President's Message

Support your local waterway—get soaked!

Don't forget to register for the annual World Canals Conference, on the Blackstone Canal in October! See our last issue or call 401-724-2200 for information. I wish we could get more planning and park professionals to these meetings where there is an abundance of expertise and experience to jump-start local and regional canal park projects. There's no need to start from scratch anymore or to make the same mistakes all over again.

This is also the occasion of your society's 25th anniversary and a special meeting. Come on up or at least sport your SUPPORT YOUR LOCAL CANAL bumper sticker. Tell your friends about American Canals and send your articles and illustrations to our new editor David Ross. Your society exists to let canal people know what's going on, so let us know what you're doing. And, this being our 25th anniversary year, we'd especially like to hear from you about the past and future of ACS.

One article from American Canals, after 13 years, has been reprinted in India. Those of you who have read the publications of The Asiatic Society, 1 Park Street, Calcutta, 700 016 since its founding in 1784 will have seen our article on the canals of India, thanks to science writer Amitabha Ghosh. We need to help encourage the study and use of India's historic canal system, so if you're going there or find an Indian canal buff, let me know.

Here in Virginia, if our canal people are slightly drunk it is because we have discovered James River Pale Ale with a label featuring three James River batteaux—the boats which we excavated in Richmond's canal back in 1983. The James River Brewing Company contributes a portion of the proceeds to the James River Association, the local grassroots river support group. So we're drinking like fish to support the river, and to collect empty bottles with our batteaux on them.

(Continued on page 3)
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The objectives of the American Canal Society  
are to encourage the preservation, restoration,  
interpretation, and use of the historical naviga- 
tional canals of the Americas; to save threatened  
canals; and to provide an exchange of canal in- 
formation. Manuscripts and other correspon- 
dence consistent with these objectives are wel-
come.  

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(Concluded from Page One Editor’s Desk)  

together to give it life in 1972. American Canals is the principal instrument by which that need is met. We have only one canal society which is continental in scope, but there are many defined by state, province, region, locality, or specific waterway. When there is work to be done, these are the groups that do it, not the A.C.S. What the A.C.S. can contribute to these efforts is making sure that the canal buffs in Ohio know what the canal buffs in New Jersey are working on, and so on. If you want enthusiasts from other areas to participate in your tours or seminars, visit your museums or parks, support your lobbying efforts, admire your achievements, and learn from your experience, the best way to get the word out is through the pages of American Canals.  

To serve this purpose, I need to be on the mailing list of all canal organizations and to have permission to reprint any of the material they send. Often this is not enough, however, since copying from one newsletter in another involves two publication delays. As soon as you know what you want to publicize, send it to me by letter or postcard, and let your newsletter be the follow-up. Don’t try to reach me by Fax, E-mail, Internet, or anything contemporary, though. The golden age of canals in the United States was the 19th century, and your editor remains faithfully nonconversant with any communications technology that has evolved since then.  

3. Sharing items of mutual interest for no practical reason except good fellowship is another function of American Canals. When you find something in your local newspaper about canals clip it out and mail it to your eight or nine hundred fellow members of A.C.S. by sending it to me. Do bear in mind, however, that we cannot reprint copyrighted material without the permission of the original publisher. If you don’t feel like obtaining that permission and sending it along with the material, at least please enclose the address to which I should write requesting it. Besides local newspapers, the possible sources of such material for sharing are myriad, ranging from alumni bulletins and trade association magazines to treasures discovered in secondhand bookstores.  

4. Exchanges of opinion often liven up the pages of a publication, and sometimes even contribute to human knowledge and understanding. If there is something in American Canals with which you disagree—or even with which you agree; if there is something that needs to be elaborated; or if there is something missing that we ought to have covered: don’t just tell your spouse about it, tell the rest of us. Letters to the editor, rejoinders, amplifications, and rebuttals are invited.  

A lot more could be said about the needs of American Canals, but that’s probably enough to exhaust the patience of any readers, and maybe enough to get us started. Now let’s all settle down and get busy on our second quarter-century.  

D.F.R.

**EUROPEAN RIVER CRUISE**  
The English inland waterways magazine Waterways World sponsors annual cruises for its readers and potential readers. This year’s is on the Rhine and Meuse rivers through Germany, the Netherlands, and Belgium, beginning the 11th of August and ending the 20th. Fares start at £500 and range on up, depending on options, supplements, etc. For full information, brochures, and application forms, apply to:  
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THE WARWICKShIRE RING

Part 1
by David G. Barber

[NOTE. This account of the 1996 Canal Society of New Jersey tour of English canals is being run in serial form. The second and final part will appear in our Summer 1997 issue.

Portions of this material have appeared in The Prism and Towpath Topics, newsletters of the Blackstone Canal Conservancy and the Middlesex Canal Association, respectively. Photos are by Audrey Barber.]

On June 20th, my wife and I with 33 other members of the Canal Society of New Jersey left Newark Airport on a British Air flight to London's Heathrow Airport. After a short, not very comfortable night over the Atlantic, we arrived in England in the mid-morning to begin our tour. Our arrival put us a little behind schedule and we were soon further delayed by a traffic jam at the airport caused by a truck getting wedged in a tunnel. These problems were easily ignored by the enthusiastic group.

Once free of the congestion, we traveled west on the motorway to Bristol and continued southwest toward the West Somerset Railway at Minehead. Our original plan had been to get to Minehead by 11 a.m. so that we could ride the train on Britain's longest-preserved railway from there to Bishops Lydeard and back, but our delays put us behind schedule. Rapid calculation with the help of Ron Oakley, whom we had picked up en route, determined that we would pass through a small village just before the train we had planned to ride would pass through. We therefore made a quick right turn down a narrow side street, scurried off the bus and across the tracks, and were on the platform just as the desired train was entering the station. This was a planned station stop for the train as trains in both directions are scheduled to meet here. We then climbed aboard for the ride to Bishops Lydeard and used the snack car for lunch.

On the return run, we continued to Minehead where we were originally planning to catch the train. This is the end of the line and a seaside resort.

Along the way, one of our group who had gone to England earlier, managed to work out the train and bus connections properly to join the train at an intermediate station. Being back on schedule, we took about an hour to explore the town and walk the beach. Then it was back on the bus for a cross-country ride to Tiverton. On both the ride from Bristol to Minehead and our ride cross-country to Tiverton we were very impressed with the narrowness of the curvy roads versus the width of the bus. The hedgerows were right on the edge of the travel lanes and the lanes were no wider than the bus. Since the English drive on the left, those with seats on the right side swallowed hard whenever we met a truck or bus going the other way.

Rainbow and Serenade entering a lock on the Horton Flight, Grand Union Canal

Reaching Tiverton, we joined with members of the Grand Western Canal Trust for a dinner trip on their horse-drawn canal boat, Tivertonian, along two miles of a restored section of the Grand Western Canal. This canal and the Bridgwater and Taunton Canal were planned to provide a through route across the southwest of England between the Bristol and English Channels to avoid the hazardous trip around Land's End. However, with the coming of railroads, the route was never completed, leaving the Grand Western Canal the task of hauling limestone for agriculture to the kilns located in the

Bill Trout
park in Tiverton where our voyage began.

As built, the canal included several vertical lifts, the remains of which are being preserved. However, we did not have time to visit any of them. The trust and county have managed to rewater about eleven miles of the canal, part of which we traveled.

Leaving the Grand Western Canal we traveled back to Bristol where we spent the night in a hotel on the waterfront. Bristol is a seaport and the River Avon (one of four so named in England) enters the Bristol Channel here. To the east, it is connected to the Thames by the recently reopened Kennett & Avon Canal. Those who got up early got to see some of the waterfront. However, in my fatigue and jet lag that night, I mis-set the alarm 12 hours out of phase and we were awakened by noise in the hall ten minutes before our scheduled departure. Nevertheless, we were on the bus to the city. I wasn’t the only one suffering from jet lag the night before as our tour leader, Bill Mcelveen, forgot to tell everyone that he had arranged for a hot breakfast at 7 a.m. despite the hotel listing breakfast as beginning at 7:30 on Saturdays.

Departing Bristol, we traveled by bus up the motorways to Gloucester where we spent the morning at the very impressive National Canal Museum and the neighboring docks. Near the end of the morning, we all bought lunches to go at neighboring shops so we could eat while we bused north towards Birmingham.

Continuing past Birmingham, we traveled a little east to Stretton-under-Fosse near Rugby on the Oxford Canal, where we picked up our six boats from Rose Narrowboats and began our two weeks of cruising the Warwickshire Ring. Our group of six were aboard the 60-foot boat, Rainbow. After about a half hour of instruction on the boat’s operation, we cruised south for about two hours passing through our first tunnel at Newbold-on-Avon to Bridge 58 outside of Rugby where good moorings exist next to a large supermarket. Then it was all hands (from all six boats) to the supermarket for supplies. After returning, we then went out to a restaurant located across the canal for supper.

The next morning, we left last of the group after a leisurely breakfast and a quick walk back to two aqueducts we had passed over just before lying up the night before. One aqueduct was a three span masonry one over a river while the other was a cast iron arch-type over a road. The day before, one of the other boats in our group had an interesting time at these aqueducts which are only wide enough for one boat at a time. While they were passing through the aqueduct, a boat coming the other way didn’t stop resulting in both boats trying to fit in a space big enough for only one and bringing both to a sudden stop. Fortunately, no damage or injuries occurred.

We soon reached the Hillmorton locks which were our first. Here there were three steps up with two side-by-side chambers at each step. While we had caught up with another of our boats, opposing traffic soon separated us.

Cruising on from the locks, we followed the contour canal until we arrived at Braunston Junction. Here, we became confused by our maps which changed the direction of north from sheet to sheet. So instead of going to the right under one of the two cast iron towpath bridges and onto the combined Oxford and Grand Union Canals, we first went left, onto the Grand Union Canal, but tied up after about 100 feet to have lunch. After lunch, we spent a few minutes walking around the area and looking at all of the other boats that were tied up at this very busy spot and determined that we had made a mistake. However, we also determined that here was a good water point through the next bridge and a spur to a marina just beyond to allow us to turn the boat around.

So leaving the lunch stop, we traveled through a narrow channel between two lines of moored boats to the water point.
and filled the water tank (a daily job). After that we continued through a narrow and made our first attempt at turning the 60-foot boat around. My inexperience was complicated by two other boats behind us that wanted to do similar maneuvers. After several shufflings back and forth, we got the job done, but it wasn’t pretty. However, I got better in later days.

We then cruised back through the narrow, past the water point, between the lines of parked boats, and turned left on the combined section of the Oxford and Grand Union Canals. This section is novel as boats traveling north from the Thames on the two canals go in opposite directions on this section. This section of canal passes through pasture land and follows the contours. It being Sunday afternoon, there were a lot of boats out, so we went through this section slowly as one of a line of several boats. Coming around a blind corner to the right, the boat ahead passed a boat facing the opposite way that was tied up to the towpath which was on the right. Just as the two boats passed starboard to starboard, the tied-up boat untied from the bank and headed out into the channel only to notice that our boat was coming around the corner and it was now across our path. With a quick gulp and rapid reverse, I brought our boat to a halt without touching banking or boat. The other driver expressed his thankfulness for quick action as he went past.

Continuing on, we came to Napton Junction where the two canals separate. Here we turned right on the Grand Union Canal and entered a rather straight section in open fields. Just when things seemed to be settled down with no other boats in sight, we noticed a camera case floating on the water passing beside the boat. Rapid consultation determined that this belonged to one of our crew. So we rapidly stopped, backed up, and successfully retrieved it before it sank. Never a dull moment.

After that maneuver, we soon came to the three Calcutt Locks. Being on the Grand Union that was enlarged in the 1930s, these locks are wide enough to take two boats side by side. The earlier single chambers are alongside and are now used as overflows. After waiting for other boats to lock through, we refilled the lock and entered alone. Just as we were about to close the gates, an ex-working freight boat appeared and joined us. This boat was still set up as it was in its freight-hauling days, but was being used by an extended family as a camping boat. We locked down though this and the next two locks paired with this boat.

Continuing on, we followed the freight boat to Stockton Locks where 10 locks lie close together. Here, at the other boat’s suggestion, we breastworked the towpath together so that they could be driven in and out of the locks together with the other boat supplying the power. This saved time as it was not necessary to jockey the two boats into each lock individually. With this method and both crews available to work and preset locks, we practically flew down the first eight locks.

After eight locks, the other crew informed us that they had reached their planned tie-up point for the night. So we continued on through the final two locks by ourselves. Shortly after this, we caught up to the rest of our boats at our planned night stop at Long Itchingon.

Here, there were two pubs, one on each side of the canal, but a quick survey showed that neither wanted to serve us food. So we walked into the village passing a half-timbered house in which Queen Elizabeth I was reported to have stayed. At the road junction just beyond, we were supposed to turn left and then left again to find a restaurant. However, on the right was a pub with a chalk board sign outside saying they were serving food now. While about 20 motorcyclists were out front, we determined that they were just passing and we decided to enter. We soon found only one table being used, good food, and good beer. It proved to be an excellent choice and the first of many pub meals we enjoyed. While we were there, a bus pulled up and about 50 older women of some garden club entered to enjoy an evening cocktail. We found the transition from biker bar to garden club in 30 minutes to be amusing.

Monday was scheduled to be a day of both land-based and canal sightseeing. Leaping our moorings fairly early, we continued along the Grand Union Canal through ten more locks to Sydenham where a grocery expedition was made to a canal-side store. While we were there, a school group came down to the canal with their teachers and there were several comments about the American flag we had flying from the tiller. Not all our boats stopped here. We then continued on a short distance to Lemington Spa where all the boats stopped to visit the stores and banks and tour the gardens.

After that, we returned to the boats and cruised on, crossing the River Avon. This Avon is the one that flows by Stratford which was just a few miles downstream to the left. The Avon is navigable below Stratford, but the proposal
to make the Higher Avon navigable between Stratford and the Grand Union aqueduct has not been implemented.

A way beyond the river, we came to the base of Warwick Locks where two wide locks lifted us out of the valley. At the top lock, there was The Cape of Good Hope pub on the berm side which we later returned to for supper. After leaving the top lock, we passed under two bridges and then came to a junction where the main canal went straight ahead while the Saltisford arm bent very sharply to the left. Here, we took the sharp left, which went better than our prior turn at Braunston, and proceeded up the arm with little space between the moored boats. About half way in, the navigable portion of the arm ends at a tight turning basin while the former route of the canal continues wet but shallow to a railroad fill and then filled

**CANAL OKTOBERFEST IN RHODE ISLAND**

The American Canal Society will hold its annual membership meeting, Board of Directors meeting, 25th anniversary celebration, and inauguration of new president Terry Woods, on Friday, October 17th. All of this will be in conjunction with the 10th Anniversary World Canals Conference in the Blackstone River Valley National Heritage Corridor, October 14th through 17th. Tours, talks, seminars, and social get-togethers with canalists from Great Britain, Canada, the United States, and perhaps elsewhere, will take place throughout an area centered on the conference headquarters at Pawtucket, Rhode Island. Registration for the entire conference, including the A.C.S. portion, costs $275, or you can sign up for any portion at $100 per day.

For registration forms and further details about the program, conference hotels, et cetera, get in touch with:

Mary Lou Moran, 1997 Canal Conference Coordinator
Blackstone Valley Tourism Council
World Canals Conference Planning Unit
171 Main Street, Pawtucket, Rhode Island 02860
Phone (401) 724-2200; Fax (401) 724-1342; email BVTourism@aol.com.

in into Warwick.

After the boat was turned, we tied up at the Saltisford Canal Trust's dock with our other boats in breasted pairs and went to the trust's store for books, postcards, and other items. Completing that, we walked into town for the major event of the afternoon, an exploration of Warwick Castle, proclaimed to be the finest medieval castle in England. Returning to the boats, some of the crew elected to have supper in pubs along the way with not entirely happy results. We decided to return to the boat and then continue back along the canal to the Cape of Good Hope pub at the Warwick top lock where we had a very good meal. The Cape of Good Hope is one of those English pubs that have been in business for over 100 years.

Tuesday, we all got an early start as we knew we had our work cut out for us, namely the 21 wide locks of the Hatton Flight. Being the fourth boat out that morning, we paired up with the third boat, Serenade, and climbed the flight in good order with each crew operating one side of the locks. Just before the top lock, a canal store was along the towpath and got much business from us in T-shirts, ice cream, canal guides, and other items. We had a fair amount of time here as we elected to re-water both boats at the water point above the top lock and the flow was very slow.

We then motored on a short while to the Mid Warks Yacht Club which is just across the canal from the Hatton Railroad Station. Hatton is a railroad junction with trains to both Birmingham and Stratford-on-Avon. Arrangements had been made to say here for three days while we attended the World Canal Conference, since it is out in the country while having good rail service. The yacht club also provided us with security, land based toilets, and water for the boats. A half-hour walk along the towpath to Shrewley Tunnel ahead and up to the village on top brought us to an excellent pub (also over 100 years old) where we had supper.

While we were here, the first mechanical problem with the boats reared its head, with Prestige not being able to keep a battery charge. The boat company choose to replace all three batteries.

On Wednesday, a bus picked all of us up and dropped those of us attending the World Canal Conference at the conference center in Birmingham. The rest joined with similar groups from the Canadian and Australian Canal Societies on a bus tour which was a dry run for the conference tour scheduled for Thursday. In the late afternoon, we all got back together for a reception and dinner held by the Mayor of Birmingham at the formal reception room in the city hall. Afterwards, we all walked to the railroad station and rode back to Hatton. On Thursday, those of us attending the conference took the train back to Birmingham while others took a train to Stratford-on-Avon and saw the town and a play. We were all back by 7 p.m. to have a cook-out with our yacht club hosts.

On Friday, we had planned to attend various talks at the final day of the conference. However, we had been told that our planned route bypassing Birmingham on the Grand Union and Birmingham & Warwick Junction Canals was not the best and that going via the
North Stratford and Worcester & Birmingham Canals was more scenic and safer. This however would have added many locks to an already busy Saturday. So we elected to go boating instead of conferencing on Friday.

During the conference, we had made arrangements with Tom Grasso of the Canal Society of New York State to travel with us for the day, so two of our boats waited for him to join us via the 10:30 train. On his arrival, we set off for Kingswood Junction where a short canal links the Grand Union with the Stratford. Soon after leaving the yacht club with Tom aboard, we realized that something was wrong with Rainbow. Everything seemed normal, except that we could not get very much power out of the engine. Since there wasn’t any good place to tie up, we motored on as best as we could through Shrewley Tunnel and on to the junction. The tunnel is interesting as there is no towpath. Tow horses have to take a path over the hill. The path descending the north side of the hill itself passes through a separate, downhill tunnel. It started to rain as we left the yacht club and continued until we got to Lock 20.

On reaching Kingswood Junction, I tried to turn left into the connecting canal as we wanted to shift to the North Stratford. However, without power, I could neither force the stern around enough for the turn or stop the boat quickly. So we hit the wall firmly, flipping about ten glasses off the shelf in the galley and onto the floor in pieces. On the rebound, I managed to complete the turn and limp into the cross canal. Other than the glasses, no damage was done.

Here we were faced with a surprise as the guidebooks showed the cross canal going up through Lock 20 before joining the Stratford Canal above Lock 21. However, a new link had recently been built that connects the cross canal below Lock 20 to the Stratford Canal below Lock 21 allowing boats going between the South Stratford and the Grand Union or vice-versa to avoid locking up and then down. But we were going north meaning that we had to go through Lock 20. So after waiting for a down-bound boat we entered the chamber and locked up.

On leaving the chamber, we found the junction immediately ahead of us, but it was obvious we needed help from the boat yard. Since we could tie the boat to a wall just above the lock and be out of the way of other boats and since a British Waterways office was at the junction, we elected to stop and call for help. We then transferred Tom Grasso to Alberville, our companion boat, which locked through just after us, and we settled down for lunch.

Upon completing lunch, we decided to use the time available while waiting for the boat company. So the other five members of our crew headed off to a nearby grocery while I stayed with the boat. They were back before the boat yard showed up, so three headed off again to a canal store located along the towpath several locks ahead. While they were gone on this trip, the boat yard repairman showed up after being delayed by traffic and an out-of-date map, and being confused by the fact that our boat did not have the boat yard’s logo on the side.

He quickly confirmed that the problem was a loose clamping screw on the throttle cable as we had diagnosed and had us repaired in about 20 minutes. As the repairs were being completed, another boat came out of Lock 19 ahead, passed us, and entered Lock 20 on the side cut just behind us. Looking back, I saw two boats waiting to lock up through Lock 20. That meant that if we moved once at the next few locks would be set our way having been left so by the down boat, but if we delayed, we would have to wait for the two other boats and all locks would be set against us.

With that situation and 18 locks ahead of us, we quickly said thanks to the repair man, cast off with only three crew members, and entered Lock 18. On leaving Lock 19, we observed our other three crew members coming down the canal from Lock 18. Quickly waving them back to open the gate on Lock 18, we rejoined and proceeded up the flight of locks. We never saw the two boats behind us after that.

(To be continued)

**CANALS AND ELDERHOSTELS**

*by William E. Trout III*

If you are 55 years old or older, you may have already attended one of the Elderhostel programs offered each year around the world. These are college-type courses, but they are just for fun, not for credit, and they usually last a week.

My mother is one of the 50,000 people who receive a large Elderhostel catalog every season. Reading the entire Summer 1997 catalog is a daunting task so I wrote to Elderhostel, 75 Federal Street, Boston MA 02110-1941, asking if they could scan their offerings to see what they had this summer on canals and waterways.

Sure enough, Michael Frilling of Elderhostel sent me the following list, based on his search of the web-page www.elderhostel.com. For more information see the web-page, write, or call Elderhostel at (617) 426-8056.

**ILLINOIS:** Lewis University – “Making Connections with the Illinois & Michigan Canal”.

**MAINE:** Chewonki Foundation – “Human and Natural History of the Allagash Waterway by Canoe”.

**MARYLAND:** Hagerstown Junior College – “The C&O Canal Mystique”; Sandy Cove – “Chesapeake City: Historic Canal Town” (on the Chesapeake & Delaware Canal).

**MISSISSIPPI:** Mississippi University for Women – “Boating Down the Tennessee-Tombigbee Waterway”.


These are just the canal programs listed in the United States Summer 1997 catalog. New catalogs come out regularly, including Canadian and international ones, and the course offerings change every year. We need a fan of Elderhostel who is hooked to the web,
to scan the catalogs as they come out, and send the latest canal programs to our editor.

Elderhostel is an excellent way to develop interest in canals. Many readers of American Canals have already helped to put on Elderhostel programs, using their canal knowledge for slide talks and tours. So when will we see your favorite canal in the Spring catalog?

[Editor’s note. An article on Elderhostel in the Waterways Journal for March 10, 1997 also mentions a program on “Burks County Frontier and Canal Days” at the Penn State Burks campus in Reading, Pennsylvania, June 15-20.]

Incidentally, the same issue (p. 13) expresses thanks to “William E. Trout III of the American Canal Society, Richmond, Va., for alerting us to steamboats that ran in the east on the Staunton River (Roanoke Navigation) between Brookneal and Randolph, Va., in the 1860s.”]

U.S. CANAL ENGINEERING

by Terry K. Woods

The art and science of engineering in the infant United States of America was Canal Engineering.¹ Real engineering in this country was born with the advent of canal construction and nurtured when that construction flourished. Before the advent of canal building there were no engineering schools in this country. There were no engineers²

The need for American Engineers was recognized, however, and, when the West Point Military Academy opened its doors in 1802, it was for the express purpose of training engineers. In fact, it wasn’t until 1806 that a general officer’s course was added there. The initial texts used at the academy, though, such as J.M. Sganzin’s “Programme d’un Cours de Construction,” did little toward promoting a U.S. flavor to the discipline of engineering. Even as late as 1818, only one West Point graduate was actually working in this country as a civilian engineer.³

The Seeds of Independence

Therefore, the first few tentative attempts at canal building in the U.S., those that occurred in the last decade or so of the 18th century, employed European engineering with a few homegrown mechanics using practical experience. The results of these initial efforts did nothing toward establishing a cadre of U.S. engineers.⁴ But one of these canals did, perhaps, sow the seeds that eventually resulted in a U.S. brand, or type, of canal engineering.

The Middlesex Canal, a 27¼-mile artificial waterway, was begun in 1794 and finished in 1803 to connect Boston Harbor with the Merrimac River. William Weston, a foreign engineer, was hired as a one-time consultant. The cost of his continuing employment was more than the backers could tolerate. He was supplanted by local “mechanics.”

After a couple of false starts, one of the promoters, Lorami Baldwin, took over supervision of the work. His engineering is said to have been accomplished mainly by trial-and-error. The final cost far out-stripped the original estimate, but this system operated successfully for many years.⁵ The Middlesex Canal is considered by some historians to be the model, the genesis of all later, successful U.S. canals. Apparently, only its construction methods were used as a model for future canals and not its design, as that canal’s channel was built to near-old-world dimensions of 30 feet wide at the waterline, 20 feet at the bottom with a depth of 3½ feet.⁶ Thus, the channel could only carry boats nine to ten feet wide of 35 tons burden.

ROSCEO VILLAGE IN THE NEWS

Boating magazines frequently discuss riverine canals, the kind of greatest interest to members of the A.C.S. Navigable Canals Committee and other philistines. The archetypical canal, however—the one dug out of dry ground, which climbs up one side of a divide and down the other, challenging its builders to find a source of water at the summit—rarely makes it into their pages. The reason is that most of those in the United States are no longer navigable, and the result is that the purists among the A.C.S. membership rarely read boating magazines.

Heartland Boating has now made an effort to bridge this schism with an ecumenical edition. Its April 1997 issue contains an article by a member of the Navigable Canals Committee on the Louisiana stretch of the Red River, recently opened to navigation from the Mississippi to Shreveport. It also, however, has a two-page spread, with color photographs, on Roscoe Village, the restored Miami-and-Erie Canal community at Coshocton, Ohio. The article, by Nicki and Harold Chodnoff, is full of facts and praise, and will doubtless stimulate interest in the attraction among the uninitiated. Orthodox readers who are unacquainted with Heartland Boating and have difficulty finding it on newsstands may order copies from the publisher. The address is Rt. 1, Box 145, Martin TN 38237. Price is $3.95 per issue.

—D.F.R.

The Erie Canal

Interested parties in the state of New York had begun the promotion of a project that was designed to unite the lower reaches of the Hudson River with the waters of Lake Erie at the nation’s western frontier even before the second war with England. Once hostilities ceased, these efforts were renewed. Initially, it was hoped that the federal government would build this artificial waterway. When this hope was rebuffed, however, New York’s governor and state legislature decided, in 1817, to build the canal themselves.⁷

Preliminary surveys had been run by local men who were seen as having a smattering of surveying and mathematics knowledge—men such as Benjamin Wright and James Geddes. The promoters agreed, though, that when the time actually came to construct the canal, a “real” engineer would be required. The two best-known engineers then in the United States, Benjamin Latrobe and William Weston, both foreign-born, were each considered for the position at one time or another. However, various circumstance—including the fact that not all of the canal’s promoters agreed that a foreign-born engineer was necessary, or even desirable—contributed toward keeping either of them from ever assuming the post.⁸

If before the war the prevalent thinking among those who were promoting the Lake Erie to Hudson River canal favored the hiring of “professional” (i.e., foreign-born) engineers, that feeling be
gan swinging toward using American-born engineers as time and familiarity with the project progressed. The 363-mile-long Erie Canal and the 76-mile-long Champlain Canal were authorized by the New York State Legislature in April, 1816. A new Board of Canal Commissioners was appointed who picked Wright and Geddes as principal engineers of the project. Much has been made in modern literature about how “ordinary citizens” were suddenly transformed into “first-class civil engineers”. There really wasn’t anything very ordinary about the citizens picked as New York’s first principal engineers. Those two men, Benjamin Wright and James Geddes, were extremely qualified in nearly every respect. Benjamin Wright had been a professional surveyor in the area around what is now Rome, New York. His early survey work included assisting William Weston in 1874 when the latter ran lines for the Little Falls Canal—just predecessor of the Erie. Geddes had studied law and surveying as a young man. His early surveying work, dating from about 1808, included proposed canal routes from Oneida Lake to Lake Ontario. These men were, in fact, qualified in every respect except that of possessing formal credentials as engineers. Three other local men, two of them also surveyors from western New York State, were named “engineer” about the same time, but it was Wright and Geddes, plus a number of bright, young assistants, who formed the nucleus of the fledgling United States engineering corps.

Home-Grown Design

Two of New York’s canal commissioners plus two of the newly named engineers toured the Middlesex Canal in 1816 to use it as a model for construction of the Erie. The next year, Canvass White, one of New York’s bright young assistants, tramped more than 2,000 miles along England’s canals returning to the States in 1818 with a set of the latest surveying instruments and detailed drawings and notes of Great Britain’s inland waterways. It isn’t clear just what led the Erie’s engineers to forsake the narrow channel and narrow boat philosophy then in vogue throughout England and the U.S. Whatever the impetus, locks on the Erie were designed with 15 by 90-foot chambers. This allowed boats with dimensions up to 14½ feet wide and 85 feet long to navigate the canal. The boats were then given nominal drafts of 3 feet. These boat dimensions initially allowed cargoes of 35 to 50 tons to be carried, and dictated minimum channel dimensions of four feet depth, 28 feet width at the channel’s bottom, and 40 feet width at the water-line. The Erie Canal, before and after its final completion in 1825, was a resounding financial success. Therefore, its dimensions and engineering practices became the accepted standard throughout the nation for the next several decades. By the mid-1830s, American canal engineering can be said to have been firmly established. The nucleus of engineers developed on the Erie had been expanded through the establishment of a number of schools and nourished by on-the-job training in the canal systems of Pennsylvania, Ohio, Indiana, Illinois, and New York. The American brand of engineering quickly expanded to encompass other forms of transportation and splintered into specialized engineering groups. But it was the canals of the United States that birthed this lusty off-spring, the American Engineering profession.

INDENTED LABOR ON THE C&O

The Chesapeake and Ohio Canal Company was one of the last employers in the United States to resort to indentured labor. Hoping to take advantage of a major depression, with high unemployment in the Old World, the company undertook a major recruitment effort in England in 1829. The venture produced two unintended by-products: it provided opportunity and inspiration to scam artists; and it provided the company with a labor force characterized by limited incentive and poor morale. William Dzombak unearthed these contemporary news stories illustrating the two problems.

INDENTURED LABORERS REFUSE TO WORK

Washington, D.C.

We learn that the laborers who recently arrived in this city from England and, who had entered into indentures to serve the Chesapeake and Ohio Canal Company for four months, for the expenses of their passage, were brought up on Thursday last before Judge Cranch, on a writ of habeas corpus. These men positively refused to comply with their engagements upon their arrival in this country, on the ground, as we learn, that they could not make themselves slaves, and were under no obligation to serve the company, and had therefore been imprisoned. These new-tangled notions of American liberty were, however, wholly subverted by the decision of Judge Cranch, who has remanded them to prison, there to remain till they consent to comply with their solemn engagements, and thus discharge the debt which they have voluntarily contracted.

Niles Weekly Register
October 11, 1829

LABOR RECRUITMENT SWINDLE

We stated, some days since, that 150 laborers had arrived from England in the
Chesapeake, with a view of working on the Chesapeake and Ohio Canal. From the Birmingham paper of the 18th of September, we infer that certain sharers of England found an opportunity, in the demand for laborers, to swindle a vast number of indigent individuals of guineas, under pretense of procuring for them an engagement to come to America.

On the first of September, placards were placed upon the walls of the town, stating that ten thousand emigrants were wanted for the Chesapeake and Ohio Canal Company. Persons wishing to undertake were to call on a man named Webster, have their names registered, and each pay one guinea. Some hundred paid their guineas, and were despatched to Liverpool, where they learned that, though 500 persons were wanted, Mr. Richardson, the real agent, had no connection with the person who had taken their money. Webster was arrested and will be tried for fraud...This infamous affair has caused a great deal of suffering among the victims of the fraud. They were promised large wages, &c.

Niles Weekly Register
November 7, 1829

THE C&O:
IT'S DESTRUCTION AND RECOVERY

By Harold A. Larsen

On January 20-21, 1996, a disastrous flood struck the Chesapeake and Ohio (C&O) Canal National Historical Park. Warming temperatures and heavy rains swiftly melted deep snow accumulations along the Potomac River and its tributaries. The result was rampaging high water that wreaked havoc on the adjacent canal and its structures. This damage was mostly below the confluence with the South Branch at Mile 165. The area between Washington and the Great Falls Tavern was most seriously impacted by the flood. At the upper end, the terminus in Cumberland was not affected at all, but damage was apparent not far below this city and grew in magnitude along the canal's course to the capital. The most serious devastation included damage to the newly-restored bridges that lead to the Olmsted Island Overlook over the Great Falls of the Potomac. In addition, a major breach of the towpath in the Widewater area at Mile 12.62 as well as another break near Lock Six (Mile 5.4) closer to Washington emptied the water from the canal section extending about 20 miles above the tidalock in Georgetown. Along the entire canal the towpath was scoured by the raging water in many places, requiring extensive repairs. The Monocacy Aqueduct survived despite the mountainous debris piled against it from the flooded tributary. This seven-arched structure is the longest in the system.

Another devastating flood in early September compounded the problem by washing away repairs underway since the January disaster and adding new damage to structures. This time the Monocacy Aqueduct was completely under water and covered with huge trees that had floated down the tributary river to come to rest on the structure. This old crossing, however, sustained no serious damage.

Floods are nothing new to the C&O. These recurring calamities were a scourge to the canal almost from its earliest years. Despite the occasional floods, however, commerce on the waterway was substantial in the later 19th century. But the final straw was the damage from a flood in 1886 that forced a repair-bond issue carrying a preferred mortgage on the C&O property. In early 1889 the rains that caused the disaster at Johnstown, Pennsylvania, also devastated the Potomac Valley, leaving the canal in ruins. After the canal went into receivership to the Baltimore and Ohio Railroad, the principle bond holder, repairs were made. The C&O never again reached the traffic volume carried prior to the flood. However low-volume op-
action with financial contributions, volunteer labor, and other resources to restore the canal. The C&O Canal Association mounted a major campaign to raise money for repairs and contributed to the growing volunteer ranks. NBC’s Channel 4 in Washington hosted a telethon conducted by Association members during several evenings when several thousand people responded with calls offering to help out with the cleanup. Others donated to the restoration fund or provided other assistance, including offers to supply bulldozers or gravel and other construction materials. Other organizations and individuals throughout the Washington area assisted in various ways. Even with continuing rain and poor working conditions, National Park Service staff members, volunteers and corporate supporters were successful in completing interim repairs and opening park facilities. High-level official support for the canal also helped to generate contributions. Interior Secretary Babbitt walked for six days on the towpath to demonstrate his enthusiasm for the restoration. Even President Clinton and Vice President Gore came to Great Falls in April to help clear debris from the Olmsted Island area. By June the entire 184.5-mile towpath was open to foot traffic except for small segments including Olmsted Island and The Billy Goat Trail near Great Falls. By this time 117 volunteer recovery projects had been accomplished by 2,200 volunteers.

A fund-raising program spearheaded by the National Parks Foundation had by June resulted in more than $1,300,000 in funds and support services. Congress was evidently moved by the overwhelming popular support for the canal. The legislature provided $2,000,000 in emergency funds following the flood and subsequently added appropriations to reach $22,500,000.

In conjunction with the repair efforts, the C&O Canal Association undertook a fund-raising campaign specifically to acquire funding to shore up the Monocacy Aqueduct. This structure is the largest of eleven in the system carrying the towpath and the waterway over streams. It spans the Monocacy River where it flows into the Potomac. Completed in 1833 this structure bore aloft on its six piers and seven arches the C&O Canal’s waters and commerce. Today it conveys hikers, bikers, fishermen and sightseers across the Monocacy River. The confluence with its gracefully arched crossing affords an inspiring and pleasing setting. The aqueduct is probably the most photographed feature in the C&O Canal park. Today the aqueduct stands with large timber-and-metal bracing on piers that have suffered underwater deterioration. Without repairs, it will inevitably succumb to flood waters. To lose this aqueduct would be to cut in two the C&O Canal National Historical Park itself. Rebuilding or replacement with a bridge would be prohibitively expensive. The Uphold the Monocacy Aqueduct fund-raising effort is headed by former Maryland Congressman Gilbert Gude. The C&O Canal Association has been joined in this activity by the American Society of Civil Engineers. These organizations have already raised substantial sums.

On March 31, fresh water was channeled through the inlet lock at Violette’s Lock to flow for eight miles to the Great Falls area. The next day, the two-mile stretch between Fletcher’s Boathouse and Lock 5 was rewatered. Water is scheduled to flow into the canal in the Georgetown area on April 14. On April 3, the Canal Clipper tour boat was removed from its temporary resting place on concrete piers and placed in the once-again rewatered C&O at Great Falls. This vessel’s return to service heralded a new beginning on the canal. But there is still cause for concern because the Park Service’s more recent intensive surveys have revealed that damage by the 1996 floods amounted to about $40 million, nearly double earlier estimates. Thus far, the repair effort has concentrated on the area closest to Washington that is the most heavily used. Water had to be restored to the old waterway. In addition, the breaches in the towpath had to be repaired, and the piled-up debris and mud had to be removed. During the twelve-month period following the January 1996 flood, almost 6,000 volunteers, Park Service personnel and contractors combined forces to do the cleanup and repairs. As the Canal Clipper was launched into the C&O’s placid waters, we knew that the worst was over, at least in the Washington area. The Park Service plans to resume canal-boat rides in both Georgetown and Great Falls on April 30.

Recovery was also heralded when the Olmsted Island bridges were opened on April 4. On this day a ceremony was held at Great Falls to honor private donors who contributed $1.5 million for canal repairs. Remaining unwatered
until next year is the eight-mile section above Lock 5, owing to the major breach in the towpath at Widewater. After the January 1996 flood, some critics in letters to editors complained that the repeated necessity to repair the canal was wasteful. They felt that the park should be allowed to return to nature and that the effort to maintain it as a historic property should cease. But Washington area residents clearly showed by their contributions to the repair effort that they favor preservation. No doubt future floods will require continuing substantial costs in funding and labor. Certainly this effort will fall largely on local residents, the people who are the park's primary users. At the same time, however, this National Register property belongs to the nation. In a sense, we who live in the region hold this long, narrow park in trust for the American people. We have a responsibility to preserve and protect it.

**VENICE, U.S.A.: THE FINAL WORD**

Recent articles in these pages on venetian canals in Venice, California and Venice, Florida, prompted a contribution from reader William J. Shive on Venice, Illinois. It is, as he describes it, primarily a bedroom community for factory workers in the greater St. Louis area, with a peripheral canal connection: it is about a mile south of the lower end of the Chain of Rocks Canal on the Mississippi River.

Noting with alarm reports of additional Venices at least in Colorado, Louisiana, Ohio, and Pennsylvania, and wishing to forestall a possible chain reaction, American Canals hereby regretfully but emphatically declares this topic to be closed.

- D.F.R.

**CANAL CALENDAR**

June 1. Opening day of blacksmithing exhibition, Neversink Valley Area Museum, Delaware & Hudson Canal Park, Cuddebackville, N.Y. Noon to 4 p.m. Canal walks and refreshments.
June 7. Canal Fest, Riverbend Farm, Blackstone River & Canal Heritage State Park, Oak St., Uxbridge, Mass. Noon to evening.
June 14. Hike along the SNETT and Canal from Blackstone to West St., in Uxbridge, Mass. 10 a.m. Contact: Dave and Audrey Barber, 508-476-4918.
June 14. Ohio and Erie Canalboat Captain's Ball. For details, call 330-434-5657.
June 14. Watervliet Canal Day: Exploring the Morris Canal, Watervliet Village, Stanhope, N.J. 10 a.m. to 5 p.m. Speakers, music, tours, exhibits, videos, etc.
June 15. Father's Day strawberry pancake breakfast, Neversink Valley Area Museum, Delaware & Hudson Canal Park, Cuddebackville, N.Y. 8 a.m. to noon. Guided tours.
June 15. History walk, National Canal Museum, Hugh Moore Park, 30 Center Square, Easton, Pa., 1;30 p.m.
June 21. Canoe trip from Violettes Lock to Great Falls, Md. Contact: C&O Canal Assn. Contact: Carl Linden, 301-229-2398.
June 21. Day on the James (canoe trip). Beginning 9 a.m. at Buffalo Station on the James off Rte. 628 a few miles S. of Norwood, Va.; ending at Wingina (8 miles) near Rte. 56. Shuttle service provided. Lunch included, rental canoes available. Contact: Nelson Co. Hospital and Travel Assn., Box 636, Lovington, Va. 22949. Phone 804-263-5239.
June 29. Kids and Critters on the Canal, Neversink Valley Area Museum, Delaware & Hudson Canal Park, Cuddebackville, N.Y. Noon to 4 p.m. Walks, games, crafts, exhibits, live animals, refreshments.
July 4-5. Old Canal Days Festival, Canal Park, Delphi, Indiana.
July 28. Annual benefit auction, Neversink Valley Area Museum, Delaware & Hudson Canal Park, Cuddebackville, N.Y. From 10:30 a.m.


August. Bateau ride on the James, Catersville to Maidens Landing, Va. Date and time T.B.A. Contact: Larry Sprouse, P.O. Box 10564, Lynchburg, Va. 24506.

August 9-10. Walking Weekend on the Banks of the Wabash. Logansport to Terre Haute, Ind.—various hikes of 30 minutes to a couple of hours each. Contact: Dan McCain, Rt. 1, Delphi, Ind., 46923, phone 765-564-6297.

August 17. Wild blueberry pancake breakfast, Neversink Valley Area Museum, Delaware & Hudson Canal Park, Cuddebackville, N.Y. 8 a.m. to noon. Guided tours and exhibits.


September 13. Ferndale Festival, Appomattox Riverside Park, 10 a.m. - 4 p.m. Contact: Nancy R. Runavant, 7563 Sambor Rd., Chesterfield, Va. 23832.


October 5. Apple pancake breakfast, Neversink Valley Area Museum, Delaware & Hudson Canal Park, Cuddebackville, N.Y. 8 a.m. to noon. Guided tours and exhibits.

October 14-17. World Canals Conference. Blackstone River Valley National Heritage Corridor, Pawtucket, R.I. Contact: Tourism Council, 171 Main St., Pawtucket, R.I. 02860. Phone 401-724-2200, Fax 401-724-1342, email BVTC@iom.com.

October 17. 25th anniversary of the A.C.S. Membership meeting, presidential inauguration, canal walk, directors meeting. In connection with the World Canals Conference. Contact: Tourism Council, 171 Main St., Pawtucket, R.I. 02860. Phone 401-724-2200, Fax 401-724-1342, email BVTC@iom.com.

November 8. Towpath hike on the Ohio & Erie. For details, call 330-434-5657.