

AMERICAN CANALS

BULLETIN OF
THE AMERICAN CANAL SOCIETY

Vol. XXXI, No. 2

Dedicated to Historic Canal Research, Preservation, and Parks

Spring 2002

PRESIDENT'S LETTER

Greetings! I have formally nominated Bill Shank, Captain Tom Hahn, and Bill Trout III to The American Canal Society's Canal Buffs Hall of Fame. Bill Shank's biography is now circulating through his family in draft form for approval and will soon appear in an issue of *American Canals*. Tom Hahn's biography is in the computer now and Bill Trout's will soon follow.

Linda Barth, associate editor of *American Canals*, has edited Tom Hahn's "History of the American Canal Society." In its current version it is over fifty typewritten pages long (double spaced). The entire manuscript will be placed on file at the National Canal Museum and excerpts will be published from time to time in *American Canals*. I think it makes interesting reading. There is a great deal about the beginnings of the formal canal buff hobby. There is also a great deal more about the life and times of Captain Thomas Swiftwater Hahn (after all, he wrote it) than will appear in the brief Hall of Fame Induction Biographies that I am writing.

I am happy to report that the board of the Tuscarawas County Historical Society (Ohio), the adopted home of our first Canal Buffs Hall of Fame inductee, Ted Findley, has voted to erect an Ohio Historical Society historical marker somewhere near Ted's home along the Ohio & Erie Canal in New Philadelphia, Ohio. Fred Miller, president of the historical society, informs me that the exact site for the marker will be decided soon. The formal request for the marker will be sent to Columbus in June, with the dedication ceremony taking place, it is hoped, in the fall of 2002.

You'll all remember how I ripped the efforts of a local park department for what I perceive to be substandard efforts along the Ohio & Erie Canal Corridor. I am extremely pleased to report that the Summit County Parks Department, also along the Ohio & Erie Canal Corridor, opened a most impressive three-mile segment along the corridor in 2001. As opposed to just plopping down an ill-conceived and poorly-planned trail on whatever terrain there happened to be, Summit County has opted to construct a strip parkland along its segment of corridor, part of which contains the trail. Our hats are off to the planners and doers of this project. My personal congratulations to David Whitehead, Director of

THE 1825 ERIE CANAL 5-LOCK STAIRCASE AT LOCKPORT



Photo by R.A. Mitchell, Jr.

For a B.Y.O.B. cruise (Bring Your Own Boat) on the modern canal, see page seven

Planning & Development and Lisa King, project manager. I am now preparing a detailed article on this really great effort for a future issue of *American Canals*.

I'd like to hear from our members concerning canal corridor or canal park activities in your particular areas. Who (or what agency) is doing the bulk of the effort? Is the historical angle being sufficiently addressed? What can the American Canal Society do to help these projects? Do you think that the American Canal Society should take a more (or less) active role in reporting good, and bad, efforts in these canal-lands-to-park-and-recreational-area projects? This is a subject close to my heart and I'd like to hear and act upon your comments.

I've heard from Rory Robinson, the World Canals Conference Steering Committee is up and running. They will hold a meeting in Montreal in September and select the 2005 conference site. The steering committee has a new web site at www.worldcanalsconference.org. Look them up.

Speaking of web sites, don't forget to contact ours (we need your input and participation) at www.americancanalsociety.org. And speaking of World Canals Conferences, don't forget the next one, September 9 - 11 in Montreal. It promises to be a good one, so brush up on your French. The ACS directors meeting and ACS membership meeting will be held in conjunction with the conference.

And speaking of ACS membership meeting, we will hold our election of officers and directors at that meeting. Hope to see you all there.

Well I guess that is about all for this issue. I'd like to hear from you all. I can be contacted by e-mail at Woods.canalone@aol.com

Till next time, HEADWAY TO YA!

Rory K. Woods

American Canals

BULLETIN OF THE AMERICAN CANAL SOCIETY

Editor: **David F. Ross**

Associate Editors: **Linda J. Barth**
Kate Mulligan

Contributing Editors: **David G. Barber**
Bruce J. Russell
Address

For memberships, subscriptions, change of address, and other business matters:

c/o Charles W. Derr, 117 Main St.,
Freemansburg PA 18017.

For CANAL CALENDAR items and for news of local, state, and regional canal societies:

c/o Linda J. Barth, 214 N. Bridge St.,
Somerville, NJ 08876-1637;

ph. (908) 722-7428

email bobandlindabarth@att.net

For other editorial matters:

c/o David F. Ross, 840 Rinks Ln., Savannah
TN 38372-6774.

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

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CANAL CALENDAR

The National Canal Museum (Two Rivers Landing, Centre Square, Easton, Pennsylvania; 610-559-6613) announces its Spring Lecture Series. Each lecture will begin at 7:30 p.m. on the third Thursday of each month. The schedule is listed below, but call to confirm.

April 18, 2002 – “Canal Aqueducts of Great Britain and the United States,” by Abba Lichtenstein.

May 16, 2002 – “The Career of George Harvan, Anthracite Photographer” by Thomas Dublin.

April 27, 2002 – C&O Canal Association; Justice William O. Douglas Hike in the Cumberland area.

April 27, 2002 – 8 a.m. - Friends of the Delaware Canal - Nockamixon Cliffs Walk. Meet at Great American Grill. Walk along canal, then carpool to top of cliffs for walk out to Top Rock. Sponsored by Friends, Heritage Conservancy, Bucks County Audubon. Charge - \$3 for members; \$5 for non-members. Call for information, 215-862-2021.

April 28, 2002 – Opening Day of the Delaware & Hudson Canal Historical Society Museum in High Falls, New York. Museum and chapel tours from 1-5 p.m. Five Locks Walk, 5-6 p.m. followed by “Cocktails Along the Canal” and dinner at the Dupuy Canal House. For tickets for the evening event, call 845-687-9311.

May 4, 2002 – Opening Day for Chittenango Landing Canal Boat Museum, Chittenango, New York; for details, call 315-687-3801.

May 4-5, 2002 – Reenactment of the attack on Havre de Grace during the War of 1812. Lock house grounds of the Susquehanna Museum of Havre de Grace. Call 410-939-5780 or check <http://users.erols.com/susqmuseum/index.html>

May 5-25, 2002 – “Impressions of the Canal” Art Show at Canal Frame and Crafts Gallery, Washington Crossing. Opening reception 1-4 p.m. on May 5th. Benefit for the Friends of the Delaware Canal. Call 215-862-2021 for more information.

May 10, 2002 – 14th Annual Pops in the Park Concert, 7:30 p.m., Old Santee Canal Park, Moncks Corner, South Carolina. For more information, call 843-899-5200.

May 14, 2002 – 7:30 p.m. - May General Meeting, Friends of the Delaware Canal, Reigelsville (PA) Library—Presentation of early 20th century glass lantern slides of Delaware and Lehigh Canals by Lance Metz, National Canal Museum historian.

May 18, 2002 – The meeting of the Canal Society of New Jersey will feature Donald Sayenga speaking on “John A. Roebling’s Rebirth in New Jersey,” at 7:10 p.m. at Honeywell, Columbia Road, Morris Township. Mr. Sayenga will discuss the use of wire rope on Morris Canal inclined planes and Roebling’s factory in Trenton on the Delaware & Raritan Canal.

May 18, 2002 – Continuing Hike Series, C&O Canal Association, Harpers Ferry to Maryland Heights. Call Pat White at 301-977-5628 for details.

May 18-19, 2002 – Canalfest in Cumberland, Maryland. Call Mary Anne Moen at 301-759-3197 for details.

May 25-26, 2002 – Canoe the Canal at Old Santee Park, Moncks Corner, South Carolina. On Saturday, take an early morning paddle at 9 a.m. The Sunday evening paddle begins at 6 p.m.

June 1-8, 2002 – Elderhostel, “Life and Adventure Along New York’s Erie Canal,” Chittenango Landing Canal Boat Museum. 315-687-3801.

June 19, 2002 – Annual meeting of the Virginia Canals & Navigations Society will be held on Wednesday. Batteau rides (reservation only) will be offered from Hatton Ferry to Scottsville. Business meeting under the tent at Scottsville, 5-7 p.m. For more information, contact Will Turnage, 6301 Old Wrexham Place, Chesterfield, VA 23832-6592.

June 22, 2002 – 6:30 p.m. - Canal Boat Dinner - “Marriage of the Mules” - aboard the New Hope (PA) Canal Boat Company ride. For information, call 215-862-2021.

July 20, 2002 – Canal Boat Concert. See above.

August 11, 2002 – Canal Boat Concert. See above.

September 11-13, 2002 – World Canals Conference, Lachine Canal, Montreal, Canada. Theme: “Of Canals and Cities.” Contact: Julie Talbot, Coordinator, World Canals Conference, Montreal, 2002, Guy-Favreau Complex, 200 Rene-Levesque Blvd. West, West Tower, 6th floor, Montreal, Quebec H2Z 1X4; Information: 514-283-6054; 514-496-1263 (fax); julie_talbot@pch.gc.ca; websites to visit: www.canaldelachine.qc.ca, www.parkscanada.gc.ca/canallachine

September 28, October 5, 12, 19, 26 2002 – This series of 11-13 mile Canal Walks will cover the entire Delaware Canal in five consecutive Saturdays.

DEADLINE: Material for our next issue must be on the associate editor’s desk no later than July 1, 2002

Material submitted to AMERICAN CANALS for publication should be double-spaced and on one side of the paper only.

AMERICAN CANAL SOCIETY

President: Terry K. Woods, 6939 Eastham Cir., Canton, OH 44708. (330) 832-4621. email: woodscanalone@aol.com

Vice President: David G. Barber, 16 Ballou Rd., Hopedale, MA 01747, (508) 478-4918 email: davidaudreybarber@compuserve.com
William E. Gerber, 16 Princess Ave., N. Chelmsford, MA 01863. (978) 251-4971. email bill_gerber@bostonbbs.org

Secretary/Treasurer: Charles W. Derr, 117 Main St., Freemansburg, PA 18017. (610) 691-0956 email: deruls@aol.com

Recording Secretary:

Nancy Trout, 35 Towana Rd., Richmond, VA 23226 (804) 288-1334
email: nancythorpe@inteliport.com

Directors: Robert H. Barth, 214 N. Bridge St., Somerville, NJ 08876-1637

(908) 722-7428 email

bobandlindabarth@att.net

Thomas X. Grasso, 18 Summit Oaks,

Pittsford NY 14534. (716) 387-0099

email: tgrasso1@rochester.rr.com

Thomas F. Hahn, 3751 Scheffera Dr.

Sabal Springs Golf Club

North Ft. Myers, FL 33917-2040

(941) 731-2987

email: swifthahn@aol.com

David M. Johnson, 9211 Wadsworth

Drive, Bethesda, MD 20817. (301) 530-7473

Keith W. Kroon, 2240 Ridgeway Ave.,

Rochester, NY 14626. (716) 225-0688

email: crowns2@aol.com

John M. Lamb, 1109 Garfield Street,

Lockport, IL 60441.(815) 536-7316

William J. McKelvey, Jr., 103 Dogwood

Ln., Berkeley Hgts., NJ 07922.

(908) 464-9335.

Lance E. Metz, P.O. Box 877, Easton,

PA 18044-0877. (610) 250-6774.

Kate Mulligan, 1301 Delaware Ave., S.W.,

Washington DC 20024. (202) 484-3590

email: kmulligan@gis.net

Mark Newell, 826 Georgia Ave., North

Augusta, SC 29841. (803) 279-8216

email: marknewell@aol.com

David F. Ross, 840 Rinks Ln., Savannah,

TN 38372-6774. (731) 925-0099.

Robert F. Schmidt, 5205 Wapiti Dr., Ft.

Wayne IN. 46804-4949. (219) 432-0279.

email: indcanal@aol.com

Roger W. Squires, 46 Elephant Lane,

Rotherhithe, London SE16 4JD,

England [UK]020 7232 0987

email: rogersquires@ntlworld.com

Roberta Styran, P.O. Box 304, Thorold, Ontario

L2V 3Z3, Canada. email: rstyran@becon.org

Arthur W. Sweeton III, P.O. Box 158,

Canton Center, CT 06020-0158.

(860)693-4027.

Dr. William E. Trout III, 35 Towana Rd.,

Richmond, VA 23226. (804) 288-1334.

email: wetrout@mindspring.com

Albright G. Zimmerman, 1361 River Rd.,

Yardley, PA 19067-1327. (215) 321-0193

Director Emeritus: T. Gibson Hobbs, Jr., 3204

Landon St., Lynchburg, VA 24503. (804)

384-8512

William H. Shank, c/o Autumn House at Powder

Mill #606, 1775 Powder Mill Rd.

York, PA 17403.

Denver L. Walton, 968 Chapel Rd.,

Monaca, PA 15061. (724) 774-8129.

Committees:

ACS Sales, Keith W. Kroon, chrmn.
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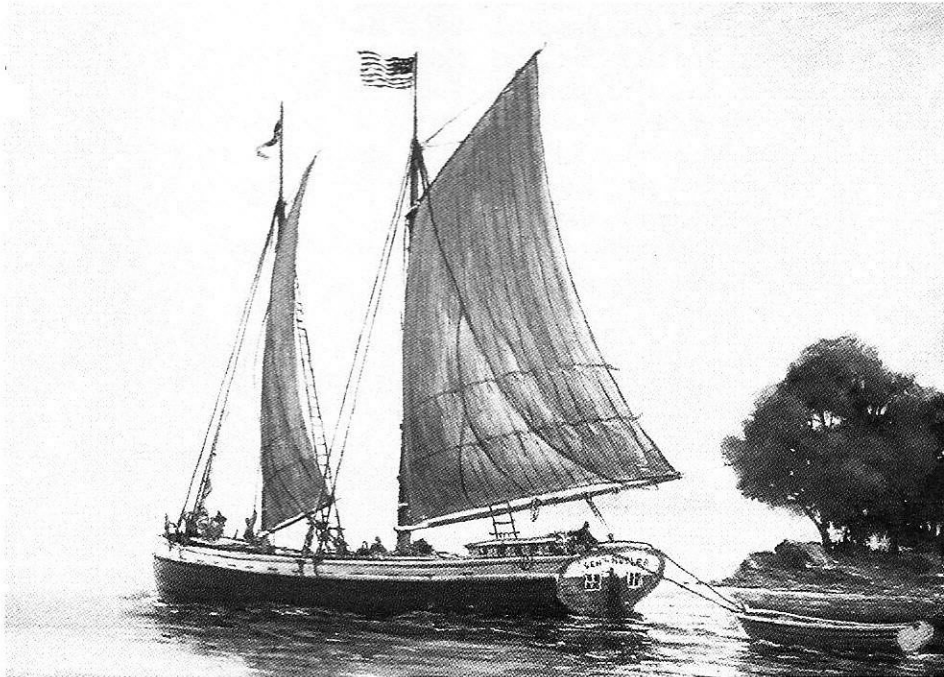
William E. Trout III, editor and publisher.

Web page address:

www.americancanalsociety.org.

THE SAILING CANAL BOATS OF LAKE CHAMPLAIN

By Art Cohn, Director, Lake Champlain Maritime Museum



An 1862-class canal schooner sailing on Lake Champlain

Painting by Ernest Haas

Lake Champlain is one of the most historic bodies of water in North America. From the earliest times of human habitation, the 120-mile long waterway was an indispensable link in the inland navigation system. During the colonial wars, the American Revolution, and the War of 1812, naval squadrons fought to control this strategic invasion route, and throughout the 19th century the Champlain corridor was utilized as a major artery of commerce. During the first quarter of the 19th century, the region saw the development of traditional sloops and schooners, steamboats and even horse-powered watercraft. In the fall of 1823, just as the new Northern [Champlain] Canal was about to be completed and connect the waters of Lake Champlain to the Hudson River, a new type of vessel was invented: the Lake Champlain sailing canal boat.

The new cargo vessel was designed as an experiment. The opening of the Northern or Champlain Canal would connect Lake Champlain with markets along the Hudson River and in New York City. The potential impact of this new navigation route was not lost on the citizens and merchants of the North Country. The Burlington *Northern Sentinel* commented "...mer-

chandise can now be transported...to and from St. Albans in from 10-14 days, at an expense of ten dollars per ton. Hitherto the time required for carrying merchandise...has been 25 to 30 days, at an expense of 25-30 dollars per ton." The new canal would trigger the most dramatic increase in trade ever experienced in the region. New vessels would need to be built and put into service rapidly.

Traditional Lake Champlain sloops and schooners could carry freight to the entrance of the new canal at Whitehall (the southern end of Lake Champlain), where they transferred their cargo to standard canal boats, barges that were towed by horses or mules through the canal. While this arrangement worked, the time and labor spent in transferring cargo added to the time and cost of shipment. The moment was ripe for invention. Even before the canal was completed, a few enterprising lakemen began pondering the possibilities presented by the new waterway. The result was the Lake Champlain sailing canal boat, a vessel that could sail like a traditional sloop to the entrance of the canal, and then, by unstepping its mast and raising its center-board, be transformed into a standard canal barge. With this capability

"property put on board at one port went through to its destination without handling." Both methods of shipment were utilized during the first years of canal operations until the obvious advantages of the sailing canal boat were more widely perceived.

In September 1823, the *Gleaner* was the first boat to travel through the newly completed canal. The *Gleaner's* maiden voyage evoked celebrations all along the Hudson River route to New York City. In Troy, "the city turned out to greet the arrival of the large and beautiful lake boat *Gleaner* from St. Albans...[as it] passed the sloop lock just above us which completes the connection to the Northern Canal with the river Hudson." An article in the *Mercantile Advertiser* of New York City described the *Gleaner* in detail. "She is 35 tons custom house measurement, carries a cargo of 60 tons—is 57 feet keel, 60 feet on deck and 13 1/2 feet wide—has a handsome cabin, with 10 good berths for passengers...with a full cargo she will draw 3 1/2 feet—being six inches less than the depth on water in the canal." The same article stated: "The vessel was built as an experiment and is found to answer all uses intended. She sails as fast and bears the changes of weather in the lake and river as well as ordinary sloops and is constructed properly for passing through the canal."

The *Gleaner* was a Lake Champlain sailing canal boat!

Three Classes of Canal Boat

Research suggests that there were three distinct classes of canal boats that we identify by the dates at which they first came into use: the 1823 class, the 1841 class, and the 1862 class.

1823 class.

The earliest canal boats, those built from 1823-1840, were designed both to sail efficiently on the open lake and to ride smoothly under horse or mule tow through the new canal. Once the vessel arrived at the Hudson River end of the canal, it could either rerig and sail to market or join a steamboat tow. As time progressed, most sailing canal boats utilized a tow by a steamboat on the Hudson River. The earliest 1823 class were not uniform in design.



Hudson River-Champlain Canal-Lake Champlain Transportation corridor

Rigged either as sloops or as schooners, these boats had variations of appearance and features given them by their respective builders. Nonetheless, they had some common characteristics. Their masts could easily be lowered or removed at Whitehall and they were equipped with centerboards or shallow keels in order to function efficiently on the lake under sail, while having a shallow enough draft to negotiate the canal with its controlling depth of four feet. Canal locks and canal regulations limited the overall dimensions of these canal boats to “78-62/100 feet long, 14-46/100 feet wide.”

The men who designed and built these early sailing canal boats remain, for the most part, anonymous. One interesting exception is British naval architect William Annesley. Annesley was a pioneer in new techniques in boat construction and wrote *A New System of Naval Architecture*, published in London in 1822. In this treatise, Annesley argued that ships should be constructed “with planks and boards...which are laid in courses at right angles alternatively, longitudinal, vertical, or oblique, and where curves require it upon molds.” This technique “exclude[d] frame timbers, beams, knees, breast hooks and stem.”

Remarkably, in 1823 Annesley came to the Champlain Valley to sell his new methods. He achieved some success and sold at least seven

patents for sailing canal boats with laminated hulls. Mathew Sax operated a busy store and commercial wharf at Chazy, New York. Sax commissioned and launched an Annesley-designed sailing canal boat, christened appropriately the *William Annesley*. Apparently well satisfied with the new vessel, Sax ordered a second Annesley-designed vessel later that summer. To date, no archaeological example of an Annesley vessel has been located.

1841 class.

By the 1840s, Burlington became the premier lake port thanks to the federally-funded lighthouse on Juniper Island built in 1826 and construction of a breakwater commencing in 1837 to protect the new wharves built along the Burlington waterfront. The Burlington firm of Follett and Bradley, operating a fleet of canal schooners known as the Merchant’s Lake Boat Line, became the largest wholesale merchants in the Champlain Valley.

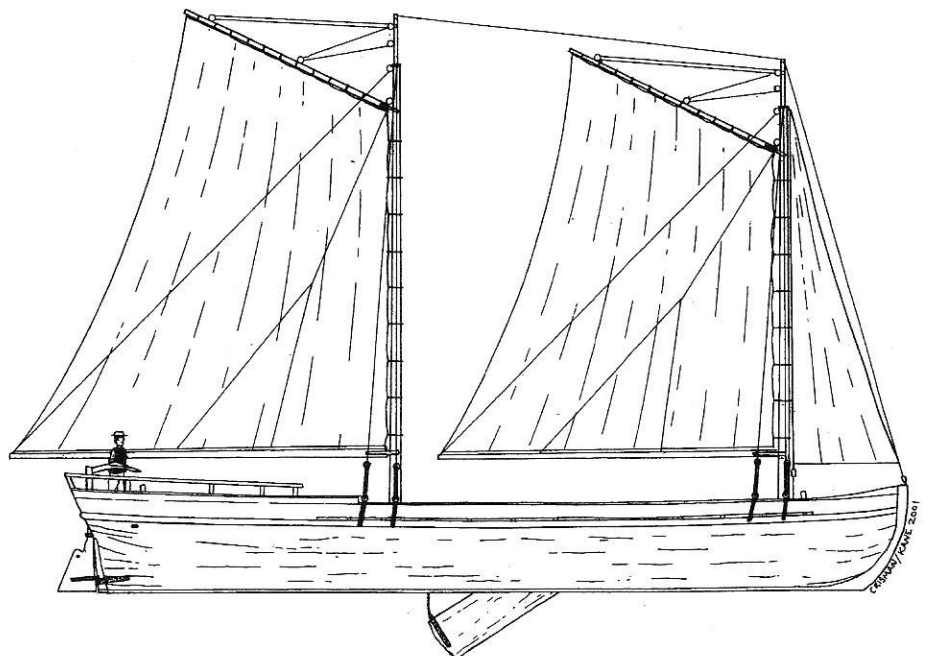
As large scale shippers, Follett and Bradley keenly understood the advantages of the sailing canal boat in saving time and money. They also had enough capital to commit themselves to building a uniform fleet of boats. This commitment produced the 1841 class of sailing canal boats, as others followed their lead.

Nineteenth century observers marked the launch of the first 1841-class boat as the moment when traditional lake shipping began to decline. Sailing canal boats, like those built for Follett and Bradley, gradually dominated the sail-equipped lake shipping. The older sloops and schooners were no longer able to compete and began to disappear.

Centralized management and standardization of design characterized this class of sailing canal boats. Typically sloop-rigged, these sturdy vessels proved economically successful and soon larger shippers produced fleets which numbered as many as forty vessels. A contract for a new sailing canal boat “of full size for the locks...and to be of the best quality and the work and fastenings to be fully equal to any boat ever built on Lake Champlain” cost Follett and Bradley fifteen hundred dollars.

1862 class

The dramatic success of both the Champlain and Erie canals led to plans for their enlargement. In 1860, the New York legislature authorized an expansion of the Champlain Canal and by 1862 the entire 64-mile length had been both widened and deepened. The locks were enlarged as well, and the canal could now accept longer and



Conjectural view of an 1862-class sailing canal boat based on the shipwreck *Troy*
Drawing by Kevin Crisman and Adam Kane

wider vessels with a deeper draft. Ship owners and builders responded by building longer and wider vessels with a larger carrying capacity.

The 1862 class of sailing canal boats was essentially an expansion of the 1841 class. They were deeper draft vessels, which now ran eighty-eight feet in length with beams of fourteen and one-half feet. Many builders added a second mast and produced schooner-rigged boats. Two of the first 1862-class sailing canal schooners were the *General Butler* built in Essex, New York and the *O.J. Walker* built in Burlington, Vermont. Both schooners were built in the year 1862, and the two vessels also share the distinction of having sunk in Burlington Harbor.

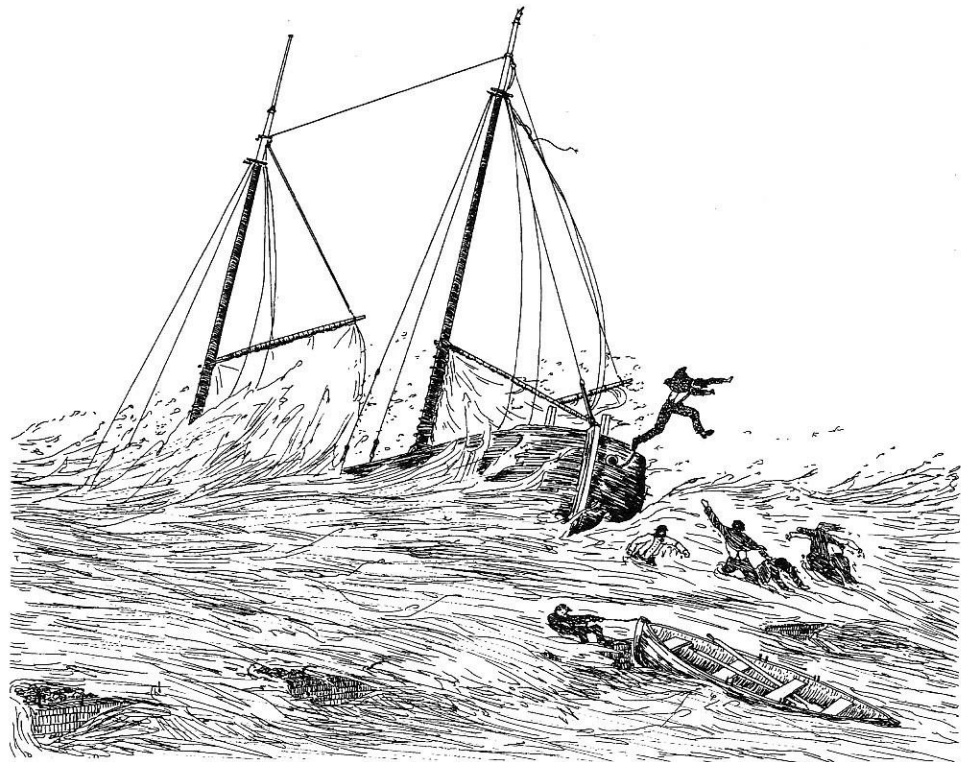
These vessels were produced until 1875. They were displaced as competition from rail and later truck transportation began to erode lake commerce. The advent of the internal combustion engine and the change in transportation patterns led to the increased use of standard canal barges, long lines of which could be towed by a single tugboat. By the early 20th century, sailing canal boats, like the earlier traditional sloops and schooners, were disappearing from the lake.

Shipwrecks Lead to Rediscovery

Our current knowledge of the Lake Champlain sailing canal boats first emerged from the bottom of the lake. A shipwreck was discovered in 1980 that looked like a standard canal boat, but also contained elements of rigging and a centerboard. It was during the historical research phase on this 88-foot-long shipwreck that we confirmed it was the *General Butler* of Isle La Motte. In learning about the *General Butler* we rediscovered the origin and life of this once common commercial carrier.

The General Butler

The *General Butler* was named after a Massachusetts lawyer who became a general and, for a very brief time, a hero during the early months of the Civil War. Vermonter's Jabez Rockwell and Edwin Langdon had commissioned the boat's building at Hoskins and Ross, the well established shipyard in Essex, New York.



The final moments of the *General Butler*, December 9th, 1876

Drawing by Kevin Crisman

The boat was presumably named as a patriotic gesture. The *General Butler* began service in 1862 and by the time of her sinking had had three different owners. Rockwell and Langdon sold to Julius Rugar, a lakeman who later died while delivering two boat loads of potatoes to New York City. The last owner was William Montgomery.

William Montgomery was the son of a British soldier who came to Canada and then died. His widow moved the family to Isle La Motte, Vermont, where young William watched the beautiful lake boats sail by or stop to load marble. He became a lake man and was captain of the *General Butler* on Saturday, December 9, 1876, when heavy winter gales drove the *General Butler* toward the north end of the Burlington breakwater. The *Butler* carried a load of marble from Isle La Motte for delivery to the Burlington Marble Works; also on board were one deck hand, Montgomery's teenage daughter Cora, a schoolgirl friend, and Elisha Goodsell, a quarry operator from Isle La Motte. The girls planned some Christmas shopping in Burlington; Goodsell traveled to get medical treatment for an eye injury he had suffered while hammering a piece of steel. The power of the storm was too much for

the steering mechanism of the aging *Butler* and just off the breakwater, according to press accounts, "the vessel began to drift at the mercy of the wind and waves."

The plight of Captain Montgomery and the *General Butler* suggests some of the commercial realities of boating on Lake Champlain in the late 19th century. Economic necessity drove commercial sailors to dare winter's worst for one last cargo. As long as the lake remained reasonably free of ice, some intrepid captains risked cold water, freezing temperatures, and frostbite to augment their financial resources before the enforced winter break. In this voyage of early December, Montgomery and his crew—as the passenger list suggests—expected a routine delivery, although they certainly understood the risks of the season. Sailors in 1876 had none of the benefits of radar, weather forecasting, or radio communications; instead they relied on their experience in scanning the sky to predict the weather. In this case, Montgomery miscalculated.

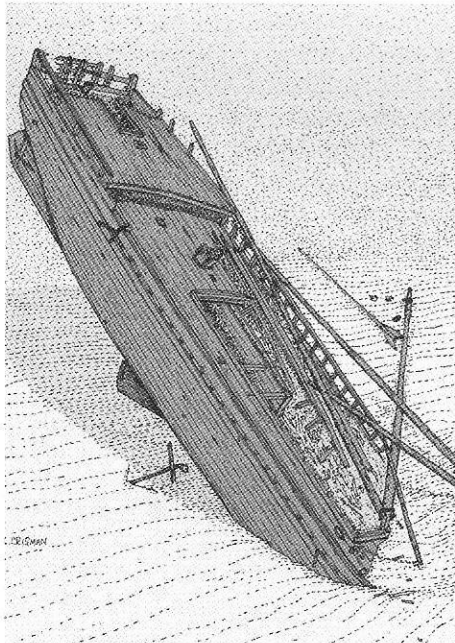
As the *Butler* drifted southward, the deck hand threw over the storm anchor in a vain attempt to keep the vessel from crashing into the breakwater's

stone-filled cribs. Meanwhile, Captain Montgomery attempted to rig a spare tiller bar onto the ship's steering gear to give him some control of the crippled vessel. With the tiller bar chained in place, Montgomery ordered the anchor line severed with an ax, and he attempted to round the southern end of the breakwater. He did not make it. A short distance from the southern lighthouse, the *Butler* smashed into the breakwater.

The *Butler* survived the pounding of the gale long enough for passengers, crew, and captain to leap to the frozen haven of the breakwater. Captain Montgomery was the last to leave the ship. Immediately after he jumped at the crest of a large wave, the *Butler* sank in forty feet of water, its stone cargo propelling it downward. Although they had escaped riding the *Butler* and more than thirty tons of Isle La Motte marble to the lake's bottom, passengers and crew found themselves on the open breakwater whipped by fierce winds and driving snow and soaked by heavy waves. Chilled and exhausted, the refugees from the *Butler* might have died had it not been for the heroic intervention of James Wakefield and his son, Jack.

Although dozens of lakemen had flocked to the wharves in response to the *Butler's* plight, only the Wakefields acted. They seized a small government lighthouse boat and rowed out to the breakwater. Captain Montgomery lifted his daughter and her young friend into James Wakefield's arms, and as scores of people watched from the shore, the groggy Goodsell, the deck hand and finally Montgomery clambered into the bobbing rescue craft. Wakefield and his son then rowed them safely to shore.

Bystanders took the chilled survivors to J. Sullivan's house on Battery Street where Dr. H.H. Langdon examined them. Shortly all were pronounced out of danger. The *Burlington Free Press* commented on December 12, "It was Miss Montgomery's first trip in her father's boat, but she showed a goodly degree of Yankee grit, for the first question she asked on returning to consciousness was that she might be allowed to make the return trip when the schooner would be raised." Although the mast, shrouds, rigging



The 1823-class *Troy* embedded beneath Lake Champlain
Drawing by Kevin Crisman

and other appurtenances were recovered, the hulk of the *General Butler* never was. Today the remains of the schooner still rest in forty feet of water off Burlington's breakwater.

The O.J. Walker

As fate would have it, a second 1862-class sailing canal schooner also sits on the bottom of Burlington Harbor. The *O.J. Walker* was first launched into Burlington Bay by shipwright Orson Spear in 1862, and after an extraordinarily long career, she sank here thirty-three years later in 1895. The new schooner's first owner was Joseph Kirby of Burlington, who named the vessel for respected merchant Obadiah Walker. The *O.J. Walker* had many owners during its many years of service, freighting lumber, coal, iron ore, farm products, stone and many other Champlain Valley products. Once in 1882, she was hired as a pleasure boat for a chaperoned group of teenagers sailing to St. Johns, Quebec. Her last owners were John W. and Henry Brown, father and son, who operated a large brick and tile manufacturing facility in Malletts Bay, with a sales yard in Burlington.

On her last voyage, the *O.J. Walker* carried a load of brick and tile for the Shelburne estate of Dr. William Seward Webb. It was May 11, 1895

and the thirty-three year old boat encountered a severe windstorm. "Those who were on shore in position to see the storm-swept lake, uninfluenced by considerations of personal security, pronounced the scene magnificent in its wildness, and old Champlain is seldom disturbed as it was then. Considerations of an entirely different nature occupied the minds of those who were out in boats and subjected to the violence of the elements" [*Essex County Republican*].

The *O.J. Walker* was "subjected to the violence" and what made matters worse, had loaded the cargo not in the hold, but on the deck. Loading the cargo on the deck would have saved time on both ends of the trip, but would have been much more stressful on the schooner's old hull and made her less stable. Unfortunately, the severity of the storm and the position of the cargo caused the old schooner to spring a leak. The captain, W.J. Worthen, had just enough time to drop an anchor and get his wife and crewman into a small boat. As the *O.J. Walker* turned over on her port side, most of her cargo was dumped to the bottom. The vessel momentarily righted itself and then the *O.J. Walker*, filled with water, sank to the lake bottom in about 65 feet of water. Captain Worthen and his crew were without oars but managed to be blown safely to shore.

Today the *O.J. Walker* and *General Butler* are part of the Lake Champlain Underwater Historic Preserve system. Each shipwreck is seasonally marked with a Coast Guard approved special purpose buoy to facilitate diver access. The moorings prevent anchor damage to the ships and promote safety and preservation ethics.

The Troy

Lake Champlain Maritime Museum researchers have located examples of two 1841-class sailing canal sloops, but until recently had not seen an example of the first generation 1823 class. In 1996, in response to the zebra mussel invasion of Lake Champlain, LCMM began a new survey of the entire lake bottom. As this article is being written we have surveyed 240 square miles of lake and located 60 additional shipwrecks. One of the newly-discovered wrecks is an

example of the 1823 class of sailing canal boats.

In 1825 the canal schooner *Troy* disappeared off Westport, New York, during a November gale, taking five young men and boys to their death. The loss of the *Troy* has remained one of Lake Champlain's greatest tragedies and mysteries. 175 years after its loss, LCMM's Whole Lake Survey Project discovered the vessel in the lake's cold, deep waters.

The *Troy* was sailing to Westport with a load of iron ore for the newly established Westport iron furnace. The schooner, under the command of twenty-five year old Captain Jacob Halstead, was carrying the captain's thirteen-year old brother, George; his half brother Jacob Pardee; and two crewman, Daniel Cannon and John Williams. All were lost in the sinking.

Back on shore, the boys' "mother and sisters [were] sitting at home... listening through the storm for the sound of homecoming footsteps as the night wore on. Suddenly they heard the boys on the doorsteps, stomping off the snow in the entry as they were wont to do before coming in. The women sprang to the door and opened it, stepped to the outer door and looked down upon the light carpet of untrodden snow which lay before it, and then crept trembling back to the fireside, knowing that son and brothers would never sit with them again within its fire-light." [From a history of Westport, Essex, New York, by Carolyn Halstead Royce (1902)].

The Burlington Schooner Project

The Burlington Schooner Project is an undertaking of the Lake Champlain Maritime Museum, whose parent site is at Basin Harbor, Vermont. The Burlington Schooner Project uses the archaeological details from the *General Butler* and the *O.J. Walker* to provide the design for a new reproduction 1862-class canal schooner. Construction of the new schooner is scheduled to begin at the LCMM's Burlington shipyard in May of 2002.

The new schooner, to be named *Lois McClure*, will be built over the 2002 and 2003 seasons. A public launching of the new vessel is sched-

uled for the spring of 2004. After the launching and fitting out, we intend the *Lois McClure* to recreate a traditional journey from Lake Champlain through the canal to New York City. Our plan is to stop at ports-of-call along the route to reconnect communities with the age when the canal was the most dominant transportation feature on the landscape.

We will build the *Lois McClure* at the Lake Champlain Transportation Company's historic ferry dock at King Street in Burlington, Vermont. We invite all members of the American Canal Society to come and visit. We can always use the support, so if you're interested in participation, a membership, donation, or additional information about the project and LCMM, visit us on the web at www.lcmm.org. or write LCMM, 4472 Basin Harbor Road, Vergennes, Vermont 05491. Our phone number is (802) 475-2022.

[All illustrations were supplied by the Lake Champlain Maritime Museum.]

RECOGNITION DAY SET FOR TRAILS VOLUNTEERS

National Trails Day on Saturday, June 1, will be a special day in Delphi, Indiana, according to Dan McCain, Chairman of Delphi Historic Trails. That

day is to be celebrated with two narrated walks to discover features of the 160-year-old Wabash & Erie Canal. In addition, special recognition of the many volunteers that worked on trails will be at noon.

The morning walk will begin with registration in Trailhead Park at 10 a.m., and a 90 minute narrated walk along the scenic Wabash Heritage Corridor Trails will begin promptly at 10:15. Crossing over Deer Creek on the footbridge starts the 1.3 mile narrated walk. This is an easy hike on level stone trails that leads to the Wabash River, then along the Obear Millrace Trail, on to Lock #33, and back to the 1839 Irish Canal Construction Camp site where unique artifacts of the 1830-40s have been found.

Then a second more difficult walk at 1 p.m. from Trailhead will allow a viewing of the newest land acquisition at nearby Trailhead Park. Mary Ellen Campbell made a donation of 23 acres of land last year. This tract contained the southern portion of the 1839 Deer Creek Dam. Several of its unique features are still visible. A high bluff overlooks Deer Creek where canal boats squeezed between the bluff and the rock crib dam and spillway paralleling the Wabash River. Trails have not yet been constructed, as grant money has not yet become available.

Special notice from the Navigable Canals Committee NEW YORK STATE CANAL CRUISE July 9-26, 2002

Bring your own boat for the fifth annual guided cruise of the New York State Canal System. Organized by the New York State Canal Corporation, the cruise will begin at Whitehall, where the Champlain Canal connects to Lake Champlain, and end in Tonawanda, where the Erie Canal meets the Niagara River. Side trips along the way will include the Oswego and Cayuga-Seneca canals. Participation of A.C.S. members is being coordinated by Navigable Canals Committee member John C. Mason, P.O. Box 219, Estes Park CO 80517, phone (970) 586-4270, email jcmdad@aol.com. John and his wife Sadie will be part of the fleet, on board the *Miss Josie*, flying an A.C.S.

burgee. He urges all A.C.S. members participating to identify their boats in the same manner. The burgees can be purchased from A.C.S. Sales chairman Keith W. Kroon, 2240 Ridgeway Ave., Rochester NY 14626, phone (716) 225-0688, email crowns2@aol.com.

Registration material can be obtained from the New York State Canal Corporation, P.O. Box 22058, Albany NY 12202, phone 1 (800) 422-1825. It can also be downloaded from www.canals.state.ny.us. Registration for the entire 18-day cruise is \$175. but you can also sign up for any portion at the rate of \$10 per day. The deadline for registration is June 1st.

However the area is accessible and the route is sprayed free of weeds.

The local Psi Iota Xi Sorority is providing lunch at noon in the Shelter House at Trailhead Park one-mile southwest of Delphi on Highway 25. The meal is free to all volunteers attending and to anybody that registers for the hike—volunteers come first. In the last year nearly 100 Earth Team Volunteers offered more than 1,800 hours of service.

Those volunteers that will be honored include scouts, 4-Hers, and workers of all ages. All have labored with pride as they created a most unique seven-mile trail system to date. We hope that soon the Delphi Historic Trails system will be connected north to south on the Underhill Towpath Trail via a culvert walkway under the old Monon Railroad. This last remaining connection in the 7 mile system is located at the south end of Canal Park.

In the past as major trails have been completed, they have been dedicated in a big way. The last section of the Canal Towpath in Delphi called the Underhill Towpath Trail will be dedicated as soon as the finishing touches on the railroad underpass are completed. This section comprises part of the state's Wabash Heritage Corridor Trail.

Those that have volunteered and worked hours totaling one day or more will receive their choice of an Earth Team hat or shirt as a "thank you" complements of the USDA/Natural Resources Conservation Service and Carroll County Soil & Water Conservation District. In addition the popular "National Trails Day--2001" shirts from Galyans hiking and outfitting store in Indianapolis will be given to volunteers.

I&M CANAL RESTORATION PROJECT

By Carroll Gantz, FIDSA

Soon many people will be able to experience a visit to an operating canal system of boats and a busy canal port of commerce, recreated in 19th century detail. Until now, the westernmost example of canal boats was in eastern Indiana. Now the last frontier of the old canal system is emerging in the prairie, 96 miles west of Chicago.

Planning is nearing completion for

the recreation of a historic 1848 canal site, the *Port of LaSalle*, at the western terminus of the Illinois and Michigan Canal. The new tourist attraction will feature three reconstructed canal boats, a restored canal lock, a mule barn interpretive center, costumed interpreters, and a locktender's house. The project was spearheaded by the City of LaSalle and the Canal Corridor Association (CCA).

The *Port of LaSalle* is a \$7 million regional project to encourage recreation and tourism throughout the length of the I&M Canal Corridor from Chicago to LaSalle, which includes the towns of Lemont, Lockport, Joliet, Channahon, Morris, Seneca, Marseilles, Ottawa, Utica and Peru. Other historic sites, such as Isle a la Cache, McKinley Woods, Goose Lake Prairie, Gebhard Woods, Starved Rock State Park, and Buffalo Rock State Park are along the corridor. Funding strategy includes a combination of federal and state grants as well as private funds.

Construction for the I&M Canal began in 1836, and its headquarters was established in Lockport in 1837. The City of LaSalle was platted in 1838, as a port of entry from the head of the navigable portion of the Illinois River, and to house many of the Irish, German, and Swedish workers who built the canal. When completed in 1848, the canal and its fifteen locks (17' X 100') completed an interior shipping connection between New York and New Orleans, and triggered the tremendous growth of Chicago. The 96-mile trip from Chicago to LaSalle (incorporated in 1852) took about 24 hours. Like many other canals, the I&M lost passenger travel after trains became competitive in 1853. It was used primarily for freight until 1933, when the US Army Corps of Engineers rebuilt the Illinois River to create the current Illinois Waterway and the I&M Canal was formally closed.

Over the years only eight miles of the old canal bed were paved over, but many sections lost water supply and many beds became overgrown with vegetation, some with 50-foot trees. It remained this way until 1973, when LaSalle Rotary Club volunteers, led by ACS member Dr. Robert F. Whalen,

began clearing a five-mile section of the canal bed between LaSalle and Utica. They were assisted by state funds of \$10,000 and the transfer of canal stewardship from the Department of Transportation to the Department of Conservation and the State Park System. After much volunteer work, the bed was cleared and rewatered (see *American Canals* #8, February 1974).

In 1978, canal boat hulks were discovered in the Morris Wide Water turning basin mud. After a 1996 flood, seven were exposed, excavated and studied by the Illinois Department of Natural Resources, giving much insight into the construction and interior layout of I&M boats.

In 1982, business and community leaders in northeastern Illinois founded the Canal Corridor Association (CCA), a private, nonprofit organization to develop and promote the canal. In 1983, a \$226,000 restoration was begun on lock #14 in LaSalle with funds from the Illinois Department of Conservation and a National Park Service Maritime Grant (see *American Canals* #44, February 1983). By 1984, Congress designated the entire length of the canal as the "Illinois & Michigan National Heritage Corridor" and more funding was developed to support long-range planning.

By 1998, all local organizations came together and organized a number of events and projects to celebrate the sesquicentennial of the canal completion, including a photo exhibit and book titled "Prairie Passage" (*American Canals*, Vol. 27, #1, Winter 1998), a "Wayfinding" system of signage, the I&M State Recreational Trail, the Canal Origins Park, and the hosting of the World Canals Conference in Joliet, IL (*American Canals*, Vol. 27, #4, Autumn 1998).

In November 1998 Ana Koval, Executive Director of CCA, engaged me as a consultant for the design of canal boats. I met with her, her staff, and local volunteers on the LaSalle site in December to discuss the proposed project. It was to include historical design and construction research, a preliminary report and a final study culminating in construction drawings of several boat designs. I was only one of a group of CCA consultants and part-

ners for the overall project, including historians, tourism planners, park service personnel, engineers and local businessmen.

Ms. Koval had heard about my design and construction of the *St. Helena II* in Canal Fulton, OH in 1970, the first historically reconstructed canal boat in the US. She and her staff shared my commitment to authenticity of design and construction, so that visitors can gain a vivid sense of the culture, technology and craftsmanship of the 19th century.

I submitted my preliminary boat design report to CCA in February, 1999. Key design criteria set in collaboration with CCA included authenticity of design and construction, functional and flexible passenger accommodations for use as tourist attractions, and practical considerations of maintenance and operational needs. In addition, the design was to be distinctly different from the dozen or so other boat replicas around the country.

Research showed that while most boats using the I&M were freighters, there is considerable evidence of packets, or passenger boats, as well. In 1848 there were at least two packet lines operating between Chicago and LaSalle. Packet names included *Chicago, Louisiana, New Orleans, Illinois, St. Louis, Montezuma* and *Queen of the Prairies*. Historical accounts of travelers on the I&M in the 1850 period describe packets as 100' long and 12' wide, with 50' interior cabins which became men's and women's separate dormitories at night. An 1885 photo of a packet boat entitled, "the final trip of the last Illinois and Michigan canal packet, carrying a picnic party," notes that it had then been out of use as a packet boat "for many years." The roof of the cabin is jammed with picnickers on chairs, protected from falling over the side by a three foot railing around the edge.

Based on this evidence, I recommended a packet style as historically correct on the I&M, and the best configuration for maximum interior space and passenger accommodations. In addition, the packet style is a unique design among all existing reconstructions, most of which are open-deck freight styles modified with canvas awnings or roofs to protect passengers

from the weather. I conducted ergonomic studies of public seating standards to estimate capacities of various size boats. 24 different variations of size (60' to 120' lengths, and 14' to 17' widths) were studied comparatively for capacity and construction cost estimates. After a review by CCA, I prepared two alternative concepts in April 1999 for further study, one at 76' in length seating 100 and another at 65' seating 75. CCA decided to complete construction plans at the 65' length.

I completed plans for an excursion boat in September 1999 for CCA review (See illustration A). The design is a "double-decker" seating plan for 81 passengers—55 on the upper deck and 26 inside the main deck cabin. The upper deck is accessible via two exterior stairways fore and aft with railings all around, including bicycle storage, as some passengers will likely be bik-

ers. There are four dining tables (seating four each) on both the upper deck and within the main cabin, with a food service area aft. The main deck cabin is fully enclosed with nine sash windows on each side, two entry doors forward and one aft. Exterior style and all-wood construction materials are consistent with historical packet boats of the 1850s.

In November 1999, I completed plans for another more historical design to serve as an interpretive boat design (See illustration B). Exterior appearance and size is identical to the design above, with the notable exception that the roof is not modified to accommodate excursion passengers. Historical packets used the roof mainly for storage of baggage, food and beverage supplies, often covered with tarpaulins, and passengers ventured up there only temporarily to enjoy the better view and fresh air.

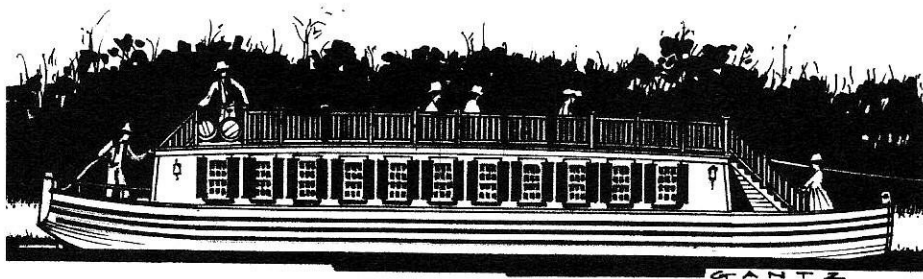


Illustration A

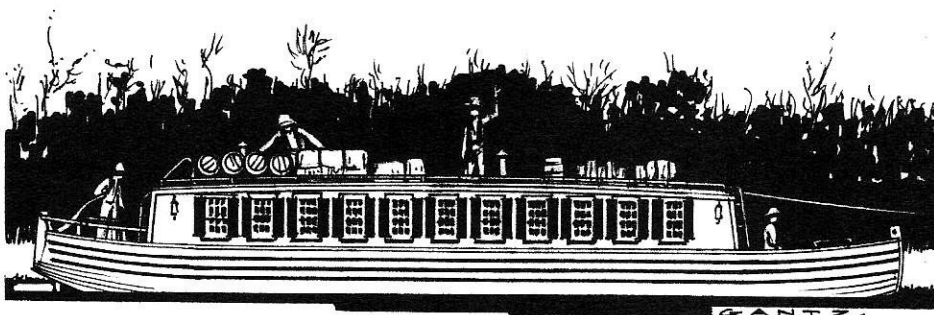


Illustration B

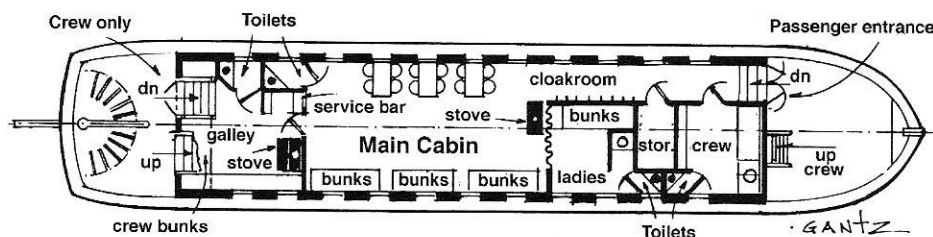


Illustration C

More importantly, the interior is a faithful reconstruction of a historical canal packet, closely following detailed eyewitness descriptions by a number of articulate literary travelers of the 19th century like Charles Dickens, Harriet Beecher Stowe, Nathaniel Hawthorne, and Herman Melville.

What were packets like inside? (See illustration C) Walking aft inside an entranceway that doubles as a cloak-room, first there is a forward crew cabin. Next is a storage cabin (for bunk beds, mattresses, tables and chairs), and after that, a ladies cabin, sleeping three, separable from the main cabin with red privacy draw curtains. Beyond that is the large main cabin with a wood stove, serving as a dormitory for 19 men by night (bunk beds hung on the walls) and a public dining/lounge area by day. These nominal capacities, however, were often exceeded by many more passengers crowding the spaces.

At the aft end is a galley with a cast iron wood cook stove and a service bar window to the main cabin. The galley doubles as sleeping quarters for crew at night. There are four small toilet rooms with chamber pots (called "necessaries" in canal days) located conveniently throughout the main deck. All these plans were well received by CCA and their consultants.

Remaining technical concerns included final construction costs, power options, and hull maintenance. While the boats can be mule or horse drawn, motor power is needed as an operational option. In 2000, an engineering firm, Elliot Bay Design Group, Ltd. of Seattle, WA was engaged to prepare alternative steel and fiberglass hull designs, while retaining the all-wood superstructure from the deck up, based on my designs. These plans were completed in July 2001. They include battery-powered electric motors concealed under the aft (poop) deck for quiet operation. They also incorporated Coast Guard regulatory requirements into the design, such as safety and navigational equipment. The design was lengthened to about 75 feet to accommodate the power systems. A boat of this length can be easily reversed manually by poles in a turning basin, or, with the power systems, can operate either forward or backward. The additional length could

increase excursion boat capacity to more than 150. Width of the boat is about 15 feet, and nominal draft is about 18 inches.

Three boats will be constructed, two for daily runs for interpretive programming, and the third equipped for specialty charters, excursions, and evening activities. Construction cost per boat is estimated at about \$500,000.

In addition to the canal boat designs, CCA has now completed a business plan for the *Port of LaSalle* attraction, an engineering study and an economic study for the region. A 75-mile driving tour map of the entire *I&M Canal Passage* is now available from CCA (25 East Washington, Suite 1650, Chicago, IL 60602).

All is in place for the country's most authentic and extensive recreation of 19th century canal operations. When it is completed, canal enthusiasts and the general public alike will be able to enjoy a truly historical experience.

MESSAGE AND OFFER FROM BILL SHANK

Because you are a valued customer of the American Canal and Transportation Center, I would like to advise you of some changes that are being made in order to ensure the continuation of our great historical publications.

I am in my 87th year, and I am the founder of the ACTC and author of many of its books. I now find it increasingly difficult to maintain the company's business operations at the level that I would desire. As a result, I am relinquishing my responsibilities to my family who, with my guidance, will proceed to manage the business, provide you with all of the same services, and assure that your needs are fully met.

Please allow me to introduce my family.

Nancy O'Dell, a retired teacher, has been acting as my administrative assistant for five years. She has been processing the majority of orders and shipments and will now assume full responsibility for ordering, shipping and billing. Please submit all orders

to her at the following address and telephone:

American Canal and
Transportation Center
c/o Nancy O'Dell
333 Beach Drive
Annapolis, MD 21403
telephone: 410-263-1303
email: amcanaltc@aol.com

Mary Ann Moore has worked as a communication specialist, both professionally and as a volunteer. She co-authored a bicentennial history book about her New York State home town, most notably the chapter on transportation and communication history.

Will Shank is an internationally respected authority on the conservation of modern and contemporary art. Following in his father's footsteps, he is a widely published author and is concerned with matters of historic preservation. He also provided the illustrations for *Three Hundred Years with the Pennsylvania Traveler*.

Thank you for your past and future support of the A.C.T.C.!

William H. Shank, P.E.
December 2001

30th Anniversary Special The BEST from American Canals Vol. V through VIII

For ACS members only, the following below-wholesale prices are in effect until December 31, 2002.

Best V @ \$3 - Includes Bill Shank's "History of the Panama Canal" and the diary of an 18-year-old canaler

Best VI @ \$4 - Includes articles on canals of Japan and Canada and Terry Woods' article "Canal Ghosts on the Ohio and Erie."

Best VII @ \$5 - Includes an article on the 1834 C&O Riots and Bill Shank's personal travelogue along the Columbia-Snake River navigation system

Best VIII @ \$5 - Tour the Panama Canal with Bill Shank. Also included - the entire out-of-print book *When Horses Pulled Boats* by A.F. Harlow

For \$15, own all four BESTS, a highly detailed encyclopedia of canal and waterway articles (1989 to 1997) from the ACS Bulletin

Shipping: \$2 per book/\$3 per set of any 4 books (each additional set of 4 add \$1)

To purchase the BESTS or obtain a price list on other canal-related books, contact the American Canal & Transportation Center at the address above.

LETTER TO THE EDITOR

I hate to write a letter of comment to one of Bruce Russell's excellent articles, but I must in the case of the article on the Susquehanna & Tidewater Canal in the Winter 2002 issue.

My first and smallest comment concerns the name "Susquehanna" which does not end in an "h."

The second concerns the Columbia-Wrightsville Dam. The article mentions much moving of masonry implying that the dam was so constructed. However, the dam was of the wood crib type common throughout the navigations of Pennsylvania. The stone needed to fill the cribs would have been amply supplied from the bed of the river. At the east (Columbia) end of this dam was a raft chute which can be viewed today. I do believe that the raft chute sides and the dam abutments were of masonry.

Third, there was never an aqueduct at Columbia. If there were, boats would have had to lock up at each end and there would have been no source of water. Instead, in the pre-civil war period, a wooden covered bridge was built across the river pool with a towpath gallery on the downstream side. The summit level of the S&T canal was the pool behind the above mentioned river dam. On the east shore, a lock connected the dam pool to the terminal basin of the Pennsylvania Mainline Canal. Two post card views of this lock are occasionally offered on eBay. The lock itself remains, although silted in, on the west shore between the two present highway bridges.

This brings me to the subject of the destruction of the covered bridge during the Gettysburg campaign of the Civil War. It is important to realize that the river is a mile wide at Columbia and is the major crossing of the river west of Philadelphia. This is where US 30, the Lincoln Highway, crosses today. It is also important to know that until the 1960s there were no, long standing, highway bridges across the river between the Harrisburg area and tidewater at Havre de Grace except at Columbia. Attempts to build at other sites were rapidly destroyed by river ice jams. The river also makes an excellent moat to protect the Mainline Canal on the east bank and the

Pennsylvania Railroad running through Lancaster and Mount Joy only a little to the east. Thus the bridge crossing at Columbia is strategic.

The story I have heard is that with the approach of Confederate forces to the area, the local Union forces attempted to burn one span of the covered bridge as a defense measure to deny the route to the invader. However, the long covered bridge acted as a flue and the set fire destroyed much more of the structure than was intended.

Columbia is so named because it was once considered for the capital of the United States. Columbia was very much a Pennsylvania Railroad town, being at the junction of the river line with the original state built route east through Lancaster to Philadelphia and just north of the junction of the river line with the Low Grade Freight line across southern Lancaster County at Safe Harbor. The predecessor bridge to the present concrete Intercountry Bridge also carried a railroad track providing connections west to York. Nevertheless, Columbia also was at the end of a Reading Railroad branch, now dismantled, south from Manheim. By transshipping coal to S&T boats at Columbia and using the canal, the Reading was able to reach markets all along Chesapeake Bay.

I am unclear about many of the remains of the S&T canal as it lies in the deep, narrow valley south of Columbia. Some locks are flooded by the pools of the Conowingo, Holtwood, and Safe Harbor Dams. Others are visible just below these dams. A couple of locks on private property on the west bank have been visited during Pennsylvania Canal Society trips just upstream of the Peach Bottom nuclear power plant. Long sections of the canal are difficult to view due to the deep valley, except possibly by boat on the dam pools.

Just south of Wrightsville is a community of cottages along the west side of the pool above Safe Harbor Dam known as Long Level. No points for guessing the origin of the name.

David G. Barber

Note from the Navigable Canals Committee

KISSIMMEE WATERWAY

The formerly canalized Kissimmee River has now been partially restored to something approximating its natural state. Lock and Dam S65B have been removed, and much of the man-made channel between S65A and S65C has been filled in, forcing the river to return to the oxbows that were its main channel before canalization.

During much of the time when this work was in progress, the affected portion of the waterway was closed to navigation. It is now reopened, and boaters can once again travel all the way from Lake Okeechobee to the city of Kissimmee. From Lock S65C down 25 miles to Lake Okeechobee, and from Lock S65A up 52 miles to Kissimmee, the waterway remains essentially as it has been since the canalization of the 1960s. What was a quick and easy 21 miles in between is now radically different.

You should not be in a hurry when you undertake this trip. There are plenty of fairly sharp bends, and you might meet another boat just around any of them. Besides it's benefits for the environment, the great advantage of the new route from the boater's point of view is that it is infinitely more scenic than the route it replaces, so you should take the time to appreciate it even apart from safety concerns.

The downside is that without Dam S65B to maintain the pool, the water becomes fairly shallow as you approach Lock and Dam S65A. This is particularly the case at the upper end of the oxbow route and in the vicinity of the wiers shortly below S65A. I got through without mishap, but had to tilt up my engines in a couple of places to clear the bottom. This is yet another good reason for not trying to rush the trip.

—DFR

Mark your calendar

**World Canals Conference
and
A.C.S. meetings
with election of officers
September 11-13
see Calendar on page 2
for details**

TOWPATH TIDBITS

Jerry Greener, president of the VIRGINIA CANALS AND NAVIGATIONS SOCIETY, has spent much time at Ground Zero in New York City. Working for the Federal Emergency Management Agency field office overseeing the debris removal, Jerry describes in their newsletter the complex job of transporting, separating, and examining the debris from the site. Thanks, Jerry, for your work in this difficult, but necessary, operation.

Two dozen members and friends of the CANAL SOCIETY OF NEW YORK STATE toured the canals of Northeast and Central France in September, 2001. Accompanied by David Edwards-May, the group visited several lifts and the Ronquieres Inclined Plane in Belgium.

The NATIONAL CANAL MUSEUM received a \$15,000 grant from the Keystone Bank. The money will support the construction of the Center for Canal History and Technology.

The six-year campaign by the

CANAL STEAMBOATS

From the Albany Daily Advertiser, July 6, 1830

On Thursday morning last, the NAIAD, a small steam boat intended to ply between Utica and Syracuse, left this city to take her place in the line about being established between those places. She is about 60 feet long, and 6 feet wide, and is constructed on Mr. Annesley's plan, combining great strength and lightness. She has seats for about forty passengers, arranged like those in post-coaches, and her speed has been found, notwithstanding the newness of her machinery, about seven miles an hour. It is thought she will be equal to eight miles an hour.

It is intended that the passengers shall dine on shore at some place half way, which will be a very agreeable change, and the boat can in the meantime take in wood and her machinery can be inspected. The boiler has been proved, we understand, at a very high pressure, so that perfect safety is insured to passengers at the low rate of pressure at which the boat will be run. Her motion makes no perceptible current in the canal, her draft of water being very light. Her consort is nearly ready to follow her, and the public will have a new and pleasant mode of traveling rapidly on the canal between the two flourishing villages we have mentioned.

From the Niles Weekly Register, Oct. 5, 1833

We understand the Chesapeake and

Canal Society of New York State

TOUR OF SOUTHERN FRANCE

October 2-15, 2002

Spend 14 days and 12 nights traveling with society president Tom Grasso and French canal expert David Edwards-May on a unique odyssey across Southern France including the Canal du Midi. Visit, cruise, and observe a wide range of canal curiosities of yesterday and today. Roman and medieval structures will also be examined.

This once-in-a-lifetime program including three World Heritage Sites (Old Lyon, Avignon, and the Canal du Midi) will focus on the exceptional beauty and splendid scenery of the waterways, towns, Roman ruins,

chateaux, and countryside of Southern France.

For bookings before May 1st, the cost is \$2,640 per person double occupancy, \$3,060 per person single. This includes round trip airfare from various New York State points, hotels, ground and water transportation, and most meals.

To make a reservation or obtain further information, get in touch with Marilyn at Bonaparte Travel, phone (585) 385-6050, email rick@riversorg.com. Tom Grasso can be reached at (585) 387-0099 or tgrasso@rochester.rr.com.

The six-year campaign by the CHESAPEAKE & OHIO CANAL ASSOCIATION achieved success when Congress appropriated \$6.4 million for the repair and rehabilitation of the

Monocacy Aqueduct. This is the largest project ever undertaken by the association since the creation of the C&O Canal NHP.

On the 225th anniversary of the Revolutionary War Battle of Valcour Island, the LAKE CHAMPLAIN MARITIME MUSEUM at Basin Harbor, Vermont, raised a relic from that battle. On June 30, 2001, they raised from the bottom of Lake Champlain a cannon, cartridge boxes, and many pieces of ordnance. To learn details of this successful project, visit the LCMM at www.historiclakes.org.

OLD SANTEE CANAL PARK has sponsored successful hikes, quilting bees, a pineapple basket workshop, and the 3rd Annual Shuckin' in the Park Oyster Festival. For upcoming events, check the Calendar on page two.

The spring field trip of the CANAL SOCIETY OF NEW YORK STATE, May 10-12, will visit New Jersey's historic Morris Canal, noted for its inclined planes that enabled canal boats to climb to a high elevation without an unworkably large number of locks. This tour will be hosted by the CANAL SOCIETY OF NEW JERSEY and will be conducted jointly with members of that society.

Delaware Canal Company have made sundry experiments with steam on their canal, which have proved highly satisfactory. The boat made use of is 88½ feet long on deck, 10 feet beam, and draws twelve inches of water besides a very small keel. Her paddle wheels are on the sides of the boat; they are 4 feet on the fan and 8 feet 2 inches in diameter; the paddles are 8 inches deep. the boiler is 6 feet long by 3 feet in diameter; it is round and filled with tubes. the cylinder is 8½ inches in diameter, with a stroke of piston of 2½ feet. When running at a speed of 8 miles an hour, she consumes 314 pounds of pine wood in one hour, and at this speed the wash on the canal banks is only about one-third of that made by the passenger barges when running at the same speed.

From several experiments made with this boat, we learn that she answers remarkably well for towing vessels loaded with merchandize or produce, and it is probable that, after this season, steam power will entirely supersede the use of horses on this canal.

A Baltimore paper, with reference to the same subject, observes that the president and directors of the People's Line expect to make the trip through the canal in less than one hour!

—Contributed by
William Dzombak, with an assist
from A. Zimmerman

—Linda J. Barth