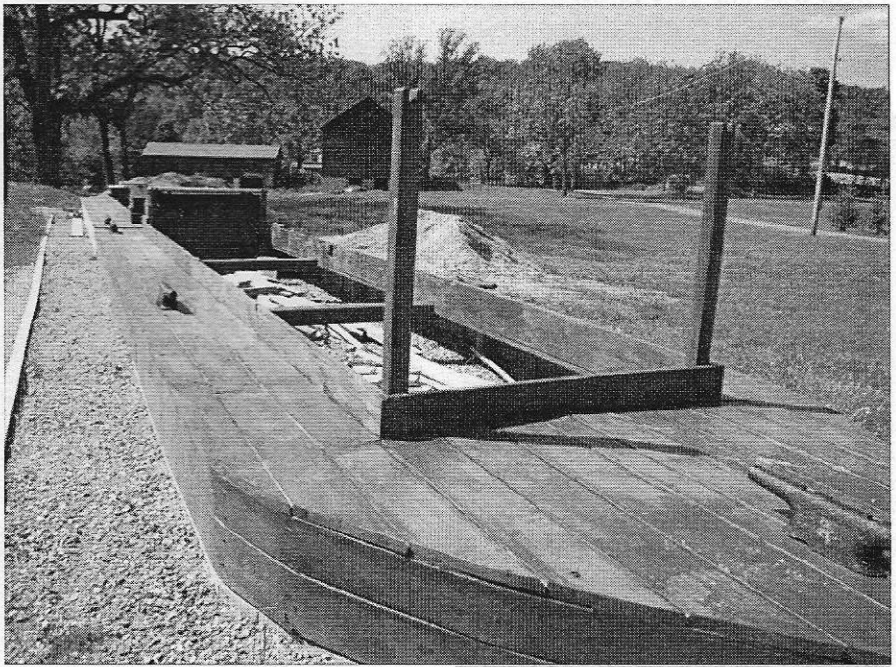
Experiencing the Highlands Project: Read an unchanged, unedited essay, written by a community service worker who finished her Highlands experience by setting up the computer on which she wrote this essay.

My Experience at the Highlands Project...

To most people, community service is a long, hard, and tiring task to do, and this is also what I thought. When I came to the Highlands Project I expected to be doing a lot of this kind of work. After the first ten minutes I was here, I realized that this was going to be much easier and that I would actually learn something from the experience. I learned about the canal, the lock, the tow-path, and about all different history from my county. These were all things I never even had heard of before.

Working with Mr. Detrick and Mr. Lynah were good learning experiences. They showed me that there were a lot of things that I could do. When I thought something was too tough or that I just couldn't do it, they would push me to do it, and I found out I could. I had never cut trees down or cleaned out a historic part of our county before, and that was the most interesting part of this experience. I found out how to set up a computer, run a laminator, and start up computer programs on my own. I would never do any of these tasks on my own time.

Meeting Mr. Tobaygo for the first time was also nice. I found



The boat deck replica includes a life-size cabin, so that visitors can imagine how canallers lived in such tight quarters.

out shortly after we talked that he could help me with what college information I needed. So now, not only am I doing my hours and learning much information about the Morris Canal, I am also getting important facts about college and what I need to do for my education. I never thought that community service or the Highlands Project could be so useful. The things I have learned here are facts and information I will remember for the rest of my life.

I know that once I am done with my community work I will definitely return as a volunteer. I most likely will wait until the summer is over and return in the fall. I am sure I will be here for a long time. Seeing the work we accomplish every weekend is a great feeling. I know that every week I work hard at what I am supposed to. When I drive by and see this place, I tell whomever I am with that I did this and I helped make the Highlands Project look like what it does.

I encourage anyone, young or old, to come to this place and help out. It is a great satisfaction to see

what you have accomplished. Hopefully, when I have kids of my own, I can bring them here and tell them I helped to do this. That is the one thing I want to get out of this experience. I want to look at this ten or fifteen years from now and just say "wow" and have a great feeling of accomplishment, knowing myself and others made it happen.

If you see this as a project for your town, you can contact the Highlands Project at:

The Highlands Project

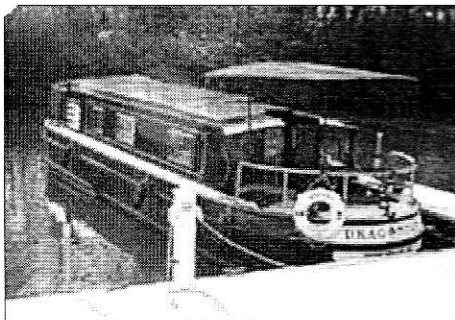
PO 231

Broadway, NJ 08808

908-689-6350

highlands@nac.net





Penn State professor Bill Carlsen and WPSU FM news director Cynthia Berger set sail on a canal boat for a 12-month tour of North American waterways to research sustainable technology.

WPSU LEADER, PENN STATE PROFESSOR, SET SAIL ON YEAR-LONG RESEARCH PROJECT

by Mike Dawson, for the Central Daily Times, State College, PA
May 30, 2010

Bill Carlsen, a professor of environmental science education at Penn State, wants his students to know the latest environmentally sustainable technologies so they can teach them in their classrooms. To find those technologies, Carlsen is leaving State College on sabbatical, during which he'll do that research. His wife, Cynthia Berger, the news director at WPSU FM, will join him in the field.

It's no ordinary fieldwork, though. Carlsen and Berger will spend the next 12 months traversing 6,500 miles of eastern North American waterways in a 19th century-style canal boat to find out how everyday people — farmers, business owners, government workers and others — are using and incorporating sustainable technology into their livelihoods.

They leave Tuesday. "When you talk about repairing the environment, there's a lot people can do who don't have strong

scientific backgrounds," Carlsen said. "We hope to meet a lot of people along the way who are doing things that are environmentally positive," such as growing local foods, fishing in sustainable ways, or making boats or businesses energy efficient.

While Carlsen's sabbatical research is the premise of the trip, his wife has a scientific background. Berger has a master's in zoology and she's written extensively about nature.

That system of waterways is known as the Great Loop, and Carlsen and Berger will travel it counter-clockwise: They'll leave from a marina in Macedon, N.Y., on the Erie Canal, then take the Oneida River north to Lake Ontario. The Trent-Severn Waterway's canals and 44 locks will get them to Lake Huron and, eventually, to Lake Michigan's western shore. The Chicago Ship and Sanitary Canal and the Illinois River will get them to the Mississippi River. They'll board the Oneida River boat to Mobile, Ala., by way of the Tennessee-Tombigbee Waterway, and cruise the Gulf of Mexico and Atlantic coast on the Intracoastal Waterway.

They don't have schedules planned at specific points just yet, but they do have some applications of sustainability that they'll come across. For example, when they enter the Gulf of Mexico at Mobile, they expect to research the effects of the massive oil spill.

"We'll get to see how everyday people are responding to and dealing with it," Carlsen said.

The Erie Canal was the inspiration for the environmental-inquiry boat cruise. Carlsen and Berger took a four-day

cruise on the canal with Carlsen's parents last year, and the people they met raised questions about sustainability that Carlsen hopes to answer. Carlsen bought a canal boat and retrofitted it with eight solar panels that put out 1,400 watts at 48 volts.

"It works out to the equivalent of eight refrigerator light bulbs," he said.

Carlsen said he added a new electric motor to the boat to go with the original diesel engine, making it a diesel-electric hybrid. The boat will move slowly by powerboat standards, motoring along at 3 to 6 mph, Carlsen said.

"This is the anti-powerboat powerboat," he said. Inside, the boat has a mini-fridge and two cabins (one that has been converted into work space), and Internet through a cell phone that'll act as a modem. Berger plans to blog about the journey at www.slowboatcruise.com. She's also going to contribute radio reports every three weeks to WPSU.

The boat's exterior has been painted navy blue and maroon and is fitted with window boxes for growing herbs. The boat is about 41 feet long and weighs about 13 tons.

The couple left their State College home on Friday and don't seem too anxious about the impending yearlong voyage.

"The first week is going to be focused on evaluating the



system,” Carlsen said. “How far can we go on a charge? What kind of waves can we handle? ... Does it make sense to the run the fridge off solar (power)?”

Carlsen wrote in his sabbatical proposal that upon returning he'll develop a new course on the theme “Science, Technology, and Sustainability: A Voyage through the Natural and Engineered World.” In addition, he plans to develop aquatic research projects for middle and high school students. Read more: www.centredaily.com/2010/05/31/2007655/state-college-couple-set-set.sail.html.

Journal excerpt: June 9—Today we left the canal system for our first real passage on big water--Lake Ontario, one of the Great Lakes. As we left the harbor at Oswego, NY, we waved to the *Emita II*, a packet boat operated by Mid-Lakes Navigation, that takes passengers on overnight canal trips. It was nice to see a friendly face, so to speak, as we set out on a new stage of our trip. At the edge of the harbor we passed the lighthouse, a local landmark.



A TUG-OF-WAR ACROSS THE MISSISSIPPI?

Did you know that there is an annual tug-of-war across the wide Mississippi? It's true.

When Bob and Linda Barth were visiting in Iowa, they heard of this fascinating event, but were unable to stay to see it.

On the second weekend in August, the towns of Port Byron, Illinois, and LeClaire, Iowa, field teams to conduct the only tug-of-

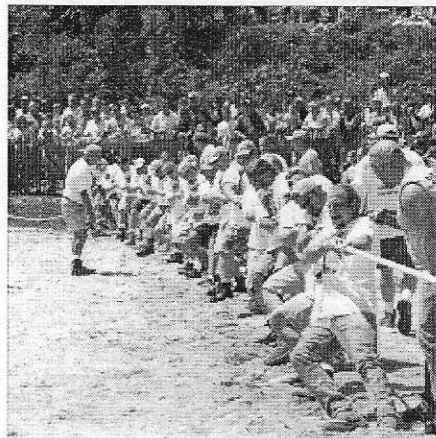


war across the Big Muddy. This year's contest, the 24th annual, was held on August 12-14.

Teams of twenty members each use a 2,400-foot, 680-pound rope, which spans the Mississippi and rests on a barge in the middle of the river

The tug-of-war began in 1987, with the Coast Guard stopping all river traffic during the event. Each year the teams pull to see who will claim the breath-taking alabaster statue of a bald eagle in flight. Over 35,000 people view this spectacle.

Friday night features one of the largest and most spectacular fireworks display over the Mississippi and the two-state area. Tug Fest is a family week-end event filled with live entertainment, a huge parade, scenic 5K run/walk for adults and children, Evans United Rides and amusements, food, craft vendors, children's games and



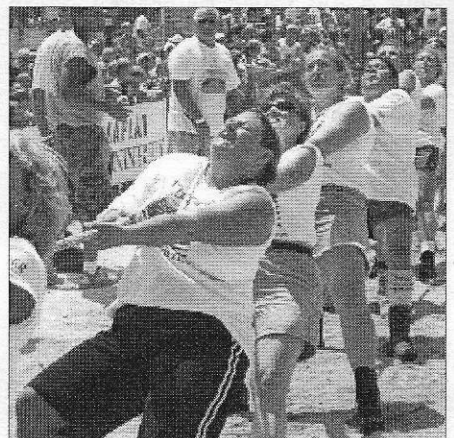
activities, including a children's tug, and the TUG - Iowa against Illinois, all on the beautiful LeClaire, IA and Port Byron, IL riverfronts. To top it all off, the organizers bring in outstanding top name entertainment both Friday and Saturday night.

Visit www.tugfest.com or call 800-747-7800 to learn more.



Editor's note: LeClaire is home to the Buffalo Bill Museum, with exhibits about the famous showman as well as bridge builder James Eads and James Ryan, inventor of the flight recorder; and the preserved *Lone Star*, the last steam, sternwheel towboat to operate on the western rivers.

Only an hour west is the Herbert Hoover National Historic Site, featuring his birthplace, library, and museum.



INLAND WATERWAYS FACE INFRASTRUCTURE CRISIS OF THEIR OWN FASTLANE, By Clifford F. Lynch, May 2010

With all the furor over crumbling roads and bridges, it's easy to forget about our deteriorating locks and dams.

As one who lives in a "river town" (Memphis, Tenn.), I am constantly reminded of a mode of transportation that we usually don't hear much about—the internal waterway system, a 25,000-mile water highway serving vast swaths of the United States. As the battle for transportation funds continues in Washington, I think it is important that this very necessary transportation system not be forgotten.

There was a time when the nation relied on inland waterways as its main conduit for commerce. Water transportation was already highly developed in many parts of the world when the first European settlers arrived in this country, and they quickly adopted the same techniques in their new home. The first recorded shipment down the Mississippi River was a load of 15,000 bear and deer hides in 1705; but it wasn't until 1790 that flatboats and keelboats came into use on a regular basis. These wood-plank boats, which measured up to 80 feet long by 10 feet wide, were rowed or poled downstream to their destination. Upon arrival, the boats were sold for wood—they obviously couldn't be moved back upstream with nothing but oars and poles to power them.

While there were some innovations over the next hundred or so years, it was Robert Fulton's invention of the steamboat in 1807 that made waterway transportation a commercial success. By 1931, there was a diesel-powered prototype of the modern towboat.

Today, there are two basic kinds of equipment used in domestic water commerce—the towboat and the barge. Towboats, which are used primarily in river commerce, have flat bottoms and a series of six rudders that provide the maneuverability needed in relatively shallow water. They derive their name from the load they push, or the "tow."

Modern towboats vary in length from 40 to 200 feet and can be anywhere from 20 to 50 feet wide, depending on where they're used. They range from 600 to over 10,000 horsepower and feature the latest in navigation and communications tools. The barges that contain the cargo are typically about 200 feet long and 35 feet wide, and also have flat bottoms.

There are three basic types: the inland liquid cargo tank barge, the open dry cargo barge, and the covered dry cargo barge. There are about 18,000 barges in use in the country today. Inland waterways face infrastructure crisis of their own – While today's equipment may reflect the latest advances in technology, the inland waterways infrastructure is a different matter. The river system, especially the Mississippi, is a constantly changing mosaic with ebbs and flows, high water and low. The banks move, the channels shift, and new islands are formed while others disappear. In the words of Mark Twain, "The Mississippi River will always have its own way; no engineering skill can persuade it to do otherwise." As a result, maintenance and reconstruction are never-ending tasks.

The commercially important waterways (about 12,000 miles) are maintained by the U.S. Army Corps of Engineers. This work consists of almost constant dredging, channel maintenance, and lock and dam repair and upkeep. Most of the locks and dams are quite old and require nearly continuous maintenance. For example, above St. Louis, on the Mississippi and Illinois rivers alone, there are 37 locks and dams with an average age of 50 years. Questions of their age and condition aside, the majority of the locks are inadequate to the needs of most of the tows on the river. The most frequently used 15-barge tow is about 1,200 feet long, and only three of the locks have a 1,200-foot capacity. The remainder are only 600 feet long. A 1,200-foot lock can accommodate 17 barges and one average towboat, while a 600-foot lock can only accommodate eight barges and a towboat.

In total, the waterway system has 191 lock sites and 237 lock chambers. In other words, there is plenty of room for improvement. Let's hope Congress won't forget—or give short shrift to—this important mode as it goes to spread the money around.

BARBEE LAKES BOAT TRANSFER STRUCTURE

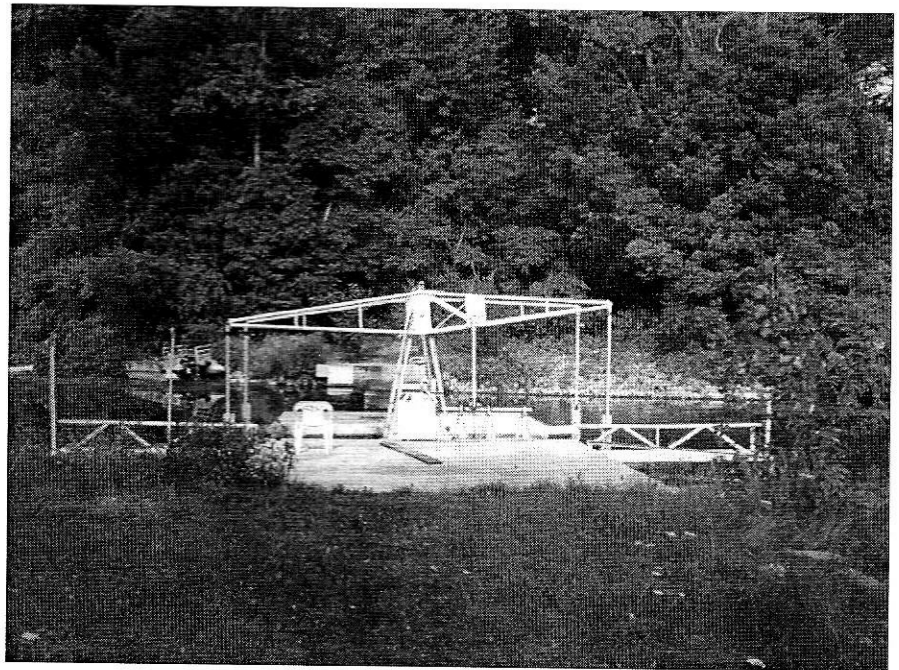
by David G. Barber

Indiana is a state that once had many navigation structures along the Wabash & Erie Canal, but today has almost none in service. So, I was very intrigued when last April, I received a copy of the February, 1982, issue of Indiana Waterways, which had a cover story on the Barbee Lakes Boat Transfer Structure located in northern Indiana, northeast of Warsaw.

An internet search led to the Barbee Lakes Property Owners Association, which confirmed the existence of the structure and its continued use during non-winter months. A hunt on Google Earth showed the structure's location and made it a must-see on my July tour of Midwestern navigation sites.

The Barbee Lakes are a chain of seven interconnected lakes, including Sawmill Lake, which has an outlet to Tippecanoe Lake

Close up of operating mechanism.
D.G. Barber

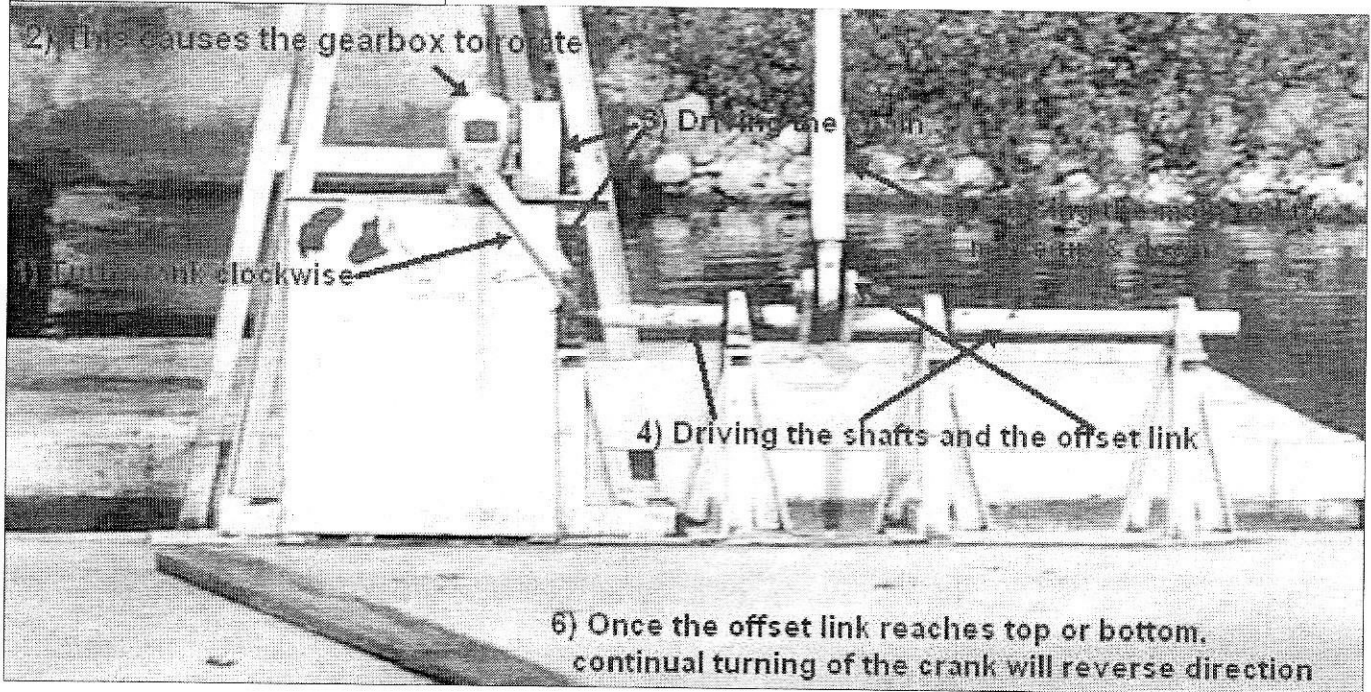


Side view of the structure. D.G. Barber

known as Grassy Creek. Just upstream of county road E500W is a low control dam with a 1½-foot elevation difference. Originally, boats were transported past this dam on a roller system, but this proved to be unsatisfactory. About 1962, the Barbee Lakes Boat Transfer Structure was designed, fabricated and installed by Jack Amick of Amick Welding Works of

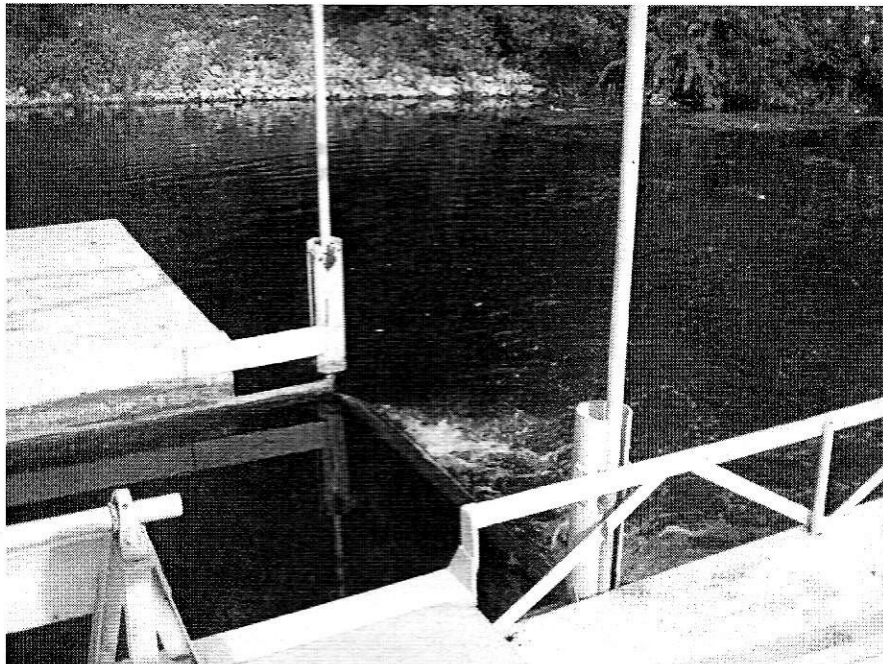
Huntington, IN.

This structure is most unusual in that each end of the approximately 10-foot wide by 20-foot long chamber is enclosed by a vertically rising gate. Rather than rising over the water like guillotine gates, each gate submerges to allow boat passage. The ends of each gate are connected by rods to two connected rocking beams



(like the “walking beams” on side wheel steamboats) located above and on each side of the chamber. A crank-and-drive system causes the rocking beams to move the gates up and down together at opposite ends of the chamber. While in motion, some water passes through the chamber, changing the water level within. Some flow also goes entirely through the chamber while the gates are moving, but with the low difference in levels, this is not a problem.

The structure is visible from the public boat launch at county road E500W and is accessible by water. Land access is across private property.



▲ Barbee Lakes Boat Transfer Structure from public boat access. D.G. Barber

◀ Downstream gate in raised position. D.G. Barber



DELAWARE CANAL PARK MANAGER'S REPORT

By the time you read this, all the flood repairs should be completed. It has been a long, hard road, but we are nearly at the end. It's been 2½ years since the repairs began and almost six years since the first flood. I believe we will have a canal that will endure flooding with less damage than we

experienced before, but I don't want to test this theory anytime in the near future.

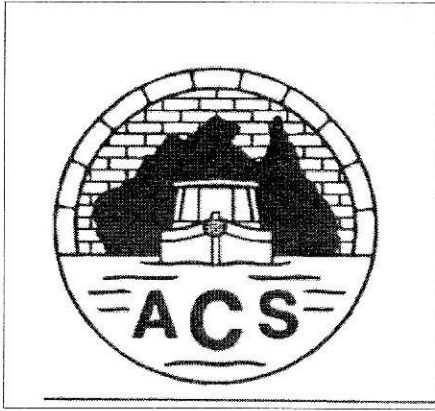
We are still in the design phase of some other projects, including the new Yardley aqueduct and tunnels at the Morrisville railroad embankment and Route 13. The state budget hasn't improved and may not in the near future. The park has about half the staff that we've had in

the past. I've received numerous questions about grass mowing. We just can't get to it as often as we have in the past. Our first priority is to keep the surface of the towpath mowed. The slopes of the canal will be done as we can get to them.

Once again, I want to thank all of our neighbors along the canal who have permitted the contractors to access the canal for repairs. Without you, the work would have been more difficult, if not impossible.

As always, thanks to all the members of the Friends of the Delaware Canal for your continued support.

Rick Dalton, Park Manager,
Delaware Canal State Park
Lodi, Pennsylvania



NEWS FROM OUR FRIENDS IN THE AUSTRALIAN CANAL SOCIETY

If any of our members are visiting in Australia, you would be most warmly invited to attend a meeting of the Australian Canal Society.

Here is an excerpt from their newsletter:

THE EGG ISLAND CANAL

It isn't often that we get a call to help save an Aussie canal. In fact, we haven't had such a request before! The Egg Island Canal is very tiny, and at first glance, an insignificant waterway, almost at the bottom of the country.

We reported last meeting that the ACS was asked to give some weight to the local campaign to stop a pipeline being placed along the canal that bisects the small Egg Island, dividing the waters of the Huon River. The local council underestimated the strength of local opinion and the national significance of this waterway, which is probably Australia's first privately funded canal. At the request of the Tasmanian Heritage Council, the ACS wrote official letters and con-

tacted Britain's IWA to do the same.

The matter has now been passed on to the state Heritage Council. Locals will be at a mediation meeting on the 22nd of April. We hope that the decision will be made to re-route the pipeline across the island, rather than through the canal.

If you would like more information about the Australian Canal Society, you may contact Jan Roden, 33 Carson Street, Dundas, NSW, 2117, Australia; (02) 9874 7584; acsweb@gmail.com.

The society members often get together with their British friends on one of the English canals.



THE 25th BATTEAU FESTIVAL AT MAIDEN'S LANDING

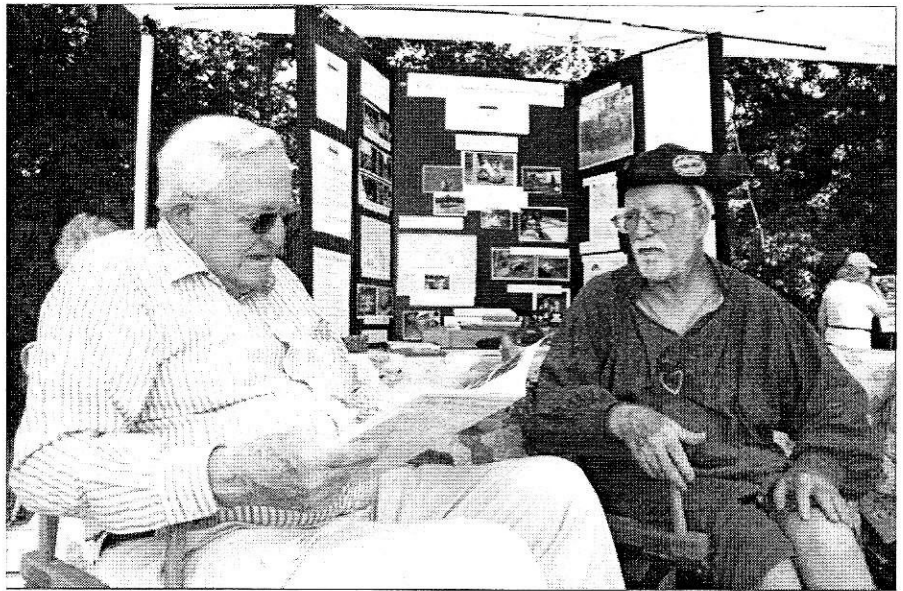
Trouts Receive Lifetime Award

Published June 30, 2010 in the
Goochland Gazette
By Ken Odor

Those long, flat-bottomed boats began pulling into Maidens Landing last Saturday afternoon shortly after 4 p.m., marking the end of the twenty-fifth annual James River Batteau Festival.

"It was a little harder this year," said Sandy Shortridge, whose husband Bob captained the first boat to arrive: Dreaming Creek, which is actually a gondola and not a bateau. Sandy said she liked the flood year, when the swift current carried the boats along.

Shortly after Dreaming Creek arrived (photo below), Captain Robert M. "Buddy" High and the Brunswick Belle pulled into sight. "Heat was the worst thing," said High, chairman of the festival. Low water was also a problem. High said several boats, including the Lord Chesterfield, dropped out during the week-long journey be-



Chuck Robinson, left, talks with Bill Trout (right) of the Virginia Canals and Navigations Society as they wait for the batteaux to arrive at Maidens Landing last Saturday. Trout and the canal society sponsored the first batteau festival in 1986.

cause the hot weather took a toll on the crews. A brief respite came Thursday night, said High, when a storm dropped heavy rain on the bateau crews. "We got soaked," said High, "but it beat what we had been through," referring to the unrelenting heat.

Earlier in the afternoon, spectators arrived to watch the yearly spectacle of boats. One group at the landing was the Virginia Canals and Navigations Society, where Bill and Nancy Trout,

recently awarded a Lifetime Achievement Award by the festival, were on hand to educate visitors about the history of Virginia's inland waterways.

Bill Trout said he became interested in the river and canals as a youngster. "It was in the Boy Scouts back in the 50s," he said. "We used to go hiking on the canal routes."

Trout said the history of the batteaux had been somewhat forgotten, but then development at the James Center in 1983 unearthed parts of at least 60 boats. That sparked interest in the old ways of moving cargo, and Joe Ayers of Fluvanna built the first replica, The Columbia, in 1984.

"He was the one who got people excited," said Trout. The first Batteau Festival was held in 1986 and was sponsored by the Virginia Canals and Navigations Society.

"The goal was to make it an historically oriented event," explained Trout. The heyday of the bateaux was from 1800 to about 1880, when numerous craft



traveled Virginia's rivers. Hauling tobacco was the main thing, said Trout.

Trout said historically the batteaux were about 60 feet long by seven or eight feet wide, but the replica boats are usually about 55 feet long, the better to fit on the trailers. So far more than 50 replicas have been built.

"This year is the biggest in a long time," said Trout, with 25 craft starting out in Lynchburg. As the crowd grew in anticipation of the landings, re-enactor Peter Amico, who portrays a member of the 44th Virginia Infantry from the Civil War, showed up with his percussion rifle to fire a salute as each vessel pulled in.

"I planned to fire three shots for each one," he said. Told that 25 boats had started out, he replied, "Maybe two shots." Buddy High, 64, said how the festival will fare depends on getting younger people involved. "They are the future," he said. High is doing his part. His crew included grandson Nathan, aged 6.

To find out more about the batteaux and the festival, visit their website at www.batteau.org. The Virginia Canals and Navigations Society has its own website at www.vacanals.org.

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CANAL BOAT MODELS

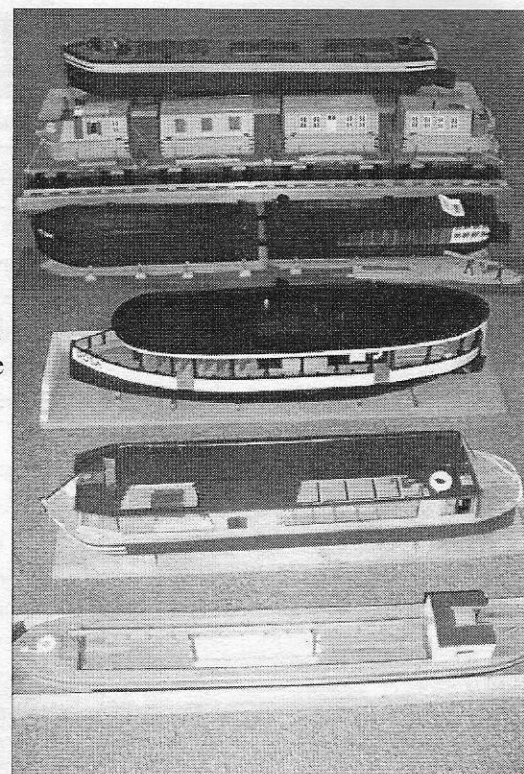
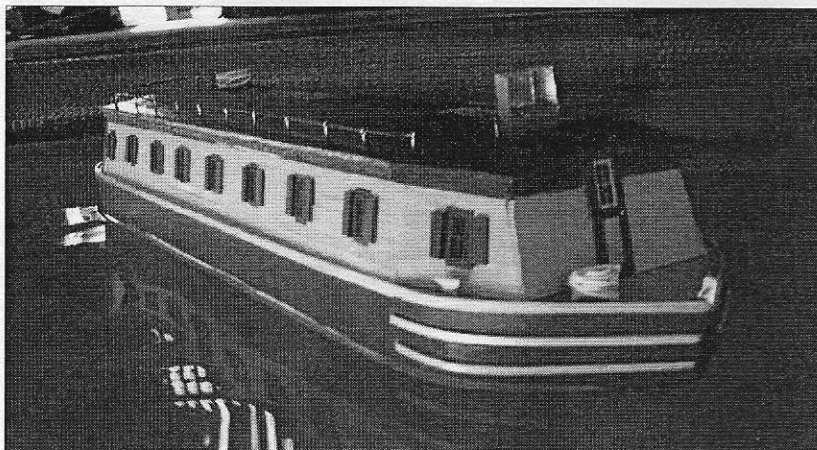
by Glenn Wenrich

I suppose I've been building models for about seventy years now, if you include that crude aircraft carrier I made from two cigar boxes during World War II. It's gone full cycle from warships to canal boats. In between there were planes, trains, trucks, barns, and covered bridges.

Since becoming a volunteer guide at the Hiester Canal Center near Reading, Pennsylvania, about a dozen years ago, I have limited the model-making to accurate scale models of boats that would have been seen on American canals in the 19th century. The canal center already had a few canal boat models, but the scale was either unknown or inaccurate. I thought it would be nice to have various types of boats built to the same scale so that our visitors could see the difference and compare the features of the various vessels.

I try to add one new model every season. We are open from May 1st to the last weekend in October, and the museum includes hundreds of artifact from the private collection of the late Howard Hiester, a fourth generation canaller in Berks County.

The models are built to a scale of 1/24th, or one inch equals two feet. (One exception is the tug in the lock of an entire boat yard model.) Models are first drawn to scale as plans derived from



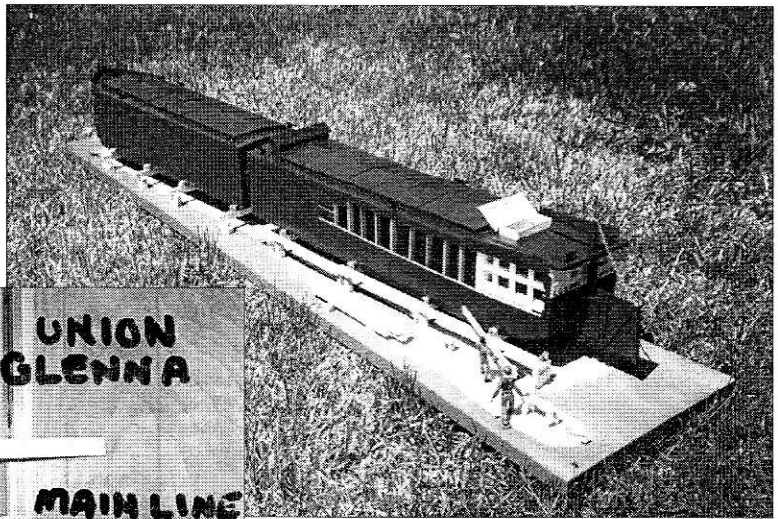
Top to bottom: Schuylkill coal barge, "Bride of Leesport"; Pa. Main Line section boat, "Sara Jane"; Lehigh hinge boat, "249"; Schuylkill excursion "Rosa"; Schuylkill packet boat, "Planet"; Union bulk cargo, "Glenna"

photos, paintings, texts, and sometimes original plans. The plans are then transferred to a "build board," where the hulls are constructed upside down. When the hulls are released from the build board the interiors and the decks are completed. After the details are added, the model is

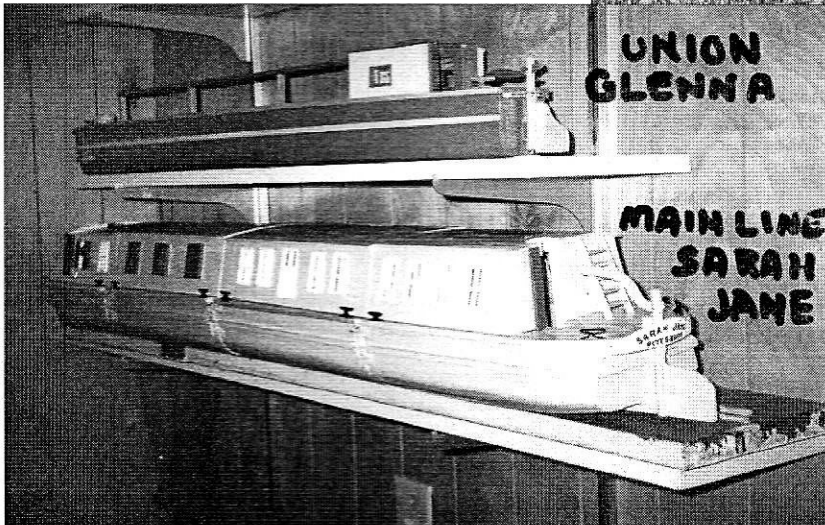
1826 Schuylkill packet boat, "Planet"

Painted and clear-coated. They are then water tested in a pool. If it's a boat, it's got to float. Except for that first aircraft carrier, none of my boat models ever sank. All have been given to the Hiester Museum and are on display there.

Work in progress pictures are usually taken, some of which are included in this article.



Lehigh hinge boat ▲



Glenn Wenrich is the president of the Pennsylvania Canal Society.

CAMILLUS CANAL SOCIETY RECEIVES AWARDS

The Camillus (NY) Canal Society was honored by the Preservation Association of Central New York State for the reconstruction and restoration of the historic 1844 Nine Mile Creek Aqueduct on the Enlarged Erie Canal.

In June 2010 the society was presented with the Onondaga Historic Association Medal, which was struck over a century ago. It has only been presented nineteen times since 1945. The canal society was honored for the extraordinary and distinguished aqueduct project.

During the ceremonies on May 22, the Erie Canalway National Heritage Corridor Commission presented the Camillus Erie Canal Park with an Award of Commendation, which recognized the aqueduct as a living link to the past and a renewed commitment to the future of the Erie Canal.

The Ambassadors of the Syracuse Convention and Business Bureau presented the Camillus Erie Canal Park with a citation for the exemplary work in the restoration of the Nine Mile Creek Aqueduct.

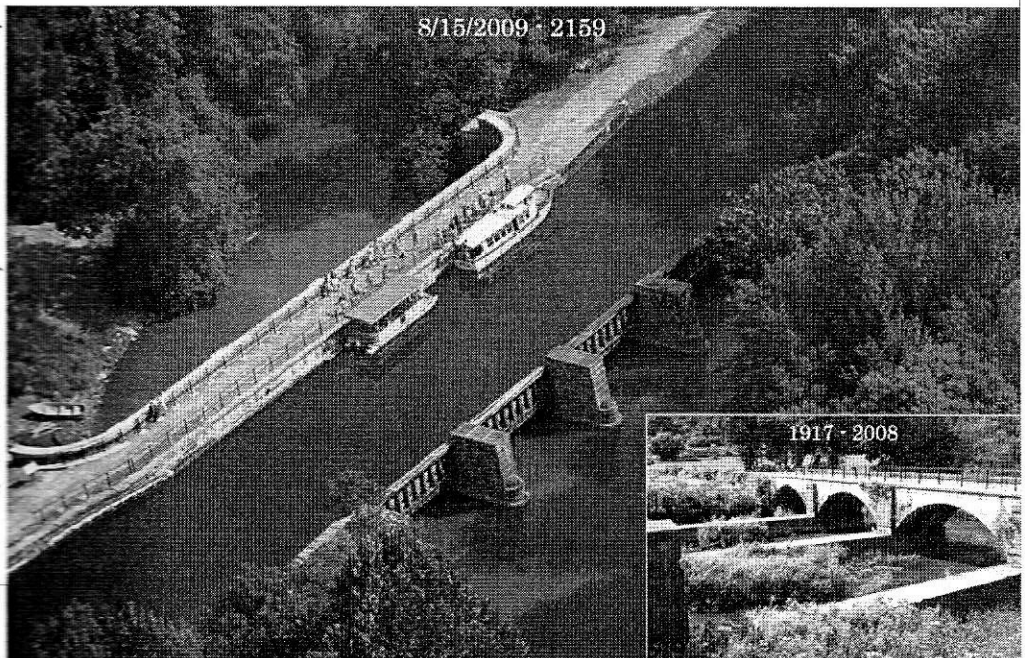


Photo courtesy of Bob Reece, Syracuse, New York

When the Illinois and Michigan Canal was originally built, it was found to be too expensive to remove the rock ledge along the northeastern 10 miles of the canal. Instead, a summit level, with a lock at each end was built for the first ten miles from the south branch of the Chicago River. The location of the first summit lock at Bridgeport is apparent because of the river. This article deals with the other summit lock. It and other articles on the Chicago Portage are available on line at <http://cpl.library.cmu.edu>.

Chicago Portage Ledger 09-12-2000

JACK'S LOCK (SUMMIT LOCK #2)
by Philip Vierling

One of the rewards of doing historical research is the occasional unexpected find of important information on subjects you are interested in, but not targeted in your current investigation. One such topic of interest is the location of the second Summit Lock of the Illinois & Michigan Canal which was removed in 1871. No one -- not even John Lamb -- knows exactly where this lock was located. In 1994, while doing research on the location of a water-powered sawmill on the DuPage River in DuPage Township of Will County, the author found the following information in a biographical sketch in the 1878 history of Will County:

“Robert Goudy, farmer in the fall of 1843, he came west to Illinois, and settled in DuPage Tp., Will Co., and engaged in farm labor; in 1850, he moved to the I & M Canal, and attended lock, two and one-half miles north of Lockport, two years; he next engaged in running a boat, two years, for Norton &, Co., and again returned to the lock, remaining five years.”

The History of Will County, Illinois. Wm. Le Baron, Jr.,
& Co., 1878, Chicago, page 897.

The problem with this quote is knowing where in Lockport (modern Lockport) this two and one-half miles was measured from. The lock in question -- Summit Lock #2--was also known as “Jack’s Lock.”

“The same year, 1865, Sanger, Steel & Co., took the contract to deepen the twenty-one rock sections of the Illinois & Michigan Canal. This was to remove solid limestone sixty feet wide and ten feet deep, the object being to remove permanently the lift-lock in Chicago and Jack’s Lock near Lockport.”

The History of Will County, Illinois. Wm. Le Baron, Jr.,
& Co., 1878, Chicago, page 712.

On June 28, 2000, while doing research on the Chicago Portage at the National Archives (7358 S. Pulaski Rd., Chicago 60629), the author came upon the following:

“This canal as completed under the trustees for the bondholders between 1843 and 1848, had a summit level about 8 feet above the Chicago datum, extending about 26% miles from Bridgeport to a point called Jack’s Lock, about a mile and a half below the Romeo Road. This was a modification of the original plan upon which work had been done prior to 1843. But by the modified plan, there was a lift at low water of 8 feet at Bridgeport and about 10.9 feet at Jack’s Lock

Abstract of Proofs: The United States of America vs. Economy, Light & Power Co.
The Gunthorp-Warren Printing Co., Chicago, 1912, Volume I, Lyman F. Cooley
testimony, pages 597-598.

A mile and a half south of Romeo Road would locate Jack’s Lock at a point 2800 feet upstream (north) of the south section line of Sec. 11, T. 36 N., R. 10 E., on the Joliet Quadrangle, 7.5 Minute Series Topographic Map. On October 3, 1993, the author measured the length of the towpath of the Illinois & Michigan Canal south of Romeo Road. At about 1.397 miles south of Romeo Road an earthen berm has been thrown across the towpath. The location of Jack’s Lock should be about 528 feet south of this berm.

PROGRESS ON THE I&M CANAL

The Illinois & Michigan Canal National Heritage Corridor's steering committee met on June 23, 2010 at Four Rivers Environmental Center in Channahon and unanimously passed the foundation documents that will form a key part of the corridor's new management plan. They will guide the final development of the management plan over the next several months and the implementation of the plan over the next decade. The foundation documents include the corridor's vision and mission statements and its guiding principles. Revised by Andy Connor, the foundation documents reflect public input gathered during workshops held late last year, comments from the management plan blog and comments from the steering committee. The revised foundation documents can be found on the I&M Canal National Heritage Corridor's management plan website www.iandmcanal.org and blog www.iandmcanal.wordpress.com.

The Canal Corridor Association has been designated by Congress as the local coordinating entity for the Illinois & Michigan Canal National Heritage Corridor, the nation's first national heritage corridor. Visit us at www.iandmcanal.org. The Canal Corridor Association, a 501(c)3 non profit, preserves history, protects nature and open space, and creates destinations where people can learn and have fun in the I&M Canal National Heritage Corridor from Chicago to LaSalle/Peru. www.canalcor.org

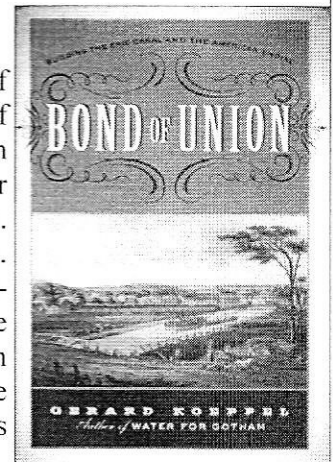
BOND OF UNION

Building the Erie Canal and the American Empire

by Gerald Koeppel — Reviewed by David G. Barber

Many books have been written about the Erie Canal, the most famous of America's artificial waterways. This is a thoroughly researched, in-depth history of the Erie Canal from the earliest days of the original idea to the canal's completion and its effects on national development. In studying the canal's history, the author has explored original sources and dispels some of the myths about its history. It is extensively footnoted and includes a large bibliography.

Hard-backed copies of the book are available on the internet from Barnes and Noble or Amazon at \$27.95 plus shipping and handling; however, while looking in the used book sections of these web sites, I found new, unread copies available from several sellers at \$1.99. Barnes and Noble also lists paperback copies. While these are less expensive retail than the hardback ones, the new copies from other retailers are four times the price of the hardback ones.



LETTER TO THE EDITOR

I thought that the summer issue was great; there was lots of good information and a good balance of photos/illustrations. A big thanks for the article on Bobbie Styran. This award is one that Bobbie is very proud to have received. One quick comment on the article. Somehow, the Canadian Society for Civil Engineers became the Civil Society of Engineers.

I'm pleased to see Bruce J. Russell's article give the journal some Canadian content. There are, however, several incorrect statements. In the third column there is reference to the "French and Indian War"; this is the name used in North America to describe the war between the Thirteen Colonies and the French in Quebec with their Indian Allies. The conquest of Quebec by the British was actually part of the larger "Seven Years War."

I do not have time to find the reference but I'm not sure about the statement that politicians favoured its complete obliteration. As you know from the WCC 2002, the Lachine Canal was the cradle of the Canadian Industrial Revolution. The many industries that located along the Lachine Canal relied upon the canal as a source of water for manufacturing. Politicians may have wanted to fill in the canal but the cost of putting in a alternative water source would have been prohibitive. Without checking my files, this is probably one of the reasons that local government was willing to partner with Provincial and Federal governments to re-open the canal. It was cheaper to re-open plus there was the bonus of green space and tourism.

CANALENDER

September 25—Schuylkill Canal Association Benefit Concert & Fall Music Festival, St. Michael's Park, 4 pm to 9 pm; info@schuylkillcanal.com; 610-917-0021

September 25—Evening Canoe Trip, Old Santee Canal, 900 Stony Landing Road, Moncks Corner, SC 29461. 6-8, \$15. Call Brad Sale, 843-899-5200

October 8-10—Pennsylvania Canal Society tour of the Eastern Division of the Main Line Canal & the few remains of Conestoga Navigation. For information, please contact Bill Lampert, indnbll@yahoo.com.

October 9—LaSalle Canal Boat Ride with Mrs. Lincoln. 815-223-1851. 10:30, 1:00, 2:30. Every Tuesday through November 2.

October 15-17—Canal Society of Ohio tour of the Ohio & Erie Canal in the Cuyahoga Valley National Park, including the great canal town of Peninsula. Tour leader: Skip Brausch: 440-965-4386; canawler@centurytel.net.

October 22-24, 2010—"*Rappites, Riverboats, Pirates*"—Headquartered in Evansville, IN. Bus tour of southeastern Illinois, Cave in Rock, the Rappite community in New Harmony; Ohio River locks, Paducah, Kentucky flood wall murals (possibly Quilters Hall of Fame and the Civil War Museum) on Saturday. Friday tour of LST in Evansville, Sunday Wabash & Erie Canal in Warrick County, Indiana. Carolyn Schmidt, 260-432-0279; indcanal@aol.com.

December 11—Schuylkill Canal Association Holiday Luminaria, 6 to 9 pm, Lock 60, Locktender's House, 400 Towpath Road, Mont Clare, PA 19453

April 1-3, 2011—"Conquering the Swamp" - The canal societies of Indiana and Ohio will sponsor this tour that covers the Miami & Erie Canal; the Wabash & Erie at Junction, Ohio; and Paulding County, Ohio. Learn the trials of digging through a big swamp. HQ:

April 29-May 1, 2011—Pennsylvania Canal Society tour of the Lower Division of the Lehigh Navigation.

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, check the web, www.newyorkcanals.org.

September 11-14, 2011—ACS Conference, Delphi, Indiana. See insert for details.

September 19-24, 2011—World Canals Conference in the Netherlands: provinces of Gronigen, Friesland, Drenthe, and Overijssel.

October 14-16, 2011—Pennsylvania Canal Society tour of the Juniata Division of the Main Line Canal.

September 2012—World Canals Conference, Yangzhou, China

ACS Sales

If you haven't checked the ACS website lately, you might not know that the society has the following items for sale:

Best from American Canals #2	published 1984	\$4
Best from American Canals #5	published 1991	\$4
Best from American Canals #6	published 1993	\$5
Best from American Canals #7	published 1996	\$5
Best from American Canals #8	published 1998	\$6
American Canal Guide #1: West Coast	published 1974	\$1
American Canal Guide #2: South, NC to FL	published 1975	\$2 (copies only)
American Canal Guide #3: Lower MS & Gulf	published 1979	\$3
American Canal Guide #4: WV, KY, Ohio River	published 1988	\$3 (copies only)
American Canal Guide #5: DE, MD, VA	published 1992	\$3
20 year American Canals Index 1972-1992	published 1992	\$2
Canal Boat Construction Index (12 pages)	published 1992	\$2
Canal Terminology (100 pages) Hahn & Kemp	published 1998	\$15
A Picture-Journey Along the Penn. Main Line Canal	published 1993	\$10
ACS Burgee (blue on white cloth)		\$15
ACS cloth sew on patch (2"x3" red, white & blue)		\$ 3
"Restore Your Local Canal" bumper sticker		\$ 1

Shipping and handling: first two items \$4; each additional item \$1

Checks payable to: American Canal Society. Send orders to: Robert H. Barth, 214 N. Bridge Street, Somerville, NJ 08876-1637; 908-722-7428; barths@att.net. Please call or email with questions.