PRESIDENT’S LETTER

Greetings! By the time you read this, the American Canal Society will have a new web page. Our "address" is www.americancanalssociety.org. As I write this, it is late March and our web page is only a few words of an index. Mark Newell, chairman of our Internet Committee, assures me that “in four or five days” we will begin to add data and information as quickly as they come in. In that regard, we are requesting that any and all information to be included in our web page be directed to Mark Newell at his E-mail address of archaeonaut@excite.com.

Mark is also chairman of our Canal Archaeology Committee. That committee has been working on an “Archaeology Primer” expressly slanted toward canal projects. We hope to be able to proofread a draft copy of this effort soon. We will then make any needed changes and offer the finished work to A.C.S. members and/or directors of pertinent canal projects throughout the continent.

The year 2000 World Canals Conference will be held in Rochester, New York, September 10 to 15. Our two-hour A.C.S. directors meeting will be held in the late afternoon of Sunday, September 10. Our one-hour membership meeting will be held at 1:00 on Thursday, September 14. This latter meeting will cut in a bit on an “on your own lunch,” but its timing won’t detract from any of the other organized events. I’ve received a preliminary itinerary from conference chairman Tom Grasso. Though he assures me that “things will change” in an attempt to provide the very best conference possible, what is planned to date looks great! Hope to see many, many of you there.

One of the items we have been working with, in conjunction with representatives from the Canadian Canal Society and the Inland Waterways International, is the formation and makeup of a permanent committee that will receive proposals for World Canals Conference sites and, after a lot of work and study, select locations for future World Canals Conferences. In essence, a committee would be administered by the I.W.I. made up of representatives from past, present, and possibly future conference sites as well as representatives from the Canadian Canal Society, American Canal Society and Inland Waterways International. All the proposals will be discussed at the A.C.S. and I.W.I. meetings to be held in Rochester in September. Please attend and give us your input.

I mentioned the desire to increase our membership dramatically during the first few years of the new millennium. I believe if we each get an additional member we can achieve our admittedly ambitious goal of 1,000 members. One plan suggested by David Ross was to offer a reduced rate combined membership with a state or local canal society to new members. Don Green, president of the Clinton & Kalamazoo Canal Society, a 25-member fledgling canal society from the great State of Michigan (I once spent a great six months working on an engineering project in Hastings, Michigan) has sent us a list of twenty of his members who plan to join the A.C.S. to kick off this plan. We would like to hear from any and all other canal societies that might like to work with the A.C.S. in fostering the membership campaigns of both societies.

I mentioned in my last President’s Let-
PRESIDENT’S LETTER (CONT.)

t the prospect of initiating a “Canal Buff’s Hall of Fame.” David Ross, editor of American Canals, pointed out that it is difficult to have a “Hall of Fame” without a hall. So, at his suggestion, and with the forbearance of our membership, I would like to initiate a “Canal Buffs Honor Roll.” I will appoint a three-person committee to receive and approve (or disapprove) nominations from our membership. As I mentioned in my last letter, I am at present preparing a short biography on Ted Findley that, I hope, will appear in a future issue of American Canals and kick off our “Canal Buffs Honor Roll.” I would like to solicit information, facts, stories, etc. from those of you who worked with Ted or remember him from the “old days.” You are all welcome to make your own nominations by sending appropriate biographies to a member of our committee once it is appointed.

Till next time, Headway to you!!!

(Terry K. Woods)
The Bricktown Canal: OKLAHOMA CITY STRIKES BACK

Oklahoma seems about as likely a place for canals as Switzerland for seaports. In fact, however, Tulsa (via its suburb Catoosa) has for several years been the busy terminus of a major riverine canal, the McClellan-Kerr Arkansas River Navigation System. How long could Oklahoma City ignore this challenge from its upstart rival? Only until 1999, it seems. That was when the mile-long, $21 million, four-foot deep Bricktown Canal opened for business in the state capital. “Bricktown” is the name of Oklahoma City’s entertainment district, which may provide a clue as to the principal function of the new waterway.

A STRAIT NAMED SOO
by David Minor

[This material was first published on the author’s website. It is reproduced here with his permission.]

Actually the Soo is the rapids and the strait’s called a river, but I couldn’t pass up a title like that. It all gets a bit confusing anyway. S-O-O, properly spelled S-A-U-L-T, is a French word meaning leap. With a different pronunciation it can be found in the English word somersault. And St. Mary’s River is really a short, narrow waterway connecting two larger bodies of water. Which makes it a strait. Not to be confused with an inside straight.

A boat loaded with ore or timber could not pass through it. As the seeds of industry were planted on Superior’s shores in the 1840s and ’50s, a canal became a necessity. There had been one earlier attempt. In 1797 the North West Fur Company built a 9-foot lock on the Canadian side. Today you might be able to squeeze a small lifeboat in a 9-foot lock, but for canoes and bateaux it was more than adequate. Unfortunately, it was destroyed by American forces in 1814 during the war with Britain.

When Michigan became a state in 1837, governor Stevens T. Mason tried to get the federal government to build a canal at the Soo. No Sale! Okay, Michigan would build her own. A contractor was found who agreed to build it, site unseen, and posted a bond of $100,000. Only then was an engineer sent to the scene—and said to himself, “no way.” Also, the commander of the local U.S. Army post didn’t want the bother of guarding canal locks. The two men hatched a plot. When the workmen showed up they were met with drawn swords and rifles at the ready. End of project. No military siestas disturbed. No bond forfeited. Everybody happy. Except the shippers, of course.

In 1867 Charles T. Harvey would design and build Manhattan’s first elevated railway, but in 1855 he was a 24-year-old salesman for a scale manufacturer, recuperating at the Soo from a typhoid fever attack. He saw other possibilities here and convinced his company to go into the canal construction business. Named contractor for the project, he set out to teach himself engineering and build a canal at the rapids of the St. Mary’s. Traveling to Detroit, he hired an excavation foreman and 400 laborers. He purchased teams of mules and horses, construction materials, and close to a year’s supply of provisions. They all arrived on June 1st and ground was broken on the 4th. Harvey wore out three horses a day galloping from one end of the project to the other. The men dug all that summer and on into the fall. 2,000 men were now on the project as the daylight hours shrank and winter descended over the Sault. At times the thermometer would be halted at 35 degrees below zero for days on end. Meat froze solid in the cook-shacks and had to be cut up with axes to fit in the stoves. Watchmen at the top of ramps scrutinized every face closely, looking for the tell-tale patches of gray that meant frostbite, ready to instantly rub snow over the affected area. The crews worked on, meeting the challenges of nature, as well as typhoid and cholera. Finally, on June 18, 1855 the canal was opened. Lake Superior was in business. Other locks would be built, on both sides of the river that formed the international border. But a scale seller had shown the way.
WHEN THE ROAD WAS A RIVER Commerce flowed on the Middlesex Canal for a half-century, and pieces of it still exist today. by Michael Kenney

[This article first appeared in The Boston Globe, Saturday, July 3, 1999, section C, pp. 1 and 7. It is reprinted by their permission, through the good offices of the Middlesex Canal Association and A.C.S. V.P. William E. Gerber. "Today's Big Dig" referred to is an underground highway system crossing Boston north to south.]

It was "the Big Dig of its day," says Thomas Raphael, chairman of the state's Middlesex Canal Commission.

Take that literally, because the canal was not just a transit route set in a ditch, but a technological marvel whose half-million-dollar cost in 1803 prompted the secretary of the Treasury to call it "the greatest work of its kind that has been completed in the United States." Sound familiar?

The Middlesex Canal, a water highway of its day, ran 27 miles from Lowell to Charlestown. The route, along with the Blackstone Canal that ran 45 miles between Worcester and Providence, highlighted a half-century period when canals were a prime way to haul freight through New England—and to carry the region into the Industrial Revolution—before the coming of the railroads. Such canals were smooth alternatives to rocky, rutted, and muddy roads.

Today, much of the Middlesex Canal is buried under roads and parking lots— even its southern end at Sullivan Square, formerly at the head of Prison Point Bay, is now close to a mile inland.

Many traces of the old waterway remain only as dirt-filled paths through suburban backyards, and at the MDC's Sandy Beach Reservation in Winchester. Boston's Canal Street is where the route once extended from the Charles River to Boston Harbor.

But it's still possible to find an unguided and unmarked way along a dozen stretches of the canal where its waters still flow through granite embankments.

A key landmark is in Woburn, at Baldwin's, the restaurant near the junction of Routes 128 and 38 that is in the elegantly restored mansion erected by Loammi Baldwin, the canal's builder.

On a recent afternoon, Nancy O'Connell, who owns the restaurant with her husband, steered a visitor toward the canal's towpath, where horses pulled the barges loaded with goods. Now, the towpath more closely resembles a mountain bike trail, but it runs for a half-mile. At several points, it's possible to push through the brush down to the canal itself—and to look across at a second mansion, where Baldwin held a gala ball to celebrate the canal's opening.

Also unmarked, but more accessible, is the Millpond on the Concord River in Billerica. There, against a backdrop of 19th-century mills and a dam, Raphael and other canal buffs dream of putting in hiking trails and bikeways, even a visitors center and a heritage park—and of the bustle that reigned when barges ruled.
Exponential growth

Despite the difficulty and cost of building them, the canals proved far more efficient than wagons. Unfortunately, the railroad eventually proved far more efficient than canals.

As Raphael said, “With a wagon and a team of oxen, you could carry maybe 3 tons. On a canal barge pulled by just one horse, you could carry 30 tons. But on a railroad, maybe you’d carry 300 tons. That’s the exponential way things were going.”

A company to build the Middlesex Canal was organized in 1793 by James Sullivan, later governor of Massachusetts and for whom Sullivan Square at the canal’s Charlestown end was named. Colonel Baldwin, who became the project’s superintendent, was Sullivan’s partner. The digging began in 1795, with local farmers working when not tending their fields, and it was completed eight years later.

Unlike today’s Big Dig, the canal was built with private funds—but it had the same cost overruns, as Mary Stetson Clarke notes in her history “The Old Middlesex Canal.”

There was the ditch itself, 30 feet wide and 3 feet deep between a tow path and a protective berm. In addition, there was a series of 20 locks to successively raise the canal to its highest point, in Billerica. And there were eight aqueducts to carry the canal over small streams—rather then lower it to their level.

From the Boston end, through locks and along aqueducts, barges would be lifted 107 feet above tidewater at Charleston (or, from the other direction, 25 feet above the Merrimack River). A floating towpath—buoyant on a crisscross of logs—allowed horses to haul barges across the millpond. Still visible in Boston on the mill side of Faulkner Street are parts of the locks through which the barges passed.

“Heavy funds were continually needed as unexpected expenses arose,” Clarke wrote of the construction. “The rebuilding of embankments that sank and continued to sink was extremely costly. Material for watertight mortar had to be imported at considerable outlay. Stonework on the locks ran into high sums. Unsuspected ledge required tedious and expensive excavation. At every turn the superintendent ran into situations that had only one thing in common—the inescapable fact that more money was necessary to effect a solution.”

South along the canal upon its completion moved raw materials—lumber, granite, and agricultural products. On the return trip north, there were manufactured products.

Transported into Woburn from New Hampshire forests came the tree bark used in the leather-tanning process. “It changed life in Woburn,” said Thomas Smith, one of that city’s members on the Middlesex Canal Commission. “Having access to the bark made it possible for the leather industry to grow” in what had been a rural, agricultural community.

And the extension into Boston, said Raphael, made Haymarket Square “the city’s gas station”—explaining that hay from farms along the canal’s route was the “fuel” for the horses that drew the city’s carriages and wagons.

Even then, the canal provided sightseeing excursions, with one of the region’s first amusement parks built along it at Horn Pond in Woburn, complete with bowling alleys, taverns, and dance pavilions.

But within just 50 years, it all came to an end because of a nearby replacement.

A plan for the Boston and Lowell Railroad, drawn in 1836, shows the proposed route for a railroad running parallel to the canal. The surveyor was none other than the son of Colonel Baldwin. In mapping the railroad, he worked off the original survey done for the canal.

Thirty-ton loads were no match for 300-ton ones, and the canal faded into the brush and under the developers’ shovels. (Even rail lines change. The Lowell route is now an MBTA commuter line.)

A dream revived

Interest in the canal revived in the late 1960s when local history buffs formed a Middlesex Canal Association—which was followed by the creation of the Middlesex Canal Commission, the state agency that Raphael heads.

There was even a period in the mid-1970s when the stretch of canal past the Baldwin mansion in Woburn was cleared of brush and debris and a replica of a canal barge gave trips along its length. But funds dried up during the municipal budget crunch of the 1980s.


Already redeemed is a 4-mile stretch of the Blackstone Canal—now the Blackstone River and Canal Heritage State Park—in Northbridge and Uxbridge. There’s a walking trail that includes sections of the original towpath. Parts of the locks are still visible, and there are spots suitable for launching a canoe.

Raphael, a retired chemist for Arthur D. Little and later Polaroid, knew the canal’s waters from years sailing on the Mystic Lakes, which the canal crossed. Granite blocks from the aqueducts that crossed the lakes at the MDC’s Sandy Beach Reservation eventually were used to build a small terrace there.

About a decade ago, Raphael recalled, he attended a meeting of the canal association and read a feasibility

Globe Staff Photo / Tom Landers
Nancy O’Connell stands by the canal and the former Baldwin mansion.
study for a Middlesex Canal Heritage Park. "When I read it," Raphael said, "I asked why hadn't anyone followed through on it?"

He took on the job and has spearheaded successful efforts to secure $625,000 in federal highway funds for canal restoration. At present, the focus is on the Billerica millpond and reconstruction of the remaining 10.6 miles of the canal.

"It's a slow process," Raphael said. The funds have been allocated through the state Highway Department, but "they're coming slowly." That's because ironically, he said, the highway funds allocated for canal restoration are "tied up" with the current Big Dig.

IF YOU GO

The Middlesex Canal Association publishes a detailed guide to the canal, with maps. The price is $17, plus $1.50 postage from Middlesex Canal Association, c/o Osterberg, 79 Nichols St., Wilmington, MA 01887-1625.

A guide and map for a walking tour of the Blackstone Canal's towpath from Northbridge to Uxbridge is available at the Blackstone River Valley National Heritage Corridor's visitors center at River Bend Farm on Oak Street in Uxbridge. For information on the Blackstone Heritage State Park, call 508-278-7604.

NEW YORK'S "SECRET" NAVIGATION

by David G. Barber

Several years ago, I received an inquiry that let me know that there were possibly more active locks in New York State than those pertaining to the modern barge canal system. Occasionally, I would look for further information, but I wasn't able to learn much more. This year, I decided to investigate further and discovered that while the locks did exist and many people were using them daily, few canal buffs were aware of them. I found the idea of a hand-operated lock in use in New York State in 1999 to be very interesting.

Pursuing the subject more aggressively, I obtained some information through Craig Williams at the State Museum and then had a phone conversation with the Department of Environmental Management office at Ray Brook, N.Y., which maintains and staffs the locks. After procuring maps of the area, my wife and I did a road reconnaissance to figure out how to get to the locks, as they are only accessible by water. During this trip, we found that the local people are knowledgeable about the locks, but somewhat reluctant to have much publicity about them. We then organized an actual expedition to the locks themselves.

To dispel the mystery, the locks are located on the Saranac River in the northern Adirondack Mountains. The Saranac Lake area became popular at the end of the nineteenth century as a spa for tuberculous treatment, and the many lakes in the area became popular for extended wilderness canoe trips.

On the day of actual investigation, a prearranged group met at Swiss Marine on Flower Lake in Saranac Lake, N.Y. Here, we rented a pontoon boat for the day and loaded our gear. After receiving some instruction and being cautioned to keep the propeller away from rocks, we motored out into the lake and proceeded toward the Lower Lock.

Leaving Flower Lake, we passed through a channel into Oseetah Lake. On the far side of this lake, we avoided the channel to Kiwassa Lake and entered the sharply twisting, buoyed...
Saranac River channel, barely wider than the boat. Soon we reached the lock and its accompanying dam. These maintain the level of the river and Second Pond beyond.

The lock was originally built at the end of the nineteenth century and was modernized in 1986. It now is of concrete construction with steel miter gates at each end operated hydraulically. The lock is twelve feet wide, sixty feet long and has a six-foot lift. In summer, a state lockkeeper operates the lock during normal working hours, but boaters can lock themselves through outside normal hours or in the fall and spring. The lock is only accessible by water and the lockkeeper lives on site.

Continuing upriver, one again follows a very narrow, winding channel, which even has large rocks in the middle, to Second Pond. At the pond, the course opens out, but soon narrows at the north end at a canoe and boat access and channel, under the Route 3 bridge, to First Pond. At the north end of this pond we entered Lower Saranac Lake at about its middle.

Here, we turned west through the narrows and eventually reached the west end. Again, we followed a narrow, winding river channel and reached the Upper Lock. This lock is even more isolated than the Lower Lock and is hand operated. Again, an operator is present during the summer hours and lives on the site. The lock was rebuilt in 1993. It is of concrete construction with hand operated, steel miter gates with balance beams. Water flow is controlled by hand operated gate valves. The lock is twelve feet wide, about forty-five feet long, and has a two-foot lift. At the time of our visit, water levels were low, leaving about two feet of water over the floor and lower sill. To navigate into the chamber from the lower level, it was necessary to raise the propeller out of the water. With the lock at the lower level, the water in the chamber was only knee deep. Numerous propeller marks could be seen on the sill and the concrete lock floor.

Above the lock, we again followed a narrow, twisting, and now shallow channel through marsh to Middle Saranac Lake. There, we turned around and retraced our course to the marina at Flower Lake. On the entire trip, the weather was great and the scenery spectacular. Compared to the barge

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Saranac Lake, N.Y. Swiss Marine is the only one renting speedboats and pontoons. There are no charts available, but the Adirondack Canoe Map gives the needed information. This is available from many outdoor stores.

Considering all that is written about canals and navigations in New York State, it was fun to find a "new" one.

**NEW CANAL PARK IN THE WORKS AT JOLIET**

_by Bill McCandless_

In 1998 a revitalized Illinois Canal Society announced its plan to establish a permanent historic memorial of the Illinois & Michigan Canal. It would take the form of a restored 1850s canal packet-boat, a working original lock, and an interpretive site. The intent would be to dramatize the 97.6-mile-long historic canal, its 15 locks, and the customs, traditions, and lifestyles of canal people who helped make Chicago prosperous and populated the northern Illinois prairie between Bridgeport and La Salle.

In 1999 the Friends of the I. and M. Canal Corridor, a not-for-profit, grassroots organization with 150 members active along the corridor since 1985, adopted and endorsed this mission as its primary goal. As part of the vision, we have embarked on a program of obtaining public and private support to establish the site in Joliet as an educational and recreational resource for visitors and school children.

After evaluating possible locations along the corridor for a heritage park of the kind visualized, we chose the site at historic lock #4, on land owned by the Will County Forest Preserve District, which is partly utilized as Joliet Iron Works Park. It now has a tour path with 12 interpretive plaques overlooking the remnant foundations of the 19th century foundry (later U.S. Steel Joliet Works) where 3,000 workers turned out railroad track and barbed wire for the expansion west.

Our vision includes a panoramic interpretive depiction of Joliet's early limestone quarries, which provided stone for the canal and for Chicago's water tower that survived the great fire in 1871. The enormous hunger for Joliet stone continued after the fire and is evident in many of our finest old buildings. Joliet's historic description as the "City of Stone and Steel" would therefore be integrated with the canal heritage.
Phase I includes a packet-barge boat designed in the style of the I. & M. barges of the day. It would carry 60 passengers over the 1.25 mile course, pulled by a team of mules on a 10-foot-wide towpath. A boarding dock would be just south of the access road bridge.

In Phase II, lock #4 would be rebuilt to provide approximately five feet of vertical lift to a turning basin between locks 3 and 4. Boat passengers would enjoy the unusual thrill of being locked in and out just as riders experienced it 150 years ago. The access road bridge would be modified or relocated to allow boat passage. Suitable interpretive displays would be provided and the site and barge experience would offer a backdrop for our local group of historical reenactors, "The Canallers." Many of the Canallers are members of the Friends, and entertain and educate the visitors and school children who visit canal sites now. The Canallers won an "Outstanding Volunteer" award from the State of Illinois in 1998.

Three primary advantages of this site became obvious during our survey. (1) This section of the canal is watered all year round by the Des Plaines River backwater at its south end. The ability of this site to handle the spring runoff and defy the late summer drought is unduplicated on the 75 remaining miles of the historic canal. (2) The 100-foot-wide outflow into the Des Plaines River at our site's southern end opens up water travel opportunities along the adjacent stretch of the Illinois Waterway. The city of Joliet, with its parks and walkways, five historic and interesting bridges, two casino boats, and the many-spired skyline of historic buildings, entertains the riverborne visitor's eye. The park's boat could be chartered for such tours if it were equipped with an auxiliary power source below deck, where it would not disturb the authentic historical appearance of the packet-barge. (3) The site is within 45 miles of a population center estimated to reach 10 million by 2005. School districts could afford to bus students to this site. The corridor's sesquicentennial celebration in 1998 demonstrated the attraction of the I. & M. Canal by drawing over one million visitors.

As a logical extension of the development of this site, a transportation museum would be a perfect fit. Besides the I. & M. Canal and the modern Illinois Waterway, the routes of three historical modes of transport pass nearby. Archer Road, 300 yards to the east, was the path of the Frink and Walker Stage Coach Line which connected Chicago and Peoria in the 1830s and 1840s. The first railroad into Chicago, the Chicago and Alton, traversed this site in 1854, and still does as a part of the Burlington-Santa Fe system. Historic Route 66 crosses the Des Plaines River on the Ruby Street Bridge 300 yards from the outflow of the canal into the river.

The organizers gathered brochures and advice at the A.C.S. meeting in Joliet in 1998. They have also visited canal parks in Indiana and Ohio. They will be grateful for correspondence from canal groups and park operators experiencing interpretive parks and canal boat operation. Please address Bill McCandless, 589 Erie Way, Bolingbrook, Illinois 60440.

Making headway with a long tow:
NEW JERSEY'S RAILROAD & TRANSPORTATION HERITAGE CENTER:

by Captain Bill McKelvey

A fifteen-year effort to establish a Transport Heritage Center in New Jersey is gaining headway since the Railroad & Transportation Museum Commission voted to proceed with a master plan for the Phillipsburg site. Thanks to N.J. Assemblyman Alex DeCroce, the New Jersey state budget contained a $357,000 provision for funding the heritage center master plan at Phillipsburg. A commission technical committee will guide the consultant to recognize and deal with the great opportunities and few constraints found at the Phillipsburg site. The plan is expected to have been completed by April 2000.

For canal enthusiasts there are many reasons why this site is an outstanding choice. (1) Both the Lehigh and Delaware rivers hosted great volumes of
commerce, much of it lumber, and a lot of it was towed through the Delaware & Raritan Canal. (2) The junction of the Morris, Lehigh, and Delaware towpath canals was here. (3) Port Delaware, in the proposed heritage center site, was where coal was transferred from railcars to canalboats to supply the Morris Canal for most of its life. (4) The Morris Canal arch survives and surely other significant features of this canal do as well, although they were covered by a landfill when they were fashionable, which is now covered by a town park. (5) The area is bisected by the Delaware & Lehigh Navigation Canal National Heritage Corridor. (6) The Morris Canal route is listed on the National Register of Historic places, as is the nearby Central Railroad of New Jersey Heritage Corridor. (7) Phillipsburg has been a historic transportation hub and western gateway to New Jersey and remains so today. (8) Close by are the major tourist attractions of the National Canal Museum, the Hugh Moore Park canalboat ride, the Crayola Factory, the Weiler Health Center, and the developing National Museum of Industrial History in Bethlehem. Linkages between the above and Phillipsburg by rail, road, and ferry are planned.

Our heritage center will focus on canals, ferry operations (including the early ferries which linked the turnpikes and the later cable ferries which linked the canals of New Jersey and Pennsylvania), and inland waterways, as well as railroads, trolleys, trucks, and buses. We hope to be able to excavate a portion of the Morris Canal to utilize it as a stormwater retention basin for the site. We also hope to be able to recreate the Morris Canal boat-building and repair facilities which were on the site, and eventually to build a full-size replica boat exactly where they were originally built.

Our vision for the heritage center includes a rail linkage via the abandoned but intact former Lehigh Valley Railroad right-of-way and bridges over the Delaware River to the Hugh Moore Park. One bridge would bring us within a hundred or so feet of the present Abbott Street Lock and boat ride. The Lehigh Valley Railroad was the company which leased the Morris Canal.

Many lovely photos of the area appear in the Delaware and Lehigh Canals book by Ann Bartholomew and Lance E. Metz, between pages 64 and 77. The heritage center site is shown on pages 65 and 66. The L.V.R.R. bridges are shown on page 63 and 74.

We have a wonderful website all about the heritage center effort at Phillipsburg, our vision, the local area attractions and assets, the equipment and artifacts awaiting display, and much more. Check us out at www.pburgonline.com/pburgtc. In case you don’t have access to the internet, send a self-addressed stamped envelope to McKelvey, 103 Dogwood Lane, Berkeley Heights, N.J. 07922-2327, and I will send you as much material as I can for the postage you put on the envelope (the more postage, the more you get).

A WALK ALONG AN ABANDONED MORRIS CANAL PLANE AT WATERLOO VILLAGE

by Bruce J. Russell, Contributing Editor

As most readers of American Canals know, the Morris Canal (which ran across New Jersey from Phillipsburg to Jersey City, a distance of approximately 101 miles) utilized inclined planes at various locations to overcome changes in elevation. Without their use, a large number of locks would have been required at the same points. The planes of the Morris Canal, which was completed in 1831 and abandoned in 1924, were originally fitted with giant waterwheels which used water from the canal to create motion. Attached to these wheels were heavy ropes which hauled the canalboats atop small railway cars from one level to another. In subsequent years, as part of a general rebuilding, underground turbines were substituted for the waterwheels, and metal cable for the hemp ropes. Efficiency and safety were thereby increased.

The story of the Morris Canal, which hauled mainly coal, has been told many times, and requires no repeating here. A number of excellent books about it have been published. Following closure, most traces of the waterway were obliterated except in a few, mainly rural locations. One such place is at Waterloo, N.J., where the remains of Inclined Plane #4-West still exist, minus the railway tracks. It’s actually part of Waterloo Village Park, a unique recreation of a mid-19th century New Jersey town which was located on the Morris Canal. Here the Canal Society of New Jersey maintains a small museum housing exhibits pertaining to the Garden State’s two canals, the Morris and the Delaware & Raritan. Volunteers from the organization staff it, and take visitors along what’s left of the canal in Waterloo Village Park. Outside the museum is one of the wheels from a railcar which once carried Morris Canal boats up and down the steep inclines. Also a section of track from an incline is present. Museum staff can explain exactly how the planes were operated, using superbly-crafted models and paintings.

View from about mid-point of the inclined plane. Some of the stone rail bed, as well as the stone retaining walls can be seen.

It’s possible to take a walk along Inclined Plane #4-West at Waterloo Village. By doing so, one is able to appreciate just what an engineering triumph it was. With imagination, it’s possible to form a mental image of canal boats atop railway cars, still dripping wet, rising and descending between the bottom level and the summit. At both levels, boats were maneuvered to and from the railway vehicles, whose upper portions resembled cradles. Walking along the plane, one can understand the logic behind their construction. The alternative would have been a flight of locks, requiring a major source of water and costing much valuable time in transit. By means of turbines, the planes of the Morris Canal made use of the water in the prism to create mechanical energy. In contrast, the inclined planes of the Allegheny Portage R.R., a component of the Pennsylvania Main Line Canal, utilized stationary steam engines. Nevertheless, since the Morris
Canal preceded the Main Line, it's possible that it served as an inspiration for it in many ways.

The inclined plane at Waterloo Village, one of many on the Morris Canal but one of the few left, has from time to time been proposed for a complete restoration. This would entail putting the tracks back and rebuilding the turbine. Obviously such an ambitious project would require millions of dollars. It would likewise have to satisfy stringent safety rules so that any possibility of accidents was eliminated. Still, the plans for doing this exist, should funding materialize. Passengers could begin their trip on the watered section of the canal west of the plane. At the base they would experience being placed atop railcars and hoisted up the reconstructed plane to its summit. Here they would reenter the canal and continue east for about a half mile. Whether this will ever happen, nobody knows.

For now, a walk from the lower part of Inclined Plane #4-West to its summit is rewarding and is recommended for those fascinated by canals as well as by industrial archaeology. It's probably best to go on one of the hikes organized by the canal museum and led by members of the Canal Society of New Jersey.

**CANAL TRAVELS '99**
by David G. Barber

One of my pet campaigns is to encourage all who read American Canals to do a better job of submitting information on canal successes to this publication. This will allow all of us to learn about places we may want to visit, to give credit and encouragement to those who are achieving those successes, and to encourage those who are trying to achieve more of them elsewhere.

In my travels this summer, I have seen many examples of successes and am hereby reporting on them as follows.

1. At the junction of the modern Erie and Champlain Canals at Waterford, N.Y., a temporary canal visitors' center has been opened and a permanent one is under construction along with improved visitor moorings.

2. At the top of modern Erie Canal Lock 2, a wide trail is open along the towpath of the old Champlain Canal from the lock south 1.1 miles to old Champlain Canal Lock 4 at the Mohawk River crossing. To the north of this existing trail, a new towpath trail has just been opened for 1.2 miles north past the old Waterford Weigh Lock and old Champlain Canal Locks 6, 7 and 8 to the south edge of Mechanicville (six miles further). The old Champlain Canal is watered from Lock 4 to just short of Lock 5.

3. At Mechanicville, N.Y., on the modern canal, new facilities for boaters with water and electricity have been opened at the site of the old terminal. At Fort Edward, N.Y. on the modern canal, new facilities for boaters with water and electricity have also been opened. These two facilities encourage boaters to stop and shop in the towns. We also noted that a trail begins at the Amtrak railroad station in Fort Edward and runs north along the old Champlain Canal to the Glens Falls Feeder junction. It then runs up the Glens Falls Feeder Canal to its west end at the junction lock between the old and new canals in Fort Edward.

4. At Schylerville, N.Y., a trail has been opened along the old canal towpath from the junction lock next to modern Lock 5, south along the watered canal, 1.2 miles into the village. When we visited, a bridge was being built at the site of Fish Creek Aqueduct on the south edge of the village to further extend this trail toward the Schyler Mansion.

5. At Fort Miller, N.Y., old Lock 13 remains, but mostly overgrown, at the north end of the east upstream approach wall to modern Lock 5. We widened the short connecting trail.

6. At Fort Ann, N.Y., on the modern canal, a floating dock had just been installed to provide access for boaters to the village and its several shops. On that day, both our boat and one other stopped. A towpath trail also began at the old canal's combined locks (#16 & 17) and ran south for an unknown distance. However, the combined locks were very overgrown.

7. On the negative side, we noted that there were no docks at Saratoga Battlefield on the modern canal or at Fort Ticonderoga and Mount Independence State Park on Lake Champlain. This prevents the boater without a dingy from visiting these sites on land despite the fact that the water route is a key element of the history of these sites.

8. At Boonville, N.Y., a maintained hiking and ski trail follows the old Black River Canal from the outskirts of town near Route 12 for 9.5 miles south towards Rome, N.Y. This trail passes the five combines.

9. At Montreal, Quebec, active work is in progress to restore the Lachine Canal to navigation. Locks 1 & 2 were rebuilt some years ago. Work on Lock 5 was nearing completion and work on Lock 4 was well underway. At Lock 3, a
swing bridge was being restored, but work on the lock itself had not yet begun. A sign reported that the government was spending 33 million dollars (Canadian) on the restoration project.

10. The Canal Society of New Jersey borrowed a boat (the Neversink Kate) from the Neversink Valley Area Museum in Cuddebackville, N.Y., and used it to give mule-drawn boat rides at Waterloo Village, N.J., on the third annual Waterloo Canal Day (June 12). Despite a capacity of 12 people per trip, over 400 people took the trip. This is the first time a mule-drawn boat has traveled on the Morris Canal in over 75 years.

11. The Canal Society of New Jersey with the leadership of its vice president, Brian Morrell, has been actively opening up the towpath of the Morris Canal near Waterico Village. Cleared trail now extends from the I-80 crossing at the base of Plane 3-west 2.4 miles west past the village to west of Kinny Road. Work continues westward. Most recently, they have begun clearing the towpath between Guard Lock 5W at Saxton Falls and Lock 4W at Guinea Hollow. This three-quarter mile section of towpath along the edge of the Saxton Lake pool of the Musconetcong River has been inaccessible for decades.

12. In Lebanon, Pennsylvania, the oldest existing canal tunnel has been cleaned of accumulated silt and had its north portal rebuilt. The collapsed walls of the cut leading north and west from the north portal have been removed and work is proceeding to clear out that section of the Union Canal. It is now possible to canoe through the tunnel.

13. On my local Blackstone Canal, the state of Rhode Island has opened the first piece of the planned Providence, R.I. to Worcester, Massachusetts bike path. The first section extends along the Blackstone Canal towpath in Lincoln, R.I. from Front Street to Rt. 116, a distance of four miles. It opens up a piece of the towpath (with watered canal alongside) that had only been used by A.T.V.s and occasional walkers and is now seeing heavy use.

14. In Pennsylvania, long sections of the Delaware Division Canal have been rewatered this summer after many dry years.

These are the recent changes I have observed. I'm sure you know about others. If you pass on your list to the editor, we can all join in the celebration.

**WORLD CANALS CONFERENCE 2000**

Full and final details are not yet available as we go to press, but the broad outline has become clear. Block out the time on your calen- dar, and make your travel plans. Whether you're interested in commercial development, parks and recreation, history and archaeology, cruising, or the Fellowship of Like-minded people from different regions and nations, there will be events and activities enough to make you glad you didn't miss the boat.

Opening festivities are currently scheduled to start at 1:00 p.m. on Sunday, the 10th of September, with the arrival in Rochester of an international flotilla. Events, including marching bands, exhibits, entertainment, tours, and welcoming addresses, will be centered at the War Memorial, on the Genesee River near the Radisson, Hampton, and Hyatt-Regency hotels. Meetings of both the Inland Waterways International and the American Canal Society directors will be among the events later that evening.

Monday through Thursday will be filled with seminars, audio-visual presentations, field trips, boat rides, and just plain entertainment ranging from historical reenactments to fireworks. So much has been planned that many activities will be concurrent, so there will be difficult choices to be made. A membership meeting of the American Canal Society is also scheduled for Thursday at 1:00 p.m.

Even after the closing ceremonies and displays on Thursday evening, there are optional day trips available on Friday, the 15th, for those who want to linger in the region or need a little period of decompression. A tour of ten Finger Lakes wineries should be particularly helpful for the decompression group.

For up-to-the-minute details, as well as for registration information and forms, write World Canals Conference, P.O. Box 227, East Rochester, New York 14445, or e-mail triversorg@acninc.net.

**CANAL CALENDAR**

*(Concluded from page 2)*


November 11, 2000. C.O.O. Canal Association Continuing Hike Series. Park at Williamsport Visitor Center Saturday, 4 Locks Sunday; hike from Williamsport 10 a.m. both days. Contact: Pat White (301) 977-5628.


May 12-30, 2001. Ireland 2001 and World Canals Conference, a Canal Soc. of NJ tour including a cruise of the Royal Canal and participation in the World Canals Conference in Dublin. Early reservations are advised because of anticipated high demand for a limited number of canal boats. Contact: Bill Mc Kelvey, (908) 864-9335.

**DEADLINE**: Material for our next issue must be on the associate editor's desk no later than July 1st, 2000.

**CITIZEN'S CANAL LINE**

Of STEAM BOATS and BARGES

is now running DAILY (Sunday excepted) between Philadelphia and Baltimore by way of the Chesapeake and Delaware Canal through which passengers are conveyed in elegant barges drawn by six horses in two hours. The comfort and convenience to passengers of a water in a land conveyance (to say nothing of the novelty and grandeur of the Canal, which is the greatest work of the age) make this the most desirable route between the two cities.

The proprietors of this Line, thankful for the liberal patronage already bestowed on them are determined to merit the continuance of it by rendering every facility, accommodation, and comfort to their passengers.

The PHILADELPHIA, Captain Crocker leaves the intersection of Light and Pratt street at six o'clock, A.M. Fare as usual.

Henry Wright, Agent
No. 3 Light-street Wharf
All baggage at the risk of the owners thereof.

*Pittsburgh Gazette*, Oct. 2, 1829

Submitted by William Dzombak

American Canals, XXIX-2 Spring 2000
GOOD NEWS
David Ross diverted the flood of newsletters my way, after I was appointed associate editor. At first the pile was daunting, but I soon learned that these local publications are filled with inspirational stories of all kinds. Canal societies have become increasingly sophisticated at fund-raising, but members still know how to stretch a dollar and to mobilize volunteers. In fact, "The Mule," published by the Camillus Canal Society, contains a column entitled "Work Party Synopsis," which reports activities such as, "put up the walls for the office, put up the ceiling supports in the bathrooms..."

Here is some good news, gleaned from the most recent batch of newsletters. These items, which decidedly are not in order of importance, describe triumphs, big and small, and innovative ways groups are promoting canal history.

Maryland's Millennium Celebration Commission designated the Chesapeake and Ohio Canal one of 12 historic treasures in the state. The award was commemorated with the christening of a 90-foot canal boat replica in Cumberland, Maryland, with a brand of beer once brewed in the city.

The New York State Department of Transportation (NYSDOT) awarded a $360,000 grant for the renovation and stabilization of Five Locks Walk after nearly two decades of effort by the Delaware & Hudson Canal Historical Society. In 1981, the society hired an engineering firm to make recommendations concerning preservation of the locks. It has been working with NYSDOT for the last six years to secure funding. The grant will be administered by the Town of Marbetaown.

"Canal Routes" the newsletter of the Middlesex Canal Commission, contains an overview of the phases of the Middlesex Canal restoration project. The five-phase plan calls for restoration of the Mill Pond area; stabilization and restoration of the 10.6 miles of visible canal segments; property acquisition; development of signage and interpretive sites; and building a museum. Design work for phase one had been funded at $110,000.

The Savannah-Ogeechee Canal Society reports that students in an American Economic History class are using canal account records to compare shipments and revenues of three canal companies during a four-year period. Their work shows the impact of the canal on Savannah's economy.

The new fourth floor gallery of the National Canal Museum in Easton, Pa., opened May 2 with "Floating to Prosperity: Flatboats and the American Dream." Visitors can navigate model boats down a river to simulate the dangers of floating westward. Another exhibit gives visitors a chance to weigh the benefits of increased prosperity against the environmental damage brought about by westward expansion. The museum was once again accredited by the American Association of Museums. Of the 8,000 museums in the country, only some 750 receive that honor.

In "Bottoming Out," Doris Wolf tells the harrowing story of efforts to restore the Aldrich Change Bridge, one of the last remaining change bridges on the enlarged Erie Canal in New York. Eric DeLony, chief of the Historic American Engineering Record of the National Park Service, said the bridge's restoration is "one of the most important projects in the United States."

Since it first spanned the canal, north of Rochester, the bridge was divided into two pieces (one of which disappeared) and relocated to Wayne Canal, where it was bought by a farmer. In 1995, ice forced the bridge from its abutments into the creek below. On the coldest day in January, Sessler Excavating and Wrecking Co., donated equipment and crew to raise the bridge, and HUD later came through with a $210,000 grant. Bridge restoration was one of the few projects to be fully funded with a Canal Corridor Initiative grant. Plans call for a grand reopening on July 4, 2000.

Celebrations associated with the 150th anniversary of the opening of the Illinois and Michigan Canal earned the Canal Corridor Association the top award of the Landmarks Preservation Council of Illinois. Events, which took place during a 12-month span, included a matching grant program of $2,500 per community, which generated more than $400,000 of local projects; major exhibits in Chicago, Lockport, and Springfield, a book, local histories and a CD; completion of the final 5.5 miles of the I&M Canal State Trail; an I&M Canal History Fair Award project for junior and high school students; and the World Canals Conference.

The 260-mile section of the Pennsylvania Main Line Canal corridor between Harrisburg and Pittsburgh has been designated Pennsylvania's Millennium Legacy Trail by the U.S. Department of Transportation. The greenway will include trails, river access points, interpretation of historical sites, and links with downtown areas, along the corridor of the Juniata and Kiski-Conemaugh Rivers. Designation is the first step to qualify for federal money.

The Canal Society of Indiana reports that the 126-year-old Bowstring Arch Bridge was carried on wheels to its new home over Wabash and Erie Canal in Delphi. Before that happy ending, volunteers had helped with restoration by picking out stones for the new abutments, mixing mortar, trimming rocks, painting, and masonry. Society member Susan Yoder wrote a song, "The Bridge that got away," that was sung at the bridge's dedication.

The Neversink Valley Area Museum in Cuddebackville, N.Y., was awarded a grant of $11,300 from the federal Institute of Museum and Library Services. Out of 973 applicants, only 186 received funding.

The December 5, 1999 issue of the Pittsburgh Post Gazette has a story, "Canal Fever," which describes the work of the Sandy and Beaver Canal Association in restoring lock 36 in Beaver Creek State Park in Ohio, and on July 26, Dzembak's work cleaning up the Tunnelview Historic Site in Pennsylvania.

The C&O Canal Society has raised more than $125,000 for restoration of the Monocacy Aqueduct, a historic structure that was named by the National Trust for Historic Preservation to its list of the country's most endangered historic places in 1998. Next step in the restoration process is production of the engineering design, which will take about a year. Funds raised could cover about one-third of the costs to prepare the design, with National Park Service funds needed for the remainder.

- Kate Mulligan