To envy its rising greatness, and to devise every possible means of doing it injury Pittsburgh and Wheeling: The Struggle for Hegemony on the Upper Ohio, 1808 - 1855.

Jon W. Alfred
Utah State University

Follow this and additional works at: https://digitalcommons.usu.edu/gradreports

Part of the History Commons

Recommended Citation
Alfred, Jon W., "To envy its rising greatness, and to devise every possible means of doing it injury Pittsburgh and Wheeling: The Struggle for Hegemony on the Upper Ohio, 1808 - 1855." (2014). All Graduate Plan B and other Reports. 361.
https://digitalcommons.usu.edu/gradreports/361

This Thesis is brought to you for free and open access by the Graduate Studies at DigitalCommons@USU. It has been accepted for inclusion in All Graduate Plan B and other Reports by an authorized administrator of DigitalCommons@USU. For more information, please contact digitalcommons@usu.edu.
“To envy its rising greatness, and to devise every possible means of doing it injury”

Pittsburgh and Wheeling: The Struggle for Hegemony on the Upper Ohio, 1808-1855.

by

Jon W Alfred

A Plan B thesis submitted in partial fulfillment

of the requirements for the degree

of

MASTER OF ARTS

in

History

Approved:

__________________________  _______________________
Dr. Kyle Bulthuis               Dr. Peter McNamara
Major Professor               Committee Member

__________________________
Dr. Christopher Conte
Committee Member

UTAH STATE UNIVERSITY
Logan, Utah
2013
TABLE OF CONTENTS

1. ABSTRACT ........................................................................................................ iii
2. ACKNOWLEDGEMENTS ................................................................................ iv
3. INTRODUCTION ................................................................................................ 1
4. HISTORIOGRAPHY .......................................................................................... 5
5. EARLY SETTLEMENT AND URBAN GROWTH ............................................. 9
6. THE NATIONAL ROAD AND HEGEMONY .................................................. 23
7. RAILSROADS, CANALS, AND THE GREAT LAKES .......................................... 35
8. CONCLUSION ..................................................................................................... 42
9. APPENDIX A .................................................................................................... 44
   Table 1: Population growth
   Table 2: Congressional votes on National Road
10. APPENDIX B .................................................................................................. 46
    Maps and Lithographs
11. BIBLIOGRAPHY .............................................................................................. 53
Abstract

The primary reason for urban growth in the Early Republic was the growth and linking of transportation networks. This study will show how two cities, Pittsburgh, Pennsylvania and Wheeling, Virginia, sought to bring the many rapidly changing transportation networks to their city. Through the examination of the role of boosters, local, state, and federal investments, and the conflict or cooperation between eastern elites in each state versus the concerns of the western counties, one of these cities, Pittsburgh, will be shown to have achieved regional hegemony by bringing more trade networks into its hub. The role of geography in settlement patterns and construction of these networks will also be discussed.

This study examined existing scholarship in books and journals as well as archival evidence from the University of Pittsburgh, West Virginia University, the University of Virginia, the Historical Society of Wheeling, the Carnegie Foundation, and records from the United States Congressional Series.
Acknowledgments

I would like to thank many people who helped me with both this paper and my Time at Utah State University. Many thanks to:

First, the main members of my committee who changed a lot and put forth many hours guiding my haphazard attempts at this thesis, to you Daniel McInerney, Chris Conte, Peter McNamara and Kyle Bulthuis.

To the faculty and staff of the USU History department that guided me and helped my academic career, David Lewis, Len Rosenband, Victoria Greive, Mark Damen, Lawrence Culver, Shawn Clybor, Monica Ingold, and Diane Buist.

To my fellow graduate students who read parts of this and put up with me in the office and at conferences; Brandon Hone, John Brumbaugh, Andrew Simek, Sarah Bredthauer Fassman, Brandon Rains, Chris Blythe, Greg Palmer, Don Bradley, Josh Hoyt, and Joe Foster.

To the archivists and employees at the University of Pittsburgh, Wheeling Historical Society and Library, West Virginia University, and the University of Virginia.

To my sister-in-law Lisa for letting me use her house as a base during the research portion.

And finally to my wife and kids for putting up with me during this time. It was a lot of nights that I couldn’t be there and was stressed but you guys made it possible. And an extra-large thank you to my wife Meegan for always encouraging me even when I wanted to quit and run away.
“To envy its rising greatness, and to devise every possible means of doing it injury”

Pittsburgh and Wheeling: The Struggle for Hegemony on the Upper Ohio, 1808-1855.

Introduction

The primary reason cities grew in the antebellum American Republic was the growth of transportation networks. Trade networks were built through the mechanism of lobbying for private, state, and increasingly federal funds. Urban sites that grew larger than their neighbors, and achieved hegemony, such as New York, Chicago, Atlanta, St Louis, utilized successful lobbying networks to bring the greater amounts of transportation infrastructure, known then as internal improvements, to their local area.¹ This in turn brought greater capital, and in turn manufacturing, to their urban site. This process created a dynamo effect increasing trade with cities further west who sought links to this success and to cities back along the eastern seaboard.²

This thesis will examine this process of growth in regards to two urban sites that straddled the border between East and West, as well as North and South, in the Early


Republic: Pittsburgh, Pennsylvania and Wheeling, Virginia. Each of these cities sought to become a transit hub between the East and the West. Both leveraged geographic, economic, and political, advantages at the state and federal levels to bring transportation routes to their cities. Each faced difficulties as well. Despite each city’s relative equal start point, one, Pittsburgh, emerged as a regional hegemon and the other, Wheeling moved into Pittsburgh’s orbit.

This study will focus on lobbying efforts at both the state and federal level that sought to bring infrastructure to their city. Additionally, this study will determine how Pittsburgh achieved success in obtaining funding for internal improvements connecting it in a variety of ways to markets in the East and resources in the West, while Wheeling did not. The crucial factor determining that Pittsburgh’s local leaders and boosters harnessed both state and federal funds, using contacts in, Harrisburg, Philadelphia and Washington D.C. to draw funding for internal improvements.

This effort to secure funding was also spurred by the commercial rivalry between Philadelphia and Baltimore. In the first half of the nineteenth century, Philadelphia lost its position as the number one East Coast port to New York City and was losing ground to Baltimore. New York gained Western trade through the opening of the Erie Canal and Philadelphia and Baltimore sought Western trade to increase trade surpluses of Western resources, farm goods and natural materials, as well as shipping Eastern manufactured goods, like cloth, tools and wagons West. The City of Brotherly Love wanted trade from the West to be shipped out of its port, not that of its competitors. On the other side of the rivalry, Wheeling was only able to harness federal monies, as Wheeling and Richmond

---

3 This paper will examine Wheeling during the period that it was part of the State of Virginia and before the creation of the State of West Virginia in 1863. Only when referring to Wheeling post-1863 will the term West Virginia be used.
did not share common goals. Richmond sought its link to the West in the James – Kanawha Canal, not in a National Road from Cumberland to Wheeling. Virginia lacked a major port on the Atlantic despite repeated attempts to create one either through state funds or private investment. Wheeling also faced issues in Virginia that Pittsburgh did not share. The tidewater elite showed little interest in the western parts of the state, whereas Philadelphia and Pittsburgh sought for closer union and shared economic goals.  

An article announced in the *Pittsburgh Gazette* in August of 1818 simply entitled “The editors of the Pittsburgh Gazette.” The unnamed author of this piece, who signed his name only as “B,” stated,

> It has of late become fashionable in almost every little town in the western country to decry Pittsburgh—-To envy its rising greatness, and to devise every possible means of doing it injury. ---If the people do their duty there is no danger, but they must act—-not sleep, and for one important step, let them elect such characters for Congressional and State Representatives as have proved themselves best qualified to guard the interests and promote the welfare of each department.”

The biggest thorn in Pittsburgh’s growth and the largest rival amongst the “little towns” was Wheeling, Virginia. B’s goal was to encourage the citizens of Pittsburgh to elect those that would put the welfare of Pittsburgh above all others. The interest and welfare that B sought to promote lay primarily in the growth of internal improvements connecting Pittsburgh to the ports and centers of the East, as well as extending infrastructure to the growing West. This ability to harness both state and federal representation, something

---


5 *Pittsburgh Gazette*, August 7, 1818. Department refered to large tracks of western lands before large scale settlement and urbanization
that Wheeling ultimately failed to do, was the key to Pittsburgh’s growth and hegemony on the Upper Ohio.\textsuperscript{6}

This newspaper clipping from 1818 reveals a larger issue in the Ohio River Valley: that various urban sites seeking for dominance were not above slandering competitors. Due to the remarkable changes that transpired in America from 1815 through 1860, many of the norms that formally dictated social behavior changed. The growth of a market economy, the explosion of transportation methods, and a sixfold increase in population in the region challenged the world view of those who experienced it. There was also a massive expansion of urban population. Each city sought to ride the wave of this expansion; to do so, they promoted themselves to a transient population of emigrants and immigrants. This competition was especially fierce during the economic crises that plagued the United States from 1819 through 1859.\textsuperscript{7}

The forty years after the ratification of the Constitution witnessed a period of rapid expansion and urbanization of lands that had been formerly off-limits to settlement. This western expansion created urban rivalries along the Ohio River as expanding cities sought to create commercial, industrial and cultural hegemonies in the region. In the upper Ohio Valley, the rivalry between Pittsburgh, Pennsylvania, and Wheeling, Virginia, intensified as each struggled to become the regional hub that would ensure its

place in the sun in the growing Midwest. The urban political elite and promoters sought to dominate trade along the Upper Ohio and connections further east. This conflict was “won” in that Pittsburgh was more successful than Wheeling in bringing infrastructure, roads, canals, rail, and manufacturers allowing it to achieve regional hegemony.  

Historiography

Although common folklore and early scholarship held that settlement was driven by small farmers and backwoods squatters cutting out pockets of civilization in pristine forests, a blended population of farmers, artisans, and rich speculators formed towns and urban centers for development. Recent scholarship has turned away from the rural

---


frontier to focus on the urban growth during the early national period. Richard Wade’s seminal work, *The Urban Frontier: Pioneer Life in Early Pittsburgh, Cincinnati, Lexington, Louisville and St. Louis*, was the first to challenge earlier frontier myths through the examination of the role of urban development in the shaping of the American frontier. Wade’s focus lay in geographical factors that led to the placement and growth of cities. The position of the town, in relation to water networks and, later rail connections, determined success. Wade introduced, but failed to develop, the role that promotion played in drawing emigration and funding to these cities and their projects.

Wade’s work determined the approach for future studies in urban history and the examination of major metropolitan areas or leading settlement sites. William Cronon examined the role that a large urban center played in western development. Rather than examining several major urban areas like Wade, Cronon focused on the role of one city and how it shaped its surrounding region. Written twenty-seven years after Wade’s work, Cronon’s *Nature’s Metropolis* examines Chicago, Illinois, and how as a center of transportation networks, geography and commodity trading, it became both the gateway to the West and a huge commercial success in the late nineteenth century. Chicago functioned as an economic dynamo for both urban concerns, such as meat packing,

---


11 Wade, 130-132: here Wade mentions that “the most unifying element of urban culture, however, was the newspaper.” He describes how the newspaper brought the outside word to the city it also sent “Pittsburgh’s genius abroad” but he never shows how it did so. He made a statement but does not back it up like he does with showing how the “foreign intelligence” would expand a closed city to the outside world. 271: Wade talks about growth of urban populations but does not expand on the reasons behind the emigration or the need to absorb neighboring settlements into the metropolis besides the need to grab more tax revenue. 305-306: Once again Wade discussed the expansion of Pittsburgh in absorbing smaller surrounding communities but does not explain why Pittsburgh became dominant. He makes mention that “many wondered if it (Allegheny) would not someday compete with the Iron City itself.” He does not answer who they are.
manufactures, and shipping, as well as assisting rural and wilderness economies, not just in Illinois, but also in Iowa, Minnesota, Wisconsin, and other western states. This dynamo effect created a self-fueled engine that fashioned a need for the products of the hinterlands in the city, as well as producing a reciprocating need for the products of the factories that made rural and wilderness labor more efficient. Cronon framed his discussion in terms of human usage of the environment, Cronon also differed from Wade in that he ignored promotion as a source of urban growth and held that self-preservation and greed of the moneyed classes led to both economic and political growth. Similar to Wade’s work, his work focused on a first-tier urban site.\textsuperscript{12}

While Wade and Cronon focused on large, successful urban sites, other scholars have concentrated on smaller regional cities and towns. This shift, from a macro to a micro scale, provided deeper analysis of the hinterlands that fed into the first-tier cities. Don Harrison Doyle examined social constructs, such as family, church and fraternal organizations, and social promotion in Jacksonville, Illinois, while John Mack Faragher revealed how second and third generation emigrants mythologized early settlement to create a social order in frontier Illinois. Tim Mahoney turned away from social examinations of frontier towns in the Ohio and Mississippi basins and scrutinized how smaller towns linked to regional hubs through trade and transportation networks.\textsuperscript{13} By focusing on small towns, these scholars examined non-elites in urban circles.

\textsuperscript{12} William Cronon, \textit{Nature's Metropolis; Chicago and the Great West}. (New York, W.W. Norton, 1991), 71-73, 117-121, 211-221. Cronon’s arguments raise valid concerns. Some of these include the lack of a true boundary between urban and rural, that the center cannot exist without the periphery, and questions regarding urban development in the framework of an urban/rural narrative.

The rivalry between Pittsburgh and Wheeling has been examined by two scholars. L. Diane Barnes’s, *Urban Rivalry in the Upper Ohio Valley: Wheeling and Pittsburgh in the Nineteenth Century*, scrutinized the rivalry that developed between these two cities in the early Republic. Barnes’s examination covers a broad swath of history. Her analysis however, ignored the role of boosters and emphasized the part played by merchants and politicians that gave Pittsburgh the resources it needed to become dominant. Elizabeth Monroe provided a study of a legal conflict between Wheeling and Pittsburgh when the Wheeling Bridge was built in 1852, crossing the Ohio River. The legal case Monroe examined in *The Wheeling Bridge Case* went to the U.S. Supreme Court, and court documents show that boosters and city leaders of Pittsburgh saw the bridge not as an implement of national trade but as an impediment to regional trade and a stumbling block to Pittsburgh’s regional hegemony. These two studies help this study as they directly examine the role of competition and rivalry between Wheeling and Pittsburgh.14

This study fills a gap between Barnes’s and Monroe’s works by discussing the growing rivalry between Pittsburgh and Wheeling and their struggle to control the headwaters of the Ohio River during the Early Republic. Boosters in Wheeling often argued that they were at the year round navigable headwaters whereas Pittsburgh could only send boats downstream in Spring and early Summer. The first part of this study will look at the early settlement and urban growth as these two settlements grew into cities. It will also discuss why many observers saw Pittsburgh and Wheeling as gateways to the

West and transit points to the East. The second section will discuss the National Road and the struggle the two towns had to secure themselves as the western/Ohio River terminus for the road, a battle Wheeling won. The third section will examine the role that increased canal and railroad construction played in making Pittsburgh a stronger candidate as a regional hegemon. It also considers how the conflict between Wheeling and the tidewater elites in Richmond hampered Wheeling’s grand plans.

Early Settlement and Urban Growth

As the American Republic grew from its Eastern seaboard birthplace, the main highway for settlement growth was the Ohio River Valley. The Ohio is both a border between South and North as well as a transportation source for settlements in its watershed. From its source at the confluence of the Allegheny and Monongahela Rivers, a variety of large and small rivers pour into the waterway until it meets the Mississippi. The Navigator, a travel guide published in Pittsburgh in 1801 stated:

The Ohio in its passage to the Mississippi, glides through a pleasant, fruitful, and healthy country. The Ohio has been described, as ‘beyond all competition, the most beautiful river in the universe, whether we consider it for its meandering course through an immense region of forest, for its clean and elegant banks, which afford innumerable delightful situations for cities, villages and improved farms: or for those many other advantages, which truly entitle it to the name originally given it by the French, of La Belle Riviere, that is, the Beautiful or Fair river.\(^{15}\)

Written by Zadok Cramer in 1801 and reprinted every year for the next twenty six, the Navigator was a travel guide for emigrants who sought to enter the Western Country. It

was filled with glowing reports of the new frontier. This guide, one of many published at the time, helped shape Americans’ views of the lands west of the Appalachians and Alleghenies.

Before the French and Indian War, British-Americans confined most of their expansion along the coast or up coastal river valleys such as the Hudson, Susquehanna, or James, due to French forts, powerful, aggressive native nations and rugged terrain. By the 1750’s, settlement had moved into the eastern foothills of the Alleghenies and Appalachians. Conflicting border claims meant that Pennsylvanians, Virginians, and Marylanders all settled in the region, representing a hodgepodge of differing cultures, nationalities, and languages. These settlements suffered French attacks and Native American raids, but the survivors would return to their lands after the conflict. French withdrawal after the French and Indian War ended the threat of French attacks, and Native raids were reduced due to a series of British successes in conflicts from Lord Dunmore’s War in 1755 to Pontiac’s Rebellion in 1764. The expansion of settlements was formally barred by Royal Proclamation of 1763 and the Quebec Act of 1774, but Americans, known for their ability to selectively follow laws, continued to cross into the trans-Appalachian West in small numbers.¹⁶

This trans-Appalachian frontier expansion, especially into Kentucky and eastern Tennessee before the American Revolution, was principally driven by poor families seeking new lands. Some groups were funded by rich coastal land speculators who never settled in the region and maintained status as absentee landowners with claims of thousands of acres. With independence from Great Britain, Americans, both rich and poor, surged across an artificially imposed frontier established by the Royal Proclamation of 1763 and the Quebec Act of 1774. The most famous of these expansion routes was Boone’s Trace that led into Kentucky from Virginia and North Carolina. The difficulty of crossing the mountains led men to search for water routes to the West. Rather than finding any easy routes, many surveyors instead discovered river crossings, in the words of George Washington, “as fatiguing a Journey as it is possible to conceive.”

Boone’s Trace was typical for crossing into the new western frontier. It was narrow, rugged, and little more than a game trail that crossed the most difficult terrain in the eastern half of North America. The question begs to be answered: why did whites cross over the most difficult terrain to settle in the West? The answer lay not in environmental factors but rather in geo-political ones. There were four main routes (See figure 2) into the interior of what was to become the eastern United States. The first was in the region west of Albany, New York. Water travel up the Hudson River from the excellent port of New York City encouraged this route. Unfortunately for early Americans the path west, laid smooth by tons of glaciers retreating north thousands of years before, was controlled by the powerful Iroquois Confederacy and British Canada.

---

after the American Revolution. Far to the south lay a water route through the Caribbean to the mouth of the Mississippi, North America’s great north/south highway. This path was blocked by Spanish Florida and French and later Spanish New Orleans. The next route ran from the northeast to the southwest and followed the Great Appalachian Valley. The valley route, from New York in the north through Pennsylvania, Virginia, North Carolina, Tennessee and Georgia, ended in the rich valleys of Alabama and Mississippi. A parallel course followed the coast and turned inland at Georgia and ended in the old Southwest. The passage through this area, like to those in New York, was blocked by powerful confederations of Native American nations: Cherokee, Creek and Choctaw.  

The final route west roughly followed the future border of Maryland and Pennsylvania and led to the headwaters of the Ohio River. This route was the most geologically and environmentally challenging to cross, as the earliest surveyors and speculators, to the construction of the National Road and the B&O railroad in the 1830’s noted. Yet, due to geo-political concerns, the next forty years the middle route was the passage most Americans seeking land in the Trans-Appalachian West favored. It took conflicts with both federal troops and state militias to end the threat of Indian attacks in New York and Ohio, while Andrew Jackson ended threats from Southern tribes in the 18 teens through the 1830’s. New Orleans and Florida were purchased through diplomacy in 1803 and 1819 and there was relative peace with the British after the War of 1812.

---


19 Such as the Tecumseh, the refusal of British garrison forts to vacate the Great Lake Region, a powerful Iroquois Confederation in Western New York, the War of 1812 and French-Anglo conflicts in the Caribbean as well as a hostile Spanish Florida.

The final route west was plagued with many environmental difficulties for settlers trying to cross with wagons and teams. As seen in W. Barker’s Virginia *1801* (Figure 3), the mountain ranges run north south with no east/west passes. Settlement in Virginia was dictated by river valleys that ran from the mountains to the Chesapeake following the James and Potomac rivers until reaching the mountains. In Pennsylvania, settlement followed the Delaware and Susquehanna rivers. However, these waterways did not make the jump into the Ohio River watershed and thus into the West, forcing settlers to make an arduous journey along ridgelines and up and down valleys, crossing many dangerous streams. Robert Wellford, accompanying the U.S. Army to western Pennsylvania to put down the Whiskey Rebellion, reported on 24 October, 1794 that though the army made eleven miles that day they marched, “over a thousand times ten thousand rocks, thro’ a dark, dreary part of the Mountains called the ‘Shade of Death’.” Later, when reaching Laurel Hill, he stated, “On the summit of a mountain of immense height you see in your rear a country composed of mountainous & rugged aspect as far as the eye can command, & of such appearance as to seem absolutely impassable if we were not satisfied that the contrary was a fact.” Wellford described the terrain of the mountains as unfertile and rocky, but saw the lands of the Ohio watershed as a “most lovely verdure.”

Despite the difficulties of emigrating to the West, many Americans did so. Due to the promise of rich lands, with reports of maize growing fourteen feet high, some sought to claim lands promised them for service in the Revolution by the Continental

---

*Railroad* (West Lafayette, Purdue University Press, 1999). This topic will be covered in more detail in later in this work.


22 See Table 1.1 in Appendix. Cramer, 14-15.
Congress. Some crossed into the frontier as a result of financial burdens and debts they had accrued in the East. Others went west seeking to reap financial benefits of new markets.\textsuperscript{23} These new markets were dictated by river trade and an entrepôt system of hinterlands feeding towns and villages until they reached regional hubs that shuttled goods to eastern cities and European markets. Trade and commerce at the beginning of the nineteenth century did not travel directly east due to the lack of water transportation and difficulty of overland travel but instead followed the major rivers of the trans-Appalachian West, the Ohio, Tennessee, Wabash, and Mississippi to the port of New Orleans. There, goods would travel around Florida to east coast urban centers. Until the first successful steam boat passage of Nicholas Roosevelt in 1811, trade only traveled easily downriver.\textsuperscript{24}

At the headwaters of the Ohio and at the point of this settlement wedge several cities sprung into existence in the late eighteenth century with the hopes of dominating this new expansion zone. The first of these was Pittsburgh, established and fought over by the French and English until the end of the French and Indian War established British control in the region. The settlement first called Fort Duquesne and later renamed Fort Pitt was established to control trade with Native American tribes in the region and was connected to the eastern seaboard by a primitive road called Forbes Trace. In 1764, British military authorities established the first town layout of four blocks with houses facing Water Street. Twenty years later, the Penn brothers called for a new, expanded plan and gave more rights to squatters over land speculators. As Forbes Trace and other roads were improved, wheeled traffic was enabled in 1783 when Dr. Johann Schoepf


\textsuperscript{24} Raitz, 46-47.
crossed the mountains in a cariole, a light two wheeled carriage drawn by a single horse, a feat previously thought impossible.\textsuperscript{25}

The easing of transportation routes and the end of the American Revolution caused increased emigration to the region. The conflicting land claims as to who owned the land at the headwaters of the Ohio were eventually resolved in favor of Pennsylvania over Virginia. This resolution, reached at the same time as the federal government opened the Old Northwest, created a surge of settlement and commerce. Before the era of canals, railroads, and interstates, natural waterways were key to moving goods and produce to markets. The main ports of the east coast, New York, Philadelphia, and Baltimore, wanted to take advantage of the rich fertile lands now open to settlement. The agricultural excesses of the West feed the growing cities and the burgeoning industry of Eastern cities needed a marketplace for their manufactured goods. The Ohio River formed a natural highway and its headwaters, the first settlement area available to easterners moving west, served as a foundation to regional growth.

The site of Pittsburgh had many natural advantages that established it as a regional hegemon. It sat at the end of the Monongahela River, which funneled settlement from western Virginia, as well as the terminus of the Allegheny River that served 350 miles of New York’s and Pennsylvania’s western counties. The Allegheny also was close to the Great Lakes and trade, using the entrepôt system, north to British North America and the Atlantic world. At the place these two rivers met, called the Point, the Ohio began. The Point had a long history as a trading post. Settlers flooded into the area and by

the 1790s factories took advantage of coal and iron deposits. Factories also sprung up to create secondary products; barrels, leather goods, packing and shipping concerns becoming the most prevalent in the early part of the nineteenth century.26

Just south of Pittsburgh, western Virginia was also a source of settlement as British colonists sought to circumvent the Proclamation Line. The means by which they did this was the survey in which rich Virginians would send a surveyor out into the wilderness to mark claims. The Proclamation of 1763 only defined the line of settlement as east of the “watershed of the Appalachian Mountains.” 27 As this watershed was ill-defined, surveyors could claim that lands they surveyed were still within the watershed, thus bypassing the law. George Washington was one of the most famous Virginians who did this, but he was not alone. After land had been marked by the surveyor, the speculator would sell it to settlers moving in. One area surveyed for trade was the site that would become Wheeling, Virginia. Originally founded as a fort like Pittsburgh, and named Wheeling Fort, the name was changed to Fort Henry in 1777. It experienced an attack in 1782 during the American Revolution. Often described in Stalingrad-like terms by local historians, the truth is that a group of Canadian and Indians marching out of Detroit besieged the fort for three days and then returned home. Ebenezer Zane, an important

local who played a greater part later in Wheeling’s history, reported the battle to General William Irvine at Fort Pitt.\textsuperscript{28}

The battle is important in many ways. First, it shows that locals continually overinflated the importance of Wheeling by describing the conflict in siege and desperation. Zane, who was at the battle, described ineffectual volleys of fire, four attempts to storm the fort, a parley from, “a negro from them to us and informed us that there force consisted of a British captain and forty regular soldiers and 260 Indians,” and finally he closed with the statement “Our loss is none.” These are not words of a man in a desperate situation.\textsuperscript{29}

It is also important to note that the powder and arms that supplied the Fort came not from the Virginia state government but from Federal supplies at Fort Pitt. The supply situation showed the early disconnect between tidewater elites who ran Virginia politics and the rural mountain communities. This conflict also illustrates the early interdependence between Wheeling and Pittsburgh that later developed into a rivalry. Due to geography and culture, Wheeling had greater links to Pittsburgh and the West than it did to Virginia state government that tidewater elites controlled. Wheeling did not desire interdependence; rather, it wanted to assume regional hegemony and as Richard Wade states, “before a city could hope to enter the urban sweepstake for the largest prize, it had to eliminate whatever rivals arose in its own area.” This competition renewed the commercial rivalry that sprung up between the cities. Each sat on the Ohio River and


\textsuperscript{29} Wingerter, 8.
stood to take advantage as a key link between the West’s growth in agricultural output and the manufactured goods from the East.  

Each city struggled to take advantage of its natural advantages. Pittsburgh was linked to Philadelphia and eastern Pennsylvania and lay close to abundant iron and coal fields. Pittsburgh’s coal helped it develop into the famous “Iron City” and provided its residents with a cheap fuel, for coal was a tenth of the price of firewood. Pittsburgh used so much that John Bernard, a visiting Englishman in 1800, called Pittsburgh a “smoky city” similar to “choking recollections of London.” In 1830, Thomas Browse, another English immigrant came to the area with the intent to settle. After an inspiring trip from Baltimore through Pennsylvania, where he remarked on the beauty and fertility of the land, especially the orchards of apples, peaches and cherries, he soon reached his settlement goal. He preferred the land around Pittsburgh but not the city itself which he described, “The land around Pittsburgh does not appear very good but some houses very neat. The town is quite black from the smoke of the factories.” What he saw as factory smoke was the overuse of coal for heating. Demand raised the price of a ton of coal to two dollars in 1805 while a ton of chopped wood cost ten. The thought of settling in a city that was so dirty disturbed him so much that that he continued through the next day and settled in Wheeling. He later purchased a plantation in Pleasants County where he lived the rest of his life. Thomas Browse became very important in West Virginia history, serving as a county surveyor while also growing rich on land speculation. He was arrested during

---

the Civil War as a Confederate spy but was never convicted. His journals, which he recorded in
every day were also continued by his daughter and grandson continued until 1930.31

Despite its natural resources advantage, Pittsburgh struggled against downriver
communities to draw settlement in the first part of the nineteenth century. To this end,
urban boosters tried to highlight Pittsburgh’s strengths. One such booster was Zadok
Cramer, a printer and bookbinder, who came to Pittsburgh in 1800 with the intent of
establishing a printing business and a library. He opened his business with an
announcement in the *Pittsburgh Gazette* that stated his intent,

> Under a conviction that an establishment of the above business will meet the
> approbation and encouragement of the inhabitants and its vicinity, the
> undersigned is determined to prosecute it as soon as he can make the necessity
> arrangements. His hopes of the success of this undertaking are flattering; he hopes
> likewise, that the public on whom he is depending for encouragement will bit be
> disappointed in placing in him they confidence merited only by industry and
> attention to their favors.32

The public did not disappoint Cramer, and his business was very successful and his
publishing house continued long after his death in 1813. Cramer fell in love with
Pittsburgh and its potential as a transportation hub to the Ohio country, which he
described as being filled with “Immense tracts of fine country that have communication
with the Ohio by means of the great number of navigable waters that empty into it.”33

Cramer’s strategy as a booster differed from the approach used by Wheeling
boosters. While the latter focused on federal dignitaries, Cramer, and other boosters in
Pittsburgh, focused on consumers and immigrants in the Pittsburgh region and in
newspapers and periodicals he published in Philadelphia and Baltimore. Pittsburgh

---

Browse, journal, July 2-3, 9-10, 1830, A&M 3532, Thomas Browse Family Papers, 1830-1930, West
Virginia Collection, West Virginia University. *Pittsburgh Gazette*, Nov 2, 1805
32 *Pittsburgh Gazette*, March 30, 1800.
boosters focused on creating local interest and improvement. His main method for
drawing attention to Pittsburgh as a trade and transportation hub came through his
publication of the *Navigator*, an annual travel guide that whose main purpose was to
inform travelers how to navigate the Monongahela, Alleghany, Ohio and Mississippi
rivers. He gave “concise descriptions their towns, villages harbors, settlements, &c; with
accurate maps of the Ohio and Mississippi.”\(^{34}\) Cramer started his travel log by praising
Pittsburgh using phrases such as “delightfully situated,” “houses, tolerably elegant and
neat,” and “many elegantly built with brick, two and three stories high.”\(^{35}\) His more than
twelve pages on Pittsburgh, described the city as, “the beauty and very commanding
situation of the place has increased its buildings, population and business, beyond all
calculation.”\(^{36}\) Despite his claim that these figures are beyond calculation, he went on
describe the population in great detail: “3,000 in number: they are a mixture of many
nations, principally however American, a good many Irish, and some English, some
Scotch, Some French, Dutch and Swiss, and a few Welch and Italians.”\(^{37}\) Further he
detailed warehouses, churches, and factories, as well as the fashions and styles popular in
the town. For over two pages Cramer listed and numbered the occupations of
Pittsburghers; he covered everything from blacksmiths (seventeen), to school mistresses
(four), and gave prices on agricultural goods and alcohol.\(^{38}\)

Cramer acknowledged one negative feature for Pittsburgh which echoed others’
complaints of the city: the ever present cloud of coal smoke. He stated that, “the stranger
is rather offended with its dark and heavy appearance. . . From the immense quantity of

\(^{34}\) Cramer, *The Navigator*, Title page.
\(^{35}\) Ibid, 32-35.
\(^{36}\) Ibid, 35.
\(^{37}\) Ibid, 38.
\(^{38}\) Ibid, 36-38.
coal burnt, there arises a cloud of smoke which hangs over the town in a body, and may be seen at two or three miles distance.”

For Cramer this should not dissuade the visitor, Pittsburgh coal was the finest in the world, according to Cramer, and 170,000 bushels were consumed annually with a price of six cents a bushel while wood cost, “2 dollars a cord delivered.” So much coal would be “peculiarly advantageous to Pittsburgh in her progress in arts and manufactures.” Coal Hill, on the south side of the Monongahela river, afforded “a handsome prospect of the town and river below it,” in spite of two coal fires that burned under it for eight and ten years respectively.

Shipping was very important to Cramer’s Pittsburgh. He described the point which barges can reliably travel down the river, located seventy-five miles south of Pittsburgh at Mingo-Town on the Ohio River.

Waterborne commerce was very important in the early years of settlement, as it was cheaper and more efficient than land borne transport until the expansion of the railroad system in the 1850s. These seventy five miles were important as Pittsburgh’s rivals sought to undermine its superior position by claiming it was impossible to get goods to and from the city. Its chief rival in this regard was Wheeling, about whom Cramer wrote many scathing reviews of in the Navigator. He stated that Pittsburgh was a better place for embarkation than Wheeling due to being “58 miles from Brownsville . . . 45 miles nearer to Philadelphia or Baltimore and secondly, merchants and travelers say they are better accommodated here with storage for their goods, and all other conveniences which they stand in need of, than they would at Wheeling.” Cramer did

---

39 Ibid, 39.
40 Cramer, The Navigator, 40. Cramer stated that barges of up to 400 tons can reliably travel down river year round, while even at low levels barges of 100 to 200 tons can get to and from Pittsburgh year round.
acknowledge that some families, after 1819 via the National Road, traveling by wagon
did “generally” cross the Ohio at Wheeling but that Charlestown, Georgetown, and Big
Beaver could afford equally good crossing spots. Trade and commerce were Cramer’s
goal, and a few families did not matter.\(^{41}\)

Cramer did, however, wish to be a factual as possible in recording what a trip
down the Ohio would entail for settlers and merchants, and his *Navigator* gave a mile-by-
mile detailed account of the trip, discussing stopping points, islands, and snags one would
encounter on the journey from Pittsburgh to New Orleans. When he got to Wheeling, he
spent less than a page describing the town. He did not give population figures as he did
for Pittsburgh and only briefly mentioned that there were “115 houses, 11 mercantile
stores, 2 potteries of stone ware, 1 nail factory, 1 extensive rope walk and a post office.”
Perhaps in an attempt to belittle Pittsburgh’s competitor, Cramer also noted the numerous
public inns, thus implying that Wheeling’s reputation for drunkenness was well-
deserved.\(^{42}\)

In the 1808 edition, Cramer reported under the Wheeling section a point of
contention that would become the greatest point of rivalry between the two towns. This
point, the National Road, promised to make one city a regional hegemon and the other an
appendage dreaming of lost glories. Called “The United States Road from Cumberland,”
Cramer noted that the road “will accelerate the growth of the town and will doubtless
render Wheeling a place of considerable importance in a few years.”\(^{43}\) This road and its

Vol. 22, No. 2 (Jun., 1962), 165-166.

\(^{42}\) Cramer, 47-48. The issue of drunkenness was reported by many travelers in Wheeling and was
used by Pittsburgh boosters to great effect.

\(^{43}\) Ibid, 47.
route caused conflict, at both the state and federal levels, as each city sought to manipulate the construction process during the next eleven years so that each would become the hub of this new trans-national road.

The National Road was an attempt to create a faster route through the middle of the United States to the new lands of the West. Long a dream of settlers, it faced many challenges in both its formation and its potential as the main transportation route to the West. The first part of this study discussed the growth of the trans-Appalachian West and the difficulties of crossing the Appalachian and Allegheny Mountains. It also dealt with the rise of two urban sites at the headwaters of the Ohio River, Pittsburgh and Wheeling. The section covered the foundation of Pittsburgh and discussed one key booster’s attempts to drive commerce and immigration to the city. The next section discusses Wheeling in more depth as well as the construction and design of the National Road. Its western Ohio River terminus invoked many battles and pitted towns such as Wheeling and Pittsburgh against each other, with boosters playing a key role.

The National Road and Regional Hegemony

The National Road was one of the first federal work projects and key driver in creating a federal lobby. The purpose of the road was to connect the east coast to the western frontier. Originally called the United States Road, the road underwent a series of name changes through its history to reflect the nature of the road and the communities that it connected. Initially called the United States Road, it was changed to the
Cumberland Road, after its start point at Cumberland, Maryland in 1808. By the twentieth century, the road became U.S. 40, and parts of it joined the great intercontinental freeway system as Interstate 70 after World War II.

The construction of the road and its route to the Mississippi caused many conflicts on the local, state, and federal levels. If a town fell along the path of the road it could draw increased commerce and emigrants. In the early nineteenth century observers feared that towns that did not draw investors and speculators would become unsuccessful and “would be discarded like a threadbare suit.”\textsuperscript{44} This fear of fading into obscurity drove the struggle for hegemony between Pittsburgh and Wheeling from 1808 through 1819. Each sought to become the western terminus of the National Road and each used its resources on the local, state, and national levels to do so. After Wheeling succeeded in making the town the Ohio terminus, Pittsburgh’s boosters did all they could to draw trade and influence away from the Wheeling and back to own their urban center.

At the beginning of the nineteenth century there were two transportation options for Americans, water and land. Water transport by river and canals was cheaper and less strenuous. The cost benefits of moving goods by water created an explosion of canal building in the U.S. from 1800-1850, with the most famous being the Erie Canal. Wildly successful, the Erie Canal spawned a plethora of competitors and copy-cat projects. Canals were most easily built along flat plains and soon inland manmade waterways connected the Ohio watershed to the Great Lakes and, via the Erie Canal, to the Atlantic world. Seeing the success of the Erie Canal and the threat that it posed to the financial success of Pittsburgh and Philadelphia, political and business leaders

in Pennsylvania commissioned the Pennsylvania Main Line Canal to connect those two cities by water. However, plans for the construction and use of this canal were thwarted by the rugged and hilly terrain of central Pennsylvania.\(^{45}\)

Most successful canals were built on flat terrain caused by the last glaciation in the Great Lakes region (see Figure 4). The rugged South Atlantic States and the Mid-Atlantic States do not share this flat topography.\(^{46}\) Besides the Main-Line Canal, there were attempts by various interest groups in Maryland and Virginia to build the Chesapeake-Ohio Canal and while political leaders in Virginia sought a state financed James-Kanawha River connection with a canal of the same name. There were other attempts by private corporations to build canals in Pennsylvania to make the Schuylkill River navigable to the Delaware, creating an east-west link. All these projects failed due to topography and cost overruns. One answer to these cost overruns was switching to construction of roads and turnpikes.\(^{47}\)

Roads had little with which to recommend themselves to the American public in the early nineteenth century. There were few roads, and many were impassable for most of the year with frozen winters, muddy springs and flooded summers. Many roads were built by private concerns and charged tolls; this reduced the desire of merchants to use

---


\(^{46}\) The South Atlantic States are defined as: Virginia, North Carolina, South Carolina and Georgia. The Mid-Atlantic States are defining as: New York, New Jersey, Pennsylvania, Delaware and Maryland. I am following the pattern set by Daniel Feller, *The Public Lands in Jacksonian Politics*, (Madison, University of Wisconsin Press, 1984) 52, 67, 84-85.

\(^{47}\) The struggle to build canals and waterways will be covered in more depth in the third section
them, as tolls were expensive and reduced their bottom line. Furthermore, goods were expensive to ship by land. Water transport was cheaper and more dependable. But the Appalachians were an exception, they were too high, too rugged, and no rivers crossed them. Businessmen and politicians of the Upper Southwest were forced to turn to roads.\(^\text{48}\)

Another reason that Southern politicians turned to roads was the incredible growth of the trans-Appalachian Southwest. Kentucky grew from 73,677 in 1790 to 406,511 in 1810, a 451 percent growth rate, while Tennessee grew from 35,691 to 261,727, a 633 percent increase. In comparison, Maryland experienced sixteen percent growth rate and Virginia a twenty-one percent increase, with most of that growth occurring from 1790 to 1800.\(^\text{49}\) Similar growth rates to Kentucky and Tennessee were seen in the Old Northwest. This pattern of growth and the power it gave new Western states drew the attention of Southern politicians. Politicians such as Thomas Jefferson, Albert Gallatin, and Henry Clay wanted to unite the West and the South. One method of achieving this was by strengthening trade links between the two regions, including developing a National Road.

Envisioned by Thomas Jefferson in 1806, the Road did not get started until his successor James Madison entered office in 1808. The Tenth Congress pushed for a survey of the land on a route from Cumberland to the Ohio. There were stipulations that the road not exceed five percent grade and that it follow creek valleys wherever possible. From Baltimore to Cumberland, the Road had to climb 1,000 feet and cross at least seven major hills. After Cumberland, the road rose another 2,000 feet to go over Savage Mountain and then dropped down into the Ohio River watershed. The area through which

\(^{48}\) Raitz, 17.
the Road should pass was so rugged there were few settlements. The first survey crew reported that there were no sufficiently accurate maps of the true course of the rivers and ridgelines that the Road had to cross. They stressed that the cost would be immense due to the “necessity of reducing hills and filling hallows, which, on these grounds, would be an attempt truly Quixotic.” Despite this difficulty, the Road would be built, driven in large part by the efforts of Henry Clay.

Henry Clay saw the Road as a means to improve his native Kentucky and to provide the state with links to the east. Its geographic position, west of the difficult-to-cross Appalachian Mountains and with the Ohio, Licking, Tennessee, and Cumberland Rivers all of which drained into the Mississippi and thus the Gulf of Mexico, meant that Kentucky faced more west than east. A road that brought manufactured goods from Baltimore and Philadelphia to the Ohio River and, in turn, allowed the agricultural products, such as tobacco, wheat, corn and pigs, of the Bluegrass state to flow east, stood to benefit Kentucky and Clay. In addition, if the road moved through the borderland of a growing north-south divide, southern emigrants could settle in the Northwest Territory, increasing Southern influence in state legislatures and in Congress. A local historian, Colonel Searight, describes the Road:

From the time it was thrown open to the public in the year 1818, until the coming of railroads west of the Allegheny Mountains, in 1852, the National Road was the one great highway over which passed the bulk of trade and travel, and the mails between East and West. . . Many of the most illustrious statesmen and heroes [sic] of the early period of our national existence passed over the National Road from their homes to the capital and back at the opening and closing of the sessions of

---

Congress. Jackson, Harrison, Clay, Sam Houston, Polk, Taylor, Crittenden, Shelby, Allen, Scott, Butler, the eccentric Davy Crockett, and many of their contemporaries in public service, were familiar passage over the road and remembers with no little pride the incident of shaking hand with General Jackson, as he sat in his carriage on the wagon yard of an old tavern.  

Just as these famous southern politicians used the road to travel from their states, so too could southern tradesmen and peoples use the road to move their commercial interests and persons into the Northwest. The Road would remove the Ohio as a barrier and encourage emigration from the South into the North.

The Road provided many citizens in the towns along its path with the opportunity to lobby passing political figures. Once the Road approached Wheeling, local citizens attempted to finagle dusty and weary travelers to obtain contracts to build sections of the Road. Unlike Federal projects today, the road was built in subcontracted sections ranging from one mile to ten miles. Contractors would receive some federal funds to build the road and be required to maintain their section for which they could charge tolls. Furthermore these sections could be routed to increase the commercial ventures and prosperity of the contractors’ investments. In 1817, Lydia Shepard used her charm to influence two commissioners of the road (and traveling Congressman Clay) to build a section of road and several bridges, a specialty of her husband, Major Moses Shepard, near their lands. She promised that, if the road would be rerouted, that Clay would have a room—just off the grand ballroom—always ready. All this would be done despite the fact that her husband claimed that $6,300.00 a mile for materials and labor did not provide much profit. The idea was to bring trade through an area; the road was an investment. Clay’s influence can not only be seen in Wheeling, but throughout western Virginia and Pennsylvania in the names of hills and blast furnaces built at the time. Some iron furnaces

---

53 Colonel Searight, *The Old Pike*, quoted in Loveday, 142.
built in Morgantown, Virginia, an early proposed waypoint for the Road, were named for the Congressman, though he later shifted the road north into western Pennsylvania.\textsuperscript{54}

The Road was a political draw throughout its lifespan. In 1817, Congress (Table 2.1) voted on bonus funding for internal improvements throughout the nation. The largest portion of the appropriation was for the Cumberland Road. Voting patterns show that the bill was supported by the West and states whose populations and cities would use the Road, such as Maryland and Pennsylvania. In contrast New England’s congressmen, whose population would not utilize the Road, voted against the bill. In 1825, there was a bill to extend the Cumberland Road through the states of Ohio, Indiana, and Illinois in the Old Northwest to connect the road to the Mississippi. Once again, the West voted for the road. This time, states that had previously voted for the Road, like New York and Virginia, voted against the bill. New York had just completed its own trans-Appalachian route, the Erie Canal, without federal monies, and perceived its passage to the west lay via the Canal and the Great Lakes. Virginia’s delegation’s votes reflected the growing divide between its tidewater elites and its western counties. Wheeling’s representative voted for the Road, knowing that as a result commerce would pass through his town. Other representatives, riding a wave of pro-canal sentiment of the time, were hoping that the new James-Kanawha Canal (See Figure. 4) would link the Chesapeake to the Ohio at Charlestown, bypassing the Road entirely.\textsuperscript{55}

\begin{flushright}
\end{flushright}

\begin{flushright}
\end{flushright}
With Richmond elites ignoring them, it was only natural that Wheeling’s leaders would turn to the many national figures that used the Road through their town. However, until 1816, the Ohio River terminus of the road was not finalized, and Wheeling stood in danger of fading into obscurity. Wheeling’s leaders had long known that their town needed the road to insure commercial success and they did everything in their power to ensure that Wheeling would be chosen as the Ohio end point. In that regard, they struggled against larger rivals such as Pittsburgh, as well as smaller rivals like Wellsburg, and even Brownville on the Monongahela River in Pennsylvania, whose leaders sought to be the western terminus of the Road. Pittsburgh’s business leaders sought to sway road commissioners to end the road at Brownsville, thus ensuring that trade would flow north along the Monongahela River into their city before flowing south down the Ohio, or at Wellsburg, Virginia, fifteen miles north of Wheeling. Wellsburg was located on gentler terrain for a road, but the Ohio was very wide at the town, and Wheeling’s leaders lobbied for Wheeling and Wheeling Island to be the terminus based on the future need to build a bridge across the Ohio.  

Wheeling’s leaders saw themselves as part of a greater interurban competition. This contest was not just between local rivals, but encompassed cities at the national level as well. Philadelphia and Baltimore were commercial rivals in the east and their western partners were Pittsburgh and Wheeling, respectively. The connections each city shared with its partner only enriched that partnership to the detriment of the other. The editors of the *Virginia North-Western Gazette* saw this competition clearly when they stated, “The connection of the different important sections of our country, by roads and canals, has

---

been with our best statesmen, a grand desideratum; the extensive projects now on foot, some which are advancing to completion, are certainly ominous of the future of the Republic."

The competition for connections and internal improvements was key to urban success. Furthermore, the editors stated, “The advantages of this road [The National Road] to the nation at large, and to the town of Wheeling in particular, [sic] begins now to be acknowledged, even by those who scoffed at the very idea a few months back. They perceived that as soon as this road is finished, a complete change will take place in the carrying of trade between the Atlantic and the Western Waters.”

Trade between the west and the east would pass through the entrepôt of Wheeling, and not Pittsburgh hopefully ensuring hegemony in the region.

Wheeling did not see itself connected to Richmond and its tidewater elites by this time period. Instead Wheeling saw itself connected to Baltimore and Baltimore competition with Philadelphia was reflected in Wheeling’s conflict with Pittsburgh.

It is evident that Philadelphia must lose much of her western trade, unless the canal contemplated between the waters of the Chesapeake and the Delaware be expeditiously opened, Baltimore is her rival, and in consequence of the advantages of the National Road, will inevitably monopolize the greater part of the customs of the interior. Wheeling being the head of the steam-boat navigation on the Ohio during the summer months, must contribute much to the growing prosperity of Baltimore.”

According to Wheeling’s claims, shipping could not proceed further up river in the summer due to the many bends and sand bars between the two towns; however, many examples in Pittsburgh newspapers during the summer months disproved this claim.

---

57 *Virginia North-Western Gazette*, “Internal Improvements,” May 30, 1818.
58 Ibid. Italics original
59 *Virginia North-Western Gazette*, “Internal Improvements,” May 30, 1818. Italics original
60 *Pittsburgh Gazette*, June 6, 1818; September 19, 1819; October 2, 1819; April 5, 1834; March 10, 1843.
Numerous engravings and paintings show Pittsburgh with many steamboats around the Point, further disproving that steamboats could not travel to and from the city (figure 5).

Shipping was difficult but not impossible during the summer months from Pittsburgh down the Ohio, and was the source behind many requests by Pennsylvania congressional delegations to the Corps of Engineers to build levies and improvements in the region between Wheeling and Pittsburgh. Furthermore, while Wheeling was known as a steamboat manufacturing hub, it was handily out-produced in total tonnage, construction and shipping, by both Pittsburgh and Cincinnati. 61

Trade was the goal of Wheeling boosters who said, “We would recommend it to our citizens, the merchants of Baltimore, and those of the intermediate towns, to lose no time in establishing a line of wagons [sic] between Baltimore and this place, for the purpose of accommodating western [sic] merchants and facilitating, and cheapening transportation.” 62 Trade was the goal, but trade also brought manufacturers to the town in spite of the national Panic of 1819. 63 Due to the presence of the Road, and increased links to Baltimore, Wheeling went from a town of 1,567 in 1820 to a population of 5,221 in 1830, by 1836, its population surged to 8,853. The population growth was not just a result of increased commerce but also an increase in manufacturing. Known today for nail manufacturing, glasswork, and cigars, Wheeling became the home of extensive boat construction and steam-engine manufacturing. Many of these manufacturers relocated from other towns to Wheeling due to its superior position and trade advantages. This

---

62 Virginia North-Western Gazette, May 30, 1818.
only inflated the egos in a town who claimed, “When the Portuguese doubled the Cape of
Good Hope, the doom of Venice was sealed—whenever ten boats belch forth their steam
on the Ohio, Philadelphia ceases to be the first among our cities.”

Despite the boost that the National Road gave Wheeling, Pittsburgh never really
lost its position as the dominant city on the Upper Ohio. More trade passed through
Pittsburgh and the city kept a larger population than its local rivals. This is not to say that
the perception of decline was not there, especially during and right after the Panic of
1819. During that economic downturn, Pittsburgh lost forty-five percent of its businesses
and thirty percent of its population. Wheeling suffered similar disruptions. The
Pittsburgh Gazette published opinion pieces regarding the city’s decline during that
period. The city had 6,000 inhabitants in 1818 before the Panic of 1819. In 1830 the
population rose to 7,248 defying naysayers. Many new businesses were created which
filled the voids created by the departures. At the end of the next decade the population
was 12,452. Despite negative perceptions during the various economic downturns of the
nineteenth century, population numbers and economic growth would continue until the
1970’s and the death of the steel industry.

The perception of a negative slide was still important. The idea that little
Wheeling could and might outstrip Pittsburgh as the most important city on the Upper
Ohio was deeply entrenched in the minds of local citizens. The Navigator sought to bring
in business to the Pittsburgh area by claiming, “To sum up the advantages of

---

64 Virginia North-Western Gazette, May 30, 1818. Barnes, 213-214. Green, 46-47; Loveday, 82-
Institute Glass Museum, (Wheeling, Oglebay Institute, 1994), 4-6.
65 Pittsburgh Gazette, April 17, 1819; June 23, 1819; July 14, 1819; Nov 5, 1819; George Thorton
Fleming, History of Pittsburgh and its Environs: Volume II (New York and Chicago, the American
Historical Society, Inc., 1922), 65-68.
Pittsburgh—It is noted as a place of manufacturers already established and which will doubtless be established in the course of time.” The author of this entry was desperate to generate commerce in Pittsburgh. He further desired to lure investors and manufacturers to Pittsburgh by claiming that the city was “less liable to changes and sudden relapse than almost any situation in America.” Pittsburgh was stable and prosperous, unlike its southern neighbor, Wheeling. Pittsburgh was a hub for growing communities of the Allegheny and Monongahela countries as well as Ohio, Kentucky, and Tennessee and would be a center of “western inland trade.” Wheeling was a little town limited by its geography. While Pittsburgh had gentle rolling hills and some plains, Wheeling was in an area of steep valleys and steeper hills. It has one road and it is so narrow there is “scarcely room for one wagon to pass along.” These claims by the author were pure propaganda as the federal government recorded that 5,000 wagons passed through Wheeling in 1820, a year after the completion of the National Road.

Propaganda and boosterism played large roles in assuring that Wheeling would be the Ohio terminus for the National Road. This propaganda battle would continue as each city’s leaders sought to minimize the influence of the other and promote their city as the true regional hegemon. This battle was not won solely through propaganda and boosterism, but through new trade links created by canals and railroads. These transportation routes reflected the shift away from federal projects during the Age of Jackson to a more state and private focus. The route of these railroads and canals moved

---

66 Zadok Cramer, *The Navigator* (Pittsburgh, Cramer, & Spear, 1820), 67. The problem with this entry is that Zadok Cramer died in 1816 but the *Navigator* continued to be published under his name until 1824 with updated entries. The true author of these passages is unknown.

67 Ibid, 67.

68 Ibid, 70.

69 Ibid, 78.

70 Barnes, 213.
out of the Ohio Valley and further north to the plains of the Old Northwest. This shift benefited new towns such as Chicago and Indianapolis and took trade away from towns like Madison, Indiana, and Cairo, Illinois. This approach helped Pittsburgh which had the full support of Harrisburg and Philadelphia, and hindered Wheeling, whose leaders felt a growing divide between themselves and Richmond. Another factor that helped Pittsburgh was the growth of local manufacturing and the decline of commerce as a source of revenue for cities in the Ohio Valley. Pittsburgh’s natural resources and existing industrial base encouraged further investment. Limited by its own geography and dreams of being a regional commercial hub, Wheeling boosters could not promote their city and it did not grow at rates seen in the 1820’s and declined to subordinate status. Its fall was not quiet, and provided continued struggle for the next three decades.

Railroads, Canals and the Great Lakes

From the Panic of 1819 to the Civil War, the United States experienced a series of peaceful revolutions that changed the outlook of the entire country. The country changed socially with the Second Great Awakening, greater urbanization, the rise the nuclear family, abolition, temperance and industrialization. Politically, the Founding Fathers died out and while republicanism was given lip service, America was becoming increasingly

---

democratized with the rise of Jackson, increased suffrage, and a changing electorate that took more notice of issues at the local, regional, and national level. Economically, this was the period of Francis Lowell, factory towns, the steel plow, the steamship, and the railroad. Technology was changing how Americans communicated, traveled, and manufactured goods. It is often called the Age of Jackson, but due to all the radical changes in American society the Age of Revolution is a better title.\textsuperscript{72}

There were also changes in existing settlements due to these revolutions. Americans and the United States continued to expand westward with the acquisition of Texas, Oregon, California, and the Southwest. Technology changed where Americans could settle. No longer limited to building settlements along waterways or flatlands to move bulk goods due to increased railroad mileage, settlers in the old Northwest moved out of the Ohio River valley and into the northern parts of the region to take advantage of the Great Lakes and the resources of Michigan, Wisconsin, and Minnesota.\textsuperscript{73}

Two concerns drove settlement: land acquisition and the need to move agricultural goods and raw materials to markets. Stage coaches and wagons moved freight six to eight miles per day at a rate of $100 per ton. While turnpikes and road building increased in the early part of the nineteenth century, going from 350 miles of improved road\textsuperscript{74} in 1790 to 4000 in 1830, travel by road was long, arduous, expensive, and dangerous. There was also often legal bickering when roads crossed state borders. To offset these costs, states and private individuals often turned to water transportation.

\textsuperscript{72} A good summary of these changes can be found in Henry L Watson, \textit{Liberty and Power}. (New York, Hill and Wang, 1990). especially chapter one.

\textsuperscript{73} George Rogers Taylor, \textit{The Transportation Revolution, 1815-1860} (Harper Torchbooks, New York, 1951). 79

\textsuperscript{74} Improved roads meant those that had a hardened surface, from gravel to macadamized. This figure does not include dirt roads or trails.
Water cut cost and times dramatically. Canal-shipped goods cost seven dollars per ton and could travel 20-30 miles per day. Many local canals had been built in the colonial and founders eras, but it took the Erie Canal in 1825 to prove that canalization was possible, as well as profitable, on a large scale.

The Erie Canal was the dream of George Clinton, who sought to connect the western parts of New York and the Great Lakes to New York City. The Erie Canal followed a traditional route west (see figure 2) now opened by the peace established after the War of 1812 and the destruction of the powerful Iroquois Confederacy. Constitutional questions on the legality of federal funding for a project solely within a single state prevented federal dollars from helping a project deemed important by Governor Clinton. Clinton raised local taxes to pay for the project, seven million dollars in 1825\(^75\) and recouped the money in tolls within nine years of its completion. Towns and villages along the route exploded in population in the decades after; Rochester grew from 1,502 in 1803 to 36,403 in 1850 while Buffalo, Syracuse, Utica, and others experienced similar growth rates.\(^76\)

Erie Canal benefited from its ideal location. The last glaciation had made western New York comparatively flat. Ice movement and pressure had smoothed the area removing many hills and raising some valleys. Canalization in the United States (See figure 6) tended to follow similar routes due to one simple fact—water does not flow uphill. Canals were largely built in the flat old Northwest. Despite this fact, many states and individuals attempted to construct canals in hilly regions. The two main offenders of

---

\(^{75}\) 139 million dollars in 2012.

this principle were the Pennsylvania Main Line Canal and the James-Kanawha Canal. Both are very important to this study.

The Pennsylvania Main Line Canal was an attempt, like the Erie, to link the major port and capital of a state with its western hinterland. In this case, the dream was to connect Harrisburg, already connected to the port of Philadelphia by the Philadelphia & Columbia Railroad, to Pittsburgh in the western portion of the state. Paid for by taxes agreed on by the Pennsylvania Assembly in 1824, the Main Line would connect the Ohio River to the Atlantic. A dream of many boosters in Pittsburgh, the Main Line took ten years to build and cost $10 million dollars. Never as successful as the Erie Canal, it was sold off to private investors in the 1850’s and 1860’s.77

The Pennsylvania Main Line was an engineering marvel and much more difficult to construct than the Erie. The canal would follow the route of the Juniata Valley, which penetrates far into the interior of the state, but is brought up short by the Allegheny Mountains. The crossing of the Alleghenies was an engineering feat which the Erie Canal did not have to face. While the Erie Canal had 84 locks along its 323 mile length, the Main Line had over 300 locks with 18 between Columbia and Hollidaysburg and 66 between Pittsburgh and Johnstown alone. There was 2,102 feet of elevation change on the eastern portion between Philadelphia and Hollidaysburg and 1,600 feet of elevation change on the western portion between Pittsburgh and Johnstown where the main line joined the Allegheny River. This did not include the 36 miles of portage on rails, first horse drawn and later steam driven, between Hollidaysburg and Johnstown, including a 901 foot long tunnel, the first railroad tunnel in America, carved through bedrock.

Whereas travelling on the Erie Canal one could stay on the same barge throughout the journey, a traveler on the Main Line often changed barges during portage. Speed on the Main Line, averaging three miles per hour, turned people away from turnpikes and more to water traffic.78

While the Main Line was never as successful as the Erie, and was soon replaced by railroads due to the ease of rail transport over the Alleghenies, it accomplished two important transportation changes. First, it created an important East/West link in Pennsylvania’s commerce. Boosters like Zadok had dreamed of it and the Main Line made this link a reality that only grew stronger over time. Second, by establishing a link via the Allegheny River (the final leg of the Main Line) to Pittsburgh, Pittsburgh could later establish canals north to Erie, Pennsylvania, the Allegheny River and the Old Erie and Pittsburgh Canal, and tie into the Great Lakes trade system. The movement of trade north to the Great Lakes basin is important. With increased political division of the country and a divide between East, West, and South becoming one of North and South, trade began to move out of the Ohio Valley and follow canals and later railroads (see figure 6) north to the Great Lakes.79

Despite little canalization south of the Ohio, Virginians also tried to open a canal linking Richmond and the James River ports to the Ohio. Their chosen route was not through Wheeling, but rather a long, convoluted route linking the James to the Kanawha River. This route faced even larger elevation changes than the Main Line and showed the

---


distrust between tidewater elites in Richmond and the population of the Western Counties. The canal failed for a variety of reasons, but two key factors stand out. The Erie and the Main Line had the support of the state legislatures of New York and Pennsylvania, while the Virginia State House was divided on the venture. Private funding was never enough, and the canal failed despite repeated attempts to finish it until 1861.80

Rather than rely on political help from Richmond due to the divide between those elites and the inhabitants of the western counties, boosters in Wheeling turned to the B&O Railroad to link their city to the East. While the 1,277 miles of canals in 1830 expanded to 3,698 in 1860; railroad growth exploded during the same period. Seventy three miles of rail track in 1830 had mushroomed into 30,636 in 1860. Railroads were more successful than canals due to many factors: cost, speed, and the fact that they could be built anywhere. In 1817, a trip from Cincinnati to New York, through Pittsburgh, via keel boat and wagon took 52 days. Between 1843 and 1851, the same trip via steam ship, canal, and rail took eighteen and twenty days. In 1852, the trip via the Erie Railroad took between six to eight days. The cost per ton mile for the trip via turnpike in 1850 was $15 per ton-mile, via canal was 99¢ (Erie Canal) and the Erie Railroad charged $1.84. Rails increased efficiency of shipping and Wheeling boosters acknowledged this.81

A majority of this rail construction (see Figure 7) happened in the North and linked the cities of the Northeast to the exploding population center of the Old Northwest. Besides cost overruns due to the difficult crossing, one reason the B&O failed to bring increased trade to the fact that Wheeling was no longer a link in the trade system. Trade continued on the Ohio with steamboats and barges but rail was some much cheaper than river transport. Also, unlike the beginning of the nineteenth century when the Ohio River valley was a corridor of commerce, the lack of major rail bridges in the 1860s and 70s instead made it a barrier to trade. The Great Lakes region grew in importance as freight by ship was dramatically cheaper than by any other method--10¢ per ton mile on a short voyage and 05¢ for a long voyage. The resources of the West were transshipped via the Great Lakes and via rail line at the cities of Erie and Buffalo to the port of New York City. The ports of Baltimore and Philadelphia were cut out of this trade, and so were their western partners, Wheeling and Pittsburgh.82

This shift in commerce demanded a change and Pittsburgh, with its links East, North, and West as well as a wealth of coal and iron was able to become a manufacturing hub in the Post-Civil War Gilded Age. Wheeling did not have the geography or iron deposits to become the industrial powerhouse. While famous for nails, glass and steam engines, Wheeling could not compete against Pittsburgh in numbers, tonnage or population.

---

82 Taylor, 442.
Conclusion

This thesis started with the premise that the primary reason for urban growth in the antebellum American Republic was the growth of transportation networks. In examining two urban sites, Pittsburgh, Pennsylvania and Wheeling, Virginia, I have shown that each city and the boosters who sought their growth, developed connections via road, canal, and rail to link their city to the ports of the East and the resources of the West. By creating more and better connections via local, state and federal funding Pittsburgh was able to become a regional hegemon.

While researching this paper in Pittsburgh, Wheeling, Morgantown and Charlottesville, I was able to see how this struggle for hegemony plays out even today. While interviewing a member of the Wheeling Historical Society, I was told, “Wheeling produced a third of the world’s manufactured goods in the early nineteenth century.” When questioned about sources for the accuracy of this statement I was simply told it was true. This is the same century that saw the creation of massive factory towns in the Midlands in Great Britain, and the explosion of towns and manufacturing in the Northeast and along the Erie Canal corridor. Dreams versus reality were evident as traveled the region. I was struck by the difference between the two cities after weeks of traveling through a rebuilt and revitalized Pittsburgh and a boarded up downtown Wheeling. The differences were remarkable and show that, for at least one town, there is still competition to be a hegemon in the region in the minds of its residents. This could be seen in the conflicts over casinos in the twenty first century. The one sector Wheeling dominated Pittsburgh in the twentieth century was the casino industry. The opening of the

Rivers Casino in Pittsburgh in 2009 once again raised the specter of conflict between these two towns, with the Wheeling Island Casino launching a radio ad campaign to draw customers back and forcing the WIC to open card games and other large stakes gambling to compete with the larger metropolis. Old refrains such as job losses and transfers of wealth repeat themselves whether it’s loss of iron production and shipping in the 1830’s or gambling revenue in the twenty-first century.

In obtaining vital trade links and becoming hubs in regional and national trade, each city avoided the fate of countless other towns. By lobbying for state and local funding, boosters and leaders of Pittsburgh avoided the difficulties of securing federal funding in the nineteenth century. Wheeling relied on federal funds heavily but faced administrations such as Andrew Jackson’s who hated to see federal dollars go to state only projects. Wheeling further contented with a disinterested state legislature in Richmond. Wheeling and her boosters thus failed to attract the funding needed. As transportation changed due to technology and an increased political divide changed the nature of commerce in the Ohio River Valley, Wheeling just could not compete and faded into the Pittsburgh’s orbit.\(^\text{84}\)

---

Appendix A:

Table 1
Growth of U.S. Population, 1790-1810\(^85\)

<table>
<thead>
<tr>
<th>Area and State</th>
<th>1790</th>
<th>1800</th>
<th>1810</th>
</tr>
</thead>
<tbody>
<tr>
<td>New England</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Massachusetts</td>
<td>378,787</td>
<td>422,845</td>
<td>472,040</td>
</tr>
<tr>
<td>Maine</td>
<td>96,540</td>
<td>151,719</td>
<td>228,705</td>
</tr>
<tr>
<td>Connecticut</td>
<td>237,946</td>
<td>251,002</td>
<td>261,942</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>141,885</td>
<td>183,858</td>
<td>214,460</td>
</tr>
<tr>
<td>Vermont</td>
<td>85,425</td>
<td>154,465</td>
<td>217,895</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>68,825</td>
<td>69,122</td>
<td>76,931</td>
</tr>
<tr>
<td>Mid Atlantic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New York</td>
<td>340,120</td>
<td>589,051</td>
<td>959,049</td>
</tr>
<tr>
<td>New Jersey</td>
<td>184,139</td>
<td>211,149</td>
<td>245,562</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>434,373</td>
<td>602,365</td>
<td>810,091</td>
</tr>
<tr>
<td>South Atlantic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delaware</td>
<td>59,096</td>
<td>64,273</td>
<td>72,674</td>
</tr>
<tr>
<td>Maryland</td>
<td>319,728</td>
<td>341,548</td>
<td>380,546</td>
</tr>
<tr>
<td>District of</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Columbia</td>
<td>NA</td>
<td>8,144</td>
<td>15,471</td>
</tr>
<tr>
<td>Virginia</td>
<td>691,737</td>
<td>807,557</td>
<td>877,683</td>
</tr>
<tr>
<td>West Virginia  (^86)</td>
<td>55,873</td>
<td>78,592</td>
<td>105,469</td>
</tr>
<tr>
<td>North Carolina</td>
<td>393,751</td>
<td>478,103</td>
<td>555,500</td>
</tr>
<tr>
<td>South Carolina</td>
<td>249,073</td>
<td>345,591</td>
<td>415,115</td>
</tr>
<tr>
<td>Georgia</td>
<td>82,548</td>
<td>162,686</td>
<td>252,433</td>
</tr>
<tr>
<td>East North-Central (^87)</td>
<td>0</td>
<td>51,006</td>
<td>272,324</td>
</tr>
<tr>
<td>Ohio</td>
<td>NA</td>
<td>45,365</td>
<td>230,760</td>
</tr>
<tr>
<td>Indiana</td>
<td>NA</td>
<td>2,310</td>
<td>24,520</td>
</tr>
<tr>
<td>Illinois</td>
<td>NA</td>
<td>NA</td>
<td>1,282</td>
</tr>
<tr>
<td>Michigan</td>
<td>NA</td>
<td>NA</td>
<td>4,762</td>
</tr>
<tr>
<td>East South-Central</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kentucky</td>
<td>109,368</td>
<td>335,407</td>
<td>708,590</td>
</tr>
<tr>
<td>Tennessee</td>
<td>73,677</td>
<td>220,955</td>
<td>406,511</td>
</tr>
<tr>
<td>Alabama</td>
<td>35,691</td>
<td>105,602</td>
<td>261,727</td>
</tr>
<tr>
<td>Mississippi</td>
<td>NA</td>
<td>1,250</td>
<td>9,046</td>
</tr>
</tbody>
</table>


\(^86\) Defined as those Virginia counties that later became the State of West Virginia in 1863.

\(^87\) Though defined by the U.S. government in 1960 as East, the areas defined as East North-Central and East South Central form the core of the Trans-Appalachian West. Other areas considered in the West during these three decades would be western New York, western Pennsylvania, and western Virginia. This chart keeps the original document’s definition.
### Table 2

*Internal Improvements, 1817*\(^{88}\)

<table>
<thead>
<tr>
<th>State</th>
<th>Bonus Bill Senate (1817)</th>
<th>Bonus Bill House (1817)</th>
<th>Bonus Bill Senate (1825)</th>
<th>Bonus Bill House (1825)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>For</td>
<td>Against</td>
<td>For</td>
<td>Against</td>
</tr>
<tr>
<td>Maine</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Vermont</td>
<td></td>
<td></td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>Connecticut</td>
<td>2</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rhode Island</td>
<td></td>
<td></td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>New England</td>
<td>1</td>
<td>9</td>
<td>5</td>
<td>34</td>
</tr>
<tr>
<td>New York</td>
<td>2</td>
<td>1</td>
<td>25</td>
<td>2</td>
</tr>
<tr>
<td>New Jersey</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>2</td>
<td>1</td>
<td>17</td>
<td>4</td>
</tr>
<tr>
<td>Delaware</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Maryland</td>
<td>2</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid-Atlantic</td>
<td>9</td>
<td>1</td>
<td>47</td>
<td>17</td>
</tr>
<tr>
<td>Virginia</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>North Carolina</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>South Carolina</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Georgia</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>South Atlantic</td>
<td>4</td>
<td>4</td>
<td>23</td>
<td>24</td>
</tr>
<tr>
<td>Kentucky</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Tennessee</td>
<td></td>
<td></td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Ohio</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Indiana</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Mississippi</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alabama</td>
<td></td>
<td></td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Louisiana</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Illinois</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Missouri</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West</td>
<td>8</td>
<td>2</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>16</td>
<td>86</td>
<td>84</td>
</tr>
</tbody>
</table>

---

\(^{88}\) *House Journal, 18th Congress., 2nd sess., 369; Senate Journal, 14th Congress., 2nd sess., 327, 341.*

\(^{89}\) *House Journal, 18th Congress., 2nd sess., 143-144, 155-157; Senate Journal, 18th Congress., 2nd sess., 192-193.*
Figure 1: Map of region covered by this work

Figure 2 Map of transportation routes to the interior of the Eastern United States.

Figure 3: Map of terrain in Virginia in 1801.

Figure 3. W. Barker, *Virginia 1801*, folder 10/r19b1-b4, West Virginia Collection, West Virginia University.
Figure 4: Map of Canals and rivers to 1850

Figure 5. Pittsburgh in 1843

Figure 5. Sherman Day, *Pittsburgh from the Northwest*, Wood Engraving, 3 ¼” x 5 ½”, Historical Collection of the State of Pennsylvania, Philadelphia.
Figure 6: Map of the US showing Canals and the Nationals Road

Figure 7: Railroad mileage until 1850

Figure 7 “The Second Industrial Revolution” US History Scene, accessed August 22, 2013, http://www.ushistoryscene.com/uncategorized/secondindustrialrevolution/
Bibliography

Interviews


Primary Sources

W. Barker, *Virginia 1801*, folder 10/r19b1-b4, West Virginia Collection, West Virginia University.

Thomas Browse, journal, July 2-3, 9-10, 1830, A&M 3532, Thomas Browse Family Papers, 1830-1930, West Virginia Collection, West Virginia University.


*House Journal*, 18th Congress., 2nd sess., 369.


Pittsburgh Gazette, August 7, 1818


*Senate Journal*, 14th Congress., 2nd sess.
*Senate Journal*, 18th Congress., 2nd sess., 192-193.

*S. Doc. 35, 21st Cong., 2nd Sess. (1831); S. Doc. 163, 22nd Cong., 1st Sess. (1832); S. Doc. 222,*

*Virginia North-Western Gazette*, “Internal Improvements,” May 30, 1818

Robert Wellford, “A Diary Kept by Dr. Robert Wellford, of Fredericksburg, Virginia, during the March of the Virginia Troops to Fort Pitt (Pittsburg) to Suppress the Whiskey Insurrection in 1794,” *William and Mary Quarterly*, Vol. 11, No. 1 (Jul., 1902.)


**Articles and Journals**


Croft, Daniel W. “Late Antebellum Virginia Reconsidered” *The Virginia Magazine of History and Biography*, Vol. 107, No. 3 (Summer, 1999), 256-258.


Griffin, Patrick “A People with no Name: Ulster’s Migrants and Identity Formation in Eighteenth-Century Pennsylvania,” *William and Mary Quarterly*, 58, no. 3 (July 2001), 587-614.


Wellford, Robert. “A Diary Kept by Dr. Robert Wellford, of Fredericksburg, Virginia, during the March of the Virginia Troops to Fort Pitt (Pittsburg) to Suppress the Whiskey Insurrection in 1794,” William and Mary Quarterly, Vol. 11, No. 1 (Jul., 1902).

Books


Ierley, Merritt. *Traveling the National Road, Across the Centuries on America’s First Highway*, Woodstock, The Overlook Press, 1990.


Dissertations


Internet