

AMERICAN CANALS

BULLETIN OF
THE AMERICAN CANAL SOCIETY

Vol. XXIX, No. 4

Dedicated to Historic Canal Research, Preservation, and Parks

Autumn 2000

PRESIDENT'S LETTER

Greetings! Lots and lots and lots happening since I talked with you last. Maybe more than I can put in one president's letter. But let's try!

Most importantly, I would like to apologize to all ACS members who attended our membership meeting, at the recent World Canals Conference, for missing that meeting. An "emergency" meeting, to look into procedures for selecting future World Canals Conference sites, ran over, and I missed the important task of talking to all of you. I asked Zip Zimmerman to chair our meeting in my absence, and I was assured (by his wife) that he did a great job. I understand that there were 23 in attendance. Couple that with the eight directors who attended the "emergency" meeting, and we had a goodly turnout.

You have been reading in these past few letters about efforts to initiate some sort of permanent committee to receive bids and select sites for future World Canals Conferences. The IWI proposal I reported on in the last issue wasn't perfect in my mind, but I supported it on an interim basis as better than nothing. The IWI made their formal proposal at the World Canals Conference in Rochester, and the ACS Board of Directors, after considerable discussion, voted to support it on an interim basis. Then, during the last day of the conference, a decision was made by the past conference chairmen present (during the meeting referred to above) *not* to accept the IWI proposal. Past conference chairman Rory Robinson will attempt to have information concerning current and future conferences placed on the internet. Bids will then be received and sites selected by those past conference chairmen who are still active.

We have been holding annual directors and membership meetings in conjunction with the World Canals Conferences for a number of years now. I wondered if we were unnecessarily excluding those members who, for one reason or another, found it difficult to attend the formal con-



World Canals Conference participants ready to cast off for a cruise on the Enlarged Erie Canal at Camillus.

Photo by Terry K. Woods

ferences. Last year, when the conference was in Europe, we held our annual directors and membership meetings at the National Canal Museum. We had a disappointing turnout for the membership meeting. For 2001, the directors have asked me to seek a local, state, or regional canal society who would welcome the ACS at their fall canal tour. We would ask our members to participate in their tour and hold our meetings sometime during that weekend. I will try to set something up that would appeal to many of our members. I would welcome suggestions from members and local societies, alike.

I have asked Bill Trout, Tom Hahn, and Bill Shank to ransack their memories and help to write a history of the early years of the American Canal Society. I'd like to ask all our members who can provide information, data, stories, legends, etc., concerning our early history, to get in touch with one of the three or with me.

Thanks to the Rochester Conference cochairs, Tom Grasso and Kristin Hanifin, the American Canal Society had a very

visible presence at the conference. We had good traffic at our booth, and I want to thank our secretary/treasurer, Charlie Derr and his good wife Liz, for their diligence in manning the booth. We received eight new members during the conference, and had 37 people sign up for additional information concerning our society.

The health of our society is good. We are currently solid financially and our membership is up a bit over 1999, nudging the 700 level, even before the conference. We would like to work with local, state, and regional canal societies in offering joint memberships with discounted ACS dues for first-time members. Any group interested should contact me or Charlie Derr.

Our new web site should be active very soon – www.americancanalsociety.org. Like all volunteers, our Internet Committee chairman has to balance his ACS duties with his personal life. Please bear with

(Continued on page 2)

American Canals

BULLETIN OF THE AMERICAN CANAL SOCIETY

Editor: **David F. Ross**

Associate Editor: **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 Kate Mulligan, 1301 Delaware Ave., SW,
Washington, DC 20024; ph. (202) 484-3590;
email: kmulligan@gis.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.

Annual subscription to **American Canals** is automatic with A.C.S. Membership. Annual dues: \$20.00. Single copies \$3.00. Four issues per year.

Copyright© 2000 by the American Canal Society. All rights reserved. Printed in the United States of America.

ISSN 0740-588X

PRESIDENT'S LETTER (CONT.)

us and, when the site is active, contribute to its viability with news and views.

We want to continue to solicit nominations, responses, and suggestions for our new ACS Canal Buffs Honor Roll.

Many times during the recent conference we heard the complaint that "young people just aren't interested in canals." "Young people just don't join anything these days." I have heard the problem expressed in many ways, but I have yet to hear of any solution. I became president of the Canal Society of Ohio in 1974 when I was 37 years old—and a couple of my fellow trustees were of a similar age. I don't see that age group in our society's leadership anymore. What can we do about it? Are programs of education for school-age children a possible answer? Do the canal societies, themselves, need to become more active? I'd like to hear from our members about possible solutions to this problem.

Till next time, Headway to you!!!



CANAL CALENDAR

December 2, 2000. C. & O. Canal Association Annual Frostbite Hike. Contact: Ken Rollins (804) 448-2934.

December 9-10, 2000. Christmas Boutique, Lock House, Susquehanna Museum at Havre de Grace (MD). Contact: (410) 939-5780.

December 31, 2000. C. & O. Canal Association New Years Eve hike, location T.B.A. Contact: (301) 983-0825.

February 14, 2001. Historical Seminar of the 2001 Series. "Early Settlers in the Area Known as Havre de Grace." Second in a series of five seminars co-sponsored by the Susquehanna Museum of Havre de Grace and Havre de Grace Middle School in Havre de Grace, Md. Call: (410) 939-5780.

April 19, 2001. Annual Dinner Meeting. Susquehanna Museum of Havre de Grace, Md. Call: (410) 939-5780.

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 McKelvey, (908) 464-9335.

May 16-18, 2001. World Canals Conference. Dublin, Ireland. Write: The World Canals Conference 2001, Conference Partners, 96 Haddington Road, Ballsbridge, Dublin 4, Ireland or call: 353 1 667-7188.

May 24 - June 3, 2001. Canal Tour in Southwest England. Sponsored by Historic Preservation Center at Bucks County Community College. Cost \$1,850, which includes airfare from Philadelphia, lodging on canal boat, 2 nights in a Hilton hotel and some meals. Call: (215) 968-8286.

DEADLINE: Material for our next issue must be on the associate editor's desk no later than January 1st, 2001.

CONTRIBUTING EDITOR BRUCE RUSSELL HONORED

With the unanimous approval of the ACS Board of Directors, Terry Woods has presented the President's Award to Bruce J. Russell, Contributing Editor of *American Canals*.

The certificate of award, on faux parchment suitable for framing, states that it is "In appreciation for your outstanding service to the American Canal Society." It is dated October 1, 2000, and signed Terry K. Woods, President.

Bruce was named Contributing Editor by then editor and publisher William H. Shank in November 1987, in recognition of his large volume of editorial contributions to the bulletin. The flow has continued unabated to this day, and includes an article in the current issue on the rôle of the Pennsylvania Mainline Canal in the Johnstown flood.

AMERICAN CANAL SOCIETY

President: Terry K. Woods, 6939 Eastham Cir., Canton, OH 44708. (330) 832-4621.

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@bmgubos.org

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

Recording Secretary:

Nancy Dunnivant, 417 Phillips St., Edenton, N.C. 27932. (252) 482-5946.

Directors: Robert H. Barth, 214 N. Bridge St., Somerville, NJ 08876-1637 (908) 722-7428 email

bobandlindabarth@worldnet.att.net

Thomas X. Grasso, 18 Summit Oaks, Pittsford NY 14534. (716) 387-0099

Thomas F. Hahn, 3751 Schefflera Dr.

Sabal Springs Golf Club

North Ft. Myers, FL 33917-2040

(941) 731-2987

email @swifhahn@aol.com

David M. Johnson, 9211 Wadsworth

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

Keith W. Koon, 2240 Ridgeway Ave.,

Rochester, NY 14626. (716) 225-0688

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

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

TN 38372-6774. (901) 925-0099.

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

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

William H. Shank, 809 Rathton

Rd., York, PA 17403. (717) 843-4035.

Roger W. Squires, 46 Elephant Lane,

Rotherhithe, London SE16 4JD,

England (171) 232-0987.

Robert 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.

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

Denver L. Walton, 968 Chapel Rd.,

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

Committees:

ACS Sales, Keith W. Koon, chrmn.

Canal Archaeology, Mark Newell, chrmn.

Canal Boat, William J. McKelvey, Jr., chrmn.

Canal Engineering, Maintenance & Operations,

John M. Lamb, chrmn.

Canal Parks, Terry K. Woods, chrmn.

Historic American Canals Survey, David G. Barber,

chrmn.

Internet, Mark Newell, chrmn.

Liaison, Kate Mulligan, chrmn.

Navigable Canals, David F. Ross, chrmn.

Publications, Terry K. Woods, chrmn.

Publicity.

Other publications: *The Best from American Canals*,

William H. Shank, editor and publisher.

American Canal Guides,

William E. Trout III, editor and publisher.

Web page address:

www.americancanalsociety.org.

WORLD CANALS CONFERENCES: THEIR PAST AND FUTURE

by David M. Johnson

By all standards of measurement, the World Canals Conference at Rochester, New York, in September was outstanding. From the opening flotilla of boats on the Genesee River to the closing fireworks in the rain, it was an artistic, intellectual, and logistic success. Perhaps the only disappointing aspect of the week was the failure of the leaders of the major canal groups to agree on a simple proposal to ensure the continuity of these annual gatherings.

This was the 13th annual meeting in a series that began with a modest symposium for managers of historic canal parks and has grown into a major international event. The WCC has changed greatly since its beginning in 1988 as the "National Conference on Historic Canals." It quickly attracted participation by nonprofessional canal enthusiasts representing the American Canal Society and state and local canal organizations. It became the "International Conference on Historic Canals" in 1990, when the third conference was hosted by Parks Canada at the Rideau Canal in Ontario. The name "World Canals Conference" first appeared in 1996, when the conference was held in Birmingham, England. Eight of the conferences have been in the U.S., three in Canada, one in the U.K., and one jointly in France and Belgium.

Through the early 1990s, the process of selecting a venue for the next meeting was very informal. Each conference was hosted by a canal park and its principal friends group, and was usually financed almost entirely through registration fees, which remained nominal.

This began to change in the mid-90s with the addition of local tourism councils, corporate sponsors, and major grants from government economic development agencies to the organizing committees. This substantial growth has been reflected not only in attendance but in the broadening of the topics discussed by speakers and panels. At the Rochester conference there were three concurrent program tracks for delegates to choose among: History, Education and Interpretation; Economic Development and Commercial Utilization; and Tourism, Recreation and Promotion. A professional planner was engaged to



Sam Patch, the lead boat in the opening-day flotilla
Conference co-chairman Tom Grasso is on the roof at left.

Photo by Linda Barth

manage all of the scheduling and logistics.

On a train to Worcester during the 1997 Blackstone conference, a steering committee consisting of the attending chairpersons of previous conferences was established to receive proposals for future conferences and to approve dates and locations. At that time, it was decided that we would alternate across the ocean, with even-numbered years in North America and odd years in Europe. A schedule for conferences through 2004 was established.

During the annual meeting of Inland Waterways International (IWI) at Lille, France, on the eve of the 1999 WCC, a proposal was introduced that IWI become the permanent coordinating body for the WCC. Subsequently, the board of directors of the American Canal Society (ACS) adopted a resolution that a permanent steering committee comprised of the presidents of ACS, IWI, and the Canadian Canal Society be established to receive proposals and allocate dates for future conferences. ACS president Terry Woods and IWI president Desmond Leyden corresponded during much of the past year on this proposal.

IWI held its annual meeting for 2000 at Rochester September 10th and adopted a resolution to establish an eleven-member steering committee which would include five chairs of past and future conferences, plus one rep-

resentative each from ACS, CCS, Great Britain and continental Europe, and the president and secretary of IWI. IWI would serve as the secretariat for the steering committee, providing an international point of contact for information and submission of proposals.

The ACS board of directors met immediately after the IWI meeting. The board had some reservations about the IWI resolution, particularly concerning the size of the steering committee (too large) and inclusion of chairmen of future conferences. However, it was felt that the establishment of a permanent secretariat to receive and evaluate bids for future conferences was of such importance that the board voted unanimously to support the IWI proposal as an "interim" solution and review it after two years.

Tom Grasso, president of the Canal Society of New York State and co-chair of the Rochester conference (and also a board member of both ACS and IWI), organized a meeting on the last day of the conference to attempt to work out an agreement on the establishment of a permanent secretariat. The meeting was attended by ACS president Woods, past president Bill Trout and several ACS board members, by IWI president Leyden and several members of his council, and by all of the chairs of previous World Canals Conferences who were at Rochester. Many items were discussed, including the importance of

having a permanent, recognized governing body to give credibility to future conference organizers seeking grants and government and business support, and the make-up of the steering committee. It was emphasized that full responsibility for organizing, financing, and managing each conference, including theme, speakers, field trips, and logistics, would remain with the host organization. Unfortunately, the meeting was unable to reach a consensus and adjourned without taking any positive action.

Therefore, the issue of a permanent address and permanent secretary to offer continuity and a fixed point to which inquiries can be submitted remains unresolved. It is hoped that this will be taken up again next year in Dublin.

CANAL BOAT MODELS

By David G. Barber.

I was recently asked if I knew of any canal boat models available for sale. While I am unaware of any models of American canal boats on the market, I have discovered some of British boats, both traditional and modern.

First, there is a holiday canal boat that is part of the "Thomas the Tank Engine" series.

Second, a British company, Langley Models, 166 Three Bridges Road, Crawley, West Sussex, RH10 1LE, England, Phone +44 1293 516329, sells a variety of models. They also have a website: www.langley-models.co.uk/

In N Scale, they list Narrow Lock Gates, 72 ft. Industrial motor, 72 ft. Industrial Butty, Wide Lock Gates, dry transfers for the above boats, 70 ft. Holiday Canal boat, and 35 ft. and 52 ft. Holiday Canal boats.

In OO Scale (14% larger than HO Scale), they list a motor boat (open), a butty (open), a motor boat (clothed), a butty (clothed), a 35 ft. Holiday boat, a 72 ft. Holiday boat, dry transfers for the motor & butty, and wide lock gates.

As interesting assortment! If anyone is aware of other models, please let me know. (Address on p. 2, above.)

TOWPATH TAGS

By David G. Barber.

One of the purposes of *American Canals* is to spread good ideas from one canal group to another so that more good can result from them. One such idea that has been developed by the Cuyahoga Valley Association, in conjunction with the Cuyahoga Valley National Recreation Area along the Ohio and Erie Canal south of Cleveland, is towpath tags. These are of laminate construction and include a pin for attachment to hats, packs, jackets, etc. The association has arranged for a sponsor to pay for the fabrication of the tags. The tags are then given to those who donate \$5.00 or more to help with the maintenance and improvement of the towpath trail along the canal. The proceeds go to the recreation area. The donors can then wear the tags to show that they are among the "good guys". That in turn raises visibility for the program and canal. A nominal item such as this in return for a donation to a nonprofit organization makes the whole contribution tax deductible.

The association began the program in 1997, when I first encountered it on a tour with the Canal Society of New Jersey. They issue a new tag each year. For the first three years of this program, over \$100,000.00 has been raised. For 2000, they have made up 11,000 tags.

The association informs me that they would be quite happy to have the idea copied by others. The association is also able to furnish this and prior year tags for a donation of \$5.00 each. (P.O. Box 222, Peninsula, OH 44264-0222).



The Blackstone Canal Conservancy thinks this is such a good idea that we have ordered similar tags from the same



vendor for our canal for this year. I would be happy to furnish more specific information to anyone who would like to pursue it further for another canal project.

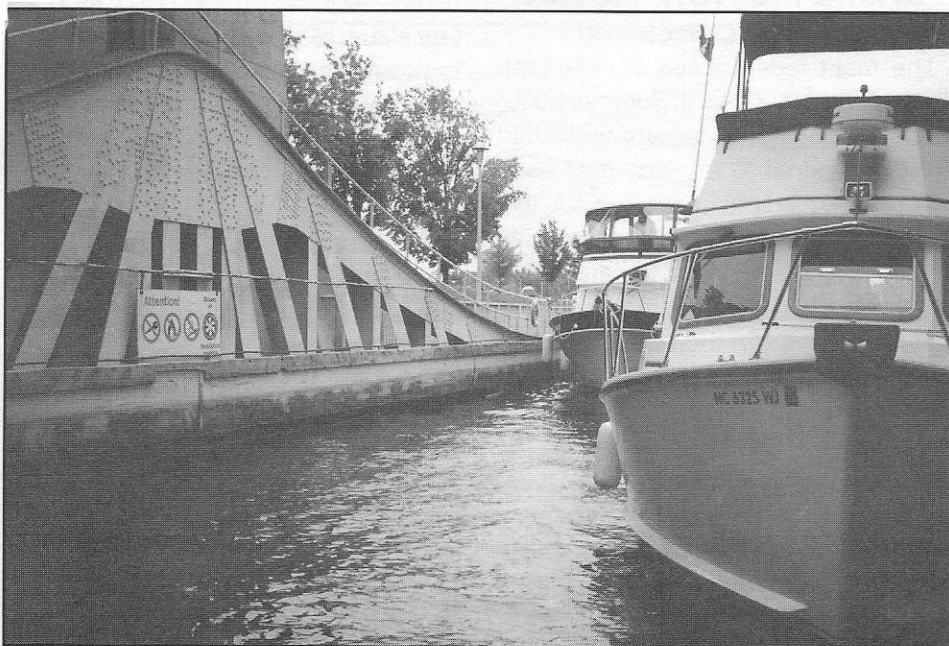


From the deck of Emita II as the flotilla approaches Rochester

Photo by Karen Gray

THE TRENT-SEVERN IN Y2K

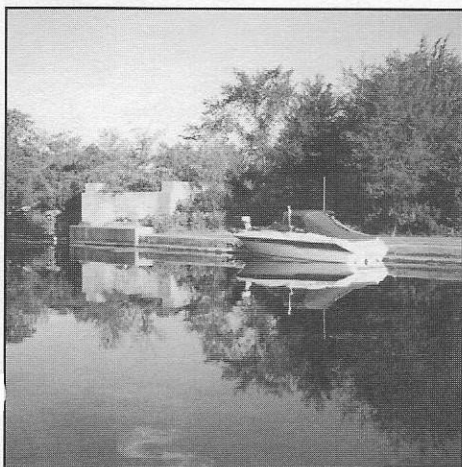
by Addison W. Austin



The impressive hydraulic lift lock at Peterborough

The fourth of July found us bouncing in the Hudson River at New York City with fellow A.C.S. members Bob and Linda Barth, viewing the Tall Ships, after a foggy run down Long Island Sound from Norwalk, Connecticut. The parade was not all it might have been, and even N.Y.C. Mayor Giuliani commented that it was poorly organized. The Macy fireworks that evening sounded good, but Bob had to be at work early the next morning and we wanted to load our boat back on the trailer to be off for Canada and the Trent-Severn.

Preparations and travel put us in Trenton, Ontario by the morning of the 7th



A peaceful overnight tie-up with a rail trail

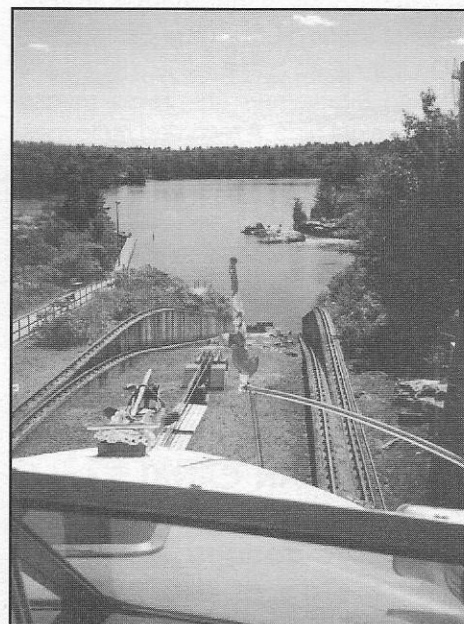
of July, ready to go. Then came the shocker: a gas station attendant told us the canal was closed indefinitely. Fortunately a highway trip to Lock #1 disclosed that it had just reopened, after being closed most of the early summer by high water and strong currents brought on by heavy rains.

Since we were at Lock #1, we got our permit. Like many pleasure-craft canals, this is not free. There were several options – one lock, one day, season, and others. We bought the one-way through pass, as we intended to explore Georgian Bay and the North Channel after the canal, then rent a car to return for the rig. This pass cost just under \$90. After the exchange rate, it came out to around a buck-and-a-half per lock—what a bargain! The permit was a sticky-back thing which broke instantly and stuck to fingers. At last it was on the windshield, more patchwork than neat. There are altogether 43 locks in 241 miles. We soon discovered it was a variety of locks, some with paddles in the gates, some with underground pipes, almost all hand-operated, but a couple of newer push-button types. Then, of course, there is a famous hydraulic lift lock at Peterborough, plus a less visited one well to the northwest. Last but not least is the marine railway at Big Chute, a tooth-gritting experience reminiscent of

New Jersey's Morris Canal. This railway lock was redone a few years back, increasing its capacity. All of the conventional locks had everyday gates, no guillotines.

As we headed north out of Trenton the strong current soon became apparent and stayed with us for many miles—nothing uncontrollable, but it kept us on our toes. Most of the locks and dams were also used for hydropower, but even so, a lot of water was being spilled over the tops. Unfortunately, the much-cursed zebra mussels have found the Trent-Severn and are on most of the lock walls. The locks were easy to handle, with rubber-covered cables on the walls and no crazy currents when water was let in.

Many of the locks had ample tie-up areas top and bottom for overnight, but at a small fee. A blue painted area on the outside wall told the lockmaster you were ready for passage if tied up there. This also indicated the preferred side once in the lock. Many of the locks are in pleasant remote area, which worked out well as we were traveling with three dogs on board. The canal passes through several towns, so food, fuel, ice, and pump-outs were easily had. Ontario is doing a fine job of "Rails to Trails: and there were several nice dog walks on old rail beds. The biggest problem is that slack-water spots are badly filled with grasses, the big type usually brought on by detergent phosphates and lawn fertilizer run-off. I suspect they are the



The marine railway at Big Chute

culprits here, too.

The canal leaves Lake Ontario at 243 feet, climbs, then drops into Lake Huron at 577 feet. Most of the difference is accounted for by Niagara Falls. The highest point on the trip is 840 feet at Balsam Lake. Near the end, we caught up with a hometown neighbor and friend who was making the trip single handed in his home-crafted 40-foot trawler. The locks had been gentle enough that he had no problems running solo. The waterway is a combination of improved rivers, dug ditches, and some fair-sized lakes. The two hydraulic lift locks are spectacular and the ride on the marine railway is quite a thrill. As we started down the grade on the marine railway, the young man running the contraption assured us this was not his first day on the job. All of the lock people were super-friendly and helpful.

Under the heading of friendly Canadians, the canal had earlier opened for a few days, then closed, trapping several boats in Peterborough for two weeks. Early comments about being held captive in retaliation for the defeat on Lake Erie in 1813 soon faded as tours and such were organized for the benefit of those stuck.

The boat used for this trip was a 1989, 23 ft. cuddy cabin Searay, single engine I.O., trailered from Florida. The travels on Lake Huron were as rewarding as the canal had been. Carrying three travel-seasoned dogs presented no headaches. Aside from a few tour boats and rental houseboats, there is no commercial traffic on the Trent-Severn.

On our return home we scrubbed and flushed everywhere the zebra mussel larvae might hide. A recorded radio message at the Florida border warns of the threat of their arrival. With the influx of trailer boats to the state every year, I fear it is just a matter of time, maybe only a short time, before they arrive. If only they ate water hyacinths!

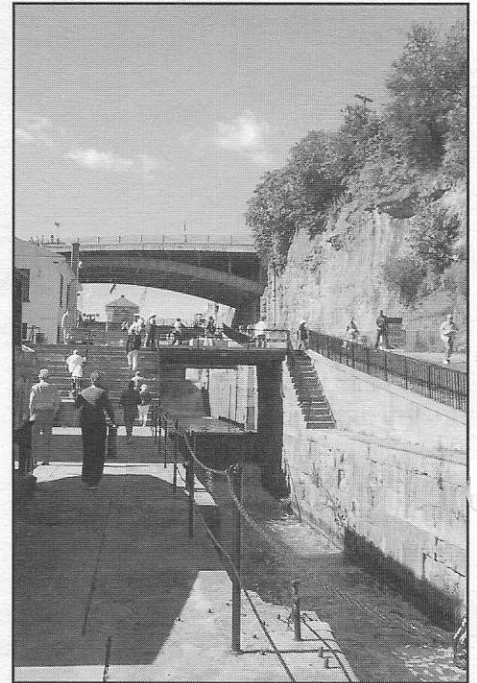
CANALS AND INLAND WATERWAYS IN BRITISH CRIME FICTION—AGAIN

by Philip L. Scowcroft

The most recent issue of *American Canals* (Vol. XXIX, No. 3, Summer 2000) was kind enough to remark that I had “struck an extraordinarily rich vein” when I first introduced the above subject, two years and more ago. It seems that in so saying, it spoke the truth, because here are three more titles, admittedly ones to do with rivers rather than canals, but still germane to this subject. The first one is C.A. Alington, *Crime on the Kennet* (London: Collins, 1939) [“Kennet” here is the river, not the Kennet and Avon Canal, which, as we know, has figured in crime stories]. Alington is an author infrequently encountered these days, but the elegance of his style makes him well worth seeking out.

My remaining two titles both feature the Norfolk Broads. First, there is Gladys Mitchell, *The Worst Viper* (Joseph, 1943), whose sleuth is her usual series detective, Mrs. Bradley (about whom a TV series has been made recently in England, though this particular book has not so far been adapted). And there is C.P. Snow, *Death Under Sail* (Heinemann, 1932), his first published novel; he was not to revert to crime fiction until the

1970s. The murder actually takes place on a Norfolk wherry (described at first, no doubt loosely, as a “yacht”). Snow’s book is very much of its period; an amateur sleuth reaches the solution, though the somewhat bizarre police investigator is not quite as stupid as he appears to be at first, and there is a plan of the wherry and a sketch map of the places in the Broads – all real ones, incidentally – in which the action takes place. But it is still a good “read” nearly seventy years on.



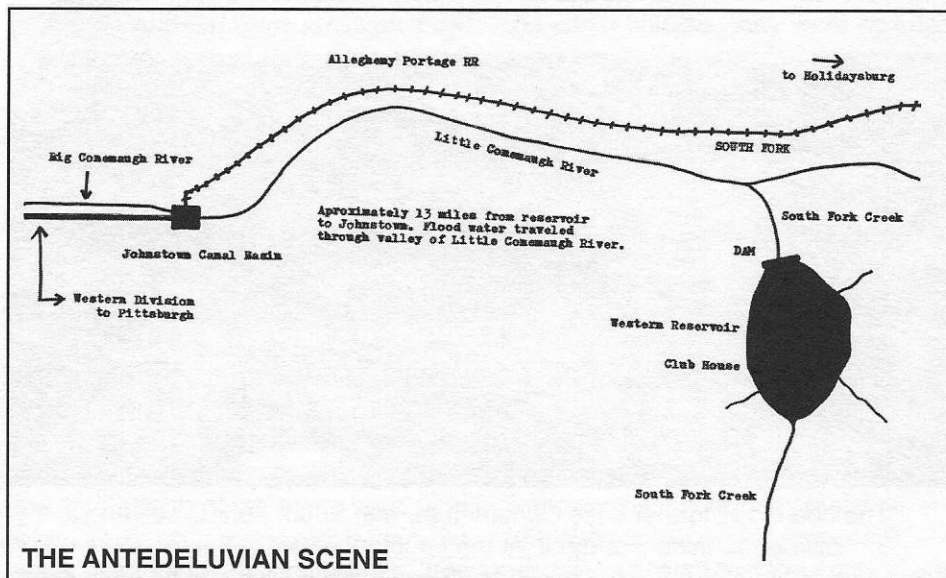
Two views of the Lockport locks on the Enlarged Erie Canal

Photos by Karen Gray

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

THE PENNSYLVANIA MAINLINE CANAL AND THE JOHNSTOWN FLOOD

by Bruce J. Russell, Contributing Editor



On May 31, 1889, much of Johnstown, Pennsylvania was destroyed by a gigantic flood in which approximately 2,200 people lost their lives. Its cause was the disintegration of a 920-foot-long, 72-foot-high earthen dam which held back a man-made lake. This body of water, situated on the western slope of the Allegheny Mountains, was 3 miles long, 1 mile wide, and over 60 feet deep. Once the dam gave way, an immense surge of water was released which traveled 13 miles down the valley of the Little Conemaugh River before reaching the city of about 30,000 population, known primarily for its steelmaking activities. In addition to the human toll, hundreds of houses, as well as warehouses and factories, were destroyed. It was considered one of the nation's worst disasters. People talked about the Johnstown Flood for decades after the city had been rebuilt. Furthermore a number of articles and books were written which described how danger signs regarding the earthen dam's deteriorated condition were ignored until it was too late to take corrective action. However, few people are aware that the dam in question was originally built many years prior to the flood to create a reservoir for the Western Division of Pennsylvania's Mainline Canal system which connected Philadelphia with Pittsburgh.

In 1826 the governor and legislature of Pennsylvania authorized the building of a transstate canal which would com-

pete with New York's Erie which had opened in 1825 and was carrying huge volumes of east-west freight. The Pennsylvania waterway was faced with an obstacle unknown in the Empire State, the Allegheny Mountain range. Between Hollidaysburg on its eastern slope and Johnstown on its western 37 miles had to be overcome. Since it was impossible to construct an artificial waterway across this formidable barrier, a unique type of railroad was developed. Known as the Allegheny Portage RR, it consisted of a series of inclined planes powered by stationary steam engines, and level stretches of track upon which either locomotives or horses were used to pull freight cars and passenger coaches. The portage railroad linked the Eastern to the Western Division of the Mainline Canal. In order to avoid having to transfer freight between canal boats and railcars at Hollidaysburg and Johnstown, an innovative type of vessel was developed. Known as a section boat, it consisted of watertight sections which could be disconnected and loaded separately onto flatcars. Because of the alternation between rail and water modes, travel on the Mainline was considered more interesting than on the Erie. Unfortunately, it was very costly to operate, and was one of the reasons why Pennsylvania's canal never made money.

The Western Division extended 104 miles from the basin at Johnstown to

Pittsburgh, and generally followed river valleys. It was finished in 1831, three years prior to the completion of the entire Mainline Canal system. It contained an 800-foot-long tunnel, and was dug primarily by laborers who had recently immigrated from Ireland.

Water Supply Problems

From the time it opened, the Western Division was faced with the problem of insufficient water to maintain a uniform depth of 5 to 6 feet. This meant that vessels frequently scraped bottom, tearing into the layer of clay which had been installed to prevent loss of water by seepage. By early August the water level had frequently fallen so low that use of the canal became impossible. Although the engineers who planned the Western Division had tapped every available stream and brook, this wasn't sufficient. Lack of rainfall during July and early August resulted in their drying up, and left no way to replace water lost through lockages and from evaporation and seepage. Many businessmen and politicians were calling the canal a failure since its usefulness was limited to the period from the March thaw to August. Without this problem, the navigation season would have run until mid-December when freezing once again occurred. Some individuals were actually beginning to wonder why, instead of a canal, a railroad hadn't been constructed from Philadelphia straight through to Pittsburgh. These people were visionaries. In the mid-1830s, the great age of railroad building was still two decades in the future.

The solution to the problem of providing the 104-mile Western Division with adequate water was to build a reservoir on the western slope of Allegheny Mountains. Perhaps inspiration came from France, whose Canal du Midi depended on a mountain lake and non-navigable 30-mile feeder canal to maintain an adequate water supply. The lake was created by a 600-foot dam, completed in the late 1600s. For 150 years engineers had marveled at the ingenuity of this waterway, which extended across southern France from the Atlantic Ocean to the Mediterranean Sea.

Work parties surveyed a number of locations in the mountains above Johnstown, trying to pinpoint an ideal spot. Sylvester Welsh, chief engineer of the Mainline, directed operations on the

site. Eventually a place was found in the vicinity of the town known as South Fork, up the valley of the Little Conemaugh River from Johnstown. Here Welsh determined that an enormous dam would be erected. Behind it an artificial lake or reservoir would be formed by water flowing from several mountain streams. Most of the flow would occur during the spring when snow melted. Instead of going directly into the Little Conemaugh River, it would be held in reserve until midsummer when the canal required it. The surveying work began in 1837, and construction began in 1838.

Welsh delegated the task of designing the dam to William Morris, a young civil engineer who had begun his professional career on the Mainline several years earlier. He had gained considerable experience building embankments to carry the canal across valleys and other low points, and appeared highly qualified. Instead of a dam composed of stone blocks, he proposed an earthen structure which would be erected between two hills and extend about 920 feet. Its height would be about 72 feet, nearly equal to the aforementioned hills. On both its faces it would have a pronounced slope, so that a cross sectional view would be triangular rather than square.

Morris favored the use of earth because it would be much less expensive than stone and just as good if properly built. A supply of earth was available at the site, whereas stone would have to be transported from a distance using horses and wagons. Maneuvering huge stones and boulders into place would entail use of derricks and cranes, and would take a great deal of time. And finally, an earth dam could be built using unskilled laborers—the same kind who dug the actual canal. These men, who had toiled on many embankments, could simply use their wheelbarrows to transport dirt from one area to another, and dump it at the site of the dam. The canal commissioners gave their approval to the plan, primarily because they trusted engineer Morris.

It's often asked why concrete wasn't utilized for the reservoir's dam, since it would have been stronger than earth and more practical than stone. The reason is that in the 1840s concrete as we know it today hadn't been invented. Although the ancient Romans knew the



The bed of the former Lake Conemaugh, with South Fork Creek and a railroad running through it. At the far left, the roof of the former clubhouse of the South Fork Hunting and Fishing Club can be seen.

secret of concrete, it was lost following the fall of their empire. Modern concrete construction, using portland cement and steel reinforcing material, did not come into use in the United States until after the Civil War.

Building The Canal

Earth dams are capable of holding back water provided that certain design features are incorporated in them. The first is that there can be no seepage, which would eventually undermine the integrity of the entire structure. Secondly, earth dams must be built in such a way that no water is permitted to flow over their tops, as is common with concrete and stone dams. If this happens, erosion rapidly occurs and the earth becomes mud which can no longer hold back the water behind it. The structure then gives way and a torrent of water rushes out.

Engineer Morris incorporated two features in his dam at South Fork which were intended to prevent spillovers. At one end of the barrier he constructed a spillway or channel using stone blocks. If the level of the water in the reservoir began creeping too high, it would flow out via spillway before it reached the top of the dam. In addition, at the base of the earthen dam he built a stone structure or culvert containing five 2-foot-diameter sluice pipes. These outlets permitted water to travel from the bottom of the reservoir through the base of the

dam into South Fork Creek and thence via the Little Conemaugh River to the canal basin at Johnstown.

The five cast iron sluice pipes, were the means by which water could be sent to the canal in time of need. They could be opened or closed from a control tower adjacent to the dam. A system of levers and pulleys undoubtedly allowed the operator to open from one to five pipes. Unfortunately no record in the form of drawings or specifications has been preserved to let us know the precise details of these devices.

The dam at South Fork, forming what was officially known as the Western Reservoir, was actually composed of successive layers of soil which had a high clay content. These were laid horizontally one on top of the other. Each was about 5 feet deep. Prior to adding the second layer, the first was tightly packed down to insure that it would be as watertight as possible. Hugh horse-drawn rollers were employed for this purpose. The same procedure was followed for each successive layer. Furthermore, both of the sloping sides of the earthen barrier were covered with small stones or riprap, as a means of holding the earth in position.

Because of financial problems, work on the Western Reservoir was interrupted several times. Perhaps this was the result of the fact that the Mainline wasn't earning any profit whatsoever.

Due to the difficulties moving westbound freight during August and September, business was frequently diverted to the competing Erie Canal, which didn't suffer from lack of adequate water. Hence the giant earthen dam at South Fork remained unfinished during the 1840s, a time when vast amounts of freight needed to be moved. Many people referred to it as a fiasco.

About 1850 money was found to resume the task, and two years later it was finished. The completed dam was 20 feet wide at the top, which was sufficient for a roadway to be put down. At its base, it was 270 feet wide. The riprap facing on its sloping surfaces gave some people the impression that it was a stone structure. In March of 1852, following ceremonies hosted by the canal officials, the five sluice pipes were shut, and when the heavy spring flows began, the water started to accumulate. By June the reservoir was full, and the gates of the spillway situated at the side of the structure were opened enough to make certain that the level remained about 10 feet lower than its crest.

For the first time since it was opened in 1831, the Western Division now had sufficient water to conduct operations throughout the entire summer and into the fall. Beginning in late July, the sluice pipes were opened to send water into the Little Conemaugh River and on to the basin in the heart of Johnstown. Everybody was pleased with the way the

water problem of the Western Division Canal had finally been solved.

The Death Of The Canal

While creation of the Western Reservoir appeared to answer the prayers of the canal officials, they were now facing another, far more formidable problem. This was competition from the Pennsylvania Railroad which also in 1852 finished laying tracks from Philadelphia to Pittsburgh. Because it could offer faster transport of cargo than mule-powered barges, it captured most of the waterway's traffic. Soon the fascinating Portage RR system was abandoned, severing forever the link between the eastern and western segments of the Mainline Canal. In 1857 the State of Pennsylvania, tired of subsidizing a losing proposition, sold its entire canal network consisting of both Mainline and branches to the Pennsylvania RR.

It was expected that the rights of way would be utilized by the railroad to extend its trackage. Instead, the company elected to keep the canals going for several more years, since they could function as feeders to the trains at selected points. They invested heavily in machinery which could remove bulk cargo such as coal from canal boats and funnel it into rail cars. Abandonment of the Western Division from Johnstown to Pittsburgh finally occurred in 1865. The Johnstown basin was filled in and a steel mill was built on its site. Portions of the Eastern Division lasted until the early

years of the 20th century, carrying mainly coal.

Although the mighty Pennsylvania RR now owned the South Fork dam as well as the Western Reservoir, it had no use for either. It's limited use of the Western Division canal evidently did not require supplementary water. Hence, both dam and reservoir remained in place, but serving no function. No maintenance was done, and only a watchman was retained to monitor the water level to make certain it never flowed over the top of the earthen structure. If it started creeping dangerously close, he could either open the gates on the adjacent spillway, or open one or all of the internal sluice gates. This would prevent any spillover.

Nevertheless many people agitated to have the reservoir permanently drained and the earth dam dynamited. They recognized the potential danger of a complete collapse and resulting flood. It was clear that if this were to happen, water would tear through the valley of the Little Conemaugh, taking away hundreds of homes even before it burst into Johnstown.

In 1862 a break finally occurred. Since no water had flowed over the top, the cause was undoubtedly internal decay, perhaps caused by seepage of water. Fortunately, when this happened the level of water in the reservoir was at an all-time low. Furthermore, the break involved only a portion of the central section of the 920-foot barrier, and the water flowed out slowly. The level of the Little Conemaugh rose several feet, but nothing serious happened. Once all of the water had exited, all that remained behind the dam was an oversize pond in the center of what had been a 3-mile-long, 1-mile-wide lake. Everyone in the valley breathed a sign of relief, and most expected that the remains of the canal-era dam would be blown up with dynamite or simply allowed to erode away.

At this time scavengers looking for scrap metal to sell removed the five two-foot diameter sluice pipes from the base of the collapsed dam, and also the associated levers and winches used to control them. After all, the canal company was no more, and the Pennsylvania RR didn't seem to care what became of its property at South Fork.

New Life For An Old Lake

To the surprise of everyone, the Penn-



The two mounds which anchored its ends are all that remains of the South Fork Dam. A railroad train passes through the gap between them.

sylvania RR found a buyer for the ruined structure plus the bed of the empty reservoir. In 1879 an organization known as the South Fork Hunting and Fishing Club acquired the property. Their scheme was to reconstruct the dam, refill the lake, and create an exclusive resort for wealthy industrialists, mainly from Pittsburgh. Alongside the lake would be cottages and a club house. Boats would sail upon it, and along its perimeter game could be hunted.

At first the South Fork Hunting and Fishing Club intended to remove the remains of the canal-era barrier, and in its place erect an entirely new structure using stone. However, when the expense of this was revealed, plans changed. Instead they decided to repair the break in the center of the old dam and then refill the reservoir. The hole was filled with a mixture of local dirt, which lacked clay content, rocks, tree stumps, rubbish, and hay. No effort was made to pack these materials tightly. Instead they were just deposited until the 60-foot-wide hole had been patched. In short, the repairs were made on the cheap by men lacking any sort of engineering background.

The five iron sluice pipes which had been stolen were also not replaced. Instead the stone structure which had held them in position at the bottom of the dam was filled in with the same mixture used to patch the hole. Once this was done, no efficient means existed to drain water rapidly from the lake if its water level became perilously high. The only means for excess water to escape was by means of the spillway next to the dam. With the dam as reconstructed, the spillway was much closer to the level of the crest of the dam than in the original design.

In 1881 the slipshod repairs were finished, and water began to accumulate behind the rebuilt barrier. Within a few months the reservoir had been recreated. At this time its name was officially changed from the Western Reservoir to Lake Conemaugh, perhaps to sever any connection with its origin in canal times. It was stocked with over 1,000 black bass, and soon its summer cottages were filled with rich families from Pittsburgh. However because these fish kept exiting the lake through the spillway, the club placed an iron mesh screen across it. Eventually it became clogged with debris, and its ability to

send water out of the lake was further reduced.

Eventually the level of Lake Conemaugh was allowed to rise to within less than a foot of the earth dam's crest. Nobody in the club seemed to care. In fact, this permitted the reservoir to become even larger and to hold more water. Warnings that it was dangerously overfilled fell on deaf ears. After a time, the South Fork Hunting and Fishing Club erected a fence around its entire property and posted signs for local folks to stay out. From time to time there were rumors that the dam was very unsafe, and that it was sagging in its center where the patch had been installed.

The Rest Is History

Beginning about May 25, 1889, it started to rain and the water fell in torrents. There was no letup, and streets began flooding. At this point Lake Conemaugh was already filled almost to the top because of spring runoff caused by melting snow in the Alleghenys. Since the sluice pipes were gone, the only recourse was to open the gates of the spillway as wide as possible. Sadly, the debris-choked fish screens permitted very little water to exit, and by May 31 it started flowing over the top of the earth dam. Rapid erosion began, and the dirt started turning into mud. All at once the entire dam burst apart, sending a huge wave in the direction of Johnstown. As it sped west through the valley of the Little Conemaugh River, it obliterated every man-made structure in its path. Few people had enough time to climb up the sides of the valley to higher ground. Eventually it slammed into the heart of Johnstown where it engulfed countless homes, stores, and factories. Miles of railroad track were obliterated, and all of the bridges except one were washed away. About 2,200 people perished, many of whom were never identified. Bodies were still being found months after the deluge, trapped in the twisted rubble of houses. Lake Conemaugh, the former Western Reservoir of the Mainline Canal, was no more. All that remained were a few puddles of water and the two end portions of the collapsed dam.

During the following months various investigations were conducted as to why the South Fork dam had failed. The conclusion was that rather than having been built of masonry, it was nothing but a gigantic heap of earth dumped

across the course of a mountain stream between two hills. Even so, if the sluices and unobstructed spillway of the original dam had been retained during the 1870s reconstruction, there would have been no dangerous accumulation of water. Instead these features were eliminated in an effort to save money. The result of this negligence was what is now known as the Johnstown Flood of 1889.

The remains of the dam at South Fork and of Lake Conemaugh can be seen by visiting the Johnstown Flood National Historic site near Johnstown. Also in downtown Johnstown there is a museum devoted to the flood which explains how the dam had its origins in canal days. Little remains of the Western Division of the Mainline Canal in Johnstown proper, but west of the city there are still some traces. Efforts are now underway to make its 800-foot-long tunnel accessible to visitors.

BOATS FOR TODAY'S CANALS

by David G. Barber.

This is the first of two articles concerning boats on today's American towpath canals. In this article, I plan to discuss the larger picture. In the second, I plan to discuss a specific project I am working on.

In considering present day navigation of our traditional towpath canals, many desire to rewater a small section and provide a replica boat pulled by animals, partially recreating the canal era as a full-sized, museum exhibit. This tends to be a very large, but limited project. While I salute those who have done it, I think it is important to understand the limitations.

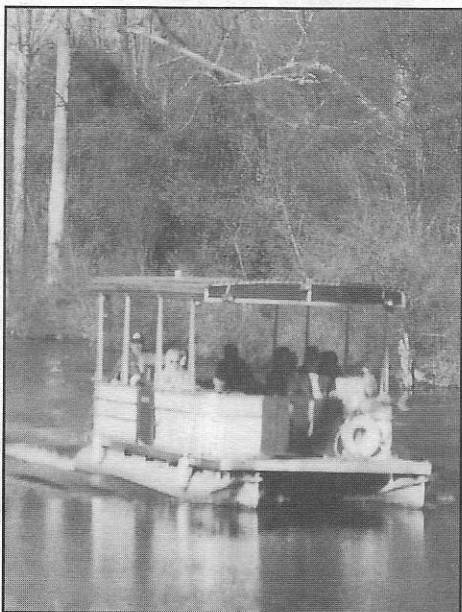
First, it's expensive. Visits to the various sites show that a typical replica costs about \$300,000. In addition, a cleared, dredged, and watered canal is required with a cleared, intact towpath, and a towpath bank free of all trees, shrubs, and stumps. The mules or horses used must be fed and housed the year round. Provision must be made for housing the boat in the winter. Operating the boat requires a several-person staff. Also, the magnitude of the effort almost dictates that the boat operate daily throughout the season to make the project pay.

Examining the boats themselves reveals that those projects which began with boats built with wooden hulls, like the original canal boats, have found that the life span of such boats is similar to that of the originals, about seven to ten years. I find this life versus cost balance to be unacceptable. Replacement boats now have carbon steel, stainless steel, ferro-cement, or fiberglass hulls.

The boats are also made wider or shorter than the boats they emulate and have elevators, wet bars, toilets, and other features to make them more useful in the marketplace of today. This is not meant to disparage these projects or the added features, but I think we need to keep this experience in mind when considering other projects.

Unless a group starts out with deep pockets and just wants to focus on a museum exhibit, the need is to think about our real goal of canal preservation and maybe restoration. In my opinion, the question should be How do we get from nothing but a moist, overgrown, historic ditch to something better? To do that, we either need a huge grant from someone or we have to take smaller steps.

Examining some other sites is interesting. At New Hope, Pennsylvania, there are mule-drawn barges that are heavily patronized, but the craft are only flat bottomed, rectangular boxes with canopies. These craft and their predecessors have been in business for decades. The folks at Camillus, NY, have come a long way by using outboard



Pontoon boat at Camillus



Plywood boat at Union Canal tunnel, Lebanon, Pennsylvania

powered, pontoon boats operated by volunteers on Sundays, and are now evolving into electrically powered, displacement-hulled craft. At the Locust Campground near Lewistown, Pennsylvania, an outboard-powered pontoon boat is also the craft of choice, operating on an occasional basis. Each of these sites has craft that are not replicas, but meet the local needs and get the public on the water. Once the public is aboard, we have a captive audience for our message for an hour or so.

Most recently, the Neversink Valley Area Museum at Cuddebackville, New York, has built a small boat of exterior plywood intended for use on the Delaware & Hudson Canal this year. While looking somewhat authentic, this boat is actually floated on plastic tanks. It also has wheels so it can be used as a parade float. In its first canal use (at Waterloo Village, New Jersey) it carried over 400 passengers in one day, twelve per trip.

In my local case, on the Blackstone Canal, we have two state parks that own watered pieces of the canal. However, we also have siltation that we cannot afford to dredge, gaps in the towpath that animals can't jump, trees growing along the towpath that it would be controversial and expensive to cut, and no large benefactor with a spare \$500,000.00.

Our associates in England have heard all that before and their experience is that you adapt to the conditions that ex-

ist and then work to change them. The most important need is to get the public afloat in anything that serves the purpose. Then we start gaining experience, credibility, and influence.

To further use our local examples, in the Rhode Island park there are two one-mile sections of deeply watered canal separated by a road bridge. There are plans to rebuild the bridge over the canal and the adjacent one over the river. When the suggestion was made that the new canal bridge should be a draw span, the response was silence. A moveable bridge was not seen as having any value even though it would be more fitting for a canal. However, if pontoon or other craft were operating on both canal segments and passengers had to get out of craft A and walk across the road to board craft B, and vice versa on the return trip, the response from the authorities might be different. That's where we need to get.

In the canal section I am dealing with, we have about 1-1/2 miles of watered canal, but deeply silted. The towpath exists, but has six gaps in it between the canal and the adjacent pond. The northernmost of these gaps is actually a historic canal feeder. There is no large fund of cash nor many volunteers. Of those who support a boat, there are those who favor an expensive replica, but have no idea how to raise the funds. At one end of the section, there is good access and parking. At the other end is a derelict lock that is restorable, but

beyond the ability of many people to walk to see. Beyond the lock is a dry basin and then a long stretch of mostly intact canal, part of which is flooded by the river. If both lock and canal were restored, there is plenty of water to fill and operate them. But, without a boat, the opportunity is beyond most people's imagination. Once we have a boat, I believe the credibility of the idea of funding further efforts will increase significantly. I also believe that a boat will serve as a catalyst to attract volunteers. Success breeds more success, but inertia leads to more inertia. Thus I am working on a boat.

That boat, the *Blackstone Restoration*, will be the subject of the second article.

My View:

2000 WORLD CANALS CONFERENCE

by Terry K. Woods

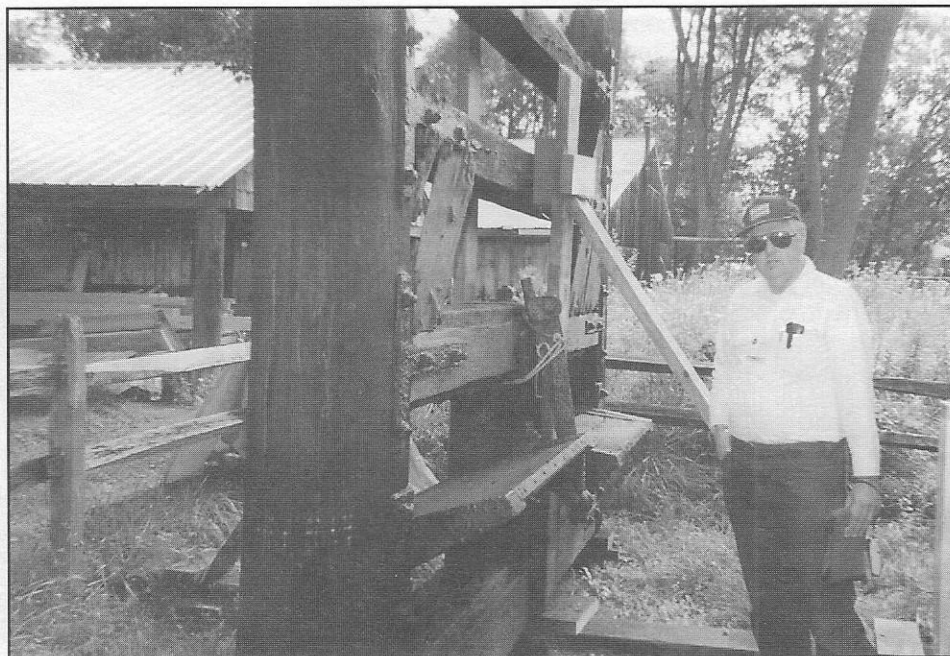
The World Canals Conference at Rochester, New York this past September, to me at least, was almost beyond belief in terms of planning, prestige, and just plain fun.

The American Canal Society was well served by Conference Cochairman and ACS Director Tom Grasso. We had a booth for our publicity, scheduled times for our meetings, and a wonderful presence at the conference.

The series of spectacular events began with a flotilla of boats in the afternoon of Sunday, September 10. I arrived too late for that event, but did show up in time for a spectacular reception and laser/fireworks show in the gorge of the Genesee River at Brown's Race.

The historical portion of the presentations began on Monday morning, with excellent talks on early canal engineering transfer from Europe to the United States by Roger Squires and Lance Metz. Both have agreed to offer their presentations to *American Canals* for future publication.

The only downside of the conference, aside from Rory Robinson and his "Dink" was the fact that one had to make a choices among the history, economic development, and tourism presentations offered each morning. Each afternoon offered a tour. Again there were choices that left one very pleased with what was seen, but disappointed at missing the other offerings. One big choice was the



ACS Vice President Dave Barber with the remains of a gate from Lock 52, Enlarged Erie Canal

Photo by Terry K. Woods

Erie east or Erie west tour on Wednesday. I chose the Erie east and had perhaps the best canal tour of my life. We rode on the Enlarged Erie, saw a bit of Clinton's Ditch, saw a lock on the Barge Canal run through it's paces, and viewed a dry dock facility on the Barge Canal, among other things. And we ATE! Many of us were afraid to get off the bus after a while for fear we would be fed again. Also, there must have been a bumper crop in New York's wine industry. I have a wine glass from that tour, presented during lunch by the citizens of Lyons, N.Y., with the engraving, "Uncork New York." The conference hosts did, indeed, do that.

Of course the evenings were no less spectacular, with banquets at the Rochester Convention Center, open house at the George Eastman Home, and a beautiful evening at Richards River House. Each place was beautiful, unique, and – guess what – we ate *well*.

The final evening saw a great banquet in the host hotel (Crowne Plaza) with a really spectacular fireworks show followed by an equally spectacular rainstorm.

Tom Grasso was in charge of logistics for the conference, and I suppose that included weather. He timed the closing rainstorm so half the crowd was back in the hotel after the fireworks before the storm hit. The rain on Tuesday at Fairport got everybody, but by that time

we all needed a bath anyway.

By almost any standard this was an informative, useful and fun conference. My personal thanks to Cochairs Tom Grasso and Kristin Hanifin as well as to Rick Rivers and Sheryl Marshall for a most wonderful time. Hope to see you all in Ireland in 2001!

Canals and Education

NURTURING CALALISTS FOR THE 21ST CENTURY

by Linda H. Barth and Albright G. "Zip" Zimmerman

At the World Canals Conference, the Thursday morning session in the series on History, Education and Interpretation concerned Canals and Education. Four speakers focused the group's attention on methods to involve the public, especially school children, in learning about the Erie Canal; their suggestions can be applied to almost any other waterway.

Peter Sleasman, of the New York State Canal Corporation, is involved in marketing the canal to educators. He told us about the *Urger*, a 100-year-old tugboat, state owned since 1922. Her mission today is "to educate children and adults about the pivotal role canals played in the State's economic and social development." In the spring and fall, the tug follows the canals as a classroom for children. In the summer it visits waterfront festivals along the state's

rivers and lakes. This program is limited because the canal is only open from May through October and schools are only open part of that time. Mr. Sleasman asked for suggestions about reaching more students. One participant offered the idea of acquiring a second tug and using one for the eastern section and one for the western section. Further, the corporation could use a bus to take the story to the towns along the abandoned laterals: Genesee Valley, Chemung, and Chenango, for example. The cost to operate the *Urger* is six figures, he said, but he did not indicate whether acquiring a second boat would be too costly. The corporation has free educational packets which can be obtained by contacting Mr. Sleasman at peter_sleasman@canals.state.ny.us.

Just as Julie Daniels, of the New York State Archives, began her presentation, she was "interrupted" by Capt. Kelsey, an old canaller who was searching for a new hoggee. This turned out to be a female canal boat captain, who, widowed and dressed in male clothing, assumed her late husband's role and described how she overcame the prejudices in a man's field and world. By the end of her performance, one of the delegates had signed on as muledriver. Capt. Kelsey regularly appears at the Chittenango (NY) Canal Boat Museum. Ms. Daniels then offered the archives' free booklet, *Consider the Source; Historical Records in the Classroom*, which encourages teachers to use historic documents when teaching about the canal; it is available by contacting the department at www.sara.nysed.gov. In addition, *Cobblestone*, a magazine for children, will feature the Erie Canal in its winter, 2000 issue.

Dan Wiles, captain of the *Emita II*, explained how his firm, Mid-Lakes Navigation, became involved in taking fourth-graders on lock rides. The canal and its locks can be tools for teaching about science, ecology, economics, history and geography. From the Erie Canal, he pointed out, one can reach any port in the world. The important thing is to get the students on the boat and on the water.

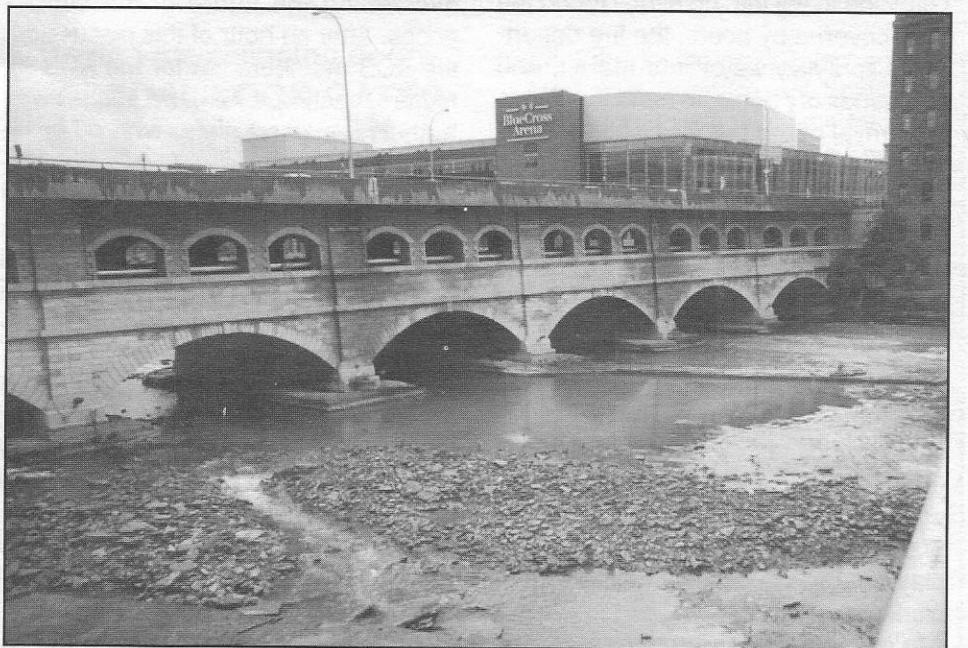
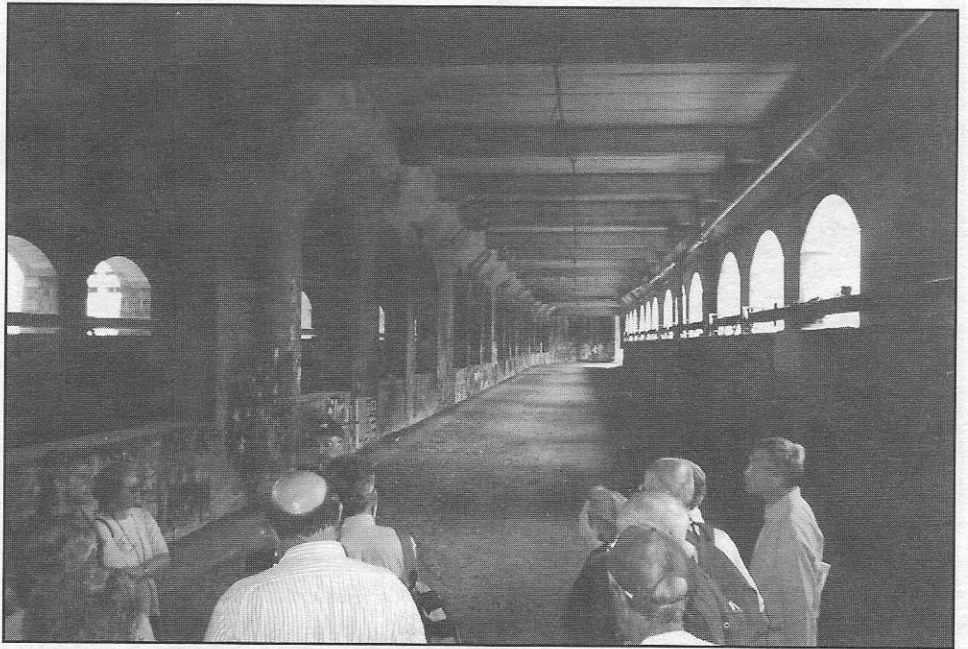
Finally, Vickie Schmidt, of the Rochester Museum and Science Center, detailed a field trip for students in Rochester. Working with Corn Hill Navigation and the New York State Lottery, the museum conducts an inquiry-based program aboard the *Sam Patch*. Here we were visited by another reenactor. With formal garb and high hat, he played the

role of Professor Amos Eaton, a major American geologist of the early 19th century. Eaton used the cuts produced by the then-building Erie canal as a teaching device, and also founded Rensselaer Polytechnic Institute, the first school (outside of the United States Military Academy at West Point) to train engineers.

We learned how, on the *Sam Patch*, a full sized reproduction of a canal boat, he [the Eaton reenactor] develops in school groups, many from the inner city, an interest and understanding of their heritage and the rich history of the canal. For further information, contact Vickie at the museum through its

website: www.rmssc.org.

The Thursday morning session reinforced what we had observed on field trips—how the pride of communities along the canal blossomed as they used their locations to spur redevelopment. We discovered the sense of pride and commitment in every community we visited and saw that it was reinforced by New York's Governor Pataki, who addressed the conference. New York should be commended for its efforts to improve instruction and to give coming generations a sense of their heritage. Tom Grasso and Kristin Hanifin, cochairs for the conference, always available, should also be commended for their efforts.



The aqueduct at Rochester, inside and out.
Now an automobile bridge, it has also carried a trolley line.

Photos by Linda Barth



Unveiling a plaque at Fairport
Honoring Peter Wiles, Sr. of Mid-Lakes Navigation,
Pioneer in Erie Canal tourism development.

Photo by Linda Barth

2000 WORLD CANALS CONFERENCE

by David Barber

After getting up early for the drive, I arrived at the 2000 World Canals Conference in Rochester, NY at about 2 pm. Not quite sure where the hotel was, and thinking it to be on the east bank of the Genesee River, I mistakenly crossed the river westbound on the interstate. Glancing to my left, up river, I found the river covered by boats, the fire department spraying water into the air, and thousands of people on hand to witness the arrival of the parade of boats starting the conference.

Rapidly, I exited the highway, circled around to the site, and parked the car. By that time, many of the boats had headed south again, but quite a few were tied up at the new walls along the west side of the river. Many folks were there to look at the boats and inquire about tours. The mayor and other politicians were also on hand and made their remarks. Many conference delegates had also arrived and were part of the scene. Along with the water display, the scene was punctuated by fireworks in the afternoon.

In addition to viewing the scene, the public was invited to tour the nearby aqueduct of the Enlarged Erie Canal. This is normally not open to the public,

although they can cross the Broad Street Bridge built on top of it. I soon determined that a few early meetings were planned for later that afternoon, so I obtained directions to the hotel and headed off for check-in and conference registration.

The first meeting was the Annual General Meeting of the Inland Waterways International, which included a lively discussion of a proposed mechanism for overseeing the future of the conferences. After an hour of this discussion, the ACS members left for the ACS directors meeting, where this subject was further discussed along with other issues.

After these two meetings, we were all ready for some fun and adjourned to the welcoming reception overlooking the High Falls of the Genesee. After the reception, most took advantage of the nearby pubs and restaurants for supper. We then returned to the pedestrian bridge over the river gorge for a spectacular laser light show on the falls and cliffs, that featured the Erie Canal and included more fireworks.

Monday began with welcoming talks and seminars as well as a host of exhibits. Lunch was somewhat formal and included a speech by Governor George Pataki of New York. In his remarks, Governor Pataki discussed the opening of the Erie Canal and the 175 years of his-

tory since, and promised various programs to preserve the resource and develop of its tourism potential.

After lunch, there were more seminars, followed by tours of local canal and other sites. The day concluded with a reception and dinner at the Rochester Convention Center.

Tuesday began with meetings, and then we boarded buses to the Spring House in Pittsford for lunch. This is a historic canal inn located next to the enlarged canal. Following lunch, several options were offered. I chose the walk to the nearby enlarged Lock 62, which has been cleared and documented by local scouts and others. We then boarded buses for downtown Pittsford, where we had time to explore the village and shops. Unfortunately, rain moved in at that point, and all found shelter where they could. In the midst of the storm, the buses found us again, and most elected an early return to the hotel.

For supper, we were bused to the George Eastman museum of photography, where supper was served buffet style. Not only did we have supper, but we got to tour the museum and Mr Eastman's 37-room mansion. Those who wanted to also got their pictures taken in Mr. Eastman's study.

Wednesday, the options were two all-day tours or workshops at the hotel. The west tour went to Lockport and other canal sites west of Rochester. I elected the east tour, which went to Camillus. Right off, we lost 40 minutes on the schedule in traffic getting out of Rochester.

Once clear of that, we arrived at Camillus to discover that the highway department was putting a new culvert under the road that led to the park, mostly blocking the road. But, we got through anyway. At Camillus, we toured Sims Store & Museum, saw Nine Mile Creek Aqueduct and got a boat ride on the rewatered, Enlarged Erie Canal. We were also fed a brunch.

We then traveled westward, viewing other canal sites, to Lyons, where we had a very nice lunch with organically-grown salad and vegetables and buffalo burgers. During lunch, we were entertained by a local award-winning high school a capella choir. We also learned about the buildings on the site, which are being converted from manufactur-

ing to a cultural center. The larger of the buildings sits in the filled-in prism of the Enlarged Erie Canal with the towpath along the south side. The current canal is in the river, immediately south of the old towpath.

We then continued west to visit barge canal Lock 28B and enlarged Erie Lock 59 at Newark, the canal drydock and barge canal Lock 28A at Lyons, and a new Mid-Lakes Navigation Company marina and rental boats base at Palmyra.

Continuing west, we reach Fairport at about 5 pm, where we were joined by the other tour and by those who has spent the day in Rochester. A short ceremony was held to unveil a plaque honoring the late Peter Wiles, Sr. Fairport is one of the first communities to redevelop its waterfront for the tourist trade, and Peter Wiles, Sr. played an important role.

We then boarded three tour boats for a cruise west along the canal and over the great embankment. We left Fairport with much fanfare and happy hour was held en route. After crossing the embankment, we turned around and docked at the eastern end of the embankment, where supper was served at the historic Richardson's Canal House. After supper, those who wanted to reboarded two of the boats for a nighttime cruise west to and through Lock 32. There we disembarked for a bus ride back to the hotel. Ducking low bridges while riding on the upper deck on a starlit night was a real treat.

Thursday morning was occupied by longer seminars followed by a light afternoon of optional tours. A general ACS meeting was also scheduled. However, some of us spent an extended luncheon meeting discussing the question we began the conference with on Sunday, namely, what structure, if any, is needed to handle the future of the conferences and to give prospective hosts someone with whom to communicate. Many conflicting opinions were expressed. Those attending all wanted to ensure the future of the conferences, but no extensive agreement was reached. The main agreement was that all involved organizations should add conference references to their web sites with links to the conference web sites.

A final banquet was held Thursday night and optional tours on Friday. How-

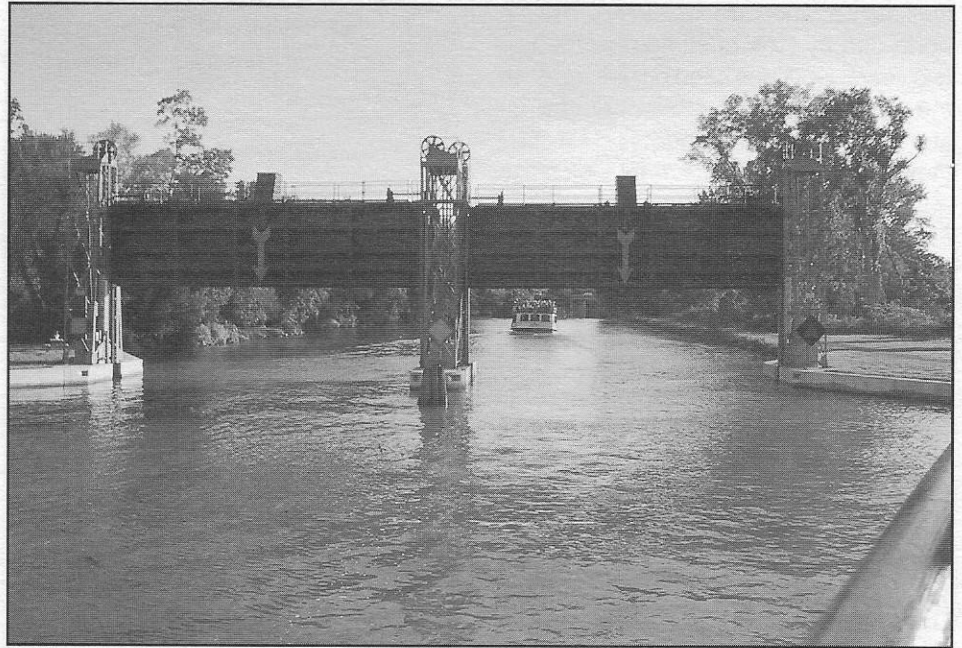
ever, I had to leave in mid-afternoon in Thursday so as to be at work on Friday.

All in all, the conference was very well organized and well worth attending as well as being great fun. The organizers, the Canal Society of New York and New York State Canal Corporation and the co-chairs Kristin Hanifin and Tom Grasso are to be congratulated. Over 400 delegates attended, and the conference made a significant impact on the visibility of canals in the area.

STOP PRESS

A.C.S.—2001

It has just been learned that the A.C.S. directors and membership meetings in 2001 will piggyback with the Pennsylvania Canal Society's fall field trip to the C. & O. Canal in October. Details T.B.A.



A guard gate on the barge canal and another conference boat ahead.

Photo by Karen Gray

Behind the swinging doors VIRTUAL LOCK GATES BY MICROSOFT

For the latest in lock technology, canalists are advised to consult the 1999 edition of Microsoft's *Encarta Encyclopedia*, under "Canals." We have been unable to obtain permission to reprint the illustration for the enlightenment of our readers, but for those of you who don't have access on your own computers, your local public library may be able to help.

The Gates gates display two radical innovations. One is that they resemble the swinging doors characteristic of old-fashioned saloons, rather than the miter gates traditional on locks. In the traditional conformation, the pressure of the higher water level holds the gates closed

until the levels have been equalized. It is unclear what holds the gates together against the force of several tons of water in the Encarta version—just another Microsoft trade secret, perhaps.

The other novelty is that the Gates gates open out from the lock chamber in both directions, rather than those at both ends of the chamber opening toward the upstream direction, as in the usual Corps of Engineers version. This improvement maximizes the capacity of the lock, since the vessels inside can occupy the entire space. Like the other innovation it depends upon Microsoft's ability to ignore hydraulic force.

We are grateful to alert reader Bill Trout for bringing this to our attention.

GOOD NEWS

Archaeologist Wayne Bischoff and a crew have worked during the summers since 1995 to explore the hidden treasures of the **Wabash and Erie Canal** in Delphi, Indiana. The public was welcome to visit with the team as they worked on sites in Canal Park and along the VanScoy Trail. Support comes from the Indiana Department of Natural Resources.

For many years the Union Canal Tunnel near Lebanon, Pa. was blocked at the north end by tons of stone. For the last two years, work has been done to remove the stone, clean out the tunnel and restore the face of the north portal. The Grand Opening for the tunnel took place in September, with members of the **Friends of the Union Canal** taking the first boat ride through the tunnel and into the canal beyond.

The Pennsylvania Department of Transportation is slated to approve \$420,000 for dredging the **Lehigh Canal** near Hugh Moore Park in Easton, Pa. Funds will also be used for canal lock masonry repair and repair of the Abbott Street lock. Those familiar with Jim Lee's post card collection of Pennsylvania and New Jersey canals will be pleased to learn that the **National Canal Museum**, also in Easton, has purchased 500 postcards.

Along the Towpath, the newsletter of the **C&O Canal Association**, has been running a special four-part series on the completion of the canal in conjunction with the 150th anniversary of the canal's completion. The U.S. Postal Service issued a series of pictorial cancellations to mark the anniversary.

Linda House Barth of the Canal Society of New Jersey was on "History IQ," a new show on the History Channel, which aired on October 12.

The development of the Ohio & Erie Canal Towpath Trail took a giant leap forward on June 12, 2000, with the awarding of a \$500,000 grant to the **Ohio and Erie Canal Corridor Coalition** from the John S. and James L. Knight Foundation. The award will be used to design, engineer and construct the 2.5-mile Cascade Locks Bikeway, linking Cascade Locks to downtown Akron.

Walker Cronkite Productions is planning four TV specials next year on American canals. The first will be the **Middlesex Canal** and the second will be the **Erie**.

— **Kate Mulligan**

WWC-2000

TUESDAY MORNING SPEAKERS

by **David M. Johnson**

The speakers at the Tuesday morning history and interpretation sessions covered the evolution of canals in New York State and techniques for "telling the story" in museums and visitors centers.

Phil Lord and Craig Williams, historians for the New York State Museum, discussed early water transportation routes along the Hudson and Mohawk Rivers and the Onieda corridor. Direct water passage between Albany and Schenectady was impossible due to Cohoes Falls. Therefore, a wagon road was needed to bypass the falls. Above the falls, canoes and batteaux could be used. The two-mile portage at Ft. Stanwix—the ancient Indians' carrying place—led to Wood Creek and Lake Onieda, where the Oswego River connected to Lake Ontario. The Western Inland Lock and Navigation Company began the transition from natural to artificial waterways. Durham boats, twice as big and carrying six times the cargo, replaced the batteaux. The Little Falls Canal, built in the mid-1790s, was the first true canal in New York. The works played a significant rôle in the War of 1812, and operated until the Erie Canal was built.

Mr. Lord presented a detailed discussion of archeological discoveries on the short canal sections and locks along Wood Creek west of Rome. Mr. Williams then discussed the continuum of canal history—from Durham boats to Clinton's Ditch to the Enlarged Erie Canal to the Barge Canal, and the improvements in engineering skills and technology that evolved: concrete in place of stone, steam (and, later, internal combustion) in place of mules, electrically powered locks, dams and water control, and canalized rivers.

The speakers during the second session were Vickie Doyle, executive director of the Delaware and Hudson Canal Museum at High Falls, N.Y., and Sue Pridemore, National Park Service interpretive planner for the Delaware and Lehigh National Heritage Corridor. Their themes were how to tell the story, how to get visitors to relate to the subject of life on the canals through anecdotal history, models, dioramas, pictures, etc. Ms. Doyle spoke with great enthusiasm about her ten years as executive director of a small museum. She stressed that small museums must not try to do more than they are capable of. Ms. Pridemore talked about finding ways to reach potential canal lovers and integrating the development of outdoor exhibits and waysides, driving tours, and a visitor experience plan.

AMERICAN CANAL SOCIETY MEMBERSHIP MEETING September 14, 2000

"Zip" Zimmerman chaired the meeting in the absence of President Terry Woods, who was attending a meeting to discuss the future of world canals conferences.

The following issues were raised:

Mailing list. In the past, a mailing list of members has not been made available to ACS members because of the possibility of misuse. In some instances, ACS has agreed to mail materials provided to the organization, using the list. Members suggested that the policy be considered again.

Website. Members emphasized the importance of a viable website. The website is viewed as a good source of membership recruitment and a way of publicizing a general calendar of events that would eliminate schedule conflicts. Members suggested that the ACS website offer a good system of links to other canal websites.

Membership. Charlie Derr asked for opinions on revising the membership brochure. Members thought that a category should be added requesting the member's email address. Mr. Derr announced that 8 members had joined at the conference. Members suggested that future general ACS membership meetings could be scheduled in conjunction with trips or events planned by local canal societies.

Newsletter. Kate Mulligan invited members to submit short items detailing the accomplishments of specific canal societies for the column "Good News."

Future conferences. Mr. Zimmerman described the issues concerning planning for future world canals conferences. Several members expressed support for the convening of U.S. conferences during the years when the world canals conference occurs in Europe. Such conferences should coincide with ACS general membership meetings to encourage interest in the latter.

— **Kate Mulligan**