PRESIDENT'S LETTER

Greetings! There were a couple of minor crises in the Woods family this spring, nothing too serious, but my wife and I were unable to attend the 2001 World Canals Conference in Ireland. I understand the conference was a worthwhile one and those of us who were unable to attend can read about what we missed in this issue of American Canals.

An official steering committee has been formed to receive and work with bids for future World Canals Conferences. The main committee is rather large, consisting of any chair of a previous conference who wishes to belong, plus representatives from the CCS, IWI, ACS and a European canal organization. Rory Robinson, chair of the 1991 Akron, Ohio conference is chairman, and ACS Vice President Dave Barber is the ACS representative. Check the ACS website at www.americancanalssociety.org for information regarding this committee and future conferences.

I'd again like to remind all ACS members that our website is a source of information to ACS members and nonmembers alike. Mark Newell is doing a fine job, but he can't list society and canal-related information that he doesn't know about. Please contact Mark with anything you'd like to see on our site, and offer your help to him if you've a bit of time. I'd personally appreciate it.

I'd also like to remind all our members for the last time about the tour and annual meeting the American Canal Society is holding with the Pennsylvania Canal Society on October 26-28, 2001. Tour Headquarters will be at the Plaza Hotel, 1718 Underpass Way, Hagerstown, MD 21740 (Exit #5 on I-81, one mile north of the junction with I-70). Single rooms are available for the tour at $62.00 plus tax and double rooms at $70.00 plus tax. Reservations must be made directly with the hotel by October 5.

The ACS annual director's meeting will be held at the Plaza Hotel at 3:00 p.m. on Friday, October 26. All ACS members are welcome to attend this meeting. We will then have a general ACS membership meeting in the same room of the Plaza Hotel from 4:30 to 5:30 p.m. The tour orientation program will be held in the Plaza Hotel that evening, in a different room than the ACS meetings, beginning at 7:30 p.m. Due to the large number of ACS members, we ask those who are interested in the tour to contact Dave Johnson, 9211 Wadsworth Drive, Bethesda MD 20817, at their earliest convenience and ask to be placed on the tour mailing list.

I hope that the ACS membership can make a good showing at this tour. We hope to work toward making the meetings during the years in which the World Canals Conference is on the other side of the Atlantic into a big thing on this side. This tour should make it easy for us to make a good start.

We have received articles on the early years of the ACS from Founding Fathers Tom Hahn and Bill Trout. Bill Shank has also sent us a few paragraphs and we hope he might expand a bit on them. We will either have them published separately in future issues of American Canals or they will be combined into one early history of the ACS. We can still use more info on the society and the lives of our three Founding Fathers.

Speaking of the ACS, the year 2002 will mark our 30th year. The Publicity Committee has arranged to have a "Support Your Local Canal" bumper sticker printed in partial celebration. They will be available at our annual meeting in Maryland. If you want to publicize your society, pick a couple up.

Speaking of anniversaries, The Canal Society of Ohio was 40 years old in 2001. I believe the Pennsylvania Canal Society will be 40 years old in 2004. I'd like to hear from representatives of some of our other state and local canal societies and try to determine which are the oldest societies and just who will be celebrating which birthday, when.

The year 2004 will mark the fiftieth anniversary of former Justice Douglas' walk along the C & O Canal that resulted in much of that canal being turned into a National Park rather than a highway. A group has been formed to propose that a commemorative stamp be issued to honor that event. There is additional information about how you can support this effort elsewhere in this issue of American Canals.

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 woodscanaline@aol.com. Till next time, HEADWAY TO YA!
DOUGLAS HIKE COMMEMORATIVE STAMP

ACS members are urged to support the movement promoting a postmark honoring the 50th anniversary of Supreme Court Justice William O. Douglas's hike to save the C&O Canal. The following letter is offered as an example.

Citizens Stamp Advisory Committee, c/o Earline Fleming
U.S. Postal Services, Room 4474E
475 L'Enfant Plaza
Washington, D.C. 20260-2437

June 18, 2001

Dear Earline Fleming,

I am writing as president of the American Canal Society, a national organization of over 700 members dedicated to the preservation of our nation's remaining canal lands and structures, historical research on our nation's canal-era history, and intelligent conversion of portions of our nation's canal lands into public park lands.

I believe that the C&O National Park is a good example of how our country's canal lands can be, and should be, converted into public parks. With the current proliferation of Canal Heritage Corridors, too many miles of our country's canal lands are being converted into “something”, with no historical recognition of what they once were and of the toll and travails that many Americans once undertook to construct and operate them.

I feel that former Justice Douglas's efforts in 1954 should be a paradigm of what individuals can do to provide public parks while retaining the historical significance of the efforts of people who have been this way before us.

I wholeheartedly endorse the current movement to honor former Justice Douglas' 1954 efforts with a commemorative stamp to be issued in 2004.

Sincerely,

Terry K. Woods
The 14th World Canals Conference convened in May in Dublin, Ireland. More than 250 delegates from eleven European and North American countries met in historic Dublin Castle to consider the theme of “Living Heritage.” As has become traditional at these annual events, the conference program included speakers, panel discussions, workshops, field trips, and banquets. Delegates attending the conference this year came from Belgium, Canada, England, France, Germany, Ireland, the Netherlands, Northern Ireland, Scotland, Wales, and the United States.

Dublin Castle, the principal venue for the conference, stands on the site of a 10th century Viking settlement, and occupies a corner of the 13th century Norman walled town, overlooking the long-vanished black pool (“Dubh linn”) that gave the city its ancient Irish name. The castle was the center of English rule in Ireland for more than 700 years. Much of the present structure was rebuilt in the 18th century, following a fire in 1684. It was the official residence of the British viceroy until handed over to the newly independent Irish government in 1922. The state apartments are still used for major occasions, such as presidential inaugurations, and many of the buildings remain occupied by government offices. The modern conference center, where our meetings were held, is a first-class facility inserted into an historic structure.

The conference formally opened on Wednesday morning, 16 May, with a welcoming address by Síle de Valera, Minister for Arts, Heritage, Gaeltacht and the Islands. This was followed by Colin Becker, president of the Inland Waterways Association of Ireland (IWAI), who defined the theme of “Living Heritage.” He noted that the purpose of this conference was to explore the tensions that exist in the ways that we use the natural and constructed heritage of our waterways. These include the conflicts between development and preservation, and the compromises that have to be made; the impact of heritage considerations on how different groups of people use the waterways; and the question of sustainability. He defined “sustainable development” as development to meet our present needs without compromising the ability of future generations to meet their own.

Wednesday’s panel speakers addressed topics related to restoration and user experience as they relate to the conference theme. They contrasted various canal restoration schemes, including the Royal Canal and Shannon-Érne Waterway in Ireland, several projects on the continent, and the Huddersfield Narrow and Rochdale Canals in England. Tom Grasso, ACS director and president of the Canal Society of New York State, and cochair of last year’s conference in Rochester, spoke about the 19th century Erie Canal and the 20th century New York Barge Canal, and the differences in the ways they are managed for restoration and interpretation, focusing on revitalized major urban canal harbors for tourism and trail development.

Later speakers concentrated on user experience, including nonboating activities (fishing, walking, nature study), and the needs of user groups; boat hire as part of a broader tourism market, in which heritage values do not always constitute the first priority; and private boating. Rory Robinson, from the U.S. National Park Service (and chair of the 1991 conference in Akron, Ohio) spoke on the American and Canadian park approach to historic preservation, which is based on providing access to resources for recreation. He speculated on whether visitors who come to hike or ride bicycles can be influenced by interpretive exhibits and visitor centers, and concluded that access plus education does result in public advocacy for the preservation of significant historic resources.
The first day's activities ended with a reception at City Hall, hosted by the Lord Mayor of Dublin. This was followed by a fine banquet in St. Patrick's Hall, in the State Apartments, hosted by Minister deValera. The dinner and entertainment ended sometime after 11 p.m., which allowed little time for sleep, because early wake-up calls were already set for Thursday morning.

Our special train left Connelly Station at 7 a.m. on Thursday for the trip to Northern Ireland, one of the highlights of the conference. A traditional Irish breakfast was served en route as the train sped along the coast of the Irish Sea, and then, as we passed into Northern Ireland, followed the abandoned Newry Canal. (The only indication that we had crossed the border was the occasional Union Jack flying from houses along the railway.) The Newry Canal, connecting the port town of Newry to Portadown, was the first British-built summit-level canal. It had been proposed in the mid-17th century by an officer in Cromwell's army, but was not built until the 1730s, and opened for commerce in 1742. It operated for two centuries, finally closing in 1947. Today, the old towpath has been developed as a hiking trail.

Arriving in Belfast, we walked the short distance to Waterfront Hall, the city's modern conference and exhibition center. Following a welcoming address by Michael McGimpsey, Minister of Culture, Arts, and Leisure, presentations were made on heritage canal development in urban settings, using examples in the Netherlands, Germany, Britain, and the United States. The American speaker was Duncan Hay of the National Park Service, who stressed that as urban canals are turned into parklands, we need to keep interpretation and redevelopment honest, or risk losing living links to the working history of the towns they run through. After luncheon, presentations on Belfast's Laganside waterfront and Lisburn's Lagan Corridor prepared us for the afternoon activities.

Following short walking tours of Laganside, we traveled by bus to the Borough of Lisburn to visit the newly restored Lock #12 of the Lagan Navigation and bypass canal around a weir on the river, and the brand-new Civic and Arts Centre beside it. A number of local people had brought their boats to the opening of the canal and gave delegates water tours of the lock, canal, and the river above and below. Dinner and entertainment followed in the arts center, after which we caught our train for the return trip to Dublin.

Although Friday's session started promptly at 9 a.m., many delegates were seen slipping in tardily following two late nights. The morning speakers' topics related to preserving canal heritage with modern technology to ensure sustainability, drawing on experience in Ireland and Great Britain, and on Canada's Rideau Canal. They described methods of restoring and strengthening locks, bridges, and aqueducts; channel lining and bank preservation, including reconstruction of bog and peat embankments; and the recovery and relearning of traditional craft skills in the process of conservation.

That session was followed by talks on the restoration and conservation of former commercial canalboats for both work and leisure. They stressed the reasons for encouraging the preservation of these craft and the retention of their original form while providing comfortable recreational vessels. Dennis Montgomery, of Cayuga Wooden Boatworks in Ithaca, N. Y., described the evolution of American canalboats, building techniques, and today's boats, including conversions, restorations, reproductions, and contemporary boats. In the afternoon, delegates divided into several concurrent workshops to discuss and summarize the major topics that had been presented during the conference.

Closing festivities were held on Friday evening along the Grand Canal by Mespli Road. Conference delegates were guests of the IWAI on board the boats moored in the canal for the annual Dublin Boat Rally. These included a half-dozen narrowboats chartered by thirty members of the Canal Society of New Jersey. Led by ACS directors Bill McKelvey and Bob Barth, they were preparing to tour the navigable portion of the Royal Canal during the week following the conference.
After the reception on the rally boats, the delegates strolled to a large marquee erected in the park across the canal for dinner, musical entertainment, and the presentation of the Dink Award.

The Grand Canal and Royal Canal both link Dublin with the River Shannon in the Irish Midlands. Many delegates participated in field trips before and after the regular conference sessions. On Tuesday, they visited sites in Dublin on both canals, ending at the Waterways Visitor Centre, which stands on plinings in the Grand Canal Dock, near where the canal joins the River Liffey.

The all-day tour on Saturday went to Athlone, with stops along the Grand Canal at Robertstown and Blundell Aqueduct. Lunch was at Banagher, on the Shannon. The buses then turned north to Athlone, where we boarded a boat for a cruise up the Shannon to Hodson Bay on Lough Ree. The return to Dublin paralleled the route of the Royal Canal.

The week ended with a spectacular fireworks display over the River Liffey on Saturday night and a huge parade on Sunday which wound through Dublin’s streets, wide and narrow. (It was learned that these events were not specifically planned to top the fireworks over the River Genesee last year at Rochester, but were connected with a certain “St. P,” whose traditional festival in March had been postponed this year because of the foot-and-mouth disease scare.)

The Irish conference organizing committee did a spectacular job of planning the conference. The committee was chaired by John Martin, director of Waterways Ireland. Other members of the committee included Des Leyden, president of Inland Waterways International; Colin Becker, IWA; Ruth Delany, of the Heritage Council; and personnel from Waterways Ireland, the Department of Arts, Heritage, Gaeltacht and the Islands (Republic of Ireland), and the Department of Culture, Arts and Leisure (Northern Ireland.) (Waterways Ireland is a cross-border agency with responsibility for management, development, restoration and maintenance of the major navigable waterways in both countries.) They prepared a stimulating program of speakers and workshops, and managed complex logistic, transportation and catering arrangements that appeared to work flawlessly. John Martin and his colleagues deserve to be warmly congratulated for this memorable week.

Ten members of the board of directors of the American Canal Society attended the conference. They were Bob Barth, Nancy Dunnivant, Tom Grasso, David Johnson, Keith Koon, Bill McKelvey, Kate Mulligan, Roger Squires, Roberta Syran, and Bill Trout.

The World Canals Conference Permanent Steering Committee met on the eve of the conference to continue the discussion that was left unresolved last year at Rochester. That meeting ended without settling the question of the future organization of the steering committee and the establishment of a permanent clearinghouse or point-of-contact for the conferences. In Dublin, it was agreed to build on the steering committee membership established in 1977 (i.e., the chairpersons of past conferences) by adding the presidents (or their representatives) of the American Canal Society, Canadian Canal Society, and Inland Waterways International. It was further agreed to create a small working subcommittee to review proposals for future conferences and report its recommendations to the full steering committee at its annual meetings. The full steering committee will approve sites and themes for future conferences, based on proposals received from suitable and qualified potential organizers. It was also agreed that the National Canal Museum in Easton, PA, will serve as the point of contact for information and submission of proposals to host future conferences, and to establish a World Canals Conference web site.

The next World Canals Conference will be held in Montreal in September 2002. The conference will be part of the events celebrating the reopening of the Lachine Canal, thirty years after its closure. In September, 2003, the conference will be in Edinburgh, Scotland. The Scottish conference will give attendees the opportunity to see the Millennium Link and Falkirk Wheel, which will reconnect the Forth & Clyde and the Union canals. This is the largest canal restoration project ever undertaken in the United Kingdom. In June 2004, the Canadian Canal Society will host the World Canals Conference in St. Catharines, Ontario, to celebrate the 175th anniversary of the Welland Canals.

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**FLORIDA CANALS AND LOCKS**

*by Linda J. Barth*

Did you know that Florida has over a thousand miles of canals and many locks? And we don’t mean only the Okeechobee Waterway! On previous visits to the Sunshine State, we had checked out the canals and locks along the Okeechobee Waterway, from Port St. Lucie to Fort Myers. Our guide for part of this exploration was ACS member Addison Austin. This time, however, we dug deeper into Florida’s canal history.

In the more recent past, there were plans to create a Cross-Florida Barge Canal, crossing the northern part of the state from the St. Johns River near Jacksonville to the Gulf of Mexico, near Inglis. Remains of that decommissioned project can be seen at several places across the state. Just east of Inglis, off County Route 40, a working lock allows boats from the Gulf to access Lake Rousseau. This would have been the first eastbound lock, had the barge canal been completed.

Further inland, near Palatka, the Oklawaha River was dammed to form Lake Rodman, which was to serve as a reservoir for the waterway. Environmentals have succeeded in convincing the government to return most of this waterway to its free-flowing, natural state. The M.H.C. Cross Florida Greenway now follows the canal route and focuses attention on reclaiming the land for recreation.

*The Golf Canal*  
*Photo by Robert H. Barth*
Frank Fusieik and Mary Brandenburg, of West Palm Beach, inspecting the city’s water supply.

Photo by Linda Barth

At the World Canals Conference in Rochester, we met Mary Brandenburg, a city commissioner and canal enthusiast from West Palm Beach. Mary had invited us to see her canals on our next visit, and we happily accepted her offer.

At the turn of the century, she explained, the Palm Beach Canal, about 50 miles long, was dug to transport produce from the rich farmland west of the city. A branch, the Stub Canal, brought the farm products to the turning basin, where wagons, and later railroads, continued the journey to market. Today, the old turning basin in Howard Park marks the canal terminus.

The Palm Beach Canal was open for about 20 years, until it was inundated by the floods of 1926. Later, the waterway was re-born as a part of the South Florida drainage system.

The highlight of our tour was a visit to the Grassy Waters Preserve, the city’s water supply. (The preserve is part of the Loxahatchee Slough.) Frank Fusieik, our expert guide from the Water Resources Division, provided an airboat inspection of the preserve. While showing us the vaned terrain, which included hardwood uplands, hammocks, and swamp, Frank pointed out examples of the flora and fauna. The division is trying eradicate the water hyacinths (using imported beetles) and the malaleuca trees (sometimes called “punk trees”), while protecting the native plants. The snail kite, a bird which is endangered in Florida, is thriving in this habitat. In addition to fish and alligators, the preserve is home to many mammals — deer, wild boars, raccoons, and rabbits among them.

THE ROSCOE HYDRAULIC PLANT

by Terry K. Woods

The eastern-most six miles of the Walthoning Canal survived the rest of the Ohio & Erie system by more than 40 years, thanks entirely to the Roscoe Hydraulic Plant. After 1896, when the upper, or western, portion of the Walthoning Canal was abandoned by the state, the stretch from the Six-Mile Dam across the Walthoning River to the Roscoe basin acted only as a water feeder to the main canal and as a hydraulic power source to a few industries at the head of the basin.

As early as 1902 or 1903, William Himebaugh of Coshocton entered into an agreement with the State of Ohio. For $50.00 per year, Himebaugh purchased an unspecified amount of power from the Walthoning Canal. Or perhaps he only purchased the rights of future power options—for in 1906, the agreement was altered to yearly rentals of $2,500 for 25 years and $3,000 for an additional 25 years. The state’s portion of the agreement (rebuilding the Six-Mile Dam and dredging the canal below it) was completed in 1909 and Himebaugh made his first semiannual payment of $1,250 on May 30, 1910.

The Ohio Light and Heating Company, incorporated under the laws of Virginia in 1888, purchased Himebaugh’s water rights that same year (1910). By 1912 a new, modern electrical generating plant, powered by the flowing waters of the shortened Walthoning Canal, was built a quarter mile above the old Empire Mill at the head of Roscoe Basin. The “Hydro,” as it became popularly known in the area, supplied the electrical needs of all citizens round about for many years. The company eventually changed its name to the Ohio Service Company. It was bought out by the Ohio Power Company in 1923.

The Hydro could generate 22,000 kw of electricity which, just prior to the Second World War, was sufficient to carry the entire city of Coshocton on the midnight shift. In later years, the Hydro acted only as a voltage regulator, and didn’t generate electricity on its own.

The plant normally ran two shifts, eight to four and four to twelve. A normal shift employed four men plus a standby, though as many as 12 men were required one winter to chop and remove ice from the water intake. Wa-
ter entered a pit that drove an undershot turbine wheel. The shaft of the turbine wheel alone weighed ten tons. This shaft turned in wooden bearings immersed in oil. The oil was water-cooled, filtered, then used again. These bearings had to be replaced only once in the last ten years of the plant’s life.

Though the State of Ohio, through the Department of Public Works, maintained the feeder dam and channel, the responsibility for ensuring a day-to-day supply of water fell upon the Hydro crew. They patrolled the banks of the feeder, cut the grass in the channel, and cleared brush away from the three iron head gates at the feeder dam. A manually-operated winch was attached to a near-by elm tree a short distance above the head gates. When brush piled up against the gates and threatened to diminish the water supply in the feeder, several members of the Hydro crew would go out onto the concrete head-gate support and drop grappling hooks down into the mass of brush. When the hook caught on something, the brush would be winched back, away from the head-gates. Then, with the use of pike poles, the men would push the brush back into the river to go over the dam, away from the feeder.

It was also the Hydro crew’s responsibility to ensure that the head-gates were closed during times of high water in the river. Once, in 1947, this wasn’t done, and water in the feeder overflowed, tearing out great sections of the bank. The feeder was repaired after that incident, but the Hydro was no longer of great importance to the electrical needs of the area. When the Hydro was shut down after its normal four to midnight shift on January 10, 1952, an era ended in the Coshocton area. The Hydro never operated again.

The Hydro plant, itself, was razed by the state in 1961 to make way for the rerouting of Highway 36 to Warsaw. The Ohio Power Company donated approximately 14 acres immediately north and west of the Roscoe basin to the City of Coshocton in the 1960s for the Lake Park expansion.

A pile of broken concrete lying between Highway 36 and the Walhonding River, plus a small section of the concrete tailrace jutting out of the highway fill, were the only visible remains by the year 2000 of the Roscoe Hydraulic Plant, one of the last working industries on Ohio’s canal system.

Water from the Six-Mile dam was returned to the Walhonding River at Hosfelt’s Wasteway, some four miles above Roscoe, after the Roscoe Hydraulic Plant was abandoned. That two-mile section of the Walhonding canal between the feeder dam and the wastewater was administered by the Ohio Board of Public Works through the 1960s. Ohio’s Division of Wildlife, Department of Natural Resources, leased the remaining watered portion of the Walhonding Canal in 1970 as a fishing resource. That lease was canceled in 1975. Then, in May or early June of 1978, very quietly and very unofficially, the banks of the canal were cut and the last section of the Walhonding Canal went dry.

[Note: Much of the information for this article came from the historical files of the Roscoe Foundation in 1991, with the cooperation of the late Ruth Norton, then the Historian of the Roscoe Foundation.]
Cumberland, Maryland
AN EARLY INTERMODAL FREIGHT TERMINAL

By Bruce J. Russell, Contributing Editor

Cumberland, Maryland was the western terminus of the Chesapeake & Ohio Canal which stretched 185 miles from Washington, D.C. For most of its distance it followed the Potomac River. Originally it was supposed to go west of Cumberland to the Ohio River, but this never happened thanks to the start of the railroad era. By 1850, the year the C&O Canal commenced operations, the parallel Baltimore & Ohio RR was already in business, carrying passengers and freight.

Most of the traffic handled by the C&O Canal was bituminous coal. It was transported in mule-hauled, wooden boats to Washington, where it was burned in furnaces or for factory boilers. There was never any regularly-scheduled passenger service, although excursion vessels traveled over selected segments. Some of them went through the famous 3,118-foot-long tunnel at Paw Paw.

At Cumberland, the C&O canal boats picked up their cargo of “black diamonds.” Ironically, most of this came to the canal’s terminal by rail. Railroads served the mines west of Cumberland where the waterway had been intended to go but never went. The railroads had been built during the 1840s and 50s. The loaded coal-carrying cars were pushed onto a specially made trestle which extended over a portion of the canal basin. Then hatches were opened and the coal flowed into barges positioned directly below. Two C&O canal boats could be loaded simultaneously. It took 12 RR cars to fill one boat, at 10 tons of coal per car.

Thus, although it was the railroads which eventually did in the canals, including the C&O, during a long period of time these same railroads kept the canals in business. Because the C&O didn’t extend far enough west to reach the mines, coal was brought to it by railroad.

Cumberland, Maryland was therefore one of America’s first intermodal freight terminals, since cargo was transferred from one mode to another. Thanks to the railroad, the C&O Canal probably survived longer than it would have without rail feeders. In 1889, the Baltimore & Ohio RR actually bought the C&O Canal and ran it until 1924.

In Cumberland it’s still possible to see where the canal boats were positioned beneath the railroad trestle to receive their loads. The present trestle dates from the late 1920s after the waterway was closed, but it sits exactly where its predecessor was located. This was a wooden trestle, and was specially designed for coal cars to be positioned so they could slide the fuel into the barges. It must certainly have been a dusty place in the 1870s when the greatest canal tonnages were recorded.

Close to the old basin is a bas relief which depicts railroad cars dumping coal into the C&O’s vessels. In the future, the City of Cumberland wants to put water back into the old C&O Canal basin and make it look similar to what it was in the last century. There will be a canal walk and replica boats positioned beneath the bridge. A master plan for this scheme now exists complete with artists’ renderings of what it might look like.
CONCERNING CHINA’S GRAND CANAL

I much enjoyed the latest American Canals bulletin, especially Bruce Russell’s excellent article on China and its Grand Canal. I would not want to challenge his thesis about the primacy of Chinese canals, but there were canals in England as early as the 1st Century AD. I wrote a brief paper on this for the Newsletter of the Doncaster Archaeological Society which was reprinted as an Occasional Paper of the Waterways History Research Group of the Railway & Canal Historical Society. I enclose a copy of it herewith.

Philip L. Scowcroft

[Editor’s note. The following are excerpts from the paper. “Roman technology in this area was impressive. They built sluices with ‘guillotine’ gates, even possible, pound locks. Their boats were perhaps not dissimilar to latterday canal barges and like them were usually propelled by tow horses, even men… The Foss Dike, linking Lincoln (Lindum) to the Trent, has long been known to be the work of the Romans; it is now thought that two other artificial channels, the Bycarrisdike, linking the Trent and the Idle (then a tributary of the Don) and the Turnbridgedike, linking the Don near Thorne with the Aire were also made in early Roman times (1st Century AD) for navigation, not drainage.”]

Are we to understand the “leaning pagoda” caption under the image on page 9 of the Spring issue of American Canals as a leg-pull? If oriented to the wall-like structure in the foreground, rather than to the arbitrary frame of the picture, the tower appears to be very nearly 90° upright, allowing for some slight list over the centuries since its erection.

Mary C. Reyes

Bruce Russell responds: The tower does have a lean, although my camera angle may have exaggerated it somewhat. Extra stonework has been added to the balconies on one side to try to correct it. I was told that it will someday have to be disassembled and reerected.

CONCERN ABOUT AQUEDUCTS

I am continuously fascinated by structures that carry water over water. Canals and water supply systems have for many ages required the use of aqueducts to perform their duties efficiently. Take the case of the Delaware and Hudson Canal. In 1847 when the boats and mules arrived at the Delaware River they had to wait for low water conditions and stormless days before crossing the stream. Hence the famous Roebling Aqueduct was built to solve this problem. When the Chesapeake and Ohio Canal reached the Monocacy River in Maryland it needed the equally noted Monocacy Aqueduct to cross the stream just below the confluence with the temperatureal Potomac River. Similarly the Schoharie aqueduct solved a crossing problem for the Erie Canal as did the Deer River Aqueduct for the Illinois and Michigan canal. Just to mention a few instances.

The aqueducts can be separated into two basic types: water supplying conduits and navigational canal structures. I believe the active water carrying and boat accommodating aqueducts are generally being maintained and kept in service as these structures are part of active enterprises. It is hoped that where possible repairs and improvements are being effected in a historically correct manner.

Where they are no longer in service, the problem of preserving the aqueducts becomes more acute. These structures and/or their remnants are now no longer owned by canal operators but usually by recreation and park organizations which must find new ways to protect and extend the life of these historic artifacts. They also must find a new use for them to justify their existence. The Roebling Aqueduct is now a highway crossing wherein the important original features are still preserved: wrought iron cables, stone masonry piers, ice breakers, and a tow path on the bridge that doubles as a pedestrian crossing. The Monocacy aqueduct is a pedestrian and bicycle crossing where the magnificent stone masonry arches are as originally constructed, and the National Park Service, the owner, intends to keep their appearance and other significant features intact and protected for the future. The Tohickon Aqueduct of the Delaware Canal at Point Pleasant Pennsylvania has been reconstructed with wooden arches by the state in a show of good historic sense and appreciation of the original timber prism.

But how many abandoned or partially neglected aqueducts are being allowed to deteriorate further and then be destroyed or just disappear? It is this concern of reducing our heritage that prompts me to raise this issue.

I would like to see all deserving aqueducts preserved just as we must preserve all deserving historic bridges. Are the Secretary of the Interior Guidelines for the Preservation of Historic Structures being applied to the restoration of aqueducts and canal locks? This should be the first step in the US. The American Canal Society and several of the state canal societies could create a sub-committee to deal with aqueducts. I propose that aqueduct preservation be a topic for discussion at the American Canal Society meeting in Maryland later this year. Special seminars, one or two days long, on aqueduct and lock construction, repair, and operation could conveniently be initiated. An article or paper in the canal literature and magazines would also help to keep the subject alive. The general public could be enlisted to find aqueducts in the countryside and report to the sub-committee. And many other similar activities could be promoted.

At the recently completed most successful World Canals Conference in Dublin, Ireland I asked the question from the floor: What are we doing for aqueducts globally? Maybe we can place this item on the agenda of the World Canals Conference in Montreal next year if enough interest is generated among the delegates. A paper or two on this subject would be beneficial.

I am confident that all canal lovers here and abroad will consider this subject carefully at all levels and come up with a special sub-committee or similar organ dedicated to the preservation of aqueducts.

Abba Lichtenstein

CANAL LAND GIFT

National Trails Day was celebrated in Delphi, Indiana, with an announcement that brightens the prospects for new trail development. Dan McCain, president of the Carroll County Wabash & Erie Canal, Inc., announced that Mrs. Mary Campbell is giving them several acres along the back half of her farm at the confluence of Creek and the Wabash River.

According to McCain, this land holds special significance to the canal association because of its historical setting. “The southern end of the 1837-39 Deer Creek Canal Dam was built on this property. It allowed the canal boats to cross the creek in slackwater while being towed by draft animals,” he said.
momentum, the captain tried unsuccessfully to keep the craft away from the swift current leading to the spillway. Finally the boat, driver, and mules were swept over the aged spillway.

That event collapsed the dam, terminating canal travel between Lafayette and Delphi. The dam was never rebuilt.

The shale bluff overlook will allow visitors to discover how the canal boats had to navigate carefully between the high ridge and the dam. It was impossible to cut the stone through the bluff and stay further away from the Wabash. This was one of the few places along the 468-mile Wabash & Erie Canal where the route took the boats so close to a dangerous connection with the mighty Wabash River.

— Dan McCain

CANADIAN CANAL SOCIETY TOUR OF IRELAND—MAY 2001
by Roger Squires

The World Canals Conference in Dublin in May 2001 provided the backdrop for a Canadian Canal Society tour of Ireland. The conference itself offered three field visits, one to the Royal Canal in Dublin and the Waterways Visitor Centre, a second to Belfast and Lisburn to see progress reviving the Lagan Navigation, and a third to the Grand Canal at Robertstown as well as to the Shannon. The post conference tour sought to fill in the gaps. Initially the group headed south to see the Barrow Navigation and its connection to the Grand Canal at Athy. Then along the Barrow valley, inspecting the semicircular weirs and the adjacent lock cuts.

A visit was made to the port of New Ross, to see the replica "Famine Ship," before heading west to Kilkenny and the former Shannon port of Limerick. Here the group was fortunate to see the new works which will reopen Limerick town again to hire craft by use of the redredged Abbey River. The earlier bypass canal and locks now lie derelict.

The next stop was the 1920s hydro power plant and dam at Ardnamurcha which, when it first opened in 1929, met nearly all Southern Ireland's electricity requirements. The Germanic-style powerhouse was built by Siemens and houses four original turbines which are still operating today. The group was able to study in detail the adjacent double shaft lock that passes craft around the 100 foot dam. From here the tour visited the now disused lock at Killaloe, which originally bypassed local Shannon rapids, before water levels were raised.

Over the next two days the tour inspected various sites up the Shannon valley, including Shannon Harbour where the Grand Canal links in, together with Clonmacnoise early Celtic remains and abbey. There was also a cruise from Hodson Bay to Wine Port on one of the inner lakes. Considerable interest was generated in the visit to Richmond Harbour, with its restored dry dock, where the soon-to-be-restored Royal Canal made its own Shannon link. A visit was made to Lough Key, one of the two upper lakes that complete the Shannon Navigation, before cruising part of the upper reaches from Carrick-on-Shannon.

Another highlight was a tour along the newly opened Shannon-Erne Link, with
its card-operated automated locks. It was interesting to see the range of hire craft now operating through this scenic waterway.

The group crossed the border into Northern Ireland to explore the Erne River and Lough Erne before returning south again to see the head of the Erne navigation at Belturbet. Thence it went across country to Abbeyshrule, the current limit of navigation on the restored section of the Royal Canal, and on to the old distillery at Kilbeggan, before viewing the new dry harbor that once served the town via a branch from the Grand Canal. An evening visit to the restored harbor at Mullingar completed another full day.

From Mullingar the tour headed southeast to Monasteravan on the Grand Canal, Barrow line, to view the restored harbors, lift bridge, and grand aqueduct over the Barrow. From there the bus headed through a gap between the Dublin Mountains and Wicklow Mountains before delivering the group back to Dublin’s ferry port of Dun Laoghaire.

Splendid weather and a genial guide, Henry Jack, made the tour a complete success.

**Report from the Navigable Canals Committee**

**ANOTHER LOOK AT SANTEE-COOPER**

by David F. Ross

In our Summer 2000 issue (vol. XXIX, no. 3), Dave Barber reported on an inspection of the Santee-Cooper Canal in South Carolina. To recapitulate briefly, the Santee River drains a large area of the state’s productive interior, including the region around Columbia, the capital, but does not terminate in a usable harbor. The nearby Cooper River leads to the excellent harbor in the port city of Charleston. The two were linked by a canal built between 1793 and 1800, which was the country’s first summit canal. It operated for many years before being officially closed in 1855. Then, between 1939 and 1942 a new Santee-Cooper connection was built, primarily for power generation but incorporating provision for navigation. This time, the Santee was damned to bring its waters up to summit level, eliminating the three locks on that side in the original scheme. The resulting reservoir is named Lake Marion, presumably for the state’s Revolutionary War hero Francis Marion (“The Swamp Fox”), whose grave is nearby. A summit-level canal connects this to a Cooper River reservoir. Lake Moultrie (William Moultrie was another of South Carolina’s Revolutionary War heroes). From Lake Moultrie, a single lock replaces the seven on the Cooper River side in the earlier system. This is the Pinopolis Lock, with a 75-foot lift, giving access to the West Branch of the Cooper River, Charleston, the Atlantic Ocean, and the rest of the world.

The Barber report was based on a visit by land. It convinced me that the waterway deserved an inspection by water, so this summer I trailered my 22-foot C-Dory cruiser, the Rosa Parks, to the Santee State Park, on Lake Marion, and launched it there. My intention was to cruise up to Columbia and down to Charleston. Along the way, I planned to test whether the prohibition of photography at the lock which Barber had encountered applied also to visitors who came by water. In the event, I was able to achieve most but not all of my goals.

The goal I did not achieve was Columbia. The Santee is formed by the confluence of the Congaree and Wateree rivers. The Congaree is the larger of the two, and the one that passes by Columbia. Barber states that it is navigable, and of course he is right, but “navigable” is a relative term. Most of the navigable inland waterways of the United States could not be navigated by the Queen Elizabeth II. Similarly, the Congaree cannot be navigated by me and the Rosa Parks. The river is navigable by zero-draft vessels like jet-skis and canoes, or by outboard powered boats whose pilots are intimately familiar with the river bottom. I hadn’t gone more than five or six miles past the confluence when I suddenly went hard aground on an occult sandbar. Local informants reported that such hazards became more common the farther up you went. There are no charts or aids to navigation. Once I got my boat free, I scratched Columbia as an objective, and turned my attention in the other direction.

The navigation channel across the two reservoirs is sometimes serpentine but always clearly marked, and there are plenty of marinas where fuel and other supplies can be purchased. I reached the lock for the trip down on a Sunday afternoon, and there were several boats there ahead of me. There is room for five or six to tie up to the floating platform that Barber mentioned, but Pinopolis Lock is not run by Corps of Engineers rules, and the locktender will let as many boats in as can squeeze together, secured or not. When I returned, it was a weekday, and I was the only customer. There is a button to push and an intercom on the wall to summon the locktender in such cases, and the service was prompt, courteous, and friendly. Both going down and returning I used my camera openly and often, in full sight of the locktender, with complete impunity.

Charts of the Cooper River do not reach to the eight-mile stretch just below the tailrace canal at the lock, but there are no problems in staying on course. The only place you might be tempted to take the wrong channel is at “The Tee,” where the east and west branches of the Cooper come together. This is on the chart, however, and well marked on the ground, so it is only a
The Cooper River is deep enough, but sometimes you need a little help around the bends.

GOOD NEWS

If there’s any doubt that canals have earned serious attention from public officials, consider what’s happening in Ohio. For the fourth straight year, Congress appropriated $1 million for the preservation and development of the Ohio & Erie Canal National Heritage Corridor. The appropriation leverages millions of dollars in private, local, and state investment. Some examples of funded projects are the Mustrill Store restoration in downtown Akron, towpath trail development in Massillon, Canal Fulton, and Navarre, the Zoar Town Hall restoration, and the Ohio & Erie Canal Reservoir in Cuyahoga County. The Department of Transportation gave the corridor $939,000 for improvements along the towpath trail. The grant was made possible through the Transportation Equity Act for the 21st Century (TEA-21).

Friends of the Delaware Canal announce a celebration for the completion of the Tohickon Aqueduct in Point Pleasant, PA, on September 15. A commemorative tile is being developed for the event, as well as post cards showing both the original and new aqueducts, postmarked on the day of the dedication.

The Intelligencer, the daily newspaper distributed in Bucks County, PA, recently published a front-page, five-part series of articles about the Delaware Canal. The series is available online at www.phillyburbs.com/intelligencerrecord/temp/canalindex.shtml.

Former ACS president William E. Trout III describes the issues around the proposed removal of Embrey Dam across the Rappahannock River, a mile above Fredericksburg, Virginia, in the spring issue of The Tiller. The dam is “dangerously old,” no longer essential for drinking water and power, and blocks the free flow of the river. However, it also helps divert water to the Fredericksburg Canal. Trout suggests that the dam could be safely destroyed if silt were removed from the canal and a smaller wing dam built. He urges that a full-time archaeologist and dedicated canal people be on site to monitor dredging and identify historic artifacts such as bateaux.

The D&H Canal Historical Society raised $66,000 in matching funds for work on the Five Locks preservation project. Over 600 people showed up on Canawiler’s Day to explore the Five Locks Walk. The society is located in High Falls, NY.

C&O Canal Park Superintendent Doug Fanis and other park officials were cited by the American Society of Civil Engineers, National Capital Section, for running the outstanding Civil Engineering Project, the C&O Canal Flood Recovery Program. This project included the restoration of the canal from the two 1996 floods and the campaign to restore the Monocacy aqueduct. The role of the C&O Canal Association, in partnership with the NPS, was recognized as a vital part of this effort.

Members who rejoin the Canal Society of Indiana receive facsimiles of currency issued to finance the construction of canals. Before the Civil War, the United States had no national paper currency. Notes were issued by state-chartered banks.

— Kate Mulligan

BOOK REVIEW

Lee Sullivan Hill, Get Around on Water (Minneapolis: Carolrhoda Books, 2000) [Available from Amazon at $21.27]
Reviewed by Linda Barth

Both children and adults will be amazed at the variety of vessels pictured in this great new compilation by Lee Sullivan Hill. Get Around on Water, an easy-to-understand primer for children ages 4—8, is illustrated with large color photographs of steamboats, hovercraft, the Mayflower II, tugboats, icebreakers, and many more. Yes, there’s even a canal boat, although it is described as a hotel barge. The author includes work vessels, such as a clammer, a fireboat, and a dredge, as well as vessels designed for tourists. As in Canals Are Water Roads, this book contains a photo index at the end: small version of each of the book’s pictures with a description and its location. I recommend this book for school libraries and as a gift for your favorite child.

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