The Psychological Halfway Point at the Convergence of Two Mighty Rivers: A Look at Human-Land Interactions in Harpers Ferry, West Virginia

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March, 2015

Submitted in fulfillment of the senior thesis requirements of the
Department of Environmental Science at Allegheny College
and approved by the senior thesis committee.

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Pledge

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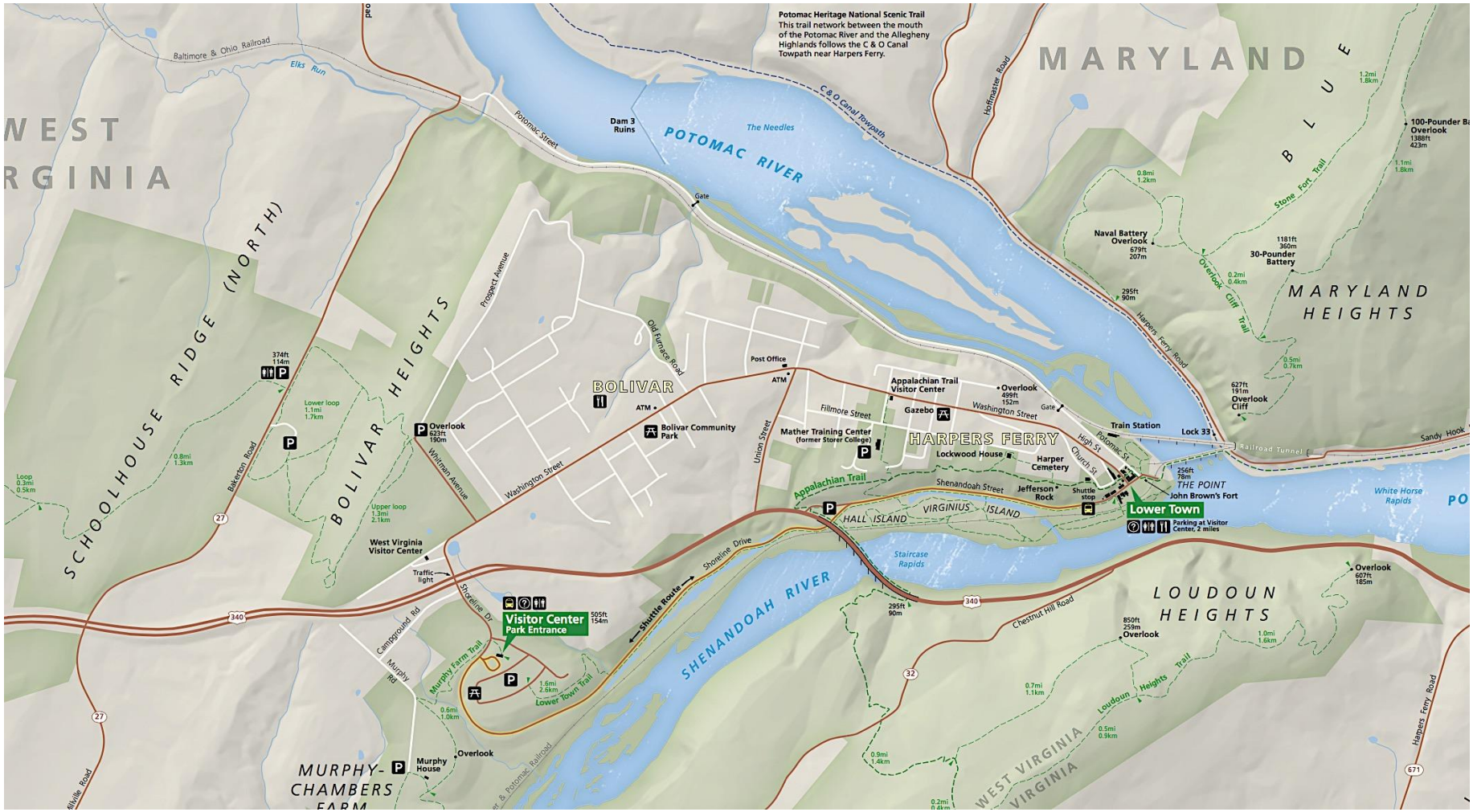
Acknowledgements

My senior comprehensive project would not have happened without certain people and to them I extend my heartfelt thanks. Dr. Eric Pallant has been there from the first days of my Allegheny journey. He always provided a listening ear and helpful words through the ups and downs of my college life. Dr. Ben Haywood has been there with great suggestions and provided an anchor for my project. My parents have kept me sane and listened to me ramble for hours about my project and it's fascinating details even when they did not quite understand everything. I want to acknowledge Dr. Kate Darby for starting me on this journey and giving words of encouragement at the beginning of senior year all the way from Washington. Finally my friends Brynya, and apartment mates—Julia, Emilie, and Aviv—have supported me through tears and laughter while sharing my excitement for the great outdoors.

Abstract

This paper investigates the history of human-land interactions in Harpers Ferry, West Virginia from geological formation to the 1950s when the town became a national historical park. This investigation is to inform Appalachian Trail hikers of the place they are passing through to create a deeper connection and understanding of Harpers Ferry. Also the report provides additional information to park visitors. Throughout this paper there is the common thread of the Potomac and Shenandoah Rivers as they served vital roles shaping Harpers Ferry. They have been instrumental to why people came to Harpers Ferry in the first place and the economic development in the area. By using the fields of cultural and historical ecology one can study the decisions on preservation that have been made and what could be done in the future to create a more holistic picture. These fields of ecology also give a lens to look at human-land interactions throughout time. My research found that there are deficits in certain historical areas and these need to be researched more thoroughly. The next step is to connect the information to hikers and tourists by creating an easily readable and accessible product such as a website, map, and/or pamphlet.

Map of Harpers Ferry Area



(National Park Service, 2012)

Chapter 1: Introduction

Harpers Ferry, West Virginia sits on the border of three states—West Virginia, Virginia and Maryland. The Potomac and Shenandoah Rivers converge at the point of the town. These two rivers have played important roles in the history of America. The National Park Service owns much of the town in the form of Harpers Ferry National Historical Park. Thus, there is only a small residential population estimated at 286 in 2010 (Corporation Harpers Ferry, n.d.). The National Park Service also has two centers in town—the Stephen T. Mather Training Center for professional growth and continuous learning for Service employees and the Harpers Ferry Center, which provides interpretative media and services to all national parks. Other National Park Service entities that pass through Harpers Ferry are the Chesapeake and Ohio Canal National Historical Park, the Potomac Heritage National Scenic Trail, and the Appalachian National Scenic Trail. The hub of the Appalachian Trail (AT) is in Harpers Ferry. Operationally both the National Park Service's Appalachian Trail Park Office and the Appalachian Trail Conservancy's headquarters are located in town. The Conservancy under agreements dating back to the 1930s and federal legislation in 1968 and 1978 leads a "cooperative-management system for the Trail that equals the National Park Service and USDS Forest Service at national, regional, and district levels, a variety of agencies in 14 states, a few other federal agencies, and even some county and town agencies," (Appalachian Trail Conservancy, n.d.b).

As hikers go through Harpers Ferry, they can see part of the long, winding history of America just as the Appalachian Trail is a footpath tracing an ancient mountain range and holding many stories of the interaction between humans and land. Harpers Ferry has also been created through ancient processes into the place where humans and land struggled with and against each other. Harpers Ferry holds many meanings of place because of the tourist focus of the town and there also being a small residential population. If that transient population is a thru-hiker on the Trail, they can find rest and rejuvenation at Harpers Ferry as it is a town providing opportunities to resupply and clean up. Rest and rejuvenation are also traditionally associated with rivers, so Harpers Ferry becomes even more fitting with it being located at the meeting of the mighty Potomac and Shenandoah Rivers. Also, Harpers Ferry is important to Appalachian Trail hikers as it is considered the psychological midpoint on the Trail, a 2,000+ mile journey.

According to the National Parks Conservation Association, the Appalachian Trail corridor is "one of the nation's most significant cultural landscapes" (National Parks

Conservation Association, 2010, p. 19). It is also one of the most popular and well-known long distance trails in the United States. The Trail stretches from Springer Mountain in Georgia to Mount Katahdin in Maine and ranges in elevation from 124 feet to 6,625 feet (James, 2009). Benton MacKaye's visionary idea that became the Trail was proposed in an October 1921 article titled "An Appalachian Trail: A Project in Regional Planning." The Trail, for him, was to be a place of escape from everyday urban life, stretching the length of the East Coast (MacKaye, 1921). Myron Avery was another important figure in creation of the Trail with Rubin (2000) stating "[w]ithout MacKaye, the Trail might never have been envisioned and proposed. Without Avery, it might never have been built," (p. 22). After 15 years and the work of thousands of volunteers, the Trail was deemed complete in 1937 (National Museum of American History, 2009).

Harpers Ferry is one of the few towns that the Trail goes directly through (Corporation Harpers Ferry, n.d.). It is also an Appalachian Trail Community which is a program through the Conservancy that recognizes communities that promote and protect the AT (Appalachian Trail Conservancy, n.d.a). According to the Conservancy, the "program serves to assist communities with sustainable economic development through tourism and outdoor recreation, while preserving and protecting the A.T.," (ATC Appalachian Trail Conservancy, n.d.a). One of the short-term benefits of being an AT Community is being eligible for place-based education and service-learning program training for teachers (Appalachian Trail Conservancy, n.d.a). This kind of programming underscores the idea of human-land interactions.

Historical and cultural ecology can help one understand the nature of human-land interactions. According to Crumley (2014), historical ecology encompasses "a definition of ecology that includes humans as a component of all ecosystems and to a definition of history that goes beyond the written record to encompass both the history of the Earth system and the social and physical past of our species." The National Park Service already uses "historical ecology to manage and interpret the enormous national park system, which must respond to the contradictory needs of many users," (Crumley, 2014). Cultural ecology is "the study of human interaction with ecosystems to determine how nature influences and is influenced by human social organization and culture," (Smith, 2012). The field of cultural ecology or landscape was heavily influenced by Carl O. Sauer who in 1925 wrote "[t]he cultural landscape is fashioned from a natural landscape by a cultural group. Culture is the agent, the natural are the medium, the

cultural landscape is the result," (Wu, 2010). These two types of ecology are complementary of each other and each makes us focus on more than what is currently in front of us. By looking past the surface layer, we are able to see the transactional relationship that often emerges from human-land interactions.

Place, culture, and landscape create a complicated symbiotic relationship that impacts the ways and what we preserve. Place gains meaning through culture but also culture can be defined through place (Lozny, 2006). Culture thus gives meaning to place by who is currently occupying the area at the time which means something is usually left unknown or unrecognized (Lozny, 2006). Place and landscape can be the same idea, but they also can hold either a more symbolic meaning or a more physical geographic meaning. Since people move, landscapes can become texts of multiple meanings. Thus, landscape is a text to read and interpret. According to Boogaart (2001), landscapes have multiple layers and are open to divergent understandings.

This report aims to move hikers and other visitors beyond transiting through a place to feeling a sense of place and rootedness. Thus, the objective of this project is to peel back the layers of history and reveal the cultural and natural historical significance of Harpers Ferry. More specifically, this report will look at its enduring relationship with the Potomac and Shenandoah Rivers. As Lozny (2006), states to really be in a place, one needs to know both the natural (landscape) and cultural realms. By having this guide for hikers and other tourists, people can start to understand the natural and cultural elements of Harpers Ferry and thus understand the place more and feel a deeper connection to the landscape.

Chapter 2: Methods

This project covered the history of Harpers Ferry, the Appalachian Trail in the town, and the influence of natural features/ resources especially the Potomac and Shenandoah Rivers. Information was collected from September 2014 until January 2015 and done mainly online. The main sources were online documents on the cultural landscape of Harpers Ferry, the National Park Service website, a few e-books, and other historical websites. Also books on the geology of the area were utilized to gain further understanding and background information on this topic.

The chapters were based roughly on the general history of America as that aligned closely with Harper Ferry's history. I knew about John Brown's raid, the Appalachian Trail, and Harpers Ferry being a National Historical Park but that knowledge left many gaps in understanding the full picture. After some basic searching a general timeline of events started to appear that could easily be grouped together in manageable sections. I started out with the geology as that serves as the base for the human history that unfolded.

The final product is this written report that incorporates both text and pictures. Time did not permit the creation of a brochure, map, website, app, and/or exhibit, but it could still be made in the future from the complied information. The product created would be a distilled down version of the report and highlight some important facts and give resources for further information if a person wants to explore a specific topic more. It would be geared to hikers or others who are interested in an overview of the area such as visitors to Harpers Ferry National Historical Park.

Chapter 3: Geology, Geography, and Ecology of Harpers Ferry

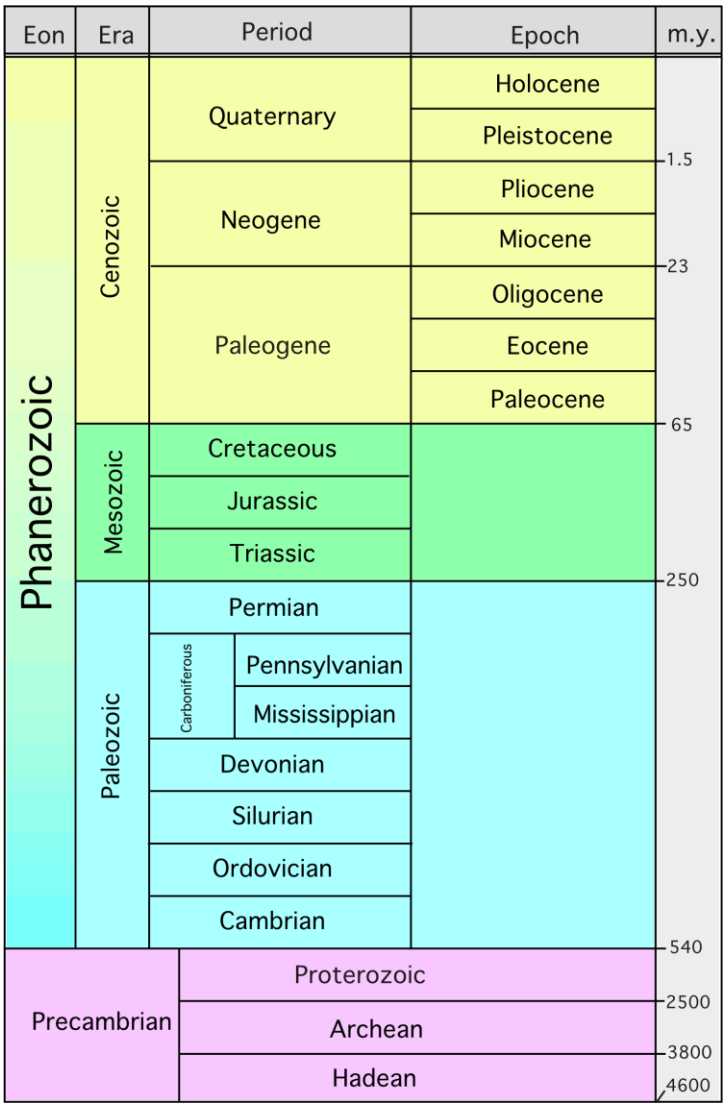


Figure 1. A simplified geological time scale to reference throughout this section (Wells, 1998).

The Beginning of West Virginia

Harpers Ferry, West Virginia is located in Jefferson County in the eastern corner of the state. The bedrock is mainly Cambrian period quartzite, sandstone, shale, limestone, and dolomite with occasional white veins of quartz (West Virginia Geological and Economic Survey [WVGES], 2011; Chew, 1993, p. 9). Igneous and metaphoric rocks are rarely exposed at the surface because of the thick Paleozoic cover which is sedimentary in nature (WVGES, 2011). Jefferson County's most eastern section has the oldest exposed rock in West Virginia—Precambrian Catoctin Greenstone—which is a metamorphosed lava from about 800 million years ago (WVGES, 2011).

During the Cambrian and Ordovician periods (Figure 1), West Virginia was covered by the Iapetus Ocean (Figure 2) ("Appalachian orogenic belt," 2008; WVGES, 2011). West Virginia laid in a long trough, geosyncline, for around 400 million years that was an arm of the Ocean (Rice & Brown, 1994, p. 1). The limestone that is seen in the eastern section of West Virginia is from the fossils of marine animals left behind as the Ocean retreated (Rice & Brown, 1994, p. 1). Old Appalachia rose to the east of this trough.

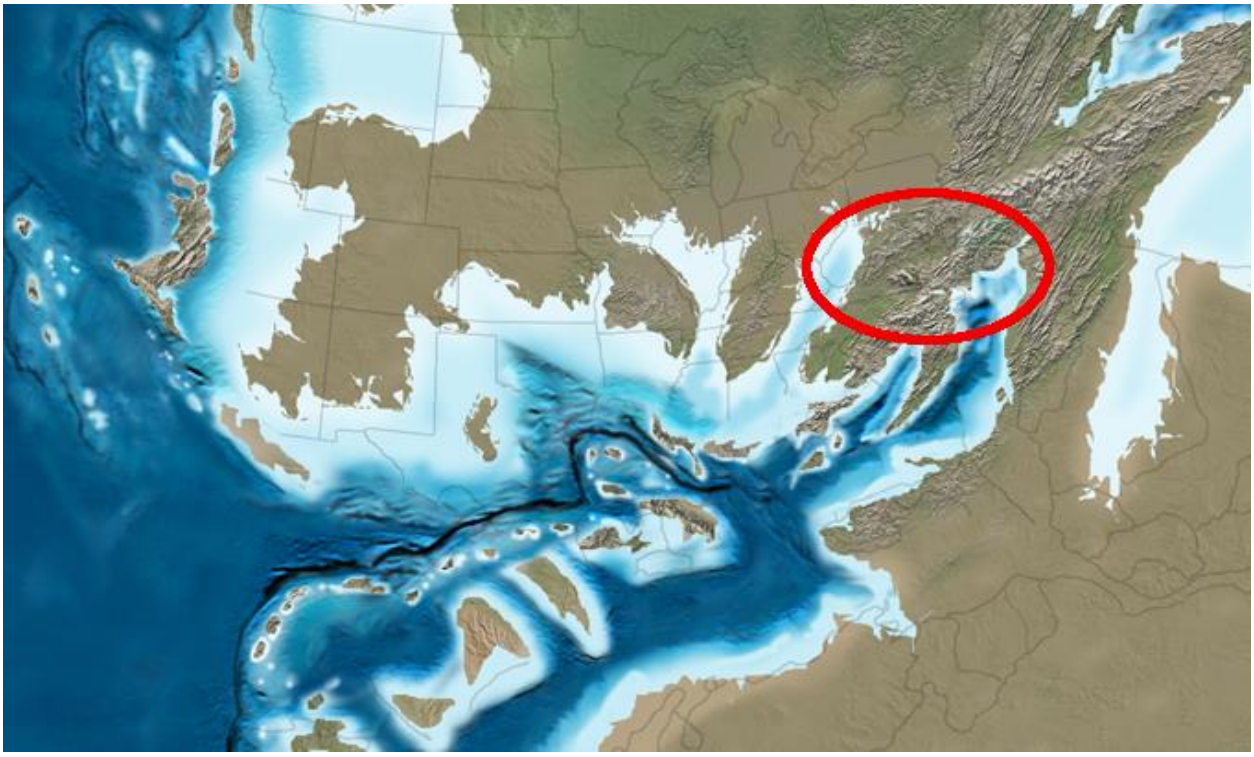


Figure 2. Illustration of Africa and North America colliding and closing up the Iapetus Ocean during the Late Mississippian Period, West Virginia is located inside red circle (Grymes, n.d.a).

Appalachian Orogeny

The geosyncline was pressed downward and the surrounding rock upward as material from Old Appalachia and other highlands washed down (Rice & Brown, 1994, p. 1). This weakening gave rise to the Appalachian Orogeny, also known as the Appalachian Revolution, a disturbance where rock strata was repeatedly folded and uplifted (Rice & Brown, 1994, p. 1; Matchen, 2014).

The Appalachian Orogeny is made up of three separate orogenies which over a period of about 500 million years formed the Appalachian Mountains of today (Figure 3) (Weidensaul, 2000, p. 12). Peaking around 440 million years ago the Taconic Orogeny "pushed up a chain of mountains that subsequently eroded to nothing providing the material for the next wave of

peaks," (Weidensaul, 2000, p. 12). Next came the Acadian Orogeny about 380 million years ago during the Devonian Period, which, along with the Taconi, was largely responsible for the northern Appalachians (Weidensaul, 2000, p. 12). The last orogeny, Alleghenian, shaped the central and southern sections of the Mountains about 290 million years ago (Weidensaul, 2000, p. 12). The Alleghanian Orogeny was the most important to the formation of the Harpers Ferry region. During the Alleghenian Orogeny, the Iapetus Ocean narrowed and closed up with the Atlantic Ocean starting to open up in the Mesozoic era (Southworth, Brezinski, Orndorff, Repetski, & Denenny, 2008, p. 4; WVGES, 2011). This orogeny led to the formation of the Pangaea supercontinent which was created when North America and Africa collided between 360 and 299 million years ago (Crosbie & Lee, 2009, p. 9; "Appalachian orogenic belt," 2008). After the Alleghanian Orogeny, Pangaea started to break apart between 220 and 200 million years ago, in the Mesozoic era, which began the formation of the Atlantic Ocean (Southworth et al., 2008, p. 7). Even though the Appalachian Mountains are continuously eroding with clastic sediment being produced from the Mesozoic era to the present day there are no sedimentary rock layers from these time periods (WVGES, 2011).

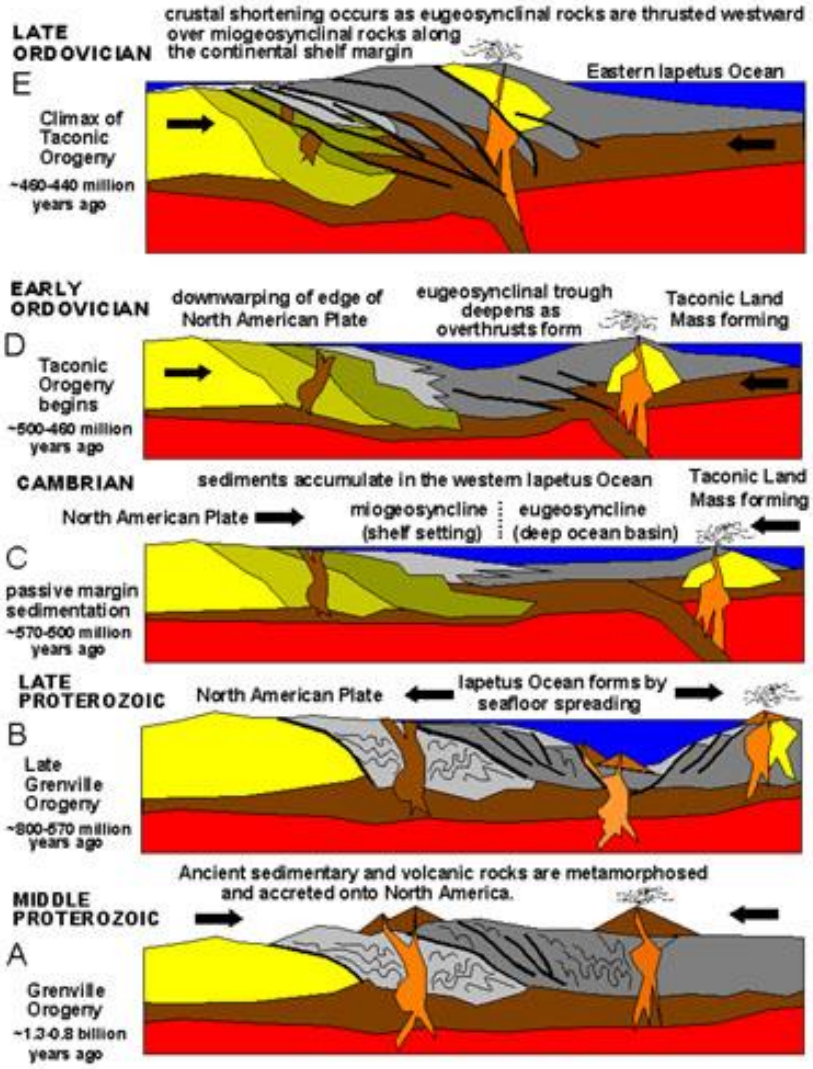


Figure 3. The general geological history for the Eastern United States from Late Precambrian through Early Paleozoic time (United States Geological Survey, 2015).

Physiography of Harpers Ferry

Harpers Ferry and Jefferson County are considered to be in the Valley and Ridge physiographic region with the area part of the Appalachian Valley also known as the Valley of Virginia, the Shenandoah Valley, or the Great Valley (Figure 4 and 5) (Rice & Brown, 1994, p. 2; WVGES, n.d.). The Valley is noted for its gentle terrain and rich limestone soils (Rice & Brown, 1994, p. 2). It also abuts the Blue Ridge physiographic region (WVGES, 2005). The northwest side of the Blue Ridge has prominent ridges that are usually sandstone and quartzite

(Chew, 1993, p. 87). Where the Shenandoah and Potomac Rivers join is the boundary between the Valley and Ridge and Blue Ridge physiographic regions (Tso, 2014).

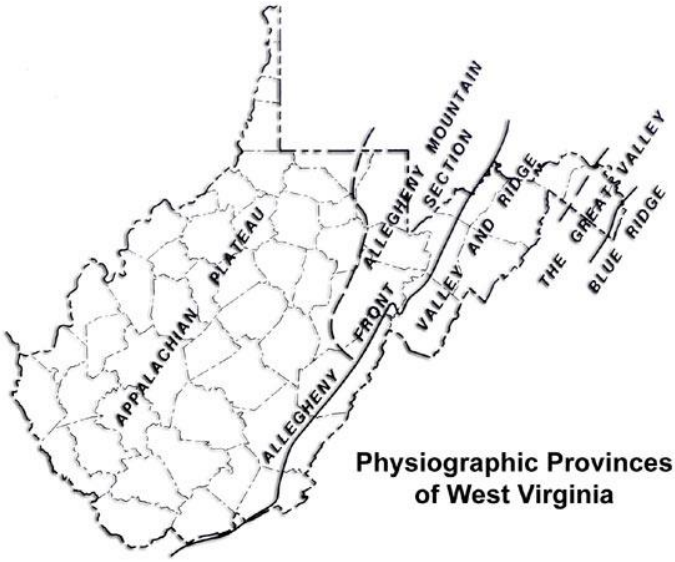


Figure 4. Physiographic Provinces of West Virginia (WVGES, n.d.).

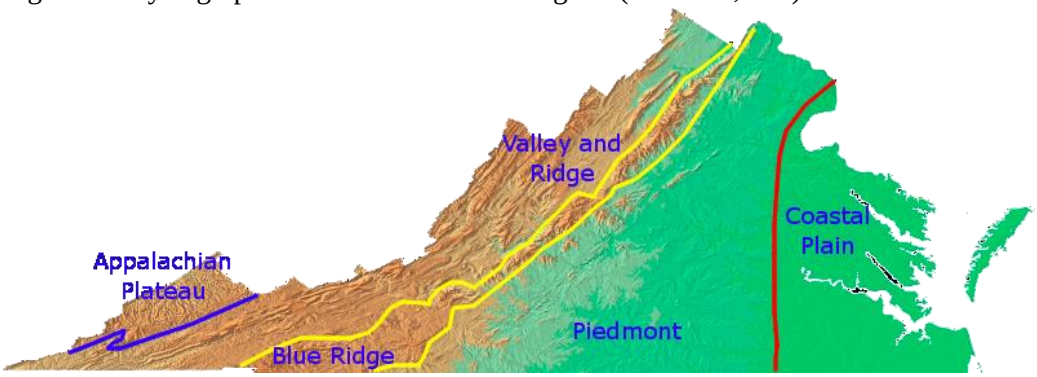


Figure 5. Physiographic Provinces of Virginia (Grymes, n.d.c).

Potomac and Shenandoah Rivers

The Potomac and Shenandoah Rivers meet in Harpers Ferry, carving a significant water gap through the Blue Ridge (Figure 6) (William and Mary Geology, 2002). The Potomac continues southeast flowing into the Chesapeake Bay which empties into the Atlantic Ocean. Slate is not one of the prominent rocks in the area but it does form ledges of parallel rock in the Shenandoah which creates rapids in the river (Chew, 1993, p. 94). Also, as the Shenandoah nears Harpers Ferry, "it cuts obliquely across the weakly metamorphosed sandstones and mudstones of the Chilhowee Group," (William and Mary Geology, 2002). There is a theory that "a number of area streams once crossed the Blue Ridge to reach the Atlantic, but the Shenandoah River, aided by the larger Potomac River, was able to cut a deeper gorge across the mountains and capture the

streams," (Chew, 1993, p. 89). Water running off of the Appalachian Mountains started to collect at the base, thus forming the Shenandoah River (Crosbie & Lee, 2009, p. 9). The Shenandoah River is the principle tributary of the Potomac and drains 20% of the Potomac watershed (Palmer, 1998, p. 50; Nature Conservancy, n.d.). The Potomac River was formed when the Iapetus Ocean started to evaporate and the River cut through the very resistant rocks to create a water gap (Crosbie & Lee, 2009, p. 9; Chew, 1993, p. 95). The geological history of Harpers Ferry has influenced the modern-day geography and ecology of the town.



Figure 6. View of Harpers Ferry with the Shenandoah (left) and Potomac (right) converging (Harpers Ferry, n.d.).

Geography

Calcium and magnesium are common elements in Harpers Ferry due to the areas large quantities of limestone and serve as natural sources of water hardness and pollution (National Park Service [NPS], n.d.b). But, the limestone helps buffer the rivers against acidic conditions (NPS, n.d.b). Flooding over 20 feet occurs every 5 to 10 years and has had a significant impact on the development of Harpers Ferry (NPS, n.d.b). Soil and channel erosion make up most of the suspended material in the rivers with some coming from industrial waste (NPS, n.d.b). Loudoun Heights and Maryland Heights are the two large mountains on either side of Harpers Ferry (Figure 7). Loudoun hugs the Shenandoah River with the north face of the mountain having a

900-foot vertical drop (NPS, n.d.e). Maryland Heights is the taller of the two mountains but has a smaller vertical cliff—its 300 feet on the southern side (NPS, n.d.f). It runs along the Potomac River side of Harpers Ferry (NPS, n.d.f).



Figure 7. Harpers Ferry during the Civil War showing Maryland Heights (left) and Loudoun Heights (right) (Noyalas, 2011).

Ecology

Limestone red-cedar glades and low-elevation montane habitats are two of the uncommon plant habitats in Harpers Ferry, which, in turn, support a number of state-listed rare plant species (Saxton, 2009, p. 20). Some of the rare plant species supported by the limestone red-cedar glades are limestone adder's-tongue, fringeleaf wild petunia, and broadleaf ironweed (Saxton, 2009, p. 3). Around 80 percent of the Park is mixed hardwood deciduous upland forest with tree species such as chestnut oak, bitternut hickory, and sugar maple (Saxton, 2009, p. 20; NPS, n.d.c). There are many pests and fungi threatening Park greenery including gypsy moths, woolly adelgids, and butternut canker fungus (Saxton, 2009, p. 20-21). The canals that were built for industry purposes are now naturally converting back to wetlands providing habitat for a wide range of species (Saxton, 2009, p. 19). There are several wetlands inside park boundaries totaling about 100 acres (Saxton, 2009, p. 21). One of the most diverse populations of butterflies

and skippers in the tri-state area resides in Harpers Ferry (Saxton, 2009, p. 23). There are no federally endangered or threatened plant or animal species inside the park but there are numerous West Virginia, Maryland, or Virginia endangered or threatened species (Saxton, 2009, p. 22-23). These include swamp loosestrife, lobed spleenwort, Short's aster, West Virginia white butterfly, peregrine falcon, and wood turtle (Saxton, 2009, p. 22-23).



Figure 8. Bitternut hickory (Bitternut hickory, n.d.).



Figure 9. Short's aster (Short's aster, n.d.).



Figure 10. Peregrine falcon (Peregrine falcon, n.d.).

Further Information

For a more detailed geological overview of Harpers Ferry refer to the "Geology of the Harpers Ferry Quadrangle, Virginia, Maryland, and West Virginia," (Southworth & Brezinski, 1996). This publication covers in a very detailed and scientific manner the various geological events and pieces that created Harpers Ferry, WV. Included topics are different rock groups, structural geology, tectonic history, and surficial geology.

Chapter 4: Native Americans around Harpers Ferry

A broad picture of Native American interaction with the Harpers Ferry general area can be found through archeological evidence. It seems that Harpers Ferry was a seasonal home where Native Americans set up camps to fish the waters of the Potomac and Shenandoah (Saxton, 2009; Harpers Ferry Historical Association, 2013). Archeological records show that Native Americans lived or hunted in West Virginia for at least ten thousand years before the arrival of the first Europeans (Rice & Brown, 1994).

The Early Hunters or Paleo-Indians were small grouped nomadic hunters of large game such as giant sloths, a variety of buffalo, and camels, which all became extinct about 6000 B.C. (Rice & Brown, 1994, p. 3). Historians know that they were in West Virginia because of finding a large number of fluted spear points, a hunting tool, mainly in the Ohio River valley but also in the Kanawha River and Potomac River valleys (Figure 1) (Rice & Brown, 1994, p. 3). Later cultures of Native Americans that have left artifacts were the Archaic, Early and Middle Woodland, and Mississippian (Rice & Brown, 1994). Adena, also known as Woodland or the Mound Builders, are the first known settlers in Jefferson County (Figure 2) (Jefferson County Historical Society, 2006).

The early Adena were around from about 1000 B.C. to 500 A.D. and are characterized by cultivation of plants, pottery making, and mound burial ceremonialism (Rice & Brown, 1994, p. 4-5). The Adena continued mound building after 500 A.D. when they started to blend together with Hopewellian culture (Rice & Brown, 1994, p. 5). Around 800 A.D., Fort Ancient people replaced the Buck Garden mound builders, a late Hopewellian variant, which blended Mississippian and Middle Woodland cultures (Rice & Brown, 1994, p. 7-8). Around 800 A.D., but probably earlier, Native Americans were turning to settling permanent villages and cultivating crops such as corn, beans, and squash (Rice & Brown, 1994).

Susquehannock Native Americans resided in the area from 1630 to 1677 after they came down from central Pennsylvania (Rice & Brown, 1994). This is known because about 100 miles from Harpers Ferry at the South Branch of the Potomac artifacts at several sites "including trading goods and pottery, are unmistakably Susquehannock," (Rice & Brown, 1994, p. 9). Another group, the Hurons, are thought to have occupied present-day West Virginia in the late 1500s and early 1600s numbering several thousand (Jefferson County Historical Society, 2006). The Hurons were driven out of the state by the Iroquois Confederacy in the 1600s (Jefferson

County Historical Society, 2006). The Iroquois were not interested in occupying the area but instead used it in the spring and summer months as a hunting ground (Figure 3) (Jefferson County Historical Society, 2006).

The Eastern Panhandle, which includes Jefferson County, was inhabited by the Tuscarora during the early 1700s (Jefferson County Historical Society, 2006). Later in the 1700s they migrated into New York and became part of the Iroquois Confederacy (Jefferson County Historical Society, 2006). European explorers and settlers found almost no Native American residents with the most plausible explanation being that any residing Natives were pushed out by the Iroquois' quest for dominance especially in regards to the fur trade with the Dutch and British (Rice & Brown, 1994). Even if many details of Native American history are unknown their presence is preserved in the names of places and rivers. The Shenandoah River means "daughter of the stars" while the Potomac River means "great trading place" (Scheel, n.d.).

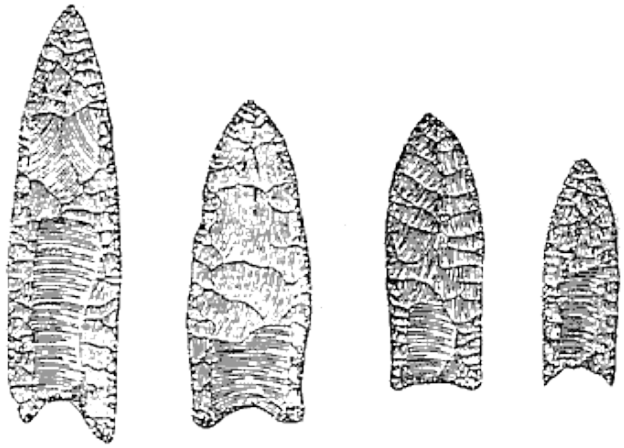


Figure 1. Various fluted spear points from the Paleo time period. These are distinct because of the "flute" of stone chipped away in the center base (Clovis points, n.d.).



Figure 2. Modern interpretation of Native American life in the Early Woodland Period (Walton, 2005).

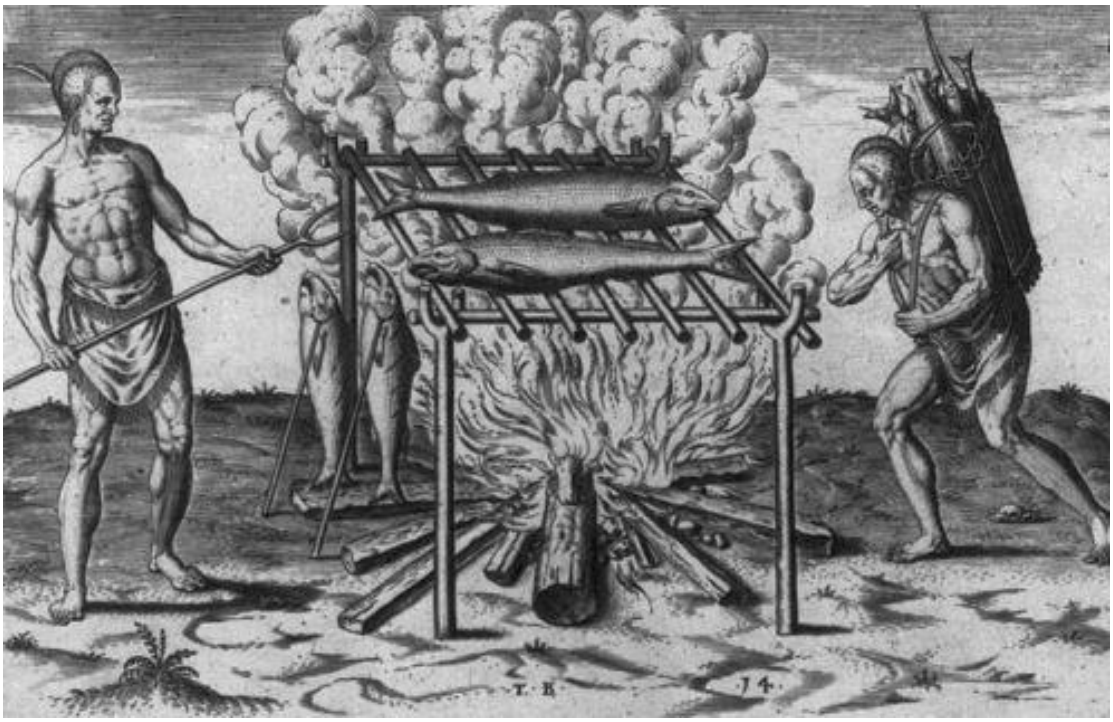


Figure 3. Native American fishermen as depicted by Europeans (Native American Fishermen, n.d.).

Chapter 5: European Exploration and Settlement

European Exploration

The purported first European to step foot into Jefferson County was John Lederer who explored the area in 1669 on behalf of Sir William Berkeley, colonial governor of Virginia (Figure 1 & 2) (Jefferson County Historical Society, 2006). In 1706-1707 Louis Michel, a Swiss promoter, led a party of men who mapped the area around Harpers Ferry with the intention to settle the area but the plans fell through and a Swiss colony was never established (Rice & Brown, 1994, p. 13-14; Jefferson County Historical Society, 2006). The land they were trying to settle was contested by various proprietors and the Conestoga, another name for Susquehannock, Native Americans warned the Pennsylvania government to not allow settlers in the Harpers Ferry area (Figure 3) (Rice & Brown, 1994, p. 14). The first permanent European settlement in the area is not well documented but thought to be near Shepherdstown and was called Potomoke in Virginia (Rice & Brown, 1994, p. 14). This settlement's existence is only know through a reference by the Conestoga Native Americans to Pennsylvania authorities about people settling west of the Blue Ridge and in a letter to Philadelphia Synod of the Presbyterian Church in 1717 or 1719 (Rice & Brown, 1994, p. 14; Jefferson County Historical Society, 2006).



Figure 1. Sir William Berkeley (Sir William Berkeley, n.d.).

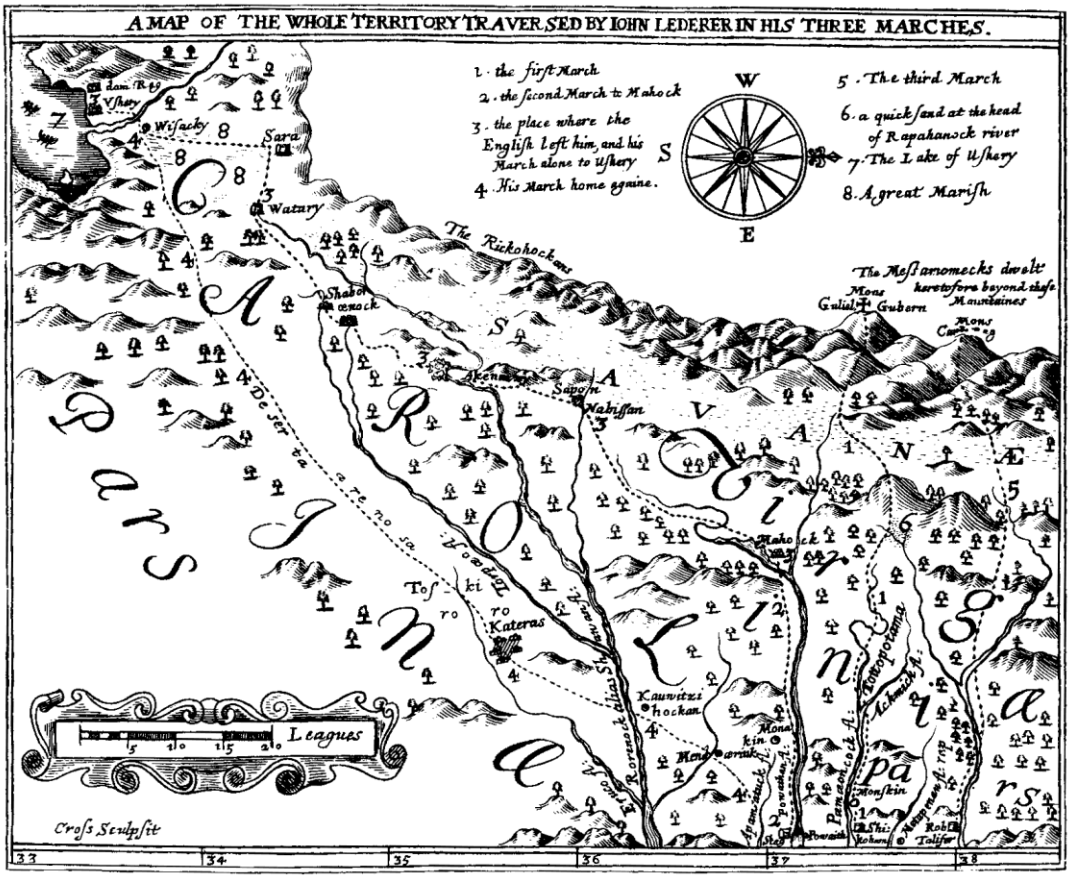


Figure 2. Map by John Lederer of his travels from The Discoveries of John Lederer (Grymes, n.d.b).



Figure 3. John Smith's 1612 map depiction of Susquehannock man (Historical Society of Baltimore County, n.d.).

European Settlement

Permanent European settlement started around 1733 when Peter Stephens built a house at the confluence of the Shenandoah and Potomac Rivers, which he named "the Hole," and started a ferry across the rivers (Addy & Fecteau, 2011; Gilbert, n.d.). In 1744 Virginia purchased from the Iroquois Confederacy the title ownership to West Virginia in the Treaty of Lancaster (Jefferson County Historical Society, 2006). Robert Harper took over operations around 1747 and the land he bought from Lord Fairfax and Stephens became the base of a new town, Harpers Ferry (Figure 4 & 5) (Saxton, 2009; Addy & Fecteau, 2011; Harpers Ferry Historical Association, 2013). Harper also erected a power gristmill on the Shenandoah River (Crosbie & Lee, 2009, p. 10). The first name of the town was actually Shenandoah Falls established in 1763 by the Virginia Assembly at "Mr. Harper's Ferry," (Addy & Fecteau, 2011). Harper was attracted to "the Hole" because of its ample waterpower and strategic location for travel and transport going to Atlantic cities and grain growing regions (National Park Service [NPS], n.d.g; Williamson & Smith, 1747). The Wager Toll Bridge, a highway bridge, was built in 1824 which decreased the need for the ferry (Dickey & Vogel, 1974). The ferry service was probably permanently discontinued around 1836 when the Baltimore and Ohio (B&O) timber railroad bridge was built but the exact date of discontinuation is not known (Dickey & Vogel, 1974). Robert Harper's slave was the first African American in Harpers Ferry which ended up having a mixture of both enslaved property and freed Black people (NPS, n.d.h). During the American Revolutionary War, 1776-1783, settlement in the eastern panhandle came to a virtual standstill because of Native American tribes attacking the region as they had sided with the British (Jefferson County Historical Society, 2006). During the Revolutionary War, there were two volunteer regiments organized by Daniel Morgan of Frederick County and Hugh Stephenson of Berkeley County (later Jefferson County) who joined George Washington's forces in Massachusetts (Figure 6) (Jefferson County Historical Society, 2006). Many of the Berkley/ Jefferson County volunteers died as prisoners when the British captured Forts Washington and Lee (Figure 7) (Jefferson County Historical Society, 2006).



Figure 4. Robert Harpers tombstone (Robert Harpers tombstone, 2013).

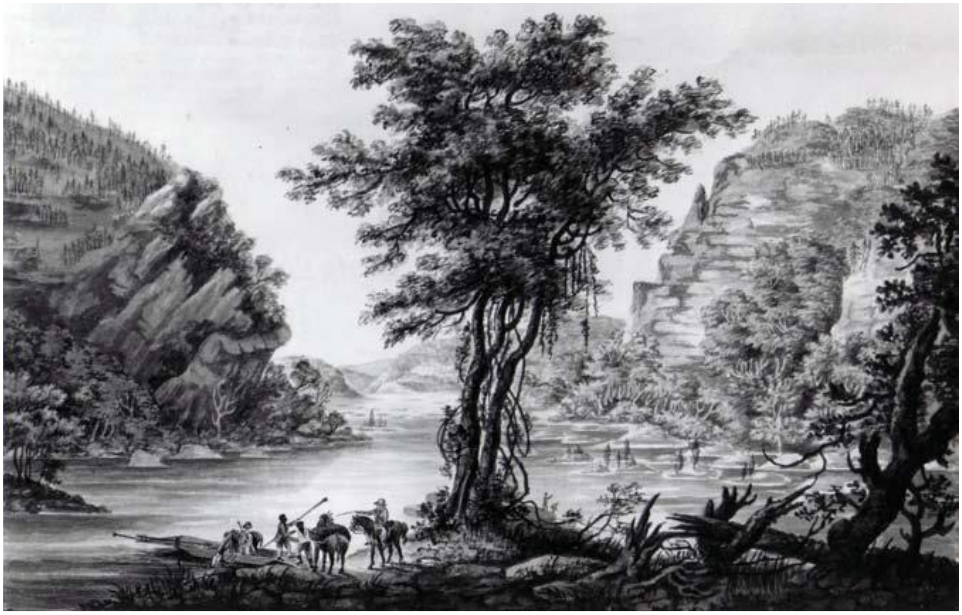


Figure 5. An illustration of the early ferry operations at the confluence of the Potomac and Shenandoah rivers, circa 1795 (Crosbie & Lee, 2009, p. 27).



Figure 6. Brigadier General Daniel Morgan (Brigadier General Daniel Morgan, n.d.).



Figure 7. Forcing a passage on the Hudson River with Forts Washington and Lee on either side, October 9, 1776 (Mitchell, 1776).

Chapter 6: Industrialization

Background

In the mid-1790s the United States, in the spirit of national self-security, decided that a national military supply system needed to be established so that dependence on foreign supplies for weapons and the unreliable network of private arms manufactures could be halted (Crosbie & Lee, 2009, p. 10; Lee, 2006, p. 2). The United States Armory and Arsenal at Harpers Ferry was not just a place of storage and production but also one of the first industrial centers in the country (Crosbie & Lee, 2009, p. 1). It was one of two federal armories founded under George Washington, the other was in Springfield, Massachusetts (Crosbie & Lee, 2009, p. 1). George Washington was a major stockholder in the joint-stock Patowmack Company; also spelled Potowmack, Potowmac, or Potomac (Figure 1) (Wolff, 2000). The Patowmack Company was the main backer of the Armory project when it started.

There were three main complexes spread throughout Harpers Ferry—the United States Musket Factory, Arsenal Yard, and the United States Rifle Factory (Crosbie & Lee, 2009, p. 2). The Musket Factory was the site of a major transportation crossroads with two railroads—the former Baltimore & Ohio and the Winchester & Potomac—and ferries crossing both the Potomac and Shenandoah rivers (Crosbie & Lee, 2009, p. 4-5, 24). The Rifle Works was located on Hall's Island along the Shenandoah River (Crosbie & Lee, 2009, p. 145).

Washington cited the areas military defensibility and availability of natural resources as reasons why the armory should be located in Harpers Ferry (Lee, 2006, p. 3). The defensibility came from the steep topography surrounding the facilities (Crosbie & Lee, 2009, p. 24). It was not without controversy to locate the armory at Harpers Ferry with Colonel Stephen Rochefontaine citing the area's vulnerability to flooding as a main reason not to go ahead with the plans (Crosbie & Lee, 2009, p. 10).

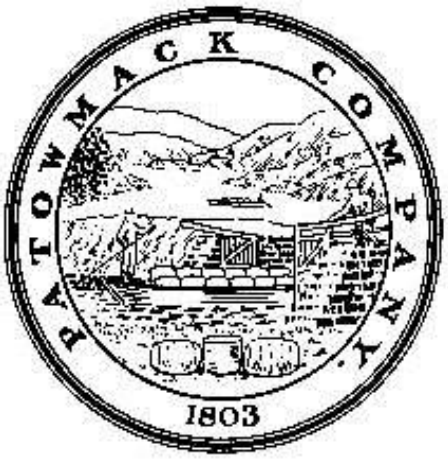


Figure 1. Patowmack Company Logo (National Park Service [NPS], n.d.i).

The Beginning of the Armory and Arsenal

Even though the site was picked and the idea started in 1795 it was not until 1799 that construction actually began (Crosbie & Lee, 2009, p.11; Lee, 2006, p. 3). By this time it was a project of President John Adams and his Secretary of War, James McHenry (Crosbie & Lee, 2009, p. 11). The factory relied heavily on the rivers to provide energy mainly through a system of water wheels on a 1.25 mile long canal (Crosbie & Lee, 2009, p. 16; Lee, 2006). Water did not just provide power but also transportation for the shipment of arms and raw materials (Crosbie & Lee, 2009, p. 24). Limited rifle and musket production began in 1801 and was sporadic until 1808 because of a leaky canal and difficulties and delays procuring essential manufacturing supplies (Figure 2) (Lee, 2006, p. 12). On top of these problems there were poor health and environmental conditions leading to workers' sickness including yellow fever (Crosbie & Lee, 2009, p. 16). Further compounding problems the Armory and Arsenal was on low-lying lands that was prone to both flooding and periods of low water impacting the use of canal and water-powered machinery (Crosbie & Lee, 2009, p. 16). Production was spurred by additional government funding starting around 1808, which in turn led to the commercial development of Harpers Ferry (Crosbie & Lee, 2009, p. 19; Lee, 2006, p. 13). The funds led to the construction of new buildings to both produce weapons in and house workers (Crosbie & Lee, 2009, p. 19). The armory created an economy that attracted many free African Americans to work in a variety of jobs including cooks, housekeepers, laborers, harvesters, and businessmen (Lee, 2006, p. 11). Even with an expanded operation the Arsenal and Armory had trouble producing sound, reliable, and uniform products and were instead know for making highly

finished pattern and presentation pieces (Crosbie & Lee, 2009, p. 19-20). Part of the problem was an inability to find a steady supply of skilled labor as competition, in the early 1800s, for firearms industry workers was fierce (Crosbie & Lee, 2009, p. 20).



Figure 2. 1803 print of the Arsenal at Harpers Ferry (Harpers Ferry National Historical Park, n.d.h).

Meriwether Lewis Visit

In 1803 Meriwether Lewis visited Harpers Ferry and procured various supplies from the Armory for the exploration of the Northwest Territory with William Clark (Figure 3) (Crosbie & Lee, 2009, p. 145). The items obtained in Harpers Ferry included gifts for the Native Americans—tomahawks, knives, fish hooks—and for the explorers to use—guns, powder horns, bullet molds (Lee, 2006, p. 16). Also developed in Harpers Ferry was a collapsible iron boat frame that was conceived by Meriwether Lewis and Thomas Jefferson to allow them to get around the Great Falls of the Missouri River and any other falls the explorers might encounter (Crosbie & Lee, 2009, p. 208; Lee, 2006, p. 17).

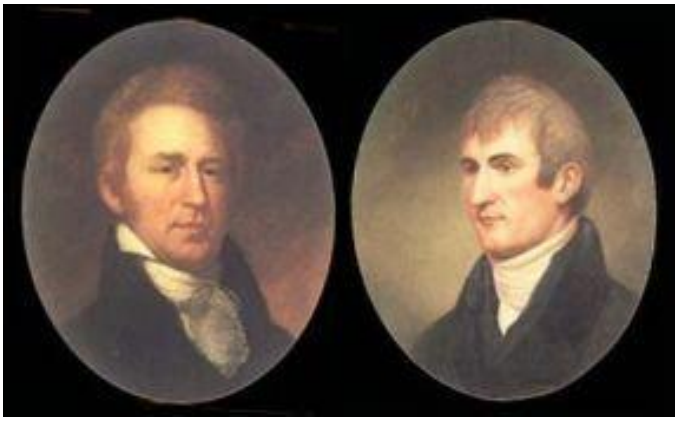


Figure 3. William Clark & Meriwether Lewis (NPS, n.d.d).

The Development of the Armory and Arsenal

The Armory ramped up its production numbers to aid in the War of 1812 producing 29,500 arms between 1812 and 1814 compared to 61,257 small arms in its first 12 years of existence (Crosbie and Lee, 2009, p. 21). The Armory and town grew at a very slow rate until the mid-1800s due to 3 major developments (Lee, 2006, p. 29). The first was the adoption of new manufacturing technologies, which turned the Armory from a craft-based to a true factory system (Lee, 2006, p. 29). Even though the War Department advocated a "uniformity system" in the 1810s it was not until the Department entered a contract with John H. Hall in 1819 that Harpers Ferry began to move away from craft production (Lee, 2006, p. 32). Hall had invented a breech loading rifle made entirely of interchangeable parts and at Harpers Ferry invented various machinery that streamlined and made the manufacturing of arms more uniformed (Lee, 2006, p. 32-33).

Growth also came with the arrival of new modes of transportation. These new methods of transportation provided a steady supply of raw materials from sources that had been considered out of reach, which improved the quality of materials (Lee, 2006, p. 29). The Chesapeake and Ohio (C&O) Canal was "a vast improvement over the series of skirting canals that were built along the Potomac in the late-18th century," (Lee, 2006, p. 35). These skirting canals were part of the Patowmack Canal which was another venture of the Potomac Company. The Baltimore & Ohio (B&O) Railroad was conceived by Baltimore merchants who did not want to miss out on the economic opportunities the C&O Canal was about to capture (Lee, 2006, p. 35). The Wager Toll Bridge, a wooden highway bridge, replaced the Potomac ferry (Crosbie & Lee, 2009, p. 33).

The last factor leading to growth at the Armory was a change from civilian superintendents to military superintendents, who brought reforms that stimulated Armory production (Lee, 2006, p. 29). Before the introduction of administrative reform four intermarried families created a monopoly of both economic and political power (Lee, 2006, p. 38-39). The military system of management gave way to the installation of innovative machinery, refinement of the division of labor, and the complete transformation to an industrial system (Lee, 2006, 43).

During the 1840s the Armory and Arsenal were expanded and major renovations and modernization were completed (Figure 4) (Crosbie & Lee, 2009). Harpers Ferry was a sprawling industrial town by the mid-1800s boosting not just the Armory but also numerous other manufacturing enterprises including mercantile shops, a machine shop, an iron foundry, a flour mill, a saw mill, and a textile mill (Crosbie & Lee, 2009, p. 49). It was also an important transportation center with both the B&O Railroad and C&O Canal connecting merchants and manufacturers with regional and national economies (Crosbie & Lee, 2009, p. 49). This industry and development was supported by a vast supply of natural resources including timber and water.

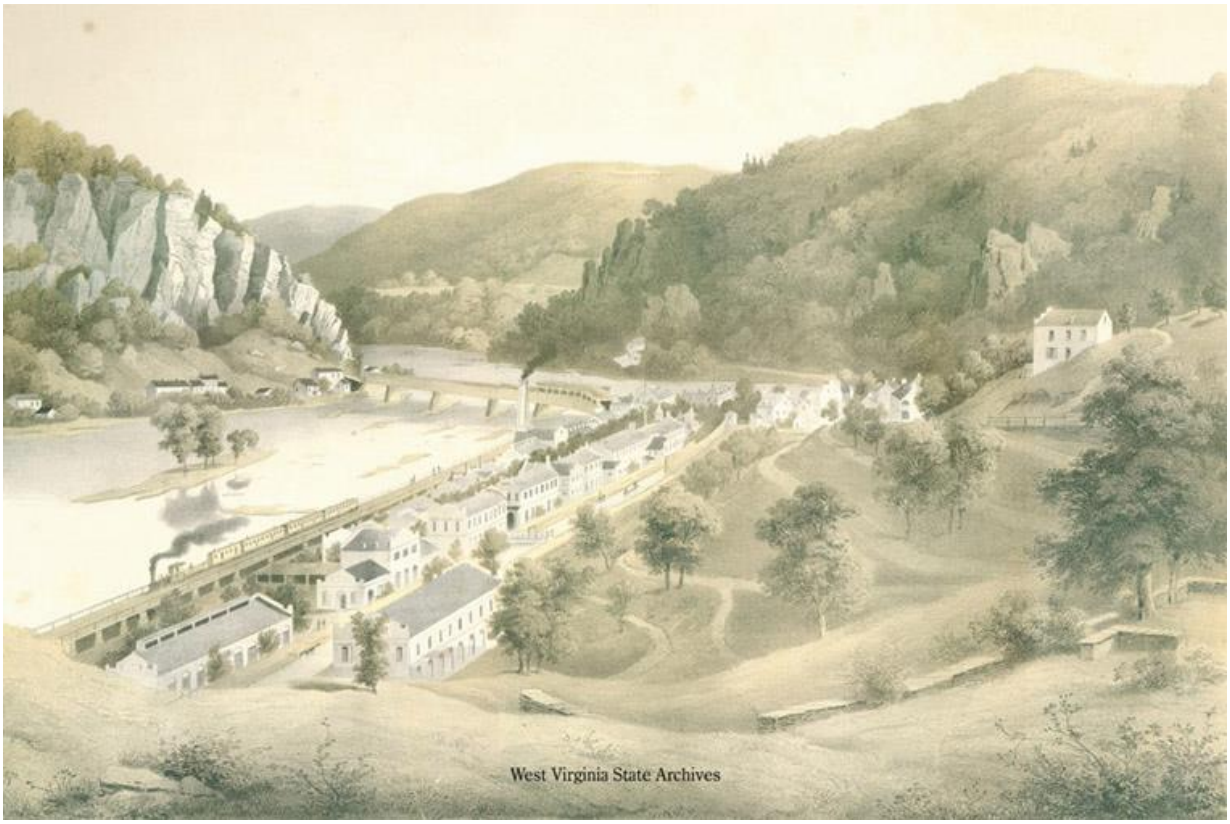


Figure 4. U.S. Armory in 1857 (Beyer, 1857).

The Chesapeake and Ohio (C&O) Canal

The C&O Canal reached a point across from Harpers Ferry on November 1833 and was connected to the Armory through an inlet lock (Figure 5) (Crosbie & Lee, 2009, p. 33). The lock allowed barges to cross the river, enter the Armory canal, and make deliveries to the Musket Factory (Crosbie & Lee, 2009, p. 33). The Canal was fully completed by 1850 and reached from Georgetown in D.C. to Cumberland, Maryland (Crosbie & Lee, 2009, p. 34). The C&O Canal was crucial to develop commerce past the Fall Line in the Potomac River (Southworth et al., 2008, p. 1). The Fall Line prevented large ships going upstream because of rapids, waterfalls, and shallow and narrow channels (Southworth et al., 2008, p. 1). But the Potomac River was one of the most viable routes to cross the Appalachian Mountains and reach the Ohio River valley and beyond (Southworth et al., 2008, p. 1). Thus George Washington and the Patowmack Company, starting in 1785, built a series of "skirting" canals but these were largely ineffective and did not create a passage around the Great Falls (Southworth et al., 2008, p. 1). These were replaced by the C&O Canal.

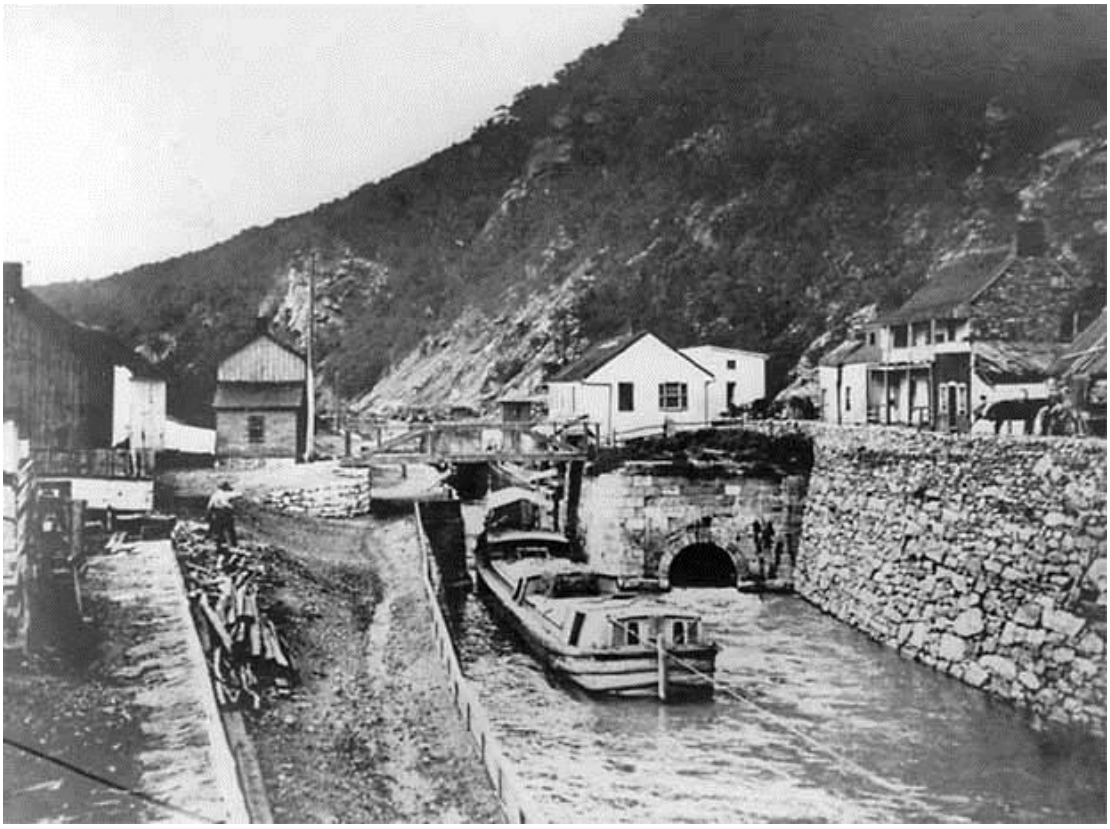


Figure 5. Lock 33 on the Chesapeake and Ohio Canal across the Potomac from Harpers Ferry in 1876 (Harpers Ferry National Historical Park, n.d.i).

The Baltimore and Ohio (B&O) Railroad

The B&O Railroad linked Baltimore to Harpers Ferry via the north bank of the Potomac (Figure 6) (Crosbie & Lee, 2009, p. 34). At Harpers Ferry the B&O made an important junction to the Winchester & Potomac (W&P) which was a 32 mile line from Winchester, Virginia to Harpers Ferry and the Potomac River thus connecting the fertile Shenandoah Valley to other economies (Crosbie & Lee, 2009, p. 34). The B&O hoped to continue on to Cumberland, MD and then to the Ohio River. These plans were complicated by the unique physical geography of Harpers Ferry and W&P's unwillingness to lease six miles of track (Lee, 2006, p. 36). The geography made it tough to go directly west and also it would have to run through Armory property (Lee, 2006, p. 36). The route along the Shenandoah was preferred because of the orientation of the railroad bridge but W&P was unwilling to enter negations with B&O for unknown reasons (Lee, 2006, p. 36). The Armory was at first hesitant to allow the B&O to go through but eventually allowed it as long as it was built upon an elevated trestle and Amory property was not damaged (Lee, 2006, p. 36). After the rail line was completed in 1842 coal slowly became the main freight being moved so that by 1850 it made up 60% of B&Os eastbound freight (Lee, 2006, p. 37).

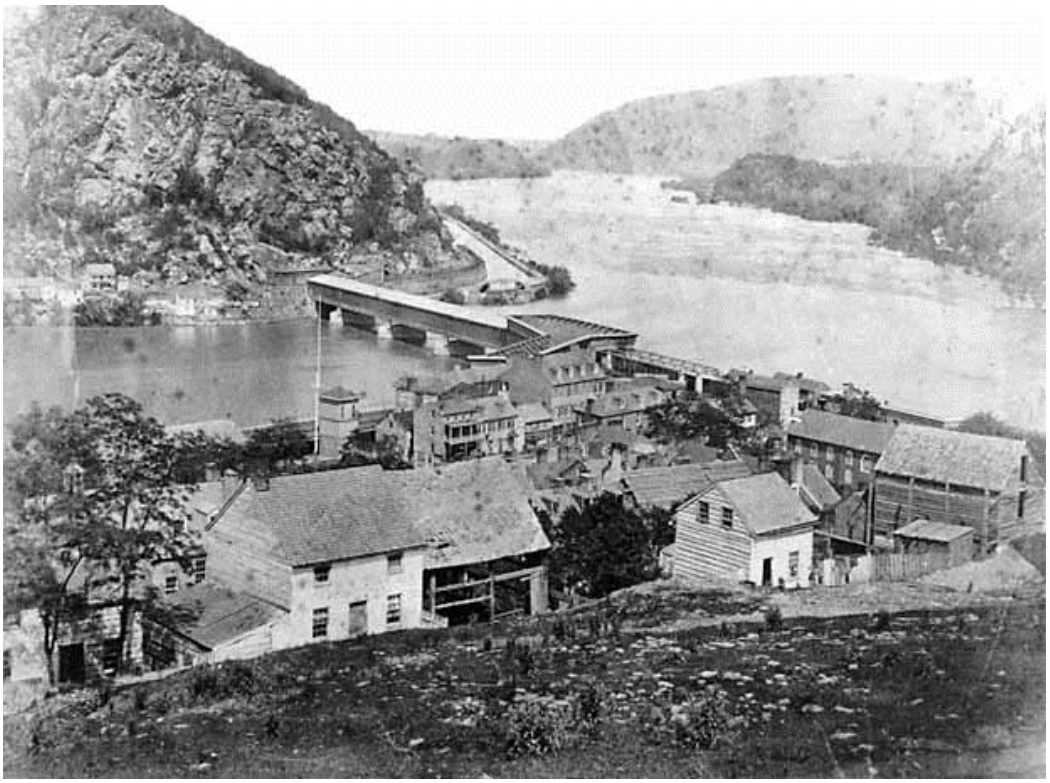


Figure 6. View of Lower Town and the covered Baltimore and Ohio Railroad Viaduct in 1859 (Harpers Ferry National Historical Park, n.d.l).

Further Information

There are many detailed histories of Harpers Ferry especially in the form of Cultural Landscape Reports. A more detailed account of the politics and people of the Amory and Arsenal at Harpers Ferry can be found at Lee (2006) and Crosbie and Lee (2009). A detailed history of Hall Island which housed the rifle manufacturing part of the Armory along with various other industries can be found in Poss and Moss (2010).

Chapter 7: The Civil War

John Brown's Raid

Harpers Ferry is most famous for John Brown's raid on the US Armory (Figure 1). John Brown planned to liberate slaves by starting a revolution, arming the slaves, and establishing a free Black stronghold in the Appalachians (Figure 2) (National Park Service [NPS], n.d.a). His base was Kennedy Farm located 7 miles away in Maryland (Figure 3) (NPS, n.d.a). Harpers Ferry was chosen because of the Armory and its location near the mountains (NPS, n.d.a).

On October 16, 1859, Brown and 17 other men crossed the Potomac River into Harpers Ferry with a wagonload of supplies over the bridge (NPS, n.d.a). They seized the bridge and armory watchmen, proceeded to cut telegraph wires, and sent parties out to bring in slaves and hostages (NPS, n.d.a). Townspeople and Brown's men began to exchange gunfire after they barricaded themselves in the Armory buildings (Figure 4) (NPS, n.d.a). By October 17th, the militia arrived and secured the Potomac River bridge (NPS, n.d.a). The remaining raiders took refuge in the fire engine house of the Armory's musket factory (NPS, n.d.a). On the 18th marines stormed the building, bayoneted two men and captured others including John Brown (Figure 5) (NPS, n.d.a). The marines were led by Colonel Robert E. Lee who later became the head of the Confederate Army (Civil War Trust, n.d.b).

John Brown was tried in Charles Town, Virginia for treason against the Commonwealth of Virginia, inciting slaves to rebel, and murder (Figure 6) (Harpers Ferry National Historical Park, n.d.e). He denied any wrong doing and stated that "[t]o 'interfere' on behalf of God's 'despised poor' was 'not wrong but right'," (Harpers Ferry National Historical Park, n.d.e, p. 4). He was convicted and sentenced to death; on December 2nd he was hanged (Harpers Ferry National Historical Park, n.d.e). John Brown's death raised passion on both sides of the debate with the North claiming him as a martyr, the South the devil (Harpers Ferry National Historical Park, n.d.e). Since this was such a famous event there is no shortage of details and accounts of the raid to be found. Also it is one of the main themes of Harpers Ferry National Historical Park interpretive programming.

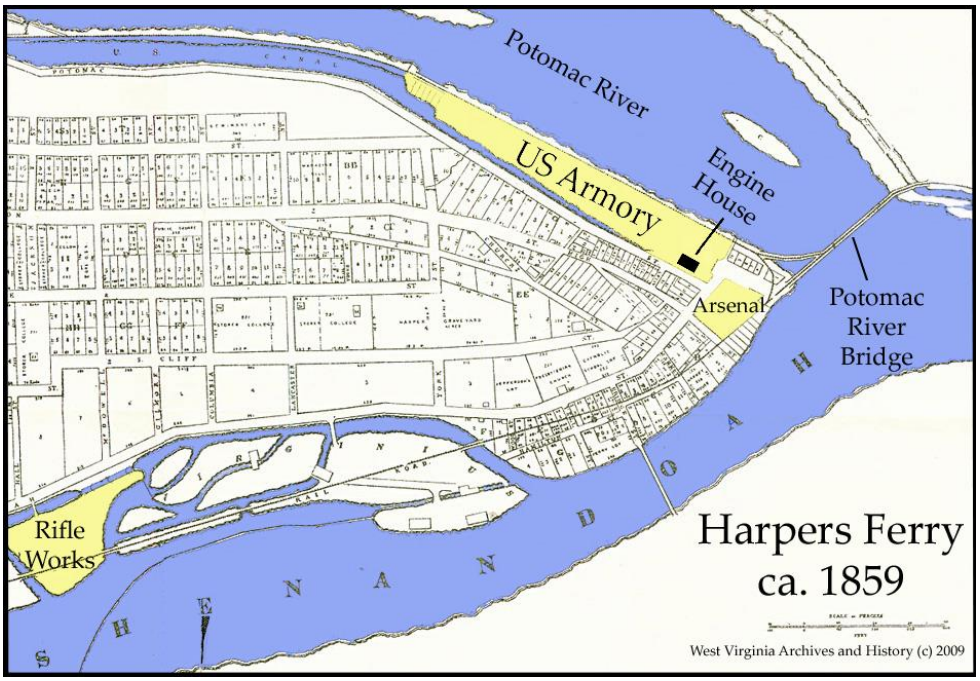


Figure 1. Map of important places in John Brown's Harper Ferry Raid (West Virginia Archives and History, 2009).



Figure 2. A photograph of John Brown, circa 1857 (Dickinson College History Department, n.d.).

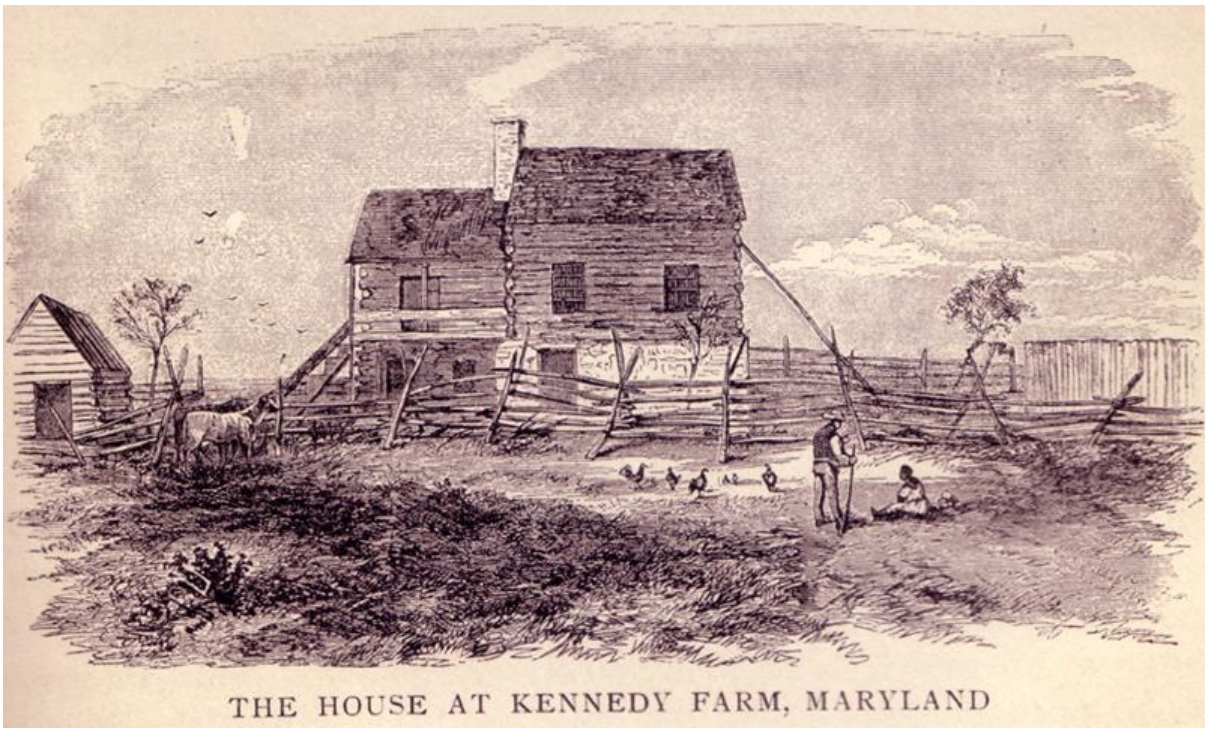


Figure 3. A woodcut appearing in Frank Leslie's Illustrated Paper in November 1859 (Dickinson College History Department, n.d.).

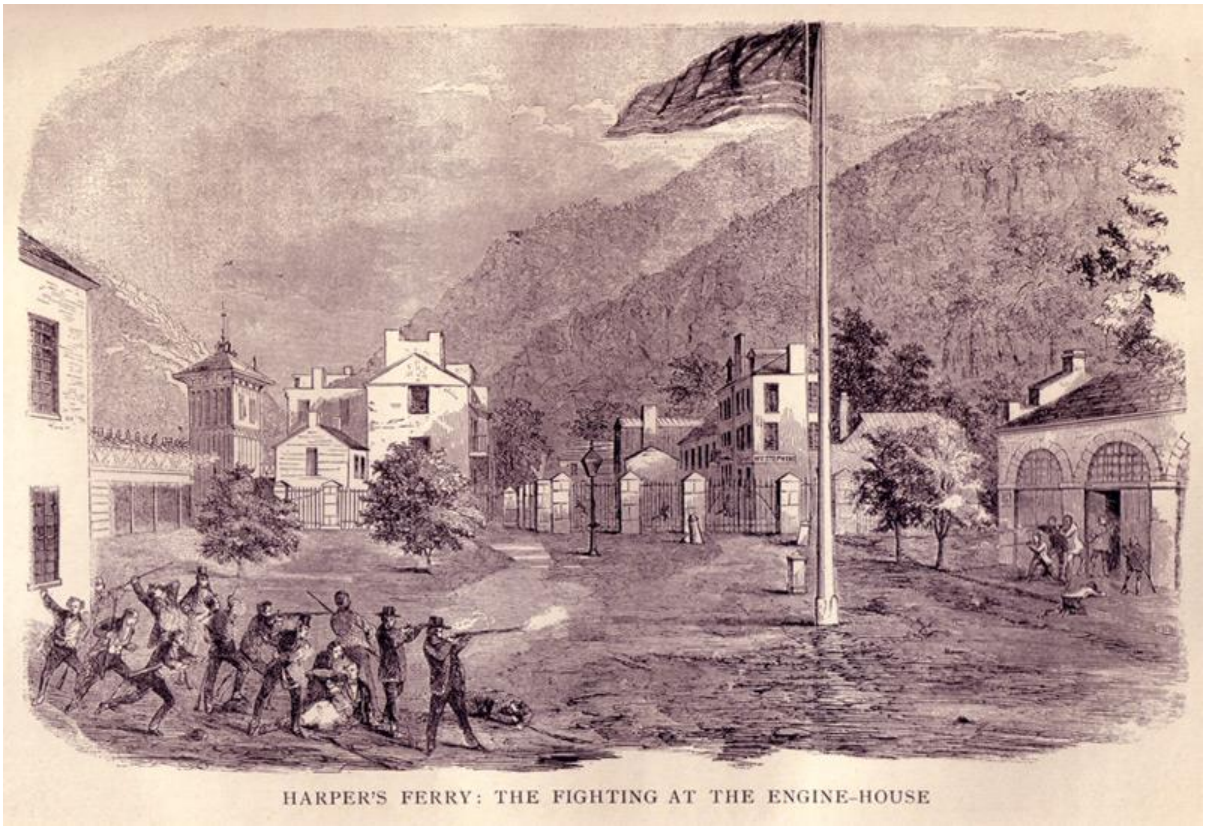


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Figure 5. A woodcut appearing in Frank Leslie's Weekly Illustrated Paper in October 1859 (Dickinson College History Deparment, n.d.).



Figure 6. A woodcut appearing in Frank Leslie's Illustrated Paper in November 1859 (Dickinson College History Department, n.d.).

1861

The Civil War started at Fort Sumter in Charleston, South Carolina in April 1861 (Poss & Moss, 2010, p. 105). Harpers Ferry was a center of Civil War action because of its geographic location and the presence of the Baltimore & Ohio (B&O) Railroad and Chesapeake & Ohio (C&O) Canal. Also the "valley's physiographic alignment from southwest to northeast made it a natural Confederate avenue of approach, enabling the South to carry the war into the North," (Crosbie & Lee, 2009, p. 70). Because of Harpers Ferry's location at a vital rail, river, and canal junction it became an important supply depot during the Civil War (Crosbie & Lee, 2009, p. 70). On April 17, 1861 Virginia voted to secede from the Union and by April 18th Southern troops were approaching Harpers Ferry (Harpers Ferry National Historical Park, n.d.e, p. 4). Since Lieutenant Roger Jones had a limited number of U.S. soldiers he ordered the destruction of the Armory and Arsenal as he and his men retreated northward (Harpers Ferry National Historical Park, n.d.e, p. 4). The fires set destroyed the Arsenal but the townspeople put out the Armory building fire so it sustained little damage (Figure 7) (Harpers Ferry National Historical Park, n.d.e, p. 4).

The Confederates occupied Harpers Ferry from April 19 until June 14, 1861, the first taste of military occupation for the townspeople (Figure 8) (Crosbie & Lee, 2009). During their occupation they seized all Armory property and the townspeople's property was confiscated and their homes used as barracks (Harpers Ferry National Historical Park, n.d.e, p. 4). The Confederate arms manufacturing was largely based in the machinery seized at Harpers Ferry (Crosbie & Lee, 2009, p. 65). Union Major General Robert Patterson and his men occupied the town for several days after July 21, 1861 and freely plundered the town (Crosbie & Lee, 2009, p. 68). Confederate troops returned in October 1861 and burned the wheat mill, which completed the destruction of all industry in Harpers Ferry (Harpers Ferry National Historical Park, n.d.e, p. 4-5). Union troops fully departed town on August 17, 1861 and until February 25, 1862, Harpers Ferry was a no-man's land (Crosbie & Lee, 2009, p. 68). Harpers Ferry changed control four times over these months (Noyalas, 2011).

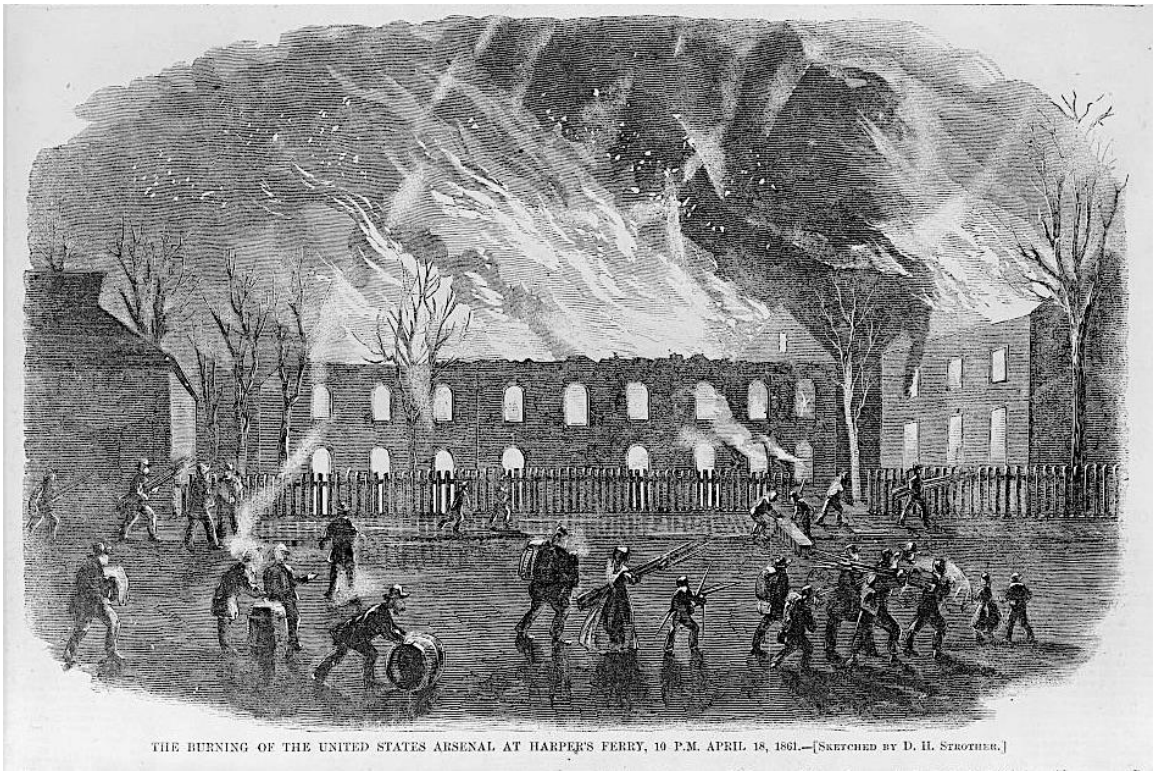


Figure 7. US Arsenal on Fire, 1861 (Strother, 1861).

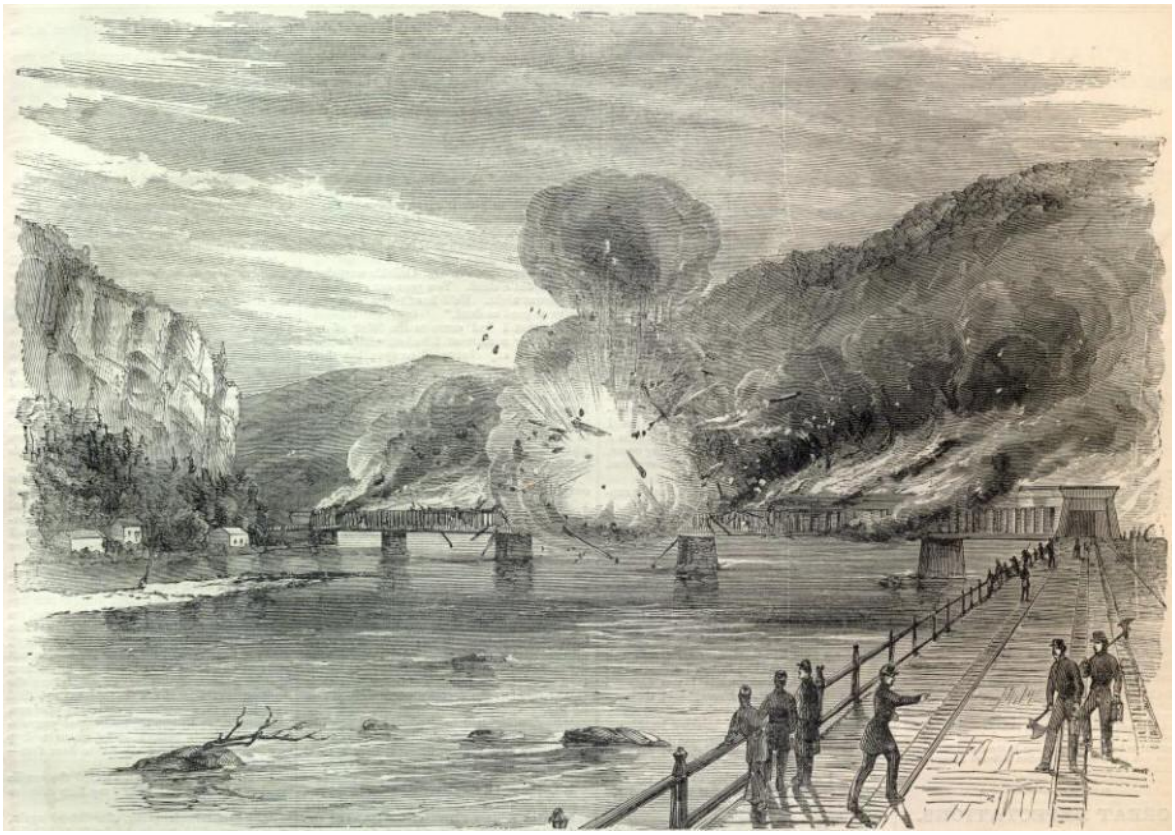


Figure 8. Rebels destroying Potomac Bridge, 1861 (Harper's Weekly, 1861).

1862

On February 25, 1862 Union troops started a re-occupation of the town, which lasted until September 1862. Union General Rufus Saxton successful defeated an attack by Stonewall Jackson's forces on May 30th as part of the Shenandoah Valley Campaign (Noyalas, 2011). Early September brought a Confederate siege of Harpers Ferry, which was part of General Robert E. Lee's invasion of the North (Figure 9). On September 15th, Union troops surrendered to Confederate troops and retreated northward (Harpers Ferry National Historical Park, n.d.a). Stonewall Jackson's troops in Harpers Ferry quickly retreated to provide support in the Battle of Antietam on September 17th (Noyalas, 2011). Union troops were back in control of the town about a week later as Lee retreated back into Virginia as a result of the Battle of Antietam (Noyalas, 2011). During the winter of 1862 Union Troops cleared trees from Loudoun Heights and Maryland Heights, the hills surrounding Harpers Ferry (Harpers Ferry National Historical Park, n.d.e, p. 5). On Maryland Heights they installed fortified works, including batteries, riffle pits, and a stone fort (Harpers Ferry National Historical Park, n.d.e, p. 5).

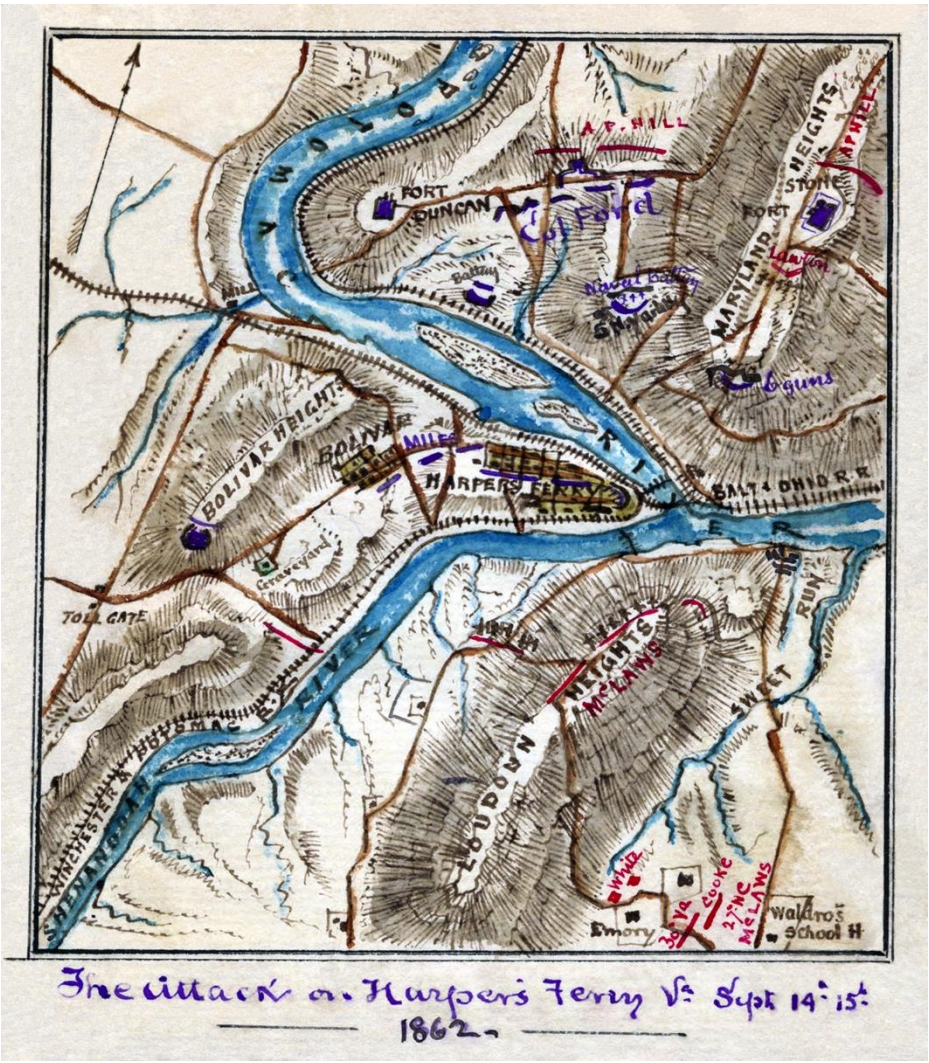


Figure 9. Robert Sneden's map of the Battle of Harpers Ferry, 1862 ("Robert Knox Sneden," n.d.).

1863-1865

From mid-September 1862 until late June 1863 Union troops held control of Harpers Ferry until a Confederate Calvary pressed on the town (Noyalas, 2011; Poss & Moss, 2010). Confederate success only lasted around a week before Union troops were back in control (Noyalas, 2011; Poss & Moss, 2010). Harpers Ferry was not in Confederate territory as by this time West Virginia had become a Union state on June 20, 1863 (Noyalas, 2011). From July 4th until the 8th the Confederates held Harpers Ferry as Lieutenant General Jubal A. Early's troops traveled through town on the way to raid Washington, D.C. (Harpers Ferry National Historical Park, n.d.e, p. 5; Poss & Moss, 2010, p. 108). This was the last time the Confederates held Harpers Ferry (Harpers Ferry National Historical Park, n.d.e, p. 5). By August 1864 the town had become the base for General Phillip H. Sheridan's Shenandoah Valley campaign which wrestled

the Shenandoah Valley from Confederate control (Figure 10) (Noyalas, 2011; Poss & Moss, 2010, p. 109). By the end of the war in April 1865 Harpers Ferry was badly dilapidated and a large number of residents were either homeless or had moved elsewhere (Figure 11 & 12) (Crosbie & Lee, 2009, p. 72). The Harpers Ferry Armory and Arsenal would never again produce arms and the ruins were left to deteriorate (Crosbie & Lee, 2009, p. 72).

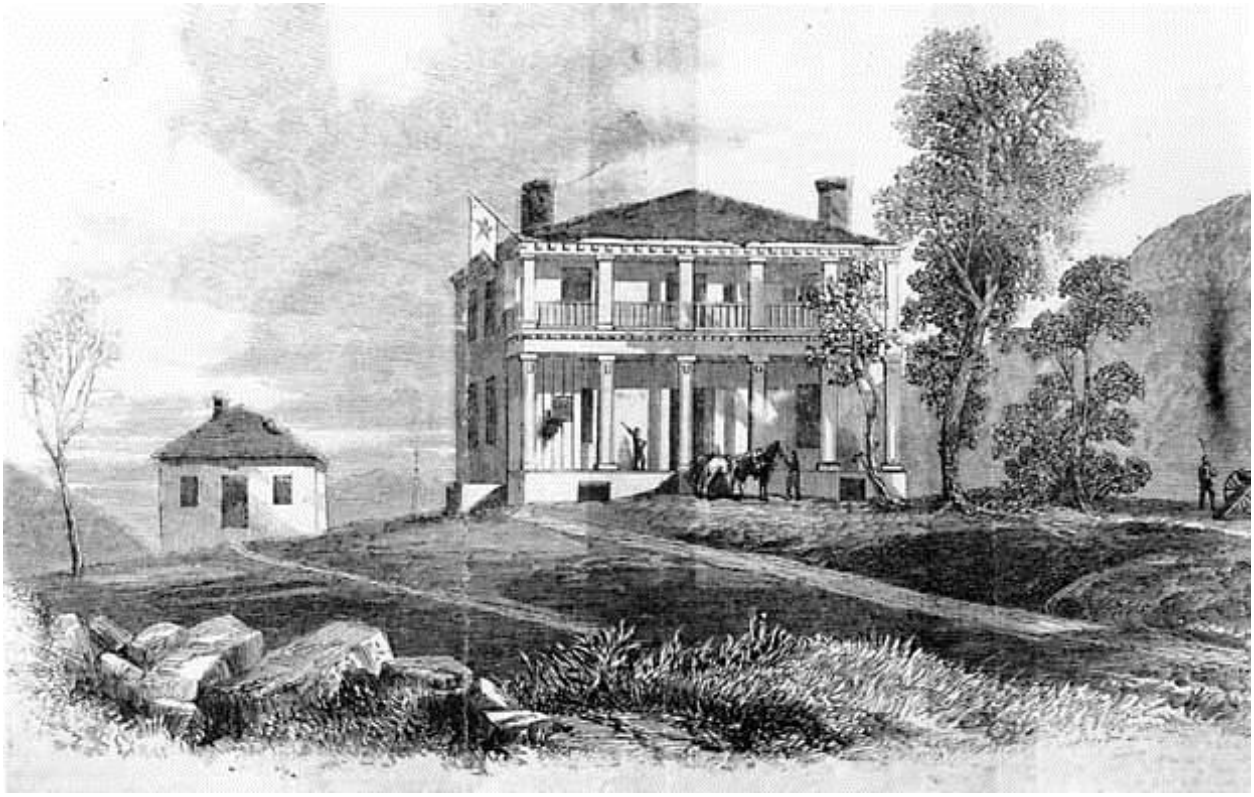


Figure 10. General Sheridan's Headquarters at Harpers Ferry, 1864 (Harpers Ferry National Historical Park, n.d.q).

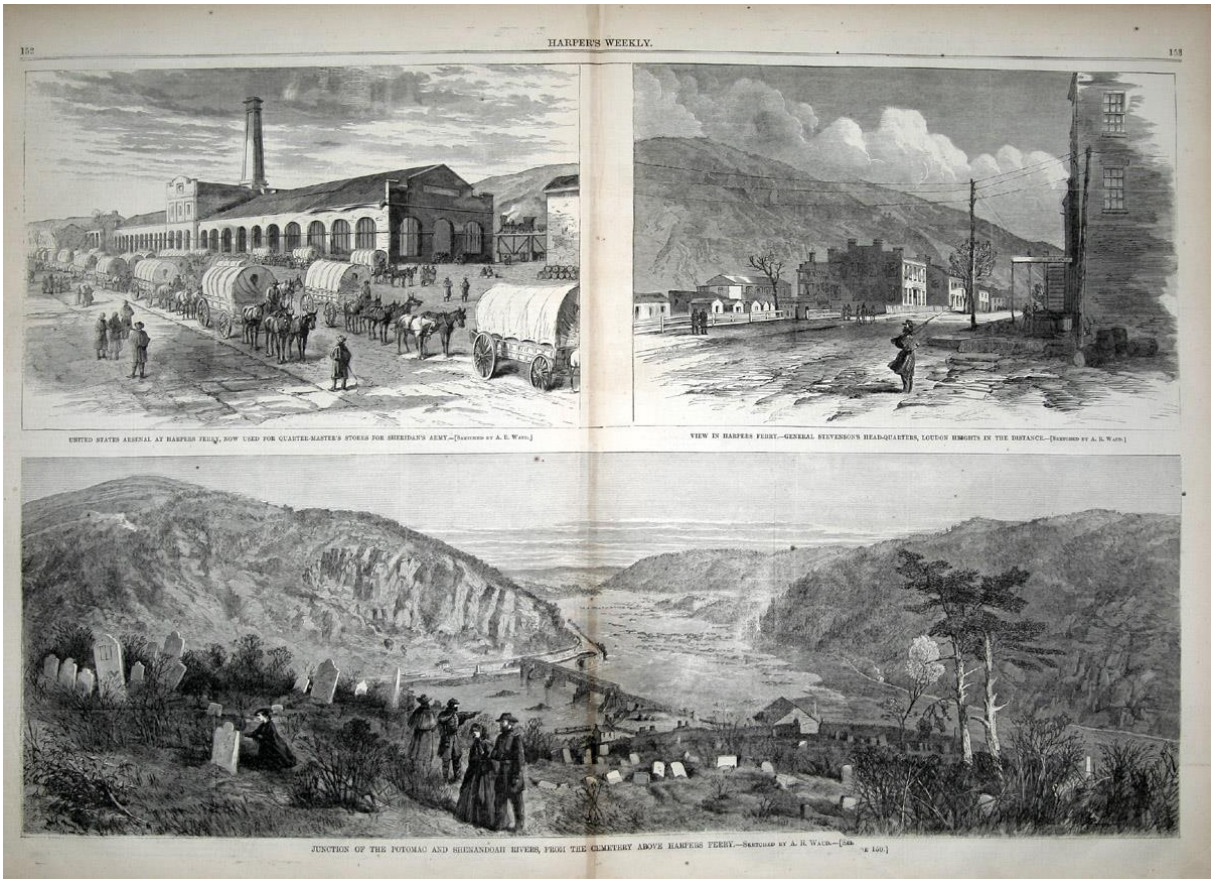
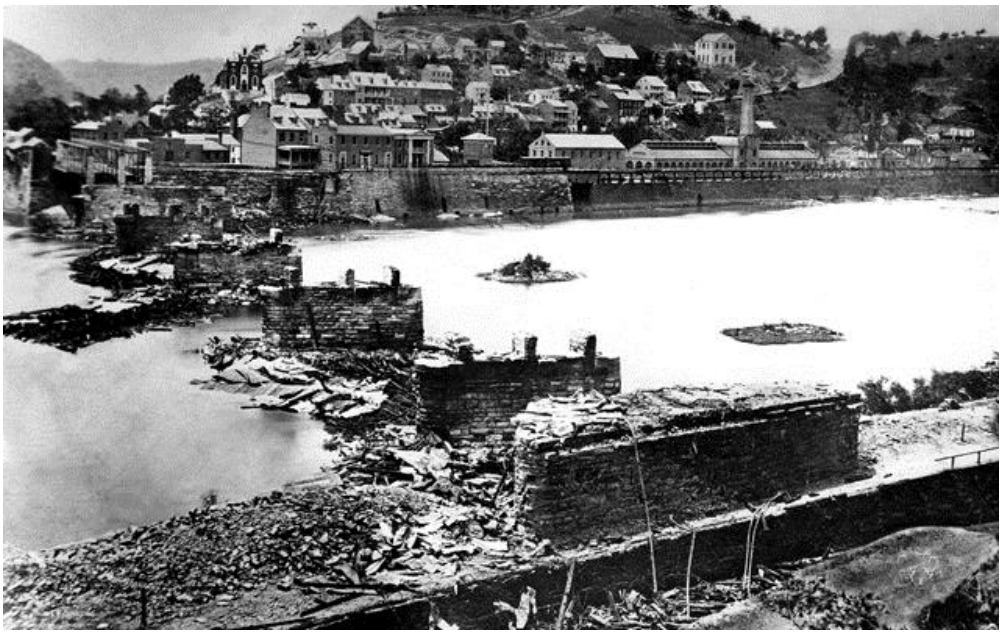


Figure 11. Scenes of Harpers Ferry at the end of the Civil War (Harper's Weekly, 1865).


Figure 12. B&O bridge ruins, 1861 (Harpers Ferry National Historical Park, n.d.d).

Chapter 8: Post- Civil War

Changing Industry

In December 1868, The Secretary of War was directed by Congress to sell at public auction all U.S property including lands, buildings, surplus machinery, and water power privileges (Lee, 2006, p. 82). The public action lasted from November 30, 1869 until December 2, 1869 and gave optimism to the townspeople that their economic base could be rebuilt (Lee, 2006). A giant flood crushed this optimism in September 30, 1870 when the Shenandoah River rose to about 30 feet above flood stage impacting both the town and obliterating most of what was left of Virginius Island (Crosbie & Lee, 2006, p. 85). The land sale did not go as planned and Armory and Arsenal property and water rights were back in U.S. government hands by 1877 (Crosbie & Lee, 2009, p. 86). Virginius Island was a bustling and diversified industrial hub before 1870 but after the flood only Child and McCreight Flour Mill was left (Figure 1) (Poss & Moss, 2010, p. 115). Another major flood hit on November 25, 1877 damaging both the town and the C&O canal (Crosbie & Lee, 2009, p. 86). There were two more major floods in the last part of the 19th century, 1889 and 1896, and all four were caused by major deforestation during the Civil War combined with unsound environmental practices throughout European settlement (Figure 2) (Crosbie & Lee, 2009, p. 86). Unsustainable logging was done for building materials, charcoal, agriculture, mining, and commercial development (Saxton, 2009, p. 19). Another unsound practice was the mining of the cliff slops to allow for development and obtain rocks for building materials (Saxton, 2009, p. 19). The damages caused by the 1889 flood and a series of lawsuits closed the flour mill and in 1893 the Shenandoah Pulp Company bought the property (Poss & Moss, 2010, p. 125).



Figure 1. Child and McCreight Flour Mill, circa 1900. The building was erected in 1848 and served as a cotton factory (1848-1852), a Union hospital (1863-1865), and then the flour mill (1867-1889) (Harpers Ferry National Historical Park, n.d.b).



Figure 2. Lower Town, circa 1895 (Fennell, 2007).

New Industry- Paper Mills

Thomas Savery and investors in 1884 bought the Musket Factory grounds along the Potomac River to become the home of the Harpers Ferry Paper Mill (Figure 3) (Poss & Moss, 2010, p. 116). Savery was drawn to the area by the potential in the raw materials, railroad access and water power (Poss & Moss, 2010, p. 116). In early 1885 Savery bought part of the old Rifle Factory property on Halls Island in the Shenandoah River to build a second ground wood pulp mill called the Shenandoah Pulp Company (Figure 4) (Poss & Moss, 2010, p. 117). At the

Shenandoah Pulp Company site an impoundment called Lake Quigley was built to store and soak the logs and power the mill (Poss & Moss, 2010, p. 118). The lake and mill radically altered Halls Island's ecology and landscape because the dam extended across the Shenandoah River and if all the gates were open all of the river could be diverted into the lake (Poss & Moss, 2010, p. 118- 119). The townspeople used the lake for boating and ice skating (Figure 5) (Poss & Moss, 2010, p. 119). Overtime production decreased because of heavy competition, the rise of steam power, inconsistent water supply, flooding, and depleted timber resources (Poss & Moss, 2010, p. 124). To supplement this decrease Savery and others created the Harpers Ferry Electric Light & Power Company in 1889 which used some of the mills' wheels to produce electricity (Poss & Moss, 2010, p. 123). The Harpers Ferry Paper Company burned down in 1925 and pulp making operations ceased (Crosbie & Lee, 2009, p. 91). Savery's company immediately rebuilt a power plant on the pulp mill foundation utilizing new electrical equipment but it was smaller than the original mill (Crosbie & Lee, 2009, p. 91). National Electric Power Company bought the power plant in 1928 and over the years it changed hands multiple times until it closed in 1991 (Figure 6) (Crosbie & Lee, 2009, p. 91). The Shenandoah Pulp Company mill on Halls Island ceased operation in 1935 (Poss & Moss, 2010, p. 126).



Figure 3. Harpers Ferry Paper Mill (see arrow) viewed from Loudoun Heights, 1896 (Harpers Ferry National Historical Park, n.d.f).



Figure 4. Photograph of Virginius Island (bottom left), the Shenandoah Pulp Company (middle right) and Lake Quigley, which are separated from the Shenandoah River by the railroad, circa 1885- 1936 (Poss & Moss, 2010).



Figure 5. Townspeople on Lake Quigley participating in winter recreation (Poss & Moss, 2010).

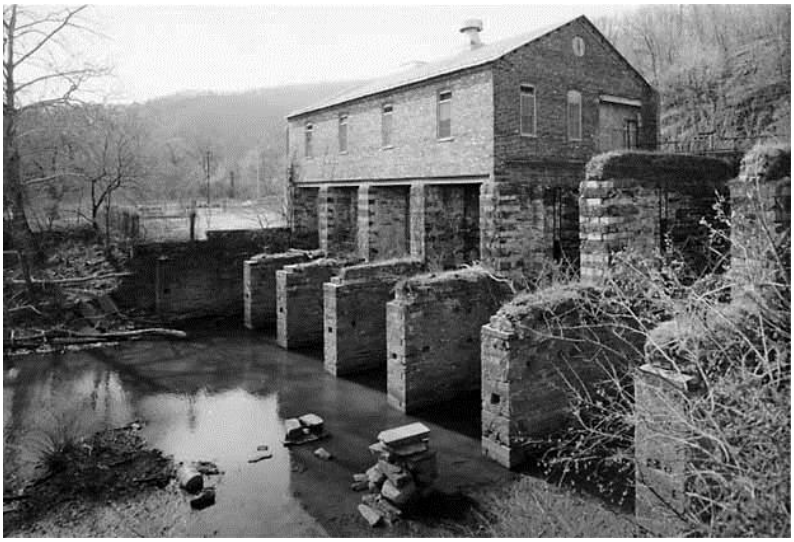


Figure 6. Potomac Power Plant, 1995 (Harpers Ferry National Historical Park, n.d.o).

Other Economic Activity

Harpers Ferry was a regular destination and departure point for tourist excursions via the railroad from 1880 until 1930 (Crosbie & Lee, 2009, p. 89). On Byrnes Island in the Potomac River the B&O Railroad Company built a 21 acre amusement park, Island Park, during the 1880s (Crosbie & Lee, 2009, p. 87). Residents and tourists enjoyed outdoor recreational entertainment on Island Park and was a way for the B&O to generate more business (Crosbie & Lee, 2009, p. 87-88). At the turn-of-the-century Harpers Ferry life revolved around the resort economy and the hotel business, which had spurred development in the late 1800s (Figure 7) (Crosbie & Lee, 2009, p. 90). The shift from trains to automobiles affected the town's economy and its physical form (Crosbie & Lee, 2009, p. 90). New amenities such as lunchrooms were established in Lower Town along with parking areas and service garages (Crosbie & Lee, 2009, p. 90). In 1924 another huge flood hit with both rivers rising 28 feet above flood stage (Crosbie & Lee, 2009, p. 90). This stopped commerce on the Chesapeake & Ohio (C&O) Canal and activity never returned (Crosbie & Lee, 2009, p. 90). Another flood hit in 1936 with flood levels peaking at 36.5 feet over the bank which temporarily isolated the town from surrounding communities (Figure 8) (Crosbie & Lee, 2009, p. 91).

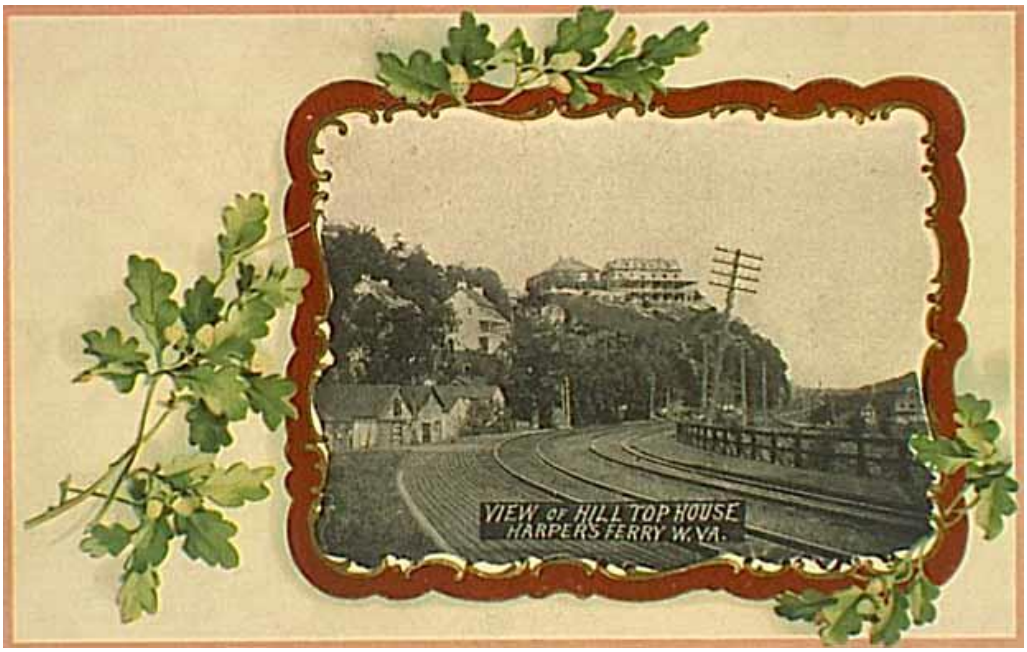


Figure 7. Postcard of the Hill Top House, a famous hotel in town, circa 1910 (Harpers Ferry National Historical Park, n.d.g).

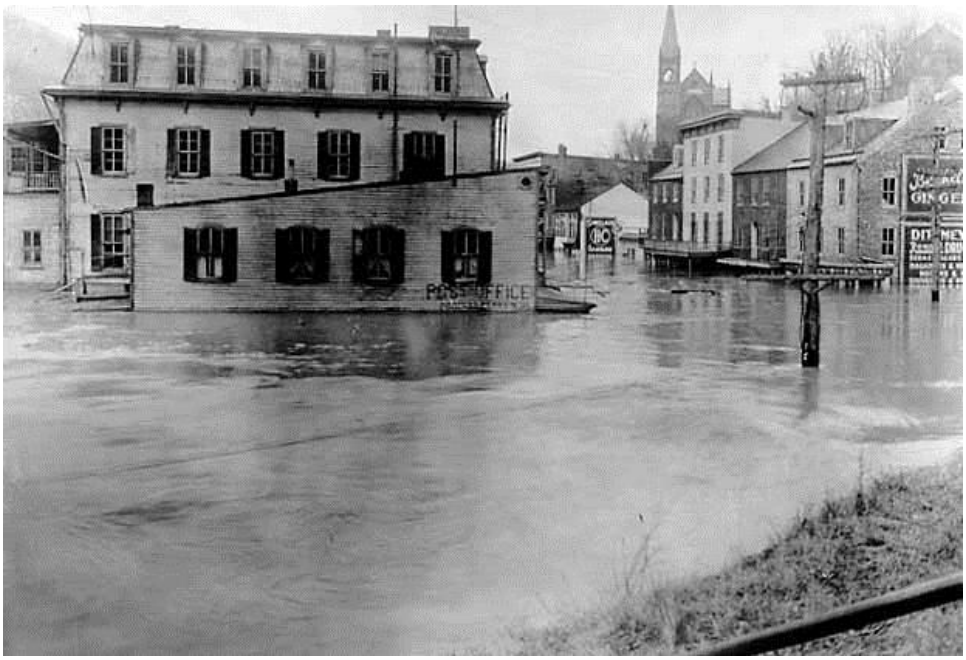


Figure 8. Lower Town during the record 1936 flood (Harpers Ferry National Historical Park, n.d.m).

Storer College

Storer College was started by Reverend Nathan Brackett who came to Harpers Ferry in 1865 to establish a Freewill Baptist missionary school (Harpers Ferry National Historical Park, n.d.c, p. 6). This college was part of a larger movement by northern missionaries aided by the federal government, mainly the Freedmen's Bureau, to rectify the long-standing inequality of no education opportunities for slaves (Harpers Ferry National Historical Park, n.d.c, p. 6). The Lockwood House along with 3 former armory mansions on Camp Hill formed the basis of campus (Figure 11) (Harpers Ferry National Historical Park, n.d.c, p. 6). Townspeople were very opposed to a school for African Americans in their community thus teachers and students were physical threatened and treated as outcasts (Harpers Ferry National Historical Park, n.d.c, p. 6). This was not the only problem Storer faced as there was also financial and legal problems including obtaining the property and a charter and funds to operate (Harpers Ferry National Historical Park, n.d.c, p. 6). Even with these obstacles Brackett was able to grow the school from a missionary to a normal school (Harpers Ferry National Historical Park, n.d.c, p. 6). In addition to the teaching program there was a high school and courses in industrial arts and home economics (Harpers Ferry National Historical Park, n.d.c, p. 6). The town eventually accepted the college and Frederick Douglas's dedication speech of Anthony Hall in 1881 was meet with town approval (Harpers Ferry National Historical Park, n.d.c, p. 6). In 1906 the second annual

conference of the Niagara Movement met at Storer College and focused on efforts to improve African American conditions (Figure 12) (Harpers Ferry National Historical Park, n.d.c, p. 6). The Niagara Movement was an organization of black intellectuals led by W.E.B. Dubois that called for full political, civil, and social rights for African Americans ("Niagara Movement," 2015). Some participants went on to found the National Association for the Advancement of Colored People (NAACP) after the disbandment of the Niagara Movement in 1910 ("Niagara Movement," 2015). Storer College closed in 1955 partly due to the 1954 Supreme Court case Brown vs. Board of Education of Topeka, Kansas which integrated all schools (Harpers Ferry National Historical Park, n.d.c, p. 6).



Figure 11. 1889 sketch of Storer College campus showing from left to right Lincoln Hall, Anthony Hall, and Myrtle Hall (Harpers Ferry National Historical Park, n.d.p).



Figure 12. Niagara Movement leaders W.E.B. Du Bois (seated), and (left to right) J.R. Clifford, L.M. Hershaw, and F.H.M. Murray in Harpers Ferry, 1906 (Harpers Ferry National Historical Park, n.d.n).

Becoming a National Park

By the late 1920s visitation to Harpers Ferry had sharply declined which along with dwindling manufacturing jobs put the town in a tight spot (Poss & Moss, 2010, p. 131). Dr. Henry McDonald, Storer College president, Mary V. Mish, Washington Historical Society President, and Congressmen Jennings Randolph were the leaders in the effort to preserve Harpers Ferry (Poss & Moss, 2010, p. 131). Their efforts paid off when the federal government recognized Harpers Ferry as a potential national historical site (Crosbie & Lee, 2009, p. 92). The 1930s was a time of state and federal legislative lobbying, fundraising, financing, and getting donations of land necessary to preserve the history and scenery of Harpers Ferry (Crosbie & Lee, 2009, p. 92). Congressmen Randolph was able to get a bill passed and signed in 1944 that created Harpers Ferry National Monument (Crosbie & Lee, 2009, p. 92). The State of West Virginia throughout the early 1950s acquired land in Lower Town, and on Bolivar and Loudoun Heights, which they donated to the federal government in 1953 (Figure 9) (Crosbie & Lee, 2009, p. 93). The National Park Service planned to restore the town to its 1859-1865 appearance and this is the time period you see today walking through the area (Figure 10) (Crosbie & Lee, 2009, p. 105). The reason behind this was according to Mission 66 Edition Master Plan for Harpers Ferry National Monument (1962) because it would bring to life the "richly varied 'town in war' story from which the area derives its principal interest as well as the story of its importance in

industrial and transportation history," (Crosbie & Lee, 2009, p. 107). Now preservation efforts take a broader view of the cultural significance of Harpers Ferry so there are some structures from the post-war era (Poss & Moss, 2010, p. 148). Through the years, especially during its industrial period, Harpers Ferry landscape has been drastically altered. Embankments and walls have been built that have covered old industry sites and created a new view from Lower Town. Industry worked to harness the resources surrounding Harpers Ferry thus cutting canals and building bridges so that goods and materials could easily go in and out of town.



Figure 9. Harpers House, which was erected between 1775-1782, is the oldest structure in Lower Town (Harpers Ferry National Historical Park, n.d.c).



Figure 10. Lockwood House in 1958 (left) and 1981 (right) showing the restoration done by the National Park Service to return it to its Civil War look as it had been altered by Storer College (Harpers Ferry National Historical Park, n.d.j; Harpers Ferry National Historical Park, n.d.k).

Chapter 9: Conclusion

Through this project I had hoped to illustrate human and land interactions through the centuries. But due to limited research some time period interactions are not as well understood or documented as others. As Lozny (2006) argues cultural ecology is ethnically bounded by politics so we end up with the question of "whose past do we preserve?" (p. 16). So this project actually ended up revealing two purposes both with roots in ecological studies: deficit of publicly known knowledge as an undertone and the more obvious and main goal of creating a way for hikers to connect to the land and history of Harpers Ferry. The National Park Service made the decision in the 1950s to preserve Harpers Ferry in the time period around the Civil War. This priority has left out many histories but the focus is starting to change to research and gain knowledge in other areas of Harpers Ferry's history. Currently the known history of Harpers Ferry largely leaves out Native American, immigrant and women's experiences. Some of these groups get a passing mention, as one can see from above, but they have not been as thoroughly researched as say the US Armory and Arsenal. African American history and experiences are known to some extent, as there are exhibits and has become one of the main interpretive themes at the Park (Saxton, 2009). But, African American history is not as well publicized and publicly known as the Civil War or John Brown history of the area. To increase inclusivity and create a more comprehensive picture, these areas of history should become part of Harpers Ferry's preservation efforts and interpretive programming.

Even though the story is incomplete one can see start to see the link between land and humans and how the Potomac and Shenandoah Rivers played into the connection. These rivers were instrumental in what created the economy of the area and what cultural events took place. They have shaped the use of the land and they will continue to shape land use. For example, major floods are not a thing of the past and need to be considered when looking at preservation efforts in Harpers Ferry. Since 1936 there have been 3 more major floods—1972 and 2 in 1996—and there were some close calls in 2011 where discussions of evacuating the museums along the two rivers started but the plans did not have to be implemented (Harpers Ferry-Bolivar Historic Town Foundation, n.d.; National Parks Traveler, 2012). Thus, it seems that it is just a matter of time before another significant flood happens. This part of the natural history needs to be recognized and be a piece of the continued management of Harpers Ferry. But by leaving out historical land-human interactions we lose knowledge about unsustainable past uses and if there

were best practices used by some groups and what these were.

The other major point of this project was to lead to deeper understanding of the place one is hiking through or visiting. The idea of learning about the landscape surrounding oneself creates a deeper connection to place and the interaction between humans and nature. Hikers and tourist come for the beauty and fascinating history and landscape and by looking at the area through cultural and historical ecology lens a more complete picture can be created. One of the aims of this guide was to move people beyond the Civil War history of the area and garner a sense of place and respect for one of the many towns they will walk through. By learning more about the place one is in there is the hope that they feel a connection to it and thus not want to destroy the beauty and resources. This can be useful when working on preservation efforts and just creating a population that feels closer to the land.

The next step in this project would be to create a map, website, brochure, app, exhibit or a combination of these products to present the information to hikers and tourists. This would require the information to be condensed but linked to this report and other more extensive information sources. Also it would be very helpful and meaningful to tie each major information section to specific landmarks along the Trail and/or in town. These landmarks could be an indicator of the general subject area, like geology, or a specific thing mentioned in the text, like the C&O Canal. Some other examples are a rock formation that illustrates some of the geology in the area, where on the Trail a species of butterfly might visit, the location of the Arsenal, and the historical significance of the footbridge the Trail uses.

Hopefully the idea of getting to know more about the area that one is traversing through will catch on and similar types of information packets could be created for other areas along the Trail. The Appalachian Trail goes through many historically significant places in the United States. Even if an area is not seen as being part of the traditional American historical narrative there still might be some very interesting stories of land and human interactions from other groups such as Native Americans and African Americans. The Native Americans have spots such as Pilger Ruh Spring in Pennsylvania that they used extensively that are now protected by the Trail (National Parks Conservation Association, 2010). Then there are crossovers between land that was used for the Underground Railroad and now are traversed by hikers on a different sort of journey. As one journeys through time we can witness the human-land interaction to inform us on our journey through time and place.

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