



C & O Canal Association

ALONG THE TOWPATH

concerned with the conservation of the natural and historical environment of the C&O Canal and the Potomac River Basin

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ANNUAL DOUGLAS REUNION HIKE ENJOYED BY ALL

The C & O Canal Association's Annual Justice Douglas Reunion Hike was held April 24, 1993, from Oldtown to North Branch--a distance of about nine miles--and then followed by a happy hour and dinner at the Ali Ghan Shrine Country Club, just outside Cumberland. Our hike began at Lock 70 in Oldtown. We then passed Lock 71, the Alum Hill Cut, Spring Gap, Blue Spring, and Locks 72 through 75.

the railroad unfortunately caused the canal to cease operations.

Many of us found the low water bridge--which crosses the Potomac River to Green Spring, West Virginia, to be an interesting sight.

As we passed through the Alum Hill Cut around mile 168, the metamorphosis of highly fractured shale into paper thin shards of rock proved an interesting geological study. The grandeur of Pigman's Ferry stimulated both appetite and good conversation; however, some earnest hikers chose to continue to Spring Gap before partaking of sustenance. Here a bridge once crossed the canal to a river ford opposite Patterson Creek and Maryland Route 51.



Potomac River bridge at Oldtown

-- RCP

Oldtown, once an Indian village known as Old Shawnee Town, reportedly played an important role on the western frontier. Thomas Cresap established a fort and trading post here in 1747, which became a supply post during the French and Indian War. Later, in 1747, Cresap became an agent for the Ohio Company. George Washington, a shareholder in this land company, spent several days and nights at Cresaps. As was the case with several towns along the canal, Oldtown prospered during its operation until floods, depression, and



Hikers set out at Oldtown

-- RCP

DOUGLAS HIKE, continued

Prior to reaching Lock 72 ("Ten Mile Lock") we observed the remains of the pumping station at mile 174.3. (Summer droughts which resulted in low water and hindered canal navigation prompted the moving of the station near Lock 68 to this site in 1856.) As we approached the lock, hikers viewed Blue Spring but, because of high water, weren't able to observe the water rising from the spring. Of interest: Locks 72-75 were constructed of stone from a nearby quarry and did not use kyanized wood as did Locks 58-71. Also, Lock 72 had a 9-foot lift as opposed to the standard 8-foot lift in other locks.

Hikers passed Iron Mountain HBO, Lock 73, the B & O Railroad Bridge, and Lock 74 at which time we arrived at our destination, North Branch. Following fellowship, conversation, and food, guests were treated to remarks by President Dave Johnson, Vice President Hal Larsen, and a slide presentation by Ken Rollins, which commemorated past year's through-hike celebrations.

- - Editor

THE CHESAPEAKE AND OHIO CANAL

This is the second in a series of four articles of historical interest leading commemorating the historic 1954 Justice Douglas Hike. Enjoy, RCP

From out the political hurley burley of a Presidential campaign the voice of the patriot (?) rings loud and clear above the humdrum of every day business. Interests of moment are hushed into sleep, while the "song of the syren" is heard. President making is now the all absorbing topic; but for the people of Maryland there is another subject of even, if not greater, importance to them than that of the Presidency. The Chesapeake and Ohio Canal is languishing in the lap of Chancery. The value of that work and its franchises is neither known nor appreciated by the masses whose interests it should be made to serve. The question of its sale or disposition is a grave one for the courts, the Board of Public works, and for all the people of Maryland. No greater, grander or more valuable business adjustment has ever come before the courts and the Board of Public works of Maryland than that involved in the settlement and reorganization of the old canal. From the standpoint of an engineer and defining engineering, in its most comprehensive sense, as the application of the powers of nature to the needs of men, the possibilities of the "old ditch," as it is oftentimes labeled, are practically illimitable. Used as it has been for the purpose of transportation it has long outlived its usefulness, is veritably a thing of the past. Not so, however, under modern modes of engineering that are not only practicable but easy of application. The Potomac is a river of Maryland; its waters and the power of its waters belong to Maryland and to the citizens of Maryland. The Chesapeake and Ohio Canal traverses the course of the Potomac from

Cumberland to Georgetown, a distance of 184 miles, with a fall of about 600 feet, distributed among 74 locks, each about 200 feet in length by 15 feet wide and substantially constructed of masonry. The waterway connecting these locks has a mean width of about 50 feet, and a depth of from 6 to 9 feet, with room for enlargement in many places along the line, especially at the Great Falls of the Potomac, only a few miles away from Washington.

With all the water of Maryland's greatest river available at many points along its 184 miles, in the hands of competent electrical engineers, who can even approximate the value of the canal and its franchises? Los Angeles, California, is supplied with 12,000 horse power for its electric lighting and street car motors from the mountain rivers ninety miles away. Citing that as an example, there is not a point in Maryland that may not be reached and served by power developed through the much abused canal, with dynamos driven by turbine water wheels set in the locks ready built to receive them all along the line. It requires no stretch of imagination to find growing out of its resurrection a source of power, wealth, convenience and comfort such as no community in the world enjoys. With room for fourfold enlargement the present physical condition of the canal is such that at least 150,000 horse power can be employed by the mere setting of the machinery, to run without fuel or oil, stoker or engine man, with a power station at each lock, 74 times over, may the water be used without consuming a pound of it and without diverting a gallon from its onward course.

The population of Maryland is estimated to be about 1,200,000. With a horse power reckoned at eight times that of a man, 150,000 horse power means a man power for every man, woman and child within the State, with capacity and endurance for twenty-four full hours' work every day in the year. Not more than one in four of the gross population of Maryland is engaged in manual labor, working not more than ten hours per day nor more than six days of the week. Each day of the seven in the week the unused forces of the canal, amounting to ten times the power supplied by the State's enrollment of laboring men, goes quietly out to the sea. Among the practicabilities for the future of the canal are a double-track electric railway along its course, with grades descending and level from Cumberland to Georgetown, over which less power will be required to draw loaded cars to deep water navigation than will be needed to draw the empty cars back to the factories and the mines. Washington and Baltimore may be lighted at a fractional cost of what is now required. Every city, town, hamlet, habitation or hovel in Maryland may receive light and warmth from the wasting waters of our great river, made available through the franchise of the abused and much neglected old canal. Optimistic as all this may seem or sound, in the near future it will be pessimism in the face of the almost infinity of uses the spread of electric power must develop.

Can the State afford to sacrifice an interest so vast and so far reaching for a pittance of but a vulgar fraction of her claim

THE CHESAPEAKE AND OHIO CANAL, continued

upon the canal? Can the taxpayers, either of City or State, endure so bold a slaughter? No doubt the Baltimore and Ohio Railroad will do its utmost to strangle or prevent the development of both the power and usefulness of the canal in the same blind greediness that has in the past brought it to ruin and to be rechristened as a foreign corporation. No doubt many of the boatmen, users and employees of the canal may object to breaking up of the waterway now used but nine months of the year and breeding starvation for more than it sustains. The masses have ever been slow to adopt improved methods. It is easy to remember when the men who toiled from dawn to dark, mowing with the scythe for sixty-two and a half cents per day, stuck harrow teeth in the grass to wreck mowing machines, but who will not now mow with a scythe at any price? It may be a startling expression, but the franchise of the Chesapeake & Ohio Canal, even in the moribund condition of the works, is or may be of more value to Maryland and to the people of Maryland, than is that of the Baltimore & Ohio Railroad or that of any other railroad in the State, and under proper development, will be worth more than the railroads. A fair rental of a well applied electric system will afford revenue enough to defray all expenses of a well ordered State government; will give to those who now feel their dependence on the canal twelve months work instead of nine and better pay for lighter or more effective work; will give to the railroad now opposing its change from a waterway, twofold more business within five years after the application that it has ever had from the territory it traverses. And it will make of the canal, itself, a clean, clear and sanitary water course, instead of a receptacle for the filth accumulating from its present occupation. The development and use of electric power is no longer an experiment; its transmission may yet be limited, but there is no point, not even in the far southeastern corner of the Eastern Shore, that may not be reached and come under the blessing and the use of the now wasted power of the Potomac; and all through the medium of wise use of the despised old canal.

The Board of Public Works has a serious question before them if the courts shall decide upon a sale. The courts too have in hand a grave issue - the wisdom or propriety of allowing one corporation to absorb or destroy another. Judges may well stop to consider when millions are hanging between the letter of law and the spirit of justice.

At a first cost of more than \$11,000,000, through mismanagement, unwise, if not doubtful, legislation, and the persecution practiced by rival corporations, it is estimated the canal owes to the State more than \$30,000,000 - a vast sum - far too much to be looked upon with indifference. Under a rational reformation there can be no doubt it will be worth millions for those now living and a heritage of incalculable value for those who may follow after. It is a question interesting alike to the country and the town, the rich and the poor, and demanding the most earnest consideration of intelligent Marylanders, a coming together of the scientific and

the practical, of the brain and the brawn, in council to save the most valuable franchise (excepting, perhaps Niagara) in the United States, east of the Mississippi river.

Jos. L. HAINES,
June 12th, 1900. Linwood, Md.

- From the John Frye Collection

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THE PRESIDENT'S COLUMN

Over the last couple of years, our good friend Tom Hahn has donated hundreds of historic photographs of the C & O Canal to the Association's archival collection, soon to be centralized in our space at Ferry Hill. These photos include many that Tom has used in his books, plus scores that have not been published. They cover the entire period from the Civil War to the recent past, and show scenes of the canal during its operating period, though its acquisition by the Department of the Interior, and since.

In sorting through the pictures and cataloguing them for the collection, I was particularly interested in many photos of canal boats in operation, especially those that were not the usual type. Canalboats, like automobiles and airplanes, developed into recognizable styles that identify their origin and use, and each canal system seems to have produced distinctive boat types. As Walter Edmonds describes the Erie Canal, "everywhere . . . upon the water there were boats, of all colors and of many shapes, with men and women moving on their decks. Boats coming in and hauling out, both east and west, the drawn-out wailing of their horns a sound behind the stirring sound of the town."

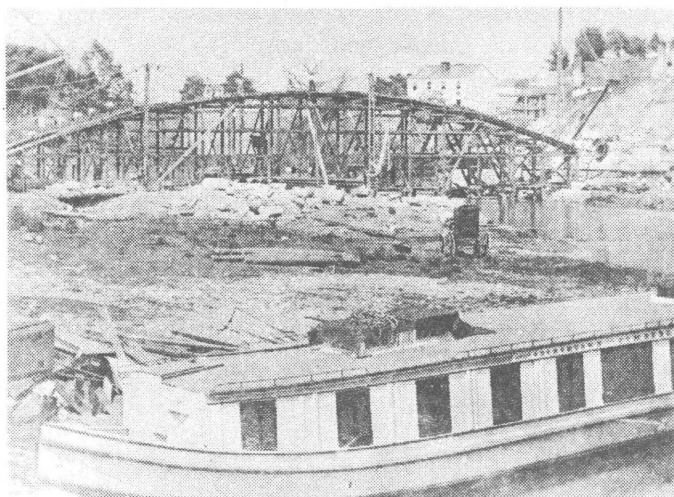
The Erie Canal produced many classes of boats - lakers, bullheads, line boats, as well as the usual freighters and packets. Elsewhere, such as on the Lehigh-Delaware system, "stiff" boats competed with two-part section boats. Other canal systems all developed their own distinctive, if not unique, boat styles. In all cases, lock dimensions on a canal dictated the maximum length and width of the boats to be used.

In the early days of the C & O Canal, there were almost no standards for boat construction. Sanderlin notes that the quality of boats sorely grieved the canal's directors, as no one seemed willing to invest in the kinds of great vessels they envisioned, and they complained "of iron-shod boats, leaky scows, drifting rafts, and sunken wrecks obstructing navigation." Farmers often built their own boats designed to last for only one trip. Gradually, the company managed to drive off the undesirable craft, and encouraged the development of new and larger boats. This, of course, occurred during the first two decades of the canal's operation, before photography was able to record the scene.

THE PRESIDENT'S COLUMN - continued

The opening of the canal to Cumberland in 1850, eight years after the Baltimore & Ohio Railroad reached that point, marked its beginning as primarily a single-commodity hauler, and the ubiquitous 92-foot, three-cabin coal boat quickly evolved as the C & O's distinctive type. This design remained virtually unchanged for the remaining seventy-four years of the canal's commercial life, and at their peak, almost 600 of these boats were in operation.

No other major class of boats appeared on the canal. There were some packet boats to carry passengers (the B & O's Metropolitan Branch connecting Washington directly with the west did not open until the mid-1870s). One of the earliest photographs in the collection shows a Georgetown-Cumberland packet boat at Lock 1 in about 1860, with the Pennsylvania Avenue bridge across Rock Creek, carrying the new Washington water supply pipes, under construction in the background.



Construction of the Pennsylvania Avenue Bridge at Rock Creek c.1860 with Cumberland packet boat in foreground at Lock 1.

- - Tom Hahn Collection



The **ORIOLE** carrying about 20 people. Appears to be powered by animal. Note sailor in center, half-moon on structure on the stern.

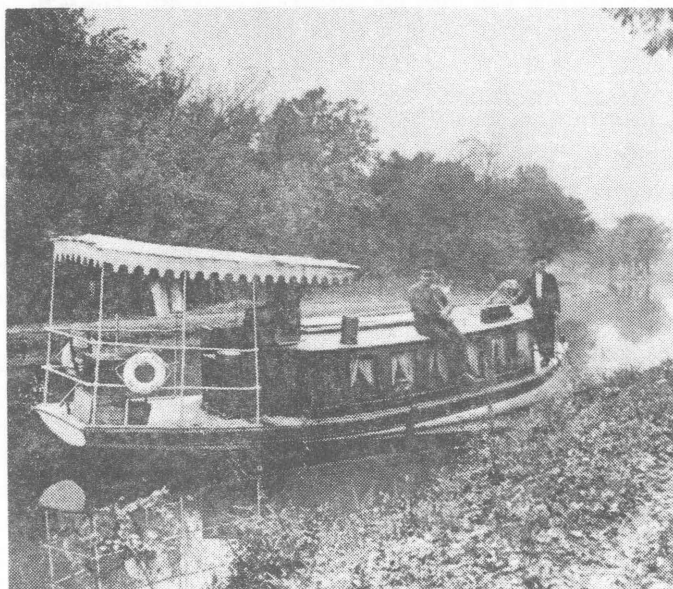
- - Tom Hahn Collection

There were also small excursion boats on the canal, carrying passengers on weekend outings. These included the "OAK SPRING" out of Cumberland, the steamer "LOUISE" of Georgetown that took visitors to Great Falls, and the little barge "ORIOLE" that operated from Hancock to an amusement park at Big Pool.

The canal company operated a fleet of work scows for repairs and maintenance, and as tenders for the dredges. About half the length of the coal boats, the scows were square-ended, with a flat deck and a cabin in the stern.

Some of the most interesting pictures in the collection show the "VIKING" of Washington, D.C., a small launch of about thirty feet, with a forward cabin with six windows on each side, and a canopy-covered quarterdeck. It does not appear to have a boiler, so it may have had a gasoline engine. There is no tiller; there appears to be a wheel in the front of the cabin.

The boat appears in photos taken at Chain Bridge, Brookmont, Glen Echo, Seneca, and above Big Slackwater. Judging from the clothes of the crew and the placement of various items of the boat, it is likely that all of these pictures were taken during the same trip. The pictures are undated (but probably between 1900 and 1920); no further information about the boat is given. Is it a company boat on canal business, carrying the superintendent or the paymaster? Is it a private boat or a vacation cruise or fishing trip?



The **VIKING**, taken at the foot of Four Mile Level above Big Slackwater.

- - Tom Hahn Collection

One of the challenges of looking at old pictures is that for every bit of knowledge that we gain about the subject, new questions are opened up. Does anyone recognize this little boat and know when and what it was used for? If you do, please let us know. One of the major objectives of our archives program is to be able to make all of this material

PRESIDENT'S COLUMN - continued

available to members, and to gain from our members' knowledge.

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Joan Paull has served as our volunteer program coordinator in the Palisades District for ten years and during that time has provided dedicated leadership in building the program into a schedule of regular monthly workdays. It has been entirely through her efforts that these projects have continued throughout the past decade, and the accomplishments that we have achieved for the park are the result of her perseverance in making the program grow and work. Her tireless effort is greatly appreciated. Joan has decided, after ten years, to step down from the organizing role in the program (although we still expect to see her there with her water jug and first aid kit - in case Bill Speck gets bee-stung - and making sure that everyone has a job to do). We are pleased that John Lindt has agreed to take over as coordinator for our Saturday morning projects, and that Jane Larsen will be coordinator for the Georgetown concerts. I know that John and Jane would like to see you turn out for their respective projects. Check the calendar section for the dates, and give them a call to get the details. The concert series runs throughout the summer, and we will resume our work projects in September.

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I know that all of the members of the Association join me in expressing our deepest sympathy and condolences to past-president John Chandler on the passing of his wife, Barbara.
- - Dave Johnson

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NOTES FROM THE BOARD OF DIRECTORS MEETING

The Association's Board of Directors met on Sunday, April 4, at the Glen Echo Town Hall. Issues discussed included the status of locating our archives at Ferry Hill, progress on the Food and Lodging Guide, plans for the Douglas and Heritage hikes, and Park Service plans for restoration of the towpath at Widewater. The Board also discussed the bill then pending in the Maryland Legislature to create a Canal Place Authority in Cumberland, and the feasibility of participating in the NPCA's 1994 "March for Parks."

The Board adopted motions on the following issues:

- The Association's 1993 grant to the Park will be used to reprint the Facilities Guide, as requested by Superintendent Hobbs.
- The Association will acquire a printer, scanner,

and modem for preparation of the newsletter, in a sum not to exceed \$2,000.

- The Environmental Committee will initiate a safety study of the grade crossing of the towpath at Fort Avenue, Cumberland.

The Association will recommend that the secretary of the interior appoint Minny Pohlmann to fill an At-large vacancy on the C&O Canal NHP Commission.

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POTOMAC RIVER GREENWAYS COALITION ANNUAL MEETING

The annual meeting of the Potomac River Greenways Coalition was held on April 30th 1993, at the Fairfax County Governmental Center. This was the first general meeting of the coalition's members since January 1992.

Following a welcome and opening remarks by Jim Cummins, associate director for living resources for the Interstate Commission on the Potomac River Basin, who is the chairman of the coalition's coordinating committee, and coalition vice chair Jim Chandler, who is a planner with the Northern Virginia Regional Park Authority, the keynote address was made by W. Keith Olson, director of special projects for The Conservation Fund. Mr. Olson noted that all conservation efforts are ultimately local. Development is linear and conservation, too, ought to be linear. Greenways should be part of a community's economic plan. He urged the members of the coalition to strive to build partnerships and establish a practice of eternal volunteerism.

After reviewing the annual report prepared by the coordinating committee, the meeting broke up into five subcommittees to begin planning future actions. Each of the five committees will hold additional meetings throughout the year. The committees established are Planning and Implementation, Advocacy, Fundraising, Communications, and Education.

The Potomac River Greenways Coalition began its work three years ago with a small group of conservation minded individuals, members of private conservation organizations and government officials with a responsibility for natural resources management. This group collected together in response to the changing nature of the threats to the preservation and restoration of the Potomac River and its surrounding lands and tributaries. The emphasis of the Potomac River Greenways Coalition is to broaden the efforts to preserve and protect the river - its water quality, wildlife habitats, cultural, historical, and recreational resources - through encouraging the responsible management of the land areas within the entire watershed. (Throughout this and previous meetings, it has been noted that the C&O Canal National Historical Park protects only about one-sixth of the

POTOMAC RIVER GREENWAYS COALITION -con't. river's shore.)

Among the organizations and agencies actively represented in the coalition are The Conservation Fund, Accokeek Foundation, Chesapeake Bay Foundation, Metropolitan Washington Council on Governments, National Park Service - National Capital Region, Interstate Commission on the Potomac River Basin, Virginia Department of Conservation and Recreation, Maryland Department of Natural Resources, and D. C. Department of Parks and Recreation.

The Association was represented at the coalition meeting by President Dave Johnson, Vice-president Hal Larsen, and Environmental Committee Chairman Orrin Long.

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THE ASSOCIATION WELCOMES NEW MEMBERS

Mario & Anne Abbate, Germantown, MD
Harry T. Bridges, Springfield, VA
Stephen & Angela Burket, Arnold, MD
Rafael C. Caruso, Bethesda, MD
Donna & Fred Coleman, Parkersburg, WV
Ed Cummings, Silver Spring, MD
Dorothy Davidson, Reston, VA
Shirley J. Edwards, Silver Spring, MD
Diane Ellis, Brunswick, MD
Barbara & Lester Fant, Washington, DC
John R. Harpold, Arlington, VA
Elise B. Heinz, Arlington, VA
Terry Hepburn, Hancock, MD
Kenneth Jaros, Pittsburgh, PA
Thomas F. & Carolyn Johnson, Annadale, MD
John & Kathleen Kay, Chevy Chase, MD
Charles & Estelle Laughlin, Kensington, MD
Judy & Harvey Lutz, Bunker Hill, WV
Frances E. McFall, Washington, DC
Ms. Jean F. Moore, Vienna, VA
Milton & Tatyana J. Moss, Bethesda, MD
Lori Murray, Gaithersburg, MD
John W. Newland III, Potomac, MD
Alan C. Randall, Chevy Chase, MD
Frank Sanders, Potomac, MD
Ben & Joyce Schlesinger, Bethesda, MD
William A. Schmidt, Bowie, MD
Jean V. Searles, Gaithersburg, MD
Leonard Skoglund Family, Fairfax, VA
Roger Snyder, Chantilly, VA
Gregory W. Spalding, Damascus, MD
Jeanne & Harry Thomas, Knoxville, MD
Connie & Pat Toops, Martinsburg, WV
Roy Voegelé, Washington, DC
P. Valerie Vrieze, Frostburg, MD

NEW NPS TOWPATH TRAIL TO OPEN IN OHIO

The weekend of October 15-17, 1993, will mark the official opening of Cuyahoga Valley National Recreation Area's premier recreational facility, the Ohio & Erie Canal Towpath Trail. The 20-mile multi-use trail is the main path of the National Recreation Area and runs the length of the park between Cleveland and Akron, connecting with trails from neighboring communities and metro park units. Open to bikers, hikers, joggers, cross country skiers and strollers, the trail is constructed with a finely packed crushed limestone surface on almost level terrain.

The trail follows the Ohio & Erie Canal through a variety of habitats and landscapes spanning the 12,000 years of human habitation in the valley. The trail parallels remnants of the history of transportation - rail lines, roads, and bridges - and passes prehistoric earthworks, abandoned canal locks and aqueducts as well as historic wayside inns, a mill and farms.

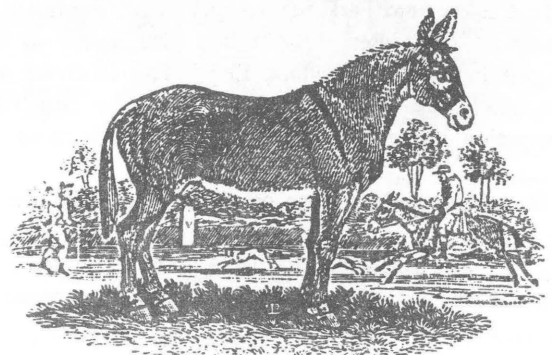
The opening weekend builds on the successful activities of last year's "Big 160" canal celebration by focusing on the natural and historical treasures found along the developing Ohio & Erie Canal Heritage Corridor.

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POT LUCK SUPPER AT GREAT FALLS TAVERN ON JUNE 26

Members of the Association are invited to participate in a Pot Luck Picnic Supper on Saturday, June 26, which we will hold jointly with the Friends of Great Falls Tavern. The event will get under way at six o'clock. Please bring a main dish, a salad, vegetable, or dessert to serve about twelve people. For reservations, please send your name and telephone number to Elie Pizarra, 10121 River Road, Potomac, MD 20854, (or call 301-983-1537) and let her know what you plan to bring.

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1 The Mule

CALENDAR OF UPCOMING EVENTS

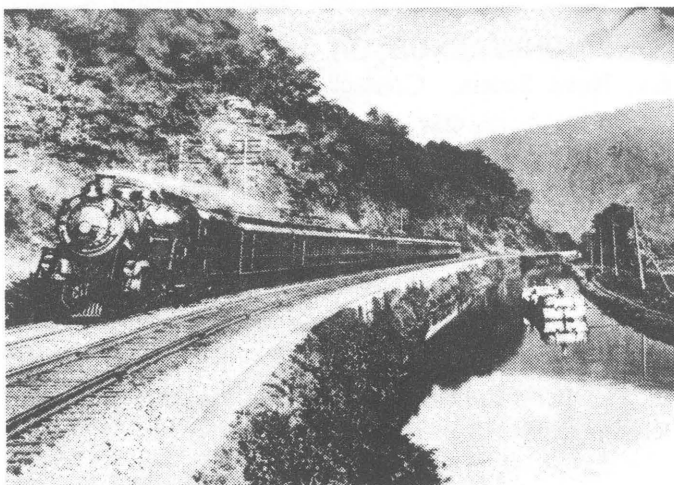
| <u>Date</u> | <u>Day</u> | <u>Event</u> |
|-------------|------------|--|
| June 26 | Sat | POT LUCK PICNIC - with Friends of the Great Falls Tavern. See page 6 for details. |
| Jul 10/11 | Sat/Sun | CUMBERLAND CANALBOAT FESTIVAL - Contact Tom Conlon (301-777-5088). |
| Jul 17/18 | Sat/Sun | CANOE THE RIVER - Brunswick to Monocacy. Contact Carl Linden (301-229-2398) or Ken Rollins (804-448-2934). |
| Jul 24 | Sat | Nature Hike - particular concentration on trees - Meet at 1:00 p.m. on the Towpath at 15 Mile Creek. Contact hike leader, John Popenoe (301-678-6379) |
| Aug 21/22 | Sat/Sun | WILLIAMSPORT CANAL DAYS - Contact Tom and Linda Perry (301-223-7010). |
| Sep 4 | Sat | VIP WORKDAY - Watch for details. |
| Sep 11/12 | Sat/Sun | PAW PAW BENDS CANOE TRIP - Contact Carl Linden (301-229-2398) or Ken Rollins (804-448-2934). |
| Sep 18/19 | Sat/Sun | HANCOCK APPLE FESTIVAL - Contact Rita Bauman (703-503-9323). |
| Oct 2 | Sat | VIP WORKDAY - Watch for details. |
| Oct 2/3 | Sat/Sun | BRUNSWICK RAILROAD DAYS, Brunswick, MD, Contact Diane Ellis (301-834-7976 or Rita Bauman (703-888-1425). This is a new festival for the Association. Volunteers needed to staff the booth. |
| Oct 10-15 | Sun-Fri | THROUGH-BIKE TRIP - Cumberland to Georgetown. Contact Sonny DeForge (301-530-8830). |
| Oct 12-15 | Tue-Fri | 1993 INTERNATIONAL CONFERENCE ON HISTORIC CANALS - Dartmouth and Halifax, Nova Scotia. Contact Dave Johnson (301-530-7473). |
| Oct 23 | Sat | ANNUAL HERITAGE HIKE - Lock 38 to Dam #4. Watch for details. |
| Nov 6 | Sat | VIP WORKDAY - Watch for details. |
| Dec 4 | Sat | VIP WORKDAY - Weather permitting. Watch for details. |
| Dec 11 | Sat | "FROSTBITE" HIKE - Fletcher's to Dam #1 and return via Capital Crescent Trail. Contact Ken Rollins (804-448-2934). |

THE C&O CANAL & THE RAILROADS: COOPERATION, SYNERGY, AND COMPETITION

The following article is extracted by permission from the presentation of Mr. Patrick Stakem for the joint meeting of the Western Maryland Chapter, National Railroad Historical Society and the C & O Canal Association at Cumberland Maryland, March 25, 1993, by permission of the author. Mr. Stakem is a member of the C&O Canal Association as well as the National Railroad Historical Society.

On the Fourth of July, 1828, the race to provide transportation from the mid-Atlantic seaports to the Ohio River via Cumberland began with the simultaneous initiation of the B&O Railroad line from Baltimore, and the C&O Canal from Washington. The National Road, begun under President Jefferson in 1806, already went through Cumberland. Thus, Cumberland would become a meeting place and an interim destination for three major transportation projects of the 19th century. George Washington, perceptive to the transportation need of the new nation, invested in and promoted canals and improvements along the Potomac, to provide an avenue of trade.

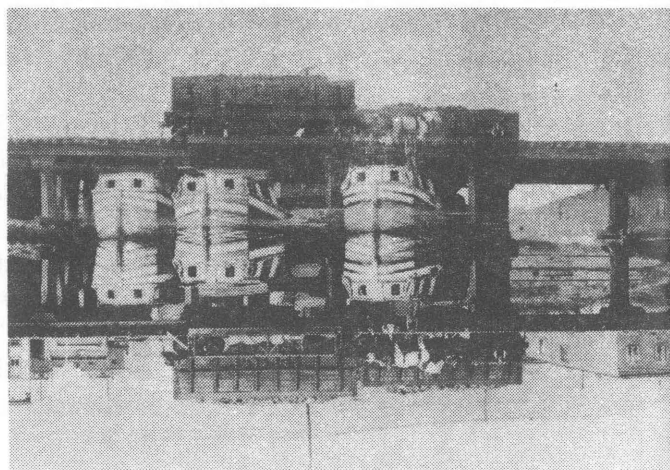
President John Quincy Adams turned the first shovel of dirt for the canal. Adams was an early supporter of canals as important parts of the transportation infrastructure of the new nation. In Baltimore, the sole surviving signer of the Declaration of Independence, Charles Carroll, turned the first shovel of dirt for the B&O Railroad. The first B&O President, Philip E. Thomas, served on the C&O canal Board of Directors. The fortunes of the canal and the railroads were intertwined from the very beginning.



Often-seen photo of the Capitol Limited and Canalboat at Sandy Hook
-- Tom Hahn Collection

The C&O canal and the B&O Railroad, starting out on the same day, had the same goals, but used different technologies to achieve them. The goal was reaching westward toward the Ohio River and the navigable water courses of mid America, and to provide access to the natural resources along the way. The railroad proved the winner in the race for access and cheap freight prices. The canal represented the best of old technology, being patterned after old, established lines used for centuries in England and the European Continent. The new, untried railroad provided a revolution in transportation and mobility. The story of the canal and the railroads is the story of the Industrial Revolution in America - the elements are coal, iron, and steam. The agents of change were the railroad, and to a lesser extent, the wagons and canal boats.

The B&O railroad, chartered by the merchants of Baltimore to open trade to the west, initiated service to Cumberland in early November 1842, and was heralded as the birth of a new age. The merchants of Baltimore originally viewed the rich grain trade of middle America as the big money lender. Later, coal was recognized as an ideal freight. It was not time sensitive - coal loads didn't care how long they sat out in the weather, didn't mildew, and didn't spoil. And, coal was useful - it was an ideal substitute for wood in heating homes and in industry. Most of the trees for a 50 mile radius around Baltimore had already been cut down and used for heat.



Cumberland and Pennsylvania Railroad Wharf at Cumberland where coal was transferred from hoppers to canalboats.

-- Tom Hahn Collection

*Water was introduced into the canal at Cumberland on June 11, 1850, but by this time, its chief rival had a considerable head start. The first boat, christened the **CUMBERLAND** by mayor Thomas G. Harris and several hundred people went on an excursion to celebrate the occasion. More celebrations were held in October as cargo boats filled with coal departed for Georgetown. Significantly, most of the distinguished guests arrived via the railroad from Baltimore, Washington, and Alexandria.*

THE C&O CANAL & THE RAILROADS - continued

To understand the canal and the railroad as freight and passenger haulers, it is important to understand the context of the mid 19th century, prior to the Civil War. At that time, Cumberland and the Allegany mountain region were a transportation nexus and important shipping point and gateway for the extractive industries of coal, timber, and agricultural products. Across the Potomac from Cumberland was the western most section of the state of Virginia, stretching to the Ohio River. Georgetown, near Washington, D.C., was a manufacturing center and distribution point for raw materials and goods. Alexandria, across the Potomac, was a rival manufacturing center and seaport. Baltimore was in trade competition with New York, Boston, and Philadelphia. Westward from New York, the Erie Canal would provide a link to middle America. Early canal efforts from Philadelphia to Pittsburgh, utilizing inclined planes to hoist the canal boats over mountains, evolved into the Pennsylvania Railroad. Baltimore needed to compete.

The extractive industries in Allegany county relied on transportation infrastructure to get their goods to market. The choices in the mid-19th century were the national road, the canal, and the railroads. For the merchants of the post Civil War, railroad shipments were cheaper than wagons, faster than canal, and on a dependable schedule all year round. But, that wasn't always so. When General Braddock wished to ship a vast amount of military goods from the port of Alexandria to Cumberland, his pioneers had to build the road first. America's National Road, a necessary first step for commerce and trade via wagons, was federally subsidized. The canal and the B&O railroad routes would be built with private funds, although various levels of government heavily subsidized the stock subscriptions and bond issues.



Old single track at Point of Rocks before tunnel was cut. Note close proximity of railroad and canal.

- - Tom Hahn Collection

Along the Towpath

The National Road had been built with Federal funds, but turned over to the states for maintenance. This proved a costly headache for the states, and toll booths had to be established; the first, several miles west of Cumberland. The road was specified to have a maximum grade of 5%, to allow heavily laden wagons to get up, and safely down the grades. Cumberland sits at an elevation of 640 feet, with Washington and Baltimore essentially at sea level. The canal and the railroads chose a flatter, water level course along the Potomac River. At choke points, such as Point of Rocks and Harper's Ferry, the canal and the railroad came to litigation over use of the restricted right of way. Further upstream at Paw Paw, West Virginia, the canal and the railroads used similar techniques to defeat the meanders of the river. Tunnel Hill, opposite Paw Paw on the Maryland side, is pierced by two railroad tunnels and the canal tunnel.

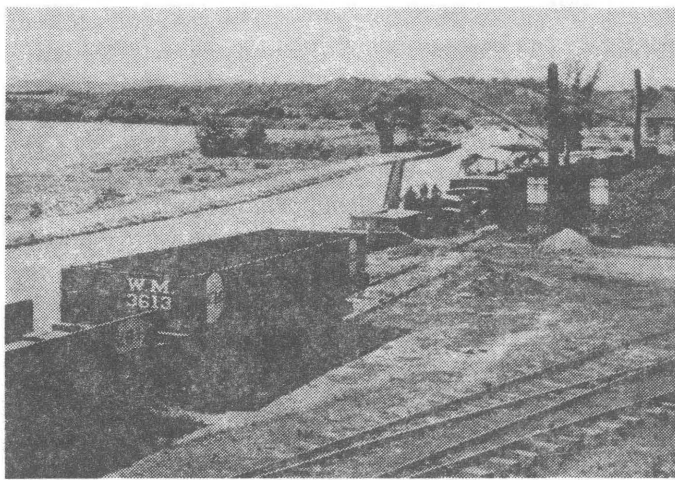
Wagon trains used the National Road to get to the Mississippi and Missouri Rivers for the trips west. In 1840, there were only about 2800 miles of rail laid, mostly along the east coast. There were 30,000 miles of railroad by 1860. The US landscape changed rapidly after the Civil War. The Civil War stressed the transportation links of the nation, and hastened their development and maturing. The B&O railroad was in a bad position, running from Harper's Ferry westward through the State of Virginia. This was because of an earlier compromise, whereby the state provided funding, while requiring the railroad to build south of the Potomac. The canal was better situated, being on the Maryland side. Besides, the canal was harder to damage; its structures didn't burn well. During the Civil War, the canal continued to supply coal to the Federal City, while the B&O was blocked in Harper's Ferry when Stonewall Jackson burned the bridge and captured the engines and rolling stock. The logistics value of the railroads had been recognized by both sides.

By the turn of the century, the US was beginning to be a world power, having rushed troops by train to Mexico during their civil war and fought a war with Spain in far off places such as Cuba and the Philippines. For the Spanish-American War, coal for the fleet came down Georges Creek in railroad hoppers and canal boats. Similar roles were played for World War I. After the floods of 1924, the canal closed as an economic entity. The railroads would compete with the over-the-road trucks.

The canal cost between \$11-12 million to build. This came from private subscription, the federal government, the city of Washington, D.C., the state of Maryland, Alexandria, and Georgetown. The B&O expended about \$7.6 million raised from private subscription, and bonds backed by the City of Baltimore and the State. The National Road, built with Federal funds, cost about \$1.5 million to reach Cumberland. Thus the canal was already at a disadvantage in terms of cost-to-complete, even before losing the race. Significantly, the rail for the B&O had to be imported from England, until the technology was developed in Mt. Savage, Md., for rolling

THE C&O CANAL & THE RAILROADS - continued

rail in the U.S. Mount Savage would later host a major technology center, including shop facilities for the Cumberland and Pennsylvania Railroad that would produce over 100 locomotives. Prior to the Civil War, rail was predominately iron, usually of the strap variety on wooden rail, or simple U-channel. The heavy freight and troop traffic of the war hastened the development of heavier steel rail. The canal and the railroad were in competition to haul freight from Cumberland to Washington and Baltimore. Economic issues would decide the eventual winner. Today, coal trains still roll through Cumberland and the canal is a national park.



W.M. at Cushwa in Williamsport

- - Tom Hahn Collection

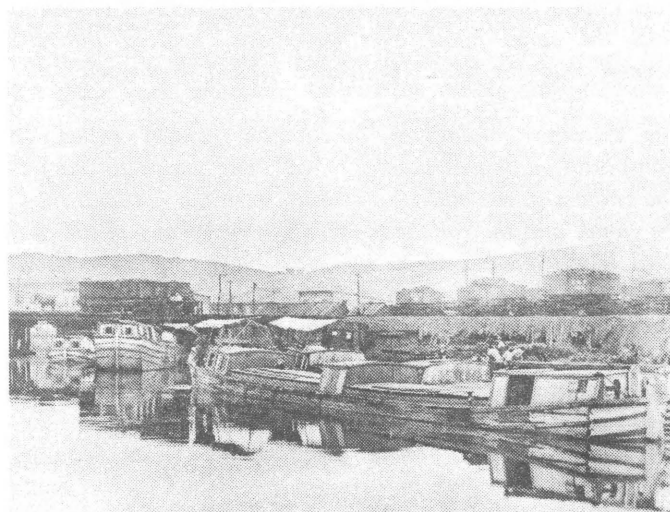
A typical canal boat hauled 120 tons; took about 5 days for the trip of 184 miles; the cost was between \$0.22 and \$0.65 per ton. This was about \$0.001-\$0.003 per ton-mile, much less than the railroad charged. In its best year, 1875, the canal company hauled 1 million tons of cargo in a fleet of 540 boats. The 1870's were the golden age for the canal; bad times were ahead.

Although the canal predominately used mule power, experiments in steam navigation were tried. The steam boats **BLUEBIRD** and **CATHCART** were used in experiments in 1859. No major advantage was shown, and faster traffic caused maintenance headaches due to induced erosion. Later in 1875, the **LUDLOW PATTON**, built in Cumberland from machinery made in Georgetown, ran the canal in "record time", which was not recorded. The slow but steady plodding mule team became the engine of choice. A good Kentucky mule cost \$125, and would earn \$3.00 per round trip. Interestingly, the best mules were shipped in by rail. Teams of 4-6 were needed for a trip, with at least two working a 6 hour shift, while the others rested on the boat. Horses and oxen were less suited to the labor than were the mules.

A typical coal train was made up of cars of 10 tons capacity;

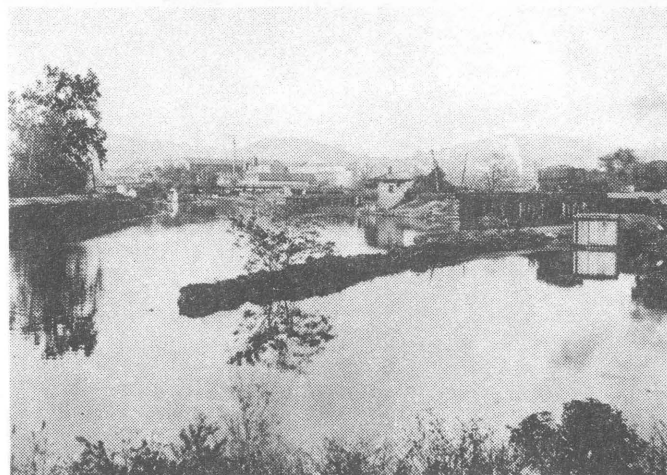
it completed the trip in 10 hours, allowing for twice daily service from Cumberland to Baltimore. Early in the Civil War, the Government freight rate was \$0.05-\$0.08 per ton-mile, dropping to \$0.02 per ton-mile in 1866, and to \$0.01 by the turn of the century.

An early locomotive, built in Baltimore, would cost \$7,000 to \$9,500. Such locomotives were as likely to burn coal as wood, pre- Civil War. After the war, coal became the norm. A typical unit would have the "American" 4-4-0 wheel arrangement and would be named, not numbered, just like canal boats. Coal and freight cars usually held 10 tons. Special triple pot hoppers were developed for the coal trade. An issue that had not been decided yet was who owned the freight cars - the railroads or the shippers? Availability of cars became an issue, and the flow of empty hoppers westward was as important as the flow of product eastward.



Another view of the C&P RR Wharf at Cumberland. Note coal hoppers in the right side background and the horse-pulled car on the loading area.

- - Tom Hahn Collection



The C&P Wharf in Cumberland.

- - Tom Hahn Collection

THE C&O CANAL & THE RAILROADS - continued

A typical freight wagon on the National Road hauled 5 tons and took 7 days for the trip. The Conestoga freight wagon, built in Pennsylvania, cost about \$65 - \$100, was up to 26 feet long and 10 feet wide. It traveled on 10 foot high, 10 inch wide, iron shod wheels. Wider wheel rims minimized road damage and resulted in lower tools. A heavy freight wagon could manage 20 miles per day, drawn by a team of 6-12 horses. Horse teams were changed out along the way, giving the teams a chance to rest. Teamsters plied the road year-round, and provided local service where the railroads did not go.

The canal relied on the railroads to supply head-on freight services at Cumberland. Transshipment from wagon or railcar to canal boat was the norm. The Cumberland Coal & Iron Company, among others, maintained a wharf at Cumberland. In the remaining photos of this era, we see canal boats being loaded from coal cars of the Cumberland and Pennsylvania (C&P), Consolidation Coal Company (CCC), the George's Creek and Cumberland (GC&C), and the West Virginia Central (WVaC). Horses were used to pull one car at a time onto the loading dock, as it was not built to take the weight of an engine. Many smaller branch and shortline railroads fed coal into Cumberland from the George's Creek mines, and those in West Virginia. These would gradually be merged into the larger lines, first, the Western Maryland, later the B&O, Chessie, and CSX. The B&O railroad bought the canal out of bankruptcy, and put it back in operation, after disastrous floods closed it for 18 months in 1889. When it reopened, the way of doing business was changed. No longer were the boatmen independent contractors with their own boats. Now the Canal Company owned the boat fleet, and employed the boatmen. Did the railroad see the canal as a threat that had to be controlled, or as an adversary already defeated? Did the railroad manipulate freight rates to its advantage? What about the relations with the rival Western Maryland railroad, when it extended its line to Cumberland in the early 1900s? These are all interesting questions to be explored.

In Georgetown, similar freight arrangements were necessary for unloading cargo. The Georgetown inclined plane (circa 1876), transported boats from the canal to the river via wheeled cars. It was steam powered. Canal boats could enter the river for tow to downstream destinations, or could transfer to Arlington on the Virginia side. The Alexandria Canal crossed the Potomac in an aqueduct, and provided access to the Georgetown and adjacent wharfs, directly to the Washington Navy Yard, to U.S. Navy ships anchored in the Potomac, or to the Government powder plant at Indian Head.

The canal couldn't operate during winter when freezing was a problem; thus' the prime commodity (coal) had to be stockpiled. Merchants and boatmen had to guess when the last trip of the season could be made. The usual season was

April to late November or early December. The Farmer's Almanac provided the only guide to weather forecasts. Wrong guesses led to entrapped boats in inconvenient places. The railroads provided year-round service and year-round employment.

Although coal was the primary commodity hauled, the railroads and the canal also hauled timber, grain, limestone, and livestock east and manufactured good west. Industries such as the Potomac Granite company and the Granary at White's Ferry built facilities right along the canal. These were the equivalents of railroad sidings. Some industries hedged their bets by being served by both the canal and the railroad. Both the canal and the railroad required supporting infrastructure in Cumberland. Both industries required hotels, boarding houses, saloons, markets, and warehouse facilities. Banking services were also required. For the canal, extensive boat yards built and repaired units for the trip. Among these were Merten's, supplied with timber by return boats from lumbering along Martin's Mountain. The company boat yard was located roughly where the Western Maryland Station now stands today. In its peak year, the yards turned out 170 new canal boats. Stables, blacksmith shops, and vets catered to the mules. The boatmen could take advantage of the delay in loading the boats by replenishing food supplies and perhaps tasting a tiny amount of beer or whiskey from the numerous taverns in Shanty Town, below Wineow Street.

Similarly, the B&O by 1872 constructed a major rolling mill for rail production and heavy iron products, and built repair shops in Cumberland. The railroad eventually built a train station and hotel complex (**The Queen City**), which would stand for about 100 years. CSX still operates shops in South Cumberland for locomotive and car repair.

The canal was never a serious contender for the passenger business and no revenue passengers were carried after 1889. Before the railroads, the stage lines operating over the National Road were the norm. In the 1840's, passage from Baltimore to Cumberland by stage took 20 grueling hours and cost \$9. The B&O charged \$7.12 for a 10 hour trip. After the rail line opened, passengers took the train to Cumberland from Baltimore or Washington, and changed to a stage for points west. Abraham Lincoln used this route to return home to Illinois after his stint in the House of Representatives. As the railroads pushed west, passenger stage travel declined. When the B&O reached Wheeling on the Ohio River, stage traffic from Cumberland stopped. In 1844, the B&O railroad granted the President of the C&O Canal Company a free travel pass. It is not recorded whether he reciprocated.

The railroads pushed beyond Cumberland toward the Ohio River, the B&O reaching there in 1853. The line to the Mississippi River was in place by the mid 1850's, with Transcontinental; linkage by 1869. The Canal Company had expended its available funds and best efforts in getting to

THE C&O CANAL & THE RAILROADS - continued

Cumberland and never went further. One can speculate what route it would have followed to go further - the Pennsylvania route up Wills Creek and toward Pittsburgh, or the southern route via Westernport and West Virginia.

Construction of the canal and of the railroad took roughly the same skills and competition for the pool of available labor in the period 1838-1842 must have driven up wages. The railroad demanded more skilled operators than did the canal, and consequently, paid better. Boatmen could take their family on the trip and use the children to drive mules. The railroad engineer had a premier, skilled job, aided by his fireman, brakeman, and conductor. He was usually back home in a day or two. The boatman probably lived on his boat throughout the summer, and wintered over in Cumberland, Hancock, or Williamsport.

The areas of signaling and traffic priorities had to be solved by both the railroads and the canal. Just as only one canal boat can use a lock or tunnel at one time, only one train can occupy a stretch of track. Canal locks were operated on a first-come, first-served basis, with some priority to the downstream, laden boats. The Paw Paw tunnel presented a priority problem never adequately solved that required some upstream boats to back out in favor of a downstream cargo. Some boatmen, acting like their mules, refused to back out, tying up the canal, and requiring management of militia intervention.

The railroads utilized the newly invented telegraph for signaling and scheduling and were able to coordinate traffic over single line track adequately. Schedules never remained adequate for long due to unforeseen events, accidents, and breakdowns. The railroads were even able to dictate the notion of standardized time across their domain, a concept which was never needed before.

So why did the railroad ultimately succeed when the canal did not? The railroad had been the first to open service to the coal fields and even though the canal offered lower rates, the railroad provided consistent, year-round service. The canal was more expensive to construct and maintain than was the railroad, and was easily damaged by floods and disasters. The railroad had a freer choice of where to build mainline and feeders. Economics dictated the winner, and it was the Iron Horse, not the mule team and the boats. Speed and consistent service won.

*In November, 1992, Cumberland celebrated the 150th anniversary of the first B&O train with the reproduction **LAFAYETTE** engine steaming in to town. A similar anniversary is coming up in the year 2000. It would be impressive to have a reproduction of the canal boat **CUMBERLAND** pulled by mules into the rewatered canal basin at the Cumberland Terminus. Symbolically, guests could then board the steam train for Frostburg.*

OVERNIGHT BIKE TRIP

Amid semi-organized chaos, 23 bicyclists converged at the Maryland end of the Harpers Ferry railroad bridge early Saturday morning to begin the Association's first bike trip of the year. We were members and non-members, veterans and beginners, young and old, and we were all, as you'll see, on vastly different schedules.

The weather was perfect on both days, warm enough for shorts but cool enough to discover most bugs. By lunchtime Saturday we reached the Calico Rocks hiker/biker and assembled as a group for the first and last time. Some boy scouts camping here were kind enough to assist us in getting some group photos after lunch. This was fortunate, since right after the picture session, seven of our party had to turn back to Harpers Ferry because of scheduling problems, leaving sixteen riders to carry on.

For the rest of us it was onward to Whites Ferry, where we split into two groups, the "motelers" who ferried across the Potomac and rode into Leesburg, Virginia, and a room for the night; and the campers who rode another mile to the Turtle Run hiker/biker. One rider was picked upon at Whites Ferry, and we were down to fifteen.

Sunday morning two of the campers left early to meet their ride at Great Falls. The remaining thirteen reconvened at Whites Ferry for a group breakfast at the snack bar, after which eight more left to ride back to Harpers Ferry, and then there were five.

These last riders pushed on to lunch at guard lock two and Great Falls, where one rider turned around to bike back to his car at Antietam Creek walk-in camp, and another met his ride home, and then there were three.

Since I was the one who left at Great Falls, I take it on faith that the last three riders did in fact ride on to Carderock and meet Ken Rollins, who had been ferrying gear and cars for us all weekend. And then there were none!

George Complair and Sonny DeForge just happened to be two of that final three. Thanks, guys for a really great experience. I know I speak for the Whole bunch when I say that we wish our time pressures had allowed us all to be there to the end, and I'm sure we're all looking forward to many more towpath miles with you.

- - Gary Petrichick

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On The Level

Keith D. Kridenoff
1993 Level Walker Chairman

I would like to thank all the level walkers who sent in reports and words of encouragement during my first months in office. A very special thanks goes to Karen Gray for building up and maintaining the program in a professional and organized manner. This has made my job a lot easier.

The flooding and high waters resulting from the Blizzard of '93 left a lot of trash behind in its wake. All the level walkers who have hiked and cleaned their sections are to be commended on the amount of garbage picked up to return the towpath to pre-flood conditions.

-----Level Walker Hikes-----

June 26, 1993 - Level 38 Williamsport Lock 44 to High Rock Quarry - 10:30 a.m.
We'll meet at lock 44 and walk upstream. This will be a great opportunity to view the restoration in progress at the Cushwa Basin.

August 14, 1993 - Level 21 Brunswick Lock 30 to Weverton Lock 31 - 10:30 a.m.
Meet at Lock 30 and we'll walk upstream to Lock 31. Bring a lunch and we'll eat at Weverton.

REMEMBER

Level walker hikes are open to all members and their friends and families. Please feel free to attend!

Anyone interested in becoming a level walker can contact me at (410) 661-8285 1725 Red Oak Road Baltimore, Maryland 21234

The deadline for reports for the next newsletter is August 5th.

LEVEL WALKER REPORTS FOR FEBRUARY TO MAY 7, 1993.

03 Mile 5 - 7.5

Lock 5 to Cabin John Creek

James and Joan Wilson (2/11,4/17)

Parking still closed at Lock 7 due to parkway construction. Beaver activity has brought several trees down 350 yards below Lock 7.

04 Mile 7.5 - 9.4

Lock 7 to Lock 14

Charles A. Bookman (4/18)

Slight flood damage on towpath below Lock 8.

07 Mile 14.3 - 16.6

Lock 20 to Lock 21

Gene Dunbar (2/8) Jack Francis (2/8)

Towpath in good condition. Very muddy in several sections after rain. Beaver cuttings at mile marker 15.

08 Mile 16.6 - 19.6

Lock 21 to Lock 22

Paul Davis (2/14,3/27,4/23)

Tree down in river at mile marker 19 may weaken towpath embankment. Much towpath damage caused by receding floodwaters. Several sections barricaded by Park Service. Many large fallen limbs need to be removed from towpath.

09 Mile 19.6 - 22.8

Lock 23 to Lock 24

Jeffrey Brown (2/21) Janet Lanman (4/27)

Tire in canal at mile 22.2.

10 Mile 22.8 - 25.0

Seneca Aqueduct to Tenfoot Island

Michael Werth (5/2)

Overly loud power boats noisy in river at Seneca.

LEVEL WALKER REPORTS -continued

12 Mile 27.2 - 30.8

Sycamore Landing to Edwards Ferry

Stephen Pollock (3/24,4/6) Charles Otstot (4/18)

Very muddy between mile marker 29 and 30. Washout between prism and river (roughly repaired with stone). River level up to back of Jarboe's store.

14 Mile 33 - 33.5

Harrison Island - White's Ferry

Patricia Schindler (2/6)

Sinkhole still in prism noted in last report.

16 Mile 39.4 - 42.2

Woods Lock 26 to Monocacy Aqueduct

Steve Dean (3/12,3/27,4/30) C.H. and Chris Breedlove (4/17)

Loose stone in lower arch of aqueduct. Also noted was a hole in the center of culvert 65. Vandalism done to lockhouse 27 noted in past has been repaired. Trash cans returned to aqueduct area.

17 Mile 42.2 - 44.6

Monocacy Aqueduct - Nolands Ferry

R.E. Adler (4/17) Terry & Bob Ledley (4/9)

Police and a ranger responded to teenagers camping in unauthorized area.

18 Mile 44.6 - 48.2

Nolands Ferry to Point Of Rocks

Paul Redmer (4/7) Mary Olczak & G.S. Troop 2461 (4/24)

Several birds of Spring noted. Many "potholes" along towpath.

22 Mile 58.0 - 60.7

Weverton Lock 31 to Harpers Ferry Lock 33

Arthur & Larue Stier

Towpath was closed below mile 60. (3/8)

23 Mile 60.7 - 63.0

Lock 33 to Dam 3

Bob & Eileen Rabson (2/6) Mike Reges & Kathy Wotring (3/20)

Much cutting and trimming by NPS.(2/6) Washout of towpath near Lock 33 after blizzard.

25 Mile 65.2 - 67.0

Dargan Quarry to Mountain Lock 37

Ruth & Ken Dickie (2/14) Norman & Cheryl Thomas (4/11)

Some flood damage between mile 66 & 67.

26 Mile 67.0 - 69.4

Lock 37 to Antietam Aqueduct

Rick Clement (4/13)

Trash collected was mostly beer bottles. Referred to in report as "major mecca for foam guzzlers"

30 Mile 76.6 - 79.4

Snyder's Landing to Lock 40

Donna Colombel (4/9)

Major towpath erosion near mile 78.

31 Mile 79.4 - 81.6

Lock 40 to Marsh Run Culvert

Deborah & Barry Kistler

Large amounts of trash deposited along Horseshoe Bend. Hiker-Biker area covered by thin layer of mud. two boats in the trees reported to ranger.

33 Mile 84.4 - 88.1

Dam 4 to McMahons Mill

Nick & Peggy Weber (4/6)

Vandals dumped several road signs in canal below Dam 4 winch house.

34 Mile 88.1 - 91.0

McMahons Mill to Foremans Ferry

Tom & Linda Perry (4/24)

Towpath underwater from 88.5 and up.

37 Mile 94.4 - 99.3

Falling Waters to Williamsport

Ellen Holway (4/24)

Cumberland Valley HBO had been partially underwater . Very trashy area near mile marker 98.

41 Mile 106.8 - 108.6

Dam 5 to Lock 47

B & J Guyer (3/7) Ginny Small (4/11)

Towpath beginning to washout west of Dam 5. Large amounts of trash from flooding.

43 Mile 110.4 - 112.4

McCoys Ferry to Fort Frederick

Sonny DeForge (3/9) karen Gray (3/7)

Removed several large limbs from towpath. The holes in the two culverts are getting worse.

44 Mile 112.4 - 114.5

Fort Frederick to Ernstville

Jane & Hal Larsen (3/7) Marlin Heintzelman (3/9)

Large tree cut down at mile marker 113.3. Center cut away to make passage on towpath.

47 Mile 120 - 124

Little Pool to Hancock

Jim & Sally Bryant (4/25)

Slight washout on towpath at mile marker 122.5.

48 Mile 124.1 - 127.1

Hancock to Round Top Cement Mill

Fred Seitz (3/7)

Cleared off many limbs from towpath. Water level high in canal.

LEVEL WALKER REPORTS -continued

50 Mile 130 - 134

Lock 53 to Dam 6

Gren Whitman & Janice Plotczyk (4/11)

Unusually large amount of water in canal.

51 Mile 134.1 - 136.6

Dam 6 to Sideling Hill Creek Aqueduct

John Popenoe (4/21) George Perdue (2/6)

Cave-in culvert at Polly Pond. Towpath was barricaded.

Moles tunneling under and across towpath below guard lock.

52 Mile 136.6 - 140.9

Sideling Hill creek aqueduct to Little Orleans

George Perdue (2/6)

Large tree down at mile 139.7 taking out part of towpath.

Retaining wall partially collapsed at 140.7.

55 Mile 149.7 - 151.2

Lock 60 to Lock 61

Herb Gunther (4/11)

Fair amount of fallen trees and limbs.

56 Mile 151.2 - 153.1

Culvert 208 to Kasekamp Road

Herb Gunther (4/11)

Water level in canal and river high. Run off from Green Ridge.

61 Mile 162.3 - 164.8

Town Creek Aqueduct to Lock 68

Mary Twigg (2/10)

Fresh beaver cuttings in canal.

65 Mile 173.4 - 175.5

Spring Gap to North Branch

Mary Twigg (1/31,2/20)

Towpath in good shape.

66 Mile 175.5 - 177.7

North Branch to Mexico Farms

Mary Twigg (1/30,2/20) Jim Sartwell (2/6)

Towpath in great shape since new gravel added earlier.

67 177.7 - 180.7

Mexico Farms to Evitts Creek Aqueduct

Mary Twigg (1/17,2/20)

Federal Prison construction continues.

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NATURE NOTES

Only a small heap of feathers lay on the canal bank, tiny bill wide open. The black throat and blue beak clearly identify it as a black-throated blue warbler, en route on its long journey from Key West or even farther south in the West

Indies to its breeding area in northern New England or southern Quebec.

There was no evidence of an attack by a predator. Was it simple exhaustion that caused the small bird to fall from the sky to the place it was found on the grassy canal bank? Had it been exposed to the poisons used by many gardeners and farmers at this time of year to reduce insect pests and keep lawns green? Had the use of poisons so reduced its food supply or small caterpillars and insects that it literally died of starvation?

The small lifeless body could not tell its story, but it was one more symbol of a fact that becomes increasingly plain as spring comes on once more and the number of spring migrants passing through this area continues to decline.

Earlier, another casualty, rather clearly nature's own making, saddened local eagle watchers. They found the pair of adult bald eagles that have been nesting on Conn Island for the last eight years away from their nest when a late winter storm brought its cold and snow. The adult eagles' absence from the nest for such a long period with such cold weather could mean only one thing: there would be no eaglets to watch this year, the second (or third?) during the last eight in which young have been lost. With good luck, the adult pair will nevertheless be back at their home-making on Conn Island nest year.

On the ground level, spring floods have inundated some of the best areas for wildflower hunting this year. Yet as soon as the river receded, hosts of spring beauties covered the ground in some areas, their fragile roots apparently not much disturbed by the rushing flood water. Drifts of small clam shells from the river's depths littered the ground in some places close to the emerging wildflowers.

Unseasonable cold made the spring wildflowers late in getting started. As soon as the days started to warm, there was a sudden rush into bloom with early bloomers and later bloomers seeming to crowd together. Blood root blossoms flashed past, replaced by pointed seed pods. Hepaticas and saxifrage pushed up through the dried leaves. Squirrel corn appeared in a new location with plentiful Dutchman's breeches growing nearby.

A walk on the trail on the Goldmine Tract on May 1, found a solitary arbutus blossom but new growth in several places. A single pink wood sorrel bloomed beside the path. Tiny four-petalled bluets made blue patches in the spring woods. Three plants of showy orchis were found at a new location although they seemed to have disappeared elsewhere. Rue anemones continued to bloom and a single wood anemone was found in another area.

Everywhere in the woods the ferns were uncurling their fiddle-heads - - Christmas, winged beech, maidenhair, New York, and others. We could not find the club moss that used

NATURE NOTES - continued

to cover the ground in some places on the Goldmine Tract. Again we wondered whether an overpopulation of deer possibly led to its disappearance.

One wild turkey was observed in the woods, something to watch for on future walks on the Goldmine Tract. About 10 years ago they were often seen. Once, we even watched an adult do the "broken wing" act as she tried to lure us away from her nest.

Purple and occasionally yellow or white violets have been blooming in places along the towpath, along with field chickweed, golden ragwort, and occasionally blue phlox, wild geranium, and golden alexander. Spared untimely mowing as they flower and go to seed, there will be more in another year.

With the ever-changing river and the fickle weather as a back-drop, this year's spring has held all of its usual fascination. Soon we will be looking and listening for the sights and sounds of another season as the natural world slows the mad pace of spring to the more moderate flow of summer.

- - Helen Johnston

"Sights and Sounds of the Seasons" walks start at 10 a.m. at Great Falls Tavern on the first and last Wednesday and Saturday each month. They are led by three volunteers in the park who are also C&O Canal Association members: Betty Bushell, Betty Hensen, and Helen Johnston.

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BOOK REVIEW

by Dave Johnson

A PICTURE JOURNEY ALONG THE PENNSYLVANIA MAIN LINE CANAL,

1826 - 1857

by Philip J. Hoffmann, P.E., edited by William H. Shank, P.E. Published by American Canal and Transportation Center, York, PA, 1993, 80 pp., paperback, \$15.

Association members who attended the International Conference on Historic Canals at Harpers Ferry last October will remember Bill Shank's slides of the Hoffmann Pennsylvania Canal drawings. Following that presentation, it was suggested that he publish the best of the pictures. This book is the result.

Bill has used many of these pictures in other books that he has written and/or published, including The Amazing Pennsylvania Canals, The Columbia-Philadelphia Railroad, and When Horses Pulled Boats. In those books, however,

the pictures were in black and white (except on the covers), and usually no more than about 4" by 5". The new book reproduces nearly eighty of the best of the collection, all full-page and in full color.

The late Philip Hoffman (1891-1973) was an engineer for the Cambria Steel Company in Johnstown, Pennsylvania. His interest in the Portage Railroad and its connecting canal systems in Johnstown and Hollidaysburg led to the hundreds of detailed pencils, pen, and color sketches which he made of life on the Pennsylvania canal system in the mid-1800's.

Hoffmann's drawings show the construction and operation of the "Main Line of the Public Works" between Philadelphia and Pittsburgh. This unique combination of canal and railroads was owned by the Commonwealth of Pennsylvania and operated by the Canal Commissioners at Harrisburg. The Pennsylvania Railroad Company bought the entire system from the State in 1857, adding the Columbia-Philadelphia Railroad to its own line, and improving and operating certain canal divisions until 1901. Hoffmann's attention to historic detail in these drawings make the series a valuable study of the Main Line. It is a book that all who are interested in the history of American canals will want to have in their collections.

BOOK REVIEW

by William Trout

The Alexandria Canal: Its History and Preservation, by Thomas S. Hahn and Emory L. Kemp, West Virginia University Press, 1992.

Canal Buffs will be delighted to know that the very first monograph published by West Virginia University's Institute of Technology & Industrial Archaeology, is on a canal. As a Virginian, I am especially pleased that this is a Virginia canal - it branched off the Chesapeake and Ohio Canal, but it was built by a separate company in 1843 to take coal freighters from Georgetown, now part of Washington D.C., down to Alexandria's deepwater port on the Potomac.

The Alexandria Canal was only seven miles long, but it had all of the engineering features a notable canal requires, including a flight of four locks, a stone-arch aqueduct over Four-Mile Run, and a 1,100-foot aqueduct across the Potomac. Unfortunately for the canal, the same progress which was responsible for its construction has been responsible for eliminating nearly all traces of it in this solidly developed area surrounding the nation's capital. In fact, there is some debate about the exact route of the canal in relation to modern buildings. Could one of the secret rooms under the Pentagon be in the old canal bed?

The canal's most famous structure, the Alexandria Canal Aqueduct, was almost completely demolished in 1962, the victim of a foolish law in our land requiring that old bridge

piers be removed because they "obstruct navigation," even when there is no longer any navigation to be obstructed. Therefore, it takes a campaign to save an historic bridge or and aqueduct, and it took the Arlington Historical Society a lot of work to save one pier on the Virginia side.

The flight of locks, too, was almost lost forever. Over the years, the locks became completely buried and lost to view. Even the ownership of the lowest lock in the flight, the Tide Lock, was in dispute because the federal government claimed all the land to the high tide mark in 1776. Two centuries later when developers wanted to use the site, the federal claim was part of the leverage which led to a compromise - the development of the site but the uncovering and preservation of the lock as a waterfront feature, and the establishment of the Alexandria Waterfront Museum beside it.

The first excavation at the lock was by Vivienne Mitchell and Pamela Cressey in 1979, to prove that the lock was still there to preserve and to place on the National Register of Historic Places. Then in 1982 and 1985, Tom Hahn and Emory Kemp systematically excavated the lock for interpretation and restoration. It should be pointed out that their restoration recommendations were not entirely accepted by the developers. The lock is a static display today, without working gates, to avoid the "dirty Potomac water." Someday, we hope to see the lock brought back to life so historic small craft can be berthed on display in front of the Waterfront Museum.

The Alexandria Canal is a 76-page, well-illustrated account beginning with the history of the Alexandria Canal (with a good introductory chapter on its place in canal development in Virginia and the world) and ending with the author's archaeological study of the Tide Lock. It even has a glossary of canal terms, and extracts from the notebooks of the canal's engineer, Maskell C. Ewing. There are precious few books available on canal archaeology in this country so this important book is a must for every canaler's shelf. It is also a welcome change from useless contract archaeology reports made by investigators who may be good archaeologists, but who don't know a breast wall from a stop-gate slot. As anyone reading American Canals knows, Dr. Tom Hahn is a world-class canal archaeologist, one of the founders of the American Society twenty years ago. And, Dr. Kemp, who started the new Institute for the History of Technology and Industrial Archaeology, in 1989, is also a member of ACSW and knows his canals. It ought to be a law that contract archaeologists doing a canal site, should be required to include a recognized canal archaeologist or a canal expert as an integral part of their team. Canal archaeology is a specialty, and it takes special knowledge to pose the relevant questions of use to canal historians. Fortunately, Tom Hahn and Emory Kemp know what they are talking about. Let this book be a good example for future work in the field of canal

archaeology.

The Alexandria Canal is available at \$15 postpaid (plus \$.84 tax in WV) from the American Canal & Transportation Center, P. O. Box 310, Shepherdstown, WV 25443. Copies can also be purchased over the counter at the Alexandria Waterfront Museum at the foot of Montgomery Street in Alexandria, beside the Alexandria Canal's Tide Lock.

Other canal-related monographs in the works which are tentatively to be published by the WVU Institute of Technology and Industrial Archaeology, and distributed by the American Canal and Transportation Center in WV, are Hahn and Kemp's The Natural Cement Industry of the Upper Potomac River Valley, scheduled for Spring 1993; Hahn's The Lock-houses and Lock-keepers of the Chesapeake and Ohio Canal; and A Glossary of North American and British Canal Terms, an American Canal Society project by John Droege and his Glossary Committee.

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WANT TO BE A VIP?

or

WHERE DID YOU GET THAT HAT!!!

The C&O Canal Association has long been active in many of the National Park VOLUNTEERS IN PARKS (VIP) activities. Members have served to: give nature walks, participate in living history activities, help with administrative work, collect and interpret historical documents, serve on committees and staff NPS visitor centers. Many more members have selected a special section of the Canal which they visit regularly in the Association-sponsored LEVEL-WALKERS program. In addition, some members have also joined in the Association-NPS sponsored monthly VIP WORK-DAY to clear vegetation from historic structures, cut overhead branches from the towpath, perform administrative tasks, pick up litter, and improve trails and park facilities. NPS reports that 1266 Volunteers in Parks (members as well as others) contributed 8,331 hours in 1992 to help the C&O Canal National Historical Park.

The VIP WORK-DAY is the first Saturday of each month from 9 a.m. to noon at the place designated in **ALONG THE TOWPATH**. Our June 5th workday at Great Falls Tavern worked to improve trails in the Gold Mine area. We will not have a work day in July or August due to holidays, vacations, and hot weather. The September 4 VIP WORK DAY will be at Great Falls. Plans for October to January will be included in the September issue of the newsletter. Please call John Lindt (301-469-6381) or Ranger Terry Barbot (301-299-3613) for details.

For the past ten years Joan Paull has been the coordinator of

VIP - continued

the VIP WORK-DAYS. She has been supported by about a dozen regular attendees. Bill Speck, Pat White, Russ and Marilyn Sterns, B.J. Myers, Sonny DeForge, George Complair, Jim and Sally Bryant, Hal and Jane Larsen, and of course Dave Johnson have been among the most active. They and others have earned yellow VIP hats. You will earn a hat if you join us for three VIP WORK-DAYS. We need and will welcome your help. No special skills are required, but a pair of gloves long-sleeve shirt, and insect repellent make things more pleasant. Please join us.

-- John Lindt, VIP WORK-DAY coordinator

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.....FROM THE EDITOR

I trust you will notice the improvement in the quality of our newsletter. This is the result of the Board approving the purchase of a new printer and because of the enthusiastic support of Helen Shaw, Information Officer.

Over the last few months, I have received several suggestions to improve our publication. One such recommendation from Adam Foster, was to incorporate the Board and NPS Directory. Note that page 19 of the newsletter may be removed as a ready reference.

Norm Bernette questioned the wearing of the Association badge. While no written protocol exists the Board indicates the badge can and should be worn anytime you are on the Canal or at Canal-related functions.

William Bauman sent several letters to new members who had expressed an interest in assisting with the newsletter.

For those of you who desire to submit articles, the preferred format is WordPerfect. However, I can import almost any word-processing or data-base format. For other than WordPerfect submissions, please do not include formats such as centering, indentions, etc., but limit to test only. This saves a considerable amount of time in editing. Of course, if you are not using a word processor, your typed articles are acceptable.

I have a through-bike trip planned this month with Jane, brother Tom, his wife Linda, and our church senior high youth group. Maybe we'll see you *Along the Towpath*.

Thanks to the many people who have contributed to make this issue possible.

Have a pleasant summer.

-- RCP

Mr. Walter Meseck Writes -

Members who have participated in previous full-distance hikes will remember Walter Meseck, a retired tugboat executive and wide ranging waterways traveler from New Jersey, who has contributed numerous article to AMERICAN CANALS. Walter recently donated several items to the Association's archives which were accompanied with the following letter:

Dear Fellow Members,

I have belonged to the C&O Canal Association for a number of years, having done two of the Anniversary Douglas Hikes, one from Cumberland to Washington and the other from Williamsport to Washington. Attending your frequent meetings became a habit.

As you can see, the enclosed booklets are getting to be quite old. I bought them before I did the towpath on a bicycle from Washington to Cumberland, but now hate to throw them out because someone in the organization may want them for future reference, or just to see how it was. I hope they will be of some use.

I am afraid my hiking days are over. I am now eighty-four years old, have emphysema, and just recently had a slight stroke, which didn't finish me off but didn't do any good. I will continue my membership and commend you on the fine work you are doing along the canal itself.

Some of your old timers may remember me, so say "Hello to them.

Sincerely,

WALTER L. MESECK
2100 Linwood Avenue
Fort Lee, New Jersey 07024

Our sincere thanks to Walter for his donations, and our best wishes to him for a speedy recovery.

-- Dave Johnson

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☛ Steve Pittleman
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Park Ranger

☛ Kathy Kupper

Great Falls Tavern Information

301-299-3613

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☛ Dwight Stinson 301-739-4200 x237
☛ Matrin Gallery 301-678-5463

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Canal Road, Sharpsburg, MD 21782 301-739-4200 x237

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Hancock, Maryland 21750
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Western Maryland Station
Cumberland, Maryland 21502

Park Ranger

☛ Rita Knox

The Western Maryland District begins at Milepost 42.19 (Monocacy River) and ends at the Canal Terminus, Cumberland, Milepost 184.5.

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Canal Clipper, Great Falls Tavern

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Swains Lock (Concessionaire)

301-299-9006

Western Maryland Station Center

301-722-8226

APPOINTMENT OF NATIONAL PARK SERVICE DIRECTOR

President Clinton announced on May 21 that Roger G. Kennedy, who for the past thirteen years has been director of the Smithsonian National Museum of American History, will be the 14th Director of the National Park Service. Secretary Bruce Babbitt cited Mr. Kennedy for his "vision, commitment and experience to provide the strong leadership to redirect and reinvent the National Park Service during this time of great challenges and opportunities."

"He understands the responsibility for preserving national treasures while affording people access to them," said Secretary Babbitt.



The excursion boat OAK SPRING at the eastern portal of Paw Paw Tunnel.

-- Tom Hahn Collection