



A Seven Lock Walk on the Chesapeake and Ohio Canal

By Jane Kepler
Geography 460, Discussion 310

She pulls at the lead, eager to start our familiar walk along the Chesapeake and Ohio Canal National Park. She has seen all 184.5 miles, yet ambles over the spillway bridge onto the towpath at Lock 8 as if encountering it with virgin eyes (Figure 1). Never mind that we walk this path every day, memorizing the uniform inclines at each of the locks, noticing the subtle turns and recognizing the knots in the wooden swing beams on the lock gates. The five minute walk from our house is all we need to travel back to the canal era, a time when entrepreneurs walked this path for profit while teams of mules pulled their homes.

Although years ago we biked and hiked the whole canal, camping supplies strapped to our backs like pack horses, we will not venture that far today. On this calm autumn day it will take us a little over thirty minutes to walk the seven locks that took years to build and hours to maneuver on barges (Figure 2). To the untrained quirky blue eye of my friend jogging next to me, this area appears a pristine wilderness retreat, perfect for jaded city dwellers. While she is not entirely wrong, we cannot consider this beautiful National Park pristine after investigating the intimate relationship between environment and economy and unraveling the myriad complications involved in the canal's planning, construction, use and revival.

With Washington D.C. eight miles behind us, the importance of the C&O's construction along the fast moving Potomac River becomes apparent. In fact, The Potomac River spurred the initial planning of both the city and the canal due to the river's location and physical restrictions. As president of the Patowmack (Potomac) Company – an organization dedicated to opening the Potomac to navigation and building an overland connection to Ohio – George Washington used the Ohio Company's trails along the Potomac to guide him in his search of creating a new capital city.¹ In his quest for a safe inland area along a river, he recognized the possibility of the Potomac, but weighed its advantages and constraints. Washington decided to avoid the Great

Falls region, a series of dangerous waterfalls that plunge the Potomac approximately 76 feet within a mile, leaving the next most logical choice fifteen miles downstream, sitting next to Georgetown.² (Figure 3) To bypass physical restraints that the waterfalls placed on trade, the Potomac Company sparked the possibility of a navigable Potomac River with the completion of a series of locks, devices to raise boats along stretches of uneven water, around Great Falls in 1802.³

A canal connecting the capital city to the coal rich Appalachian Mountains was a necessity during this time period. Along with the Ohio and Potomac companies, the National Road, the Chesapeake and Ohio Company and the Baltimore and Ohio Railroad Company all contributed to the route along the Potomac. The Chesapeake and Ohio Company formally organized June 20, 1828 and construction commenced July 4, 1828, the same day as the construction of the Baltimore and Ohio Railroad began.⁴ Although canals were the most reliable, fastest and most common mode of transportation available, the people of Baltimore turned to the incredibly risky venture of building a railroad from Baltimore to the Ohio River because their bid to have the canal constructed in Baltimore was unsuccessful.⁵ The conflicting histories of the up-and-coming B&O and the much more reliable C&O would be intriguingly intertwined for the next 100 years.

The path to a connected route to the West would not be without its problems. The canal had numerous setbacks, legal challenges and economic issues. By advertising migration to America in exchange for work on the canal, the canal's executives obtained cheap laborers by

¹ Mike High, *The C&O Canal Companion* (Baltimore, MD: The John's Hopkins University Press, 1997) 4.

² Mike High, *The C&O Canal Companion* (Baltimore, MD: The John's Hopkins University Press, 1997) 11.

³ Mike High, *The C&O Canal Companion* (Baltimore, MD: The John's Hopkins University Press, 1997) 19.

⁴ Thomas F. Hahn, *The Chesapeake & Ohio Canal--pathway to the Nation's Capital* (Metuchen, N.J. : Scarecrow Press, 1984) 5.

⁵ Thomas F. Hahn, *Towpath Guide to the C&O Canal*, 15th ed. (Harpers Ferry, WV: Harpers Ferry Historical Association, 1997) 21.

hiring indentured servants from Germany and Ireland.⁶ This strenuous work resulted in deaths from fights, riots and disease, and was worsened by the hard-drinking Irish immigrants' use of clubs and guns to settle disputes. Additionally, an 1832 cholera epidemic festered in the swampy conditions, completely halting production for an entire year.⁷ Other problems included a legal battle with the B&O railroad over control of an area known as Point of Rocks, at which point the C&O's funds started drying up.

The Internal Improvement Convention was held in 1834 to convince politicians that the completed canal would be incredibly profitable by bringing the "inexhaustible" minerals in Cumberland directly to Washington D.C.,⁸ which encouraged Maryland to fund the C&O in 1834 and again in 1842.⁹ Finally, after fighting 22 years of legal, financial, physical and biological battles, the seemingly impossible C&O canal project was completed on October 10, 1850.¹⁰ In comparison to the immense economic investments, environmental combat and loss of life required to get this ambitious project on its feet, the few speeches and cannon blasts of the Canal's commencement ceremony made the effort seem trivial.

The completed canal, known as the "Grand Old Ditch," created economic opportunities for lock house families, boatmen, mule drivers, investors, farmers and miners, and connected the wealth of the east with the bountiful resources of the west. Time was money and the importance of constant movement was essential, requiring mules to constantly pull the barges. When the mule drivers would reach a lock, they would call out for the lock keepers, who would have to respond to these calls, day or night. The 10-15 minute passage of a boat through a lock

⁶ Elizabeth Kytte, *Home on the Canal* (Cabin John, MD, Seven Locks Press, 1983) 32.

⁷ Mike High, *The C&O Canal Companion* (Baltimore, MD: The Johns Hopkins University Press, 1997) 22.

⁸ Journal of the Internal Improvement Convention which assembled in the city of Baltimore, on the 8th day of December, 1834. (Baltimore MD: Sands & Neilson, 1835)81.

⁹ Walter, S. Sanderlin, *The Great National Project: A history of the Chesapeake and Ohio Canal* (Baltimore, MD: ARNO Press, 1976) 150-154.

depended the lock tender's help, as they would use a lock key to open the lock gates and allow the water to fill or drain from the lock, moving the canal boats from one level to the next (Figure 4).¹¹ In order to speed passage through Seven Locks, the C&O company installed new "drop" gates so that two canal boats could be lifted or lowered at the same time¹² (Figure 5). As Solomon Drew,¹³ the original resident of the now 180-year-old whitewashed house at Lock 8 would attest, neither the mule drivers nor the lock keeper's jobs were easy. Even maintaining the appearance of the canal was a full-time job; it was kept up beautifully, with the grass consistently cut, the trees trimmed and the water held at constant levels. The foremen would compete with each other to try to make his division look better than the previous one.¹⁴

The first fifteen years of the canal's operation were not extremely profitable, but 1869 changed that with over \$368,000 collected in tolls.¹⁵ This began the heyday of the canal from 1869-1889 when the profits from the Chesapeake and Ohio seemed to be gaining steam. However, the Industrial Revolution had sparked the rise of the railroad, which, to the eyes of the slow, steady and secure canal, seemed impossible to fathom. H. Sinclair Drago observed that, "Even when viewed from the advantage of hindsight, there does not appear to have been any reason to believe that in only a decade or two railroads would be offering a challenge that other forms of transportation could not meet".¹⁶ When the competition of the railroad (Figure 6)

¹⁰ Walter, S. Sanderlin, *The Great National Project: A history of the Chesapeake and Ohio Canal* (Baltimore, MD: ARNO Press, 1976) 159

¹¹ George Hooper Wolfe, *I drove mules on the C and O Canal* (Dover, DE: Dover Graphic Associates, 1969)51.

¹² Mike High, *The C&O Canal Companion* (Baltimore, MD: The John's Hopkins University Press, 1997) 42.

¹³ Thomas F. Hahn, *Towpath Guide to the C&O Canal*, 15th ed. (Harpers Ferry, WV: Harpers Ferry Historical Association, 1997)31.

¹⁴ Interview of Harvey Brant, Elizabeth Kytle, *Home on the Canal* (Cabin John, MD, Seven Locks Press, 1983)

¹⁵ Thomas F. Hahn, *The Chesapeake & Ohio Canal--pathway to the Nation's Capital* (Metuchen, N.J. : Scarecrow Press, 1984) 225.

¹⁶ From H. Sinclair Drago's *Canal Days in America*, Elizabeth Kytle, *Home on the Canal* (Cabin John, MD, Seven Locks Press, 1983) 29.

combined with a series of floods in 1886 and 1889, it seemed as though the short and profitable period of the canal's operation had abruptly come to an end.¹⁷

Ironically, in 1890 the successful B&O railroad company decided they would rather purchase the canal than see it bought by their competitors. After investing over \$430,000, the B&O railroad company restored and reopened the canal in 1891.¹⁸ Although this undertaking artificially resuscitated the dying waterway, the "Grand Old Ditch" had lost its independent spark. The B&O's capitalistic edge seemed to smother the character of the slow and steady C&O, demanding that the once uniquely named and painted boats be numbered and uniform, and the traffic regulated on a time-table basis.¹⁹ The B&O's management could not fully revive the canal's income, and the canal's meager profits never justified its continued operation. Despite the surging economy during the First World War, the canal's profitability continued to decline, mainly attributed to a combination of lack of leadership, faster forms of transportation and the fact that the once seemingly "inexhaustible" Cumberland coal region was now drained.²⁰

The flood of 1924 was final blow for this exhausted waterway; the B&O Company offered no incentive to restore it back to working order and transportation ceased. The land lay fallow until the railroad company required a large governmental loan to avoid bankruptcy in the mid 1930s. Frederic Delano, chairman of the National Capital Park and Planning Commission and uncle of President Franklin Delano Roosevelt, urged the government to purchase the canal from the B&O for two million dollars in 1938.²¹ The Civilian Conservation Corps restored the first twenty miles of the canal during the Great Depression, but the rest of the canal was left to

¹⁷ Mike High, *The C&O Canal Companion* (Baltimore, MD: The John's Hopkins University Press, 1997)43.

¹⁸ Walter, S. Sanderlin, *The Great National Project: A history of the Chesapeake and Ohio Canal* (Baltimore, MD: ARNO Press, 1976) 261-267.

¹⁹ Walter, S. Sanderlin, *The Great National Project: A history of the Chesapeake and Ohio Canal* (Baltimore, MD: ARNO Press, 1976)269.

²⁰ Walter, S. Sanderlin, *The Great National Project: A history of the Chesapeake and Ohio Canal* (Baltimore, MD: ARNO Press, 1976) 274.

ruin until the early 1940s. In the following years, proposals for the canal emerged, including a series of massive dams, as well as construction of a highway, which was endorsed by the editors of the Washington Post.²² In response, Supreme Court Justice William O. Douglas wrote a letter inviting the editors to walk the entire towpath with him (Figure 7). Their agreement to the unconventional proposition brought a huge amount of publicity to the preservation of the historical canal and prevented any construction that would destroy it. In 1971 Richard Nixon finally signed a bill creating The Chesapeake and Ohio Canal National Historical Park, and since then the Park Service has restored the entire towpath and most of the locks and lock houses to resemble their former selves.

The Chesapeake and Ohio Canal National Park is a wonderful escape into nature and history for anyone along the Potomac River. There are, of course, indicators of our modern life, which I am reminded by as I pass the remnants of Lock 13, now shadowed by the roaring eight lanes of Interstate 495 directly above (Figure 8). However, upon reaching Lock 14, the last of the Seven Locks, my giddy mutt knows the routine, turns around, and bounds down the successive hills of the back-to-back locks. As we walk farther from the noisy interstate, it is not hard to believe that the murmur of the passing trucks could be water falling onto the jagged rocks at Great Falls. History is not forgotten here, and the present is not rejected. As the sun sets we are caught somewhere in the middle, the skeletons of the locks casting long shadows along the well-traveled towpath while the white-washed antique houses come alive with a fiery glow.

²¹ Mike High, *The C&O Canal Companion* (Baltimore, MD: The John's Hopkins University Press, 1997) 46.

²² Mike High, *The C&O Canal Companion* (Baltimore, MD: The John's Hopkins University Press, 1997) 47.

Figure 1 a



Path over spillway passing Lock Keeper's House at Lock 8 on the Chesapeake and Ohio Canal

Photo by Ritch Kepler "Chesapeake and Ohio Canal National Historical Park" Cabin John, MD. Nov. 2008

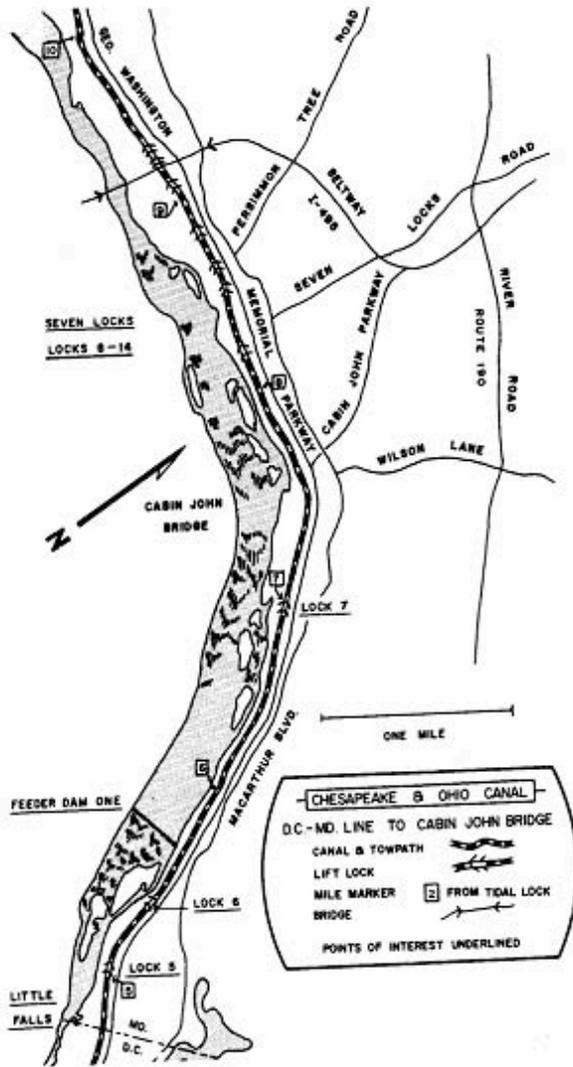
Figure 1 b



View of Lock 8 from across the canal, on the towpath

Photo by Max Kepler. "Lock 8" Cabin John, MD. Nov. 2008

Figure 2



23

Figure 2- Map of the Seven Locks region, complete with Seven Locks Road and MacArthur Blvd, where pathway to Lock 8 is.

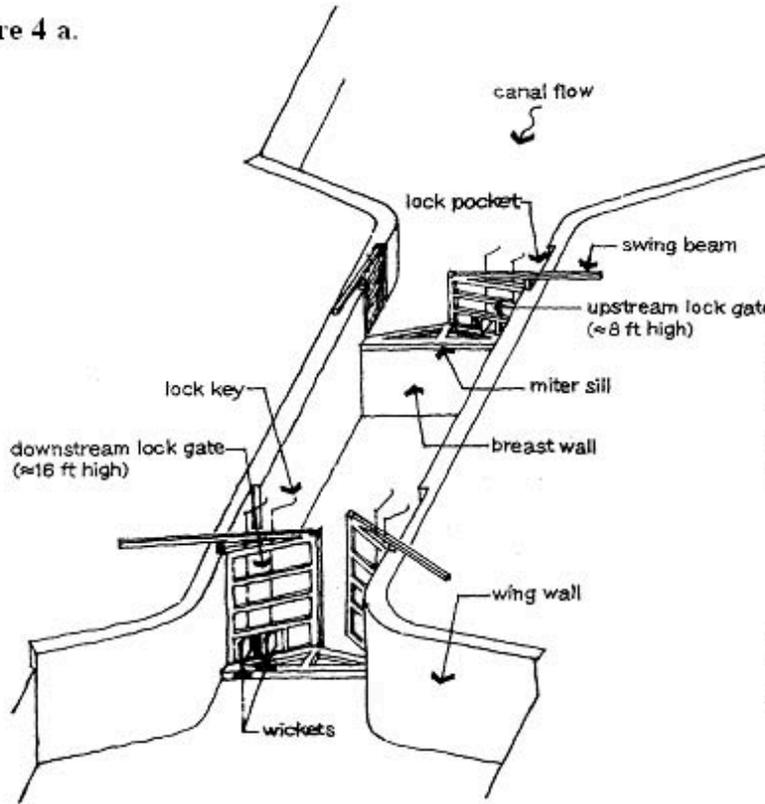
"Map of Chesapeake and Ohio Canal: DC-MD Line to Cabin John Bridge." Hahn, Thomas F. *Towpath Guide to the C&O Canal*, p. 23.

Figure 3



Figure 3- Detailed map of Canal in relation to Washington D.C. Note location of Lock 8 between Washington DC and Great Falls. Courtesy National Park Service. "Detail Map of Georgetown to Swain's Lock." Chesapeake and Ohio Canal National Historical Park Pamphlet. Washington D.C.

Figure 4 a.



“By using a lock key to open and close the wickets in the lock gates, the lockkeeper could fill or drain the lock, moving canal boats from one level to the next.”

“Anatomy of a Lock” High, Mike. The C&O Canal Companion. Baltimore, MD: The John’s Hopkins University Press, 1997. p. 52

anatomy of a lock

Figure 4 b.



Lock 8 Gates without water in preparation for winter, photo is looking upstream

Photo by Max Kepler. “Lock 8 Gates” Cabin John, MD. Nov. 2008

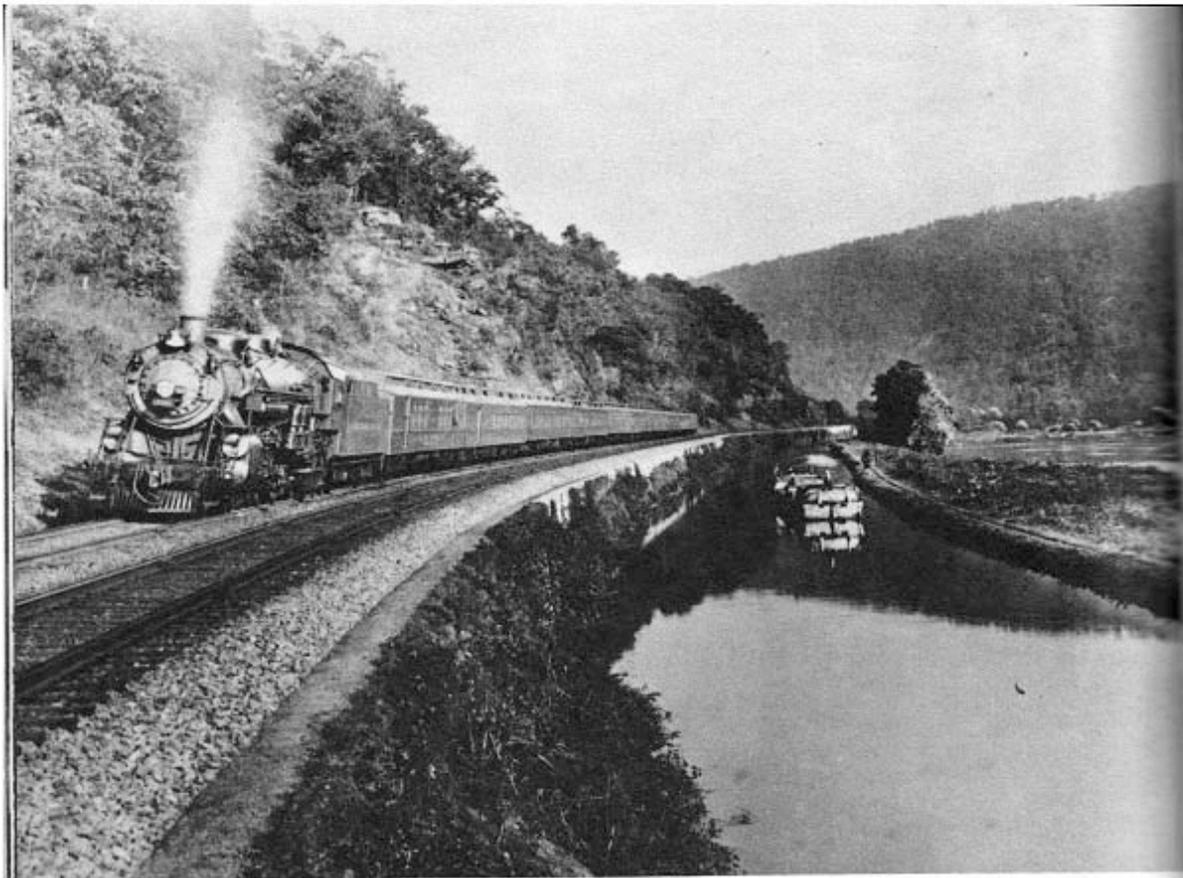
Figure 5



Drop Gate at lock 10. Drop Gates were installed at locks 7, 10, and 12 to allow faster passage through the Seven Locks Region. When a Drop Gate is opened, it lays flat on the bottom of the lock. Openings called Wickets allow water to enter the lock and fill it. When the lock is filled, the Drop Gate will drop and the Wickets will be closed.

Photo by Ritch Kepler. "Drop Gate". Cabin John MD, Nov. 2008

Figure 6



A Steam engine passing a canal Barge in the early 1900s.

"C&O Capitol Limited, Passing Captain George Bower's Boat." Wolfe, George Hooper, 1894-I drove mules on the C and O Canal. Dover DE: Dover Graphic Associates. 1969. p. 72.

Figure 7



Supreme Court Justice William O Douglas on the canal. His influence would eventually lead to its preservation in the C&O National Historical Park.

“Supreme Court Justice Douglas, Williamsport-1954.” Wolfe, George Hooper *I drove mules on the C&O Canal*. p 14.

Figure 8 a.



Lock 13 circa 1942, before the Capital Beltway was installed.

“House at Lock 13 Circa 1942” Hahn, Thomas F. *Towpath Guide to the C&O Canal*, 1997 p. 36.



Figure 8 b.

View of Lock 13, now shadowed by the Capital Beltway. Lock house is gone but lock remains intact.

Photo by Ritch Kepler. “Beltway over lock 13” Cabin John MD. Nov 2008.

Figure 8 c.

Photo of lock 13 from lock 14, upstream.

Photo by Ritch Kepler. “Beltway over lock 13 alternate view” Cabin John MD. Nov 2008.



Sources Cited

- Hahn, Thomas F. Towpath Guide to the C&O Canal, 15th ed. Harpers Ferry, WV: Harpers Ferry Historical Association, 1997
- Hahn, Thomas F. The Chesapeake & Ohio Canal--pathway to the Nation's Capital. Metuchen, NJ : Scarecrow Press, 1984.
- High, Mike. The C&O Canal Companion. Baltimore, MD: The John's Hopkins University Press, 1997
- Journal of the Internal Improvement Convention Assembled in the City of Baltimore on the 8th of December 1834. Baltimore, MD: Sands and Nelson, 1835.
- Kytle, Elizabeth. Home on the Canal. Cabin John, MD: Seven Locks Press, 1983
- Sanderlin, Walter S. The Great National project: A history of the Chesapeake and Ohio Canal. Baltimore, MD: ARNO Press 1976
- Wolfe, George Hooper, 1894-I drove mules on the C and O Canal. Dover DE: Dover Graphic Associates. 1969

Figures Cited

- Cover Photo: Max Kepler "Towpath" Cabin John MD. Nov. 2008
1. a. Photo by Ritch Kepler "Chesapeake and Ohio Canal National Historical Park" Cabin John, MD. Nov. 2008
 1. b. Photo by Max Kepler. "Lock 8" Cabin John, MD. Nov. 2008
 2. "Map of Chesapeake and Ohio Canal: DC-MD Line to Cabin John Bridge" Hahn, Thomas F. Towpath Guide to the C&O Canal, 15th ed. Harpers Ferry, WV: Harpers Ferry Historical Association, 1997, p. 23.
 3. National Park Service. Detail Map of Georgetown to Swain's Lock. Chesapeake and Ohio Canal National Historical Park Pamphlet. Washington D.C.
 - 4.a. "Anatomy of a Lock" High, Mike. The C&O Canal Companion. Baltimore, MD: The John's Hopkins University Press, 1997. p. 52.
 - 4.b. Photo by Max Kepler. "Lock 8 Gates" Cabin John, MD. Nov. 2008

5. Photo by Ritch Kepler. “ Drop Gate”. Cabin John MD, Nov. 2008
6. “C&O Capitol Limited, Passing Captain George Bower’s Boat.” Wolfe, George Hooper. I drove mules on the C and O Canal. Dover DE: Dover Graphic Associates. 1969. p. 72.
7. “Supreme Court Justice Douglass, Williamsport-1954.” Wolfe, George Hooper, I drove mules on the C And O Canal. Dover DE: Dover Graphic Associates. 1969. p 14.
- 8.a. “House at Lock 13 Circa 1942” Hahn, Thomas F. Towpath Guide to the C&O Canal, 15th ed. Harpers Ferry, WV: Harpers Ferry Historical Association, 1997 p. 36.
- 8.b. Photo by Ritch Kepler. “Beltway over lock 13” Cabin John MD. Nov 2008.