Navigating internal improvement: rivers, canals, and state formation in the nineteenth-century midwest

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Navigating internal improvement: rivers, canals, and state formation in the nineteenth-century midwest

by

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Introduction:

Water and Development

Life on Earth is dependent on water. As living organisms – humans or other-water is central to the daily cycle of sustaining life. On the Great Serengeti, the watering holes left after seasonal rains become a case study of social hierarchies and relationships. Wildebeests, gazelles, zebras, and buffalos migrate from one available water sources to the next. These creatures often find themselves in an uncomfortable truce with traditional predators such as a lions, cheetahs, and canine species as all seek to consume the vital liquid. All species seeks to secure access to the resource.\(^1\) Humans have followed a similar path to securing access to this resource. Empires rise, wars are fought, and societies collapse with water playing a pivotal role in these events.

Despite this important role of water in society and developing worldview synthesis of the importance of water in the formation and life cycle of societies illustrated to this point, the American historiography is largely void of a cohesive contribution to the larger water-in-society metanarrative to date. Even with more recent scholarship on the social dynamics of natural water systems, these studies provide little to enhance our understanding of the influence water has on societal decision-making. Instead, such scholarship focuses on hydrology, morphology, and the riparian ecosystem.\(^2\) Because few historians, environmental and other, explore the topic of water, a synthesized narrative has yet to emerge. Indeed, a general lack of attention to the centrality of water resources

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management and subsequent social, economic, and political effects has no doubt hindered
the creation of the greater metanarrative. Additionally, one of the ongoing debates in the
historical profession focusing on the loss nuance by lumping studies together informing a
coherent narrative no doubt reaches to the analysis of American water management.
However, despite the lack of such a narrative emerging and the loss of nuance in
developing a coherent narrative, a review of American water historiography does point to
the possibility of synthesizing several key points in the historiography of American water
management while suggesting new directions for further research.

Much of the current scholarship in environmental history addresses three major
themes in the discussion of water. These themes include the traditional narrative of
humans versus the environment, while also introducing greater intellectual depth with
examinations of human attempts at altering the environment for society’s use, and the
role of the environment in pitting humans against each other. As such, an overview of the
current state of the historiography illustrates areas of research that lend themselves to the
creation of a coherent narrative while also presenting some of the major areas that
currently defy synthesis.

One of the significant contributions to understanding the centrality of water in
society is Richard White and The Organic Machine: The Remaking of the Columbia
River. Delving headlong into the discussion of the conquest of man over nature and
harnessing a resource, White set out to understand how society converted the Columbia
River into a machine for human gain. Mainly focused on the Grand Coulee Dam and the
stoppage of salmon runs, White traced agricultural and developing urban areas’
dependence on energy derived from the river. While indigenous people fished salmon from the river, later habitants harnessed the Columbia River’s current by damming the river to create turbine energy. White’s interpretation hinges on the contention that the power of water transcends any specific society.³

Borrowing a framework from the material sciences, White linked the transformative powers of water to its energy capital and potential. White renders the premise of water’s transformative power as a simple transfer of energy and focuses on the interaction between river and life as an ecosystem. Although this scholarship offers a non-declensionist historical interpretation reflecting the scientific canon of kinetic energy, it limits understanding of the transformative powers of water by serving as a platform for decision-making.

Engaging the previously mentioned historiographical question of conquest of man over nature, Mark Fiege in *Irrigated Eden: The Making of an Agricultural Landscape in the American West* restored some, albeit, small agency to society.⁴ Focusing on the Snake River Valley in Idaho, Fiege contended that there is a critical break point where humans strike a compromise between extremes in dealing with the environment. This comes about as humans learn by working the limits of what they can take from ecosystems. Specifically, irrigation on the Snake River is a constant give and take between a manmade agricultural ecosystem based on irrigation and the environment that continues to persist. As a result, humans must be cognizant of their actions that lead to overextending the

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abilities of the irrigated ecosystem. In essence, Feige is engaging the traditional humans versus the environment inquiry. However, Feige infuses the human ability to make decisions into the metanarrative of water and society.5

Contributing to the theme of man versus the environment, Theodore Steinberg explored the central importance of waterways in New England in *Nature Incorporated: Industrialization and the Waters of New England*. Specifically, Steinberg examined the transformative nature that the struggle over “taming” the New England waters of the Charles and Merrimack River Valleys provided. Steinberg contended New England society faced numerous challenges resulting from the attempts to harness the power potential of the waterways. While harnessing waterpower required overcoming technological hurdles, the cost of this investment also resulted in challenges to the legal and social status quo.6

Introducing two other major themes, Steinberg stated that a transformation, resulting from efforts at industrialization, forced the creation of new relationships between various individuals and between the environment and the people inhabiting and utilizing the land. From early colonization of America to the present day, acquisition of

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5 Also entering the discussion on the conquest of man over nature and arguing an equilibrium approach is Mart Stewart. In “What Nature Suffers to Groe,” *Life, Labor and Landscape on the Georgia Coast, 1680-1920* (Athens: University of Georgia Press, 2002), Stewart focused on the question of whom or what dictates the interplay between humans and the environment. Stewart contended that the landscape of the eastern Georgia coastal region dictated the manner in which human interaction with the environment would be successful or not between 1680 and 1920. In other words, Stewart argued that the natural environment contained the conditions in which it would render itself to successful human activities. Therefore, if human inhabitants did not fully recognize and conform or adjust to the environment they would not achieve their goals. Stewart contended that coastal Georgians’ misunderstandings as to the minimum and maximum extremes of interacting with the environment forced the reevaluation of inputs to render human demands.

water and access rights has been an issue of much legislation and as such as the demand for access to water resources increased, Americans faced new challenges. At the foundation of Steinberg’s argument was the transformation of the legal understanding of water rights, shifting from a common law tradition of ownership and usage rights to a legal understanding of water as a separate and distinct form of property. Under common law tradition, individuals who owned land adjacent to waterways reserved the right to utilize the water as they saw fit. However, as industries such as mills moved into the New England region the need to secure access to water for production needs pitted the interests of industries, farmers, and cities against each other in their efforts to secure needed water resources. The implementation of new laws dictated usage rights and provided a means to secure access to the resource. The result was what Steinberg referred to as the *commodification* of water.

The idea of *commodification* of water highlights the larger historical theme pointing toward the role of the environment in pitting humans against each other. Specifically, Steinberg’s work shows that through the harnessing of waterpower and limiting the access of others to the resource competing interests transform their understanding of water. The transformation results in converting the natural resource into economically measurable units. Through the assigning of economic value to water, access to water is limited. *Commodification* of water effectively renders waterpower as a tool of economic gain and limits the equal utilization of the resource by the whole of

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society. In other words, individuals with more capital have access to more water power-based economic opportunities, while those of limited economic means have less.

Contributing to the scholarship focusing on the historical theme pointing toward the role of the environment in pitting humans against each other, Donald Worster and Donald Pisani explore water rights and irrigation district development in the American West. Donald Worster asserted, in *Rivers of Empire: Water, Aridity, and the Growth of the American West* (1985), that the need to secure water for irrigation in the American West set the stage for the rise of a social, political, and economic hierarchy based on securing access to water. At the center of the hierarchical power system - Worster calls it a hydraulic society - is the technological and wealthy elite. Because of their ability to create large, complex, and expensive dams, these individuals were able to ultimately gain power and exert their influence over others in the region. The result, Worster contended, was that the powered elite took away small landholders’ and farmers’ agency and centralized their authority.  

Historian Donald Pisani examined much of the same territory as covered by Donald Worster in *To Reclaim a Divided West: Water, Law, and Public Policy, 1848-1902* (1992). In analyzing the era surrounding the Reclamation (Newlands) Act of 1902, Pisani argued that western water law was more under the influence of the decentralizing rather than the centralizing forces prevalent in American history. In essence, Pisani challenged that Worster’s analysis of a concerted effort by technological and wealthy elite to gain and maintain control over the resource was incorrect. Instead, Pisani illustrated

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that diversity and individuality of persons and communities stymied small-scale farmers and landholders’ ability to centralize authority as each fought to establish their own control over the resource. Furthermore, the 1902 Newlands Act was not a sharp departure from nineteenth-century land policies, which emphasized individualism and self-reliance. The Act resulted in a variety of regions with loose development rather than one strong centralized plan for the region, thus illustrating the effectiveness of the decentralizers. Although Pisani and Worster disagree on the origins of organization and ultimate power, they both point to the theme of struggle to gain and maintain control over the resource.  

Additionally, although Steinberg introduced the term to water resources, one can look back to Worster’s *Rivers of Empire* and Pisani’s *To Reclaim a Divided West* and the struggle to control the resource for further support for the *commodification* idea. As in Steinberg’s New England, quantification by use of units becomes central in managing the resource. Worster and Pisani addressed this idea as part of the Reclamation Act’s oversight. Although primarily intended to create and manage irrigation districts, the Reclamation Bureau also tracked and managed the resource quantitatively. As a result, in attempting to synthesize the history of American water policy, one must also include a discussion of the transformation and harnessing of the resource into a marketable item, and through it the role of governmental response.

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While a general lack of attention to the centrality of water resources management has no doubt hindered the creation of a metanarrative, some general synthesizing can and has occurred. Historians who have explored the area have contributed issues such as the conquest of nature by man and the transfer of energy from the natural environment to humans. Although much work on other topics, such as the struggle for authority and the evolution of the economic quantification of the resource have been explored, more case studies of these topics in relation to water are still needed in understanding the transformative powers of this environmental resource. Environmental interaction with nature, in the form of water, served as a foundational apparatus in forming social, political, and economic relationships. However, to date, the focus of the historiography has been more about understanding how humans negotiate with environmental elements rather than how humans utilize the resources to transform themselves and their social and political relations. Therefore, this formative mechanism remains largely underdeveloped in the American historiography. In this dissertation, I seek to contribute to filling this void with an exploration of the role of water resources and implementation of such water-based technological adaptation such as canals and river improvements as mechanisms of state formation in the nineteenth-century American Midwest.

As the early years of the nineteenth century opened in the United States, the whole of society faced with numerous issues. With the Revolution still fresh within their minds, the people of the new nation struggled with establishing the very cornerstone of their society. The diversity of people and their interests in the Early Republic produced a plethora of viewpoints and goals that manifested themselves through social, political,
legal, and economic avenues. These issues highlight the relationship between the
nation’s populace and its government that held great importance to all. Consequently,
these social, political, legal, and economic choices made by people in nineteenth-century
America and their decision-making processes are vital to examining the underdeveloped
portion of the historiography. On its own, the study of state formation provides greater
insight into the fundamental ways in which moments of change influenced the
development of society.

Additionally, the study of state formation also provides a clearer understanding of
how and why such changes influenced societal development and subsequently the
formation of the state. Due to the vital importance of water to individuals within a
society, the resource itself more often than not became an item of contention between
competing interests. However, as society developed, ways to access and consume water
diversified. Ultimately, this diversity led to government overseeing the contentious issue.
This, of course, relies heavily upon a positivist view of the role of government.
Foundational in establishing this historical view of government’ role was John Locke. In
discussing Lockean thought of the role of government, William F. Carpenter wrote,
“Locke grasped the idea that political power exists and is exercised only for the public
good. The basis of government is consent… on the conditions of the nature of a trust.”\textsuperscript{11}
This positive view of government forms at least a portion of the polity’s mindset
governing nineteenth-century American water improvement efforts and will be discussed
in Chapter One. As a result, arbitrating the outcomes and establishing protocol for such

\textsuperscript{11} Ernest Rhys, Editor. \textit{Of Civil Government, Two Treatises by John Locke} (London: J. M. Dent
and Sons, 1924), vii.
issues provides both an opportunity for positive government to expand its reach and legitimate its governance.

Methodologically, this study draws strongly, although not exclusively, from American Political Development, due to the centrality of government within the formation of the state. Traditionally, the American historiography points to significant eras by one measure or another. At least on the surface, these scholarly-created eras – the American Revolution, Early Republic, Antebellum, etc. – imply separation, distinction, independence, and even possibly defiance when it comes to comparison and ultimately greater understanding of the transcending themes of history, all the while progressively marching toward the modern state in a linear and chronological manner. In other words, although the demarcations created by eras assist the historian in analyzing and presenting the past, they may very well create intellectual barriers that limit the view of even greater historical understanding. It is in an effort to counter this compartmentalization into eras and aversion to comparison across eras that I turn, in part, to American political development.

Before going on, I must explain and define American political development as it exists currently and the manner in which I employ it throughout this dissertation. As a field, drawing both political scientists and political historians to the table, the very definition evokes facets of both scholarly endeavors. Hoping to see through the limitation of eras based historical inquiries, American political development looks to provide a concept that guides inquires based upon governance. Karren Orren and Stephen Skowronek briefly define political development as, “a durable shift in governing
Like the era-based analysis, this definition points to shifts as indicators of change. However, Orren and Skowronek indicate that a shift is “a change in locus or direction of control, resulting in a new distribution of authority among persons or organizations within the polity at large or between then and their counterparts outside.”

Although some eras may fit the definition of a shift, others may not. Also of importance, keeping state formation in mind, the definition utilized for governing authority is, “the exercise of control over persons or things that is designated and enforceable by the state.” Together, these two aspects of the definition provide insight into how authority is built and how it is distributed. However, the insertion of the term durable into the definition becomes of key importance as it indicates developing and sustained authority.

Specifically accounting for the possible limits presented by the era approach, the political development definition absorbs the more recent trend back toward contingency-based historical analysis. Attempting to identify durable shifts in governing authority must acknowledge that authority is not fixed and that the possibility of a different outcome existed at the time. In this sense, this study incorporates contingency as an effort to remove the limitation of era, theme, or topic – driven narratives and inquiry.

One of the leading Civil War historians of the current generation, James McPherson’s scholarship relies heavily upon the contingency of history. In discussing the importance of contingency-based history McPherson wrote, “A topical or thematic approach could not do justice to this dynamism, this complex relationship of cause and effect, this intensity of experience.” While specifically discussing the war years in stating that the

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13 Ibid.
“developments in several spheres occurred almost simultaneously and impinged on each
other so powerfully,” the same easily applies to the rapidly changing nineteenth-century
American society as a whole.\textsuperscript{15}

As a result, the durability of the shift, resulting from choice, and points toward
more significant and lasting institutions of authority that are responsive to a path that was
not predestined but instead resulted from changes in controlling instruments that have
lasting results. As indicated by Orren and Skowronek, as a whole, the definition
promotes generalizations about society and governance, is applicable regardless of time
and place, is pointed enough for comparison, may engage any amount of the populace,
while also asking when, where, how, and why shifts in authority occur, and what the
consequences are of the shifts. Additionally, authority is reliant upon influence from
controlling instruments. As Orren and Skowronek state, “authority cannot accomplish its
purposes simply by formal declarations of intent,” and is only formalized when the
institutionalization of the authority is approved of by the governed.\textsuperscript{16} In other words, the
people must consent to this authority to provide it with legitimacy.

Consider the definition of political development illustrated in figure 1. In figure
1, governance, or governing authority, is located along the horizontal arrow. The
horizontal arrow represents the linear and chronological movement of time. As time
passes, constant forces confront governance, also called the controlling instruments,

\textsuperscript{14} Ibid.
\textsuperscript{15} For more discussion on contingency-based history see: James M. McPherson, \textit{Battle Cry of
general review of historical trends also see: Richard J. Evans, \textit{In Defense of History}. New York: W.W.
\textsuperscript{16} Orren and Skowronek, \textit{The Search for American Political Development}, 125-127.
which present the opportunity for shift. However, despite this presence of change, governance remains a constant presence, albeit not necessarily in a static capacity. In fact, the strength of the controlling instrument and the frequency of intercepting controlling instruments with the governance line cause corresponding responses from governance.\textsuperscript{17}

![Figure 1. Political development factors.](image)

With examination of Figure 1, one quickly realizes the versatility of the definition to factor in any number of fields of historical inquiry. For the sake of illustration, consider an overview of major influences in the slavery crisis and the American Civil War. In this scenario, governance represents the antebellum national government and controlling instruments pertaining to the slavery issue. Controlling instruments include such facets as anti-slavery/abolitionist movements, cotton and tobacco interests, Free-

\textsuperscript{17} Orren and Skowronek, \textit{The Search for American Political Development}, 117-119.
Soilers, Southern states secession, among many more. Each controlling instrument may occur independently or in conjunction with other controlling interests. Others may occur at the same time but have differing intensities. In the broadest sense, the two major controlling instruments of the antebellum era were the antithesis of each other; slavery and abolitionism. While the traditional era approach suggests that the mere practice of slavery in the antebellum would indicate a victory of its controlling influence on government, the examination of the durability of slavery provides another view. Examined through this lens, the eventual abolishment of slavery, by the government, points to the antislavery and abolition movements as greater controlling instruments that contribute a more durable shift in governance.

Figure 2. The controlling instruments in the path of government in the Antebellum.

The versatility of this approach allows for the examination of shifts in relationships between individuals, corporations, and governments and roles of local, state,
and national governments. While at times serving as opposing controlling instruments, changing interests realigned influences and creating in strengthened cohorts or the opposite rendering a controlling instrument powerless. Nevertheless, the realignments of controlling instruments and introduction of new ones provide the basis for shifts in authority. As a result, utilization of the concepts and frameworks from American Political Development provide the methodological base I employ for exploring the influence that water resources, in the form of water internal improvements in nineteenth-century American Midwest, had on state formation.

Examination of changes in relations and authority structure through the mechanism of river and canal internal improvements in the nineteenth-century American Midwest provide case studies highlighting the themes of contingency, authority, political development, and state formation. While, undoubtedly there are other mechanisms that contribute to state formation and political development, the ideas of improvement of both person and nature permeated nineteenth-century America. Although internal improvements served to connect markets and aid the development of a national economy, the projects presented new obstacles for individuals, challenged previous business practices, and helped redefine the roles of state and federal governments. Such projects also provided cases that challenged English common law traditions and aided in the emergence of a distinct American legal system. While not all of the internal improvement projects were completed and operational, the efforts themselves provided the mechanism of change and development. In fact, ongoing negotiations over control highlights the role of local, state, and regional internal improvement projects in defining
the relationships between individuals, corporations, and governments in nineteenth-century America. These changes are highlighted through relations and authority between states or territories and the national government, the states and their citizens, the national government and its citizens, between states, within the same levels of government, and public and private matters.

In highlighting the role of the natural resources, specifically water and its relation with society, this dissertation will first examine the intellectual origins of improvement, the integration of improvement into empowering a positive government, and the formative role of water-based transportation in the development of nineteenth-century America. For a more acute examination of the transformative role that harnessing water for transportation served in the formation of nineteenth-century America, I turn to three water-based improvement projects, The Louisville and Portland Canal, The Illinois and Michigan Canal, and the Des Moines River Improvement Project. Each case provided an environment of political, economic, and social negotiations that resulted in the institutionalization of positive government, economic development, and societal development.
Chapter One:

Water, Improvement, and Society

Water, a simple chemical compound on the molecular level consisting of two hydrogen and one oxygen, serves as one of the most basic and vital elements to sustain life on the Earth. Most commonly found in its liquid state, water performs an integral role of sustaining the planet and is in relative abundance. Combined with its other chemical states, solid state - ice, gaseous state - steam or water vapor, water covers approximately seventy-one percent of the earth’s surface. Within the natural environment, water moves continuously through a cyclical pattern of evaporation, precipitation, runoff, or absorption, returning to evaporation and a repeating of the cycle. The cumulative hydrosphere resulting from this lifecycle equates to approximately 1,360,000,000 cubic kilometers. While the majority of water is located within saltwater oceans, ninety-seven percent, and approximately two and one half percent in frozen state is located within glaciers and polar icecaps, less than one percent consists of fresh water sources such as lakes, ponds, and inland rivers. Although the saltwater environment, comprising most oceans and seas, receives the most credit for providing much of the habitat necessary for biological life on Earth, human consumption relies largely upon fresh water, or potable sources.\(^\text{18}\) In turn, water assisted humans in the rise of empires, the organization of societies and nations, and contributed to their collapse. The efforts of

individuals and societies in controlling access to water and converting water into a tool of development define the pivotal and transformative role of the natural resource. The process of converting water into a transformative tool of occurred neither abruptly nor smoothly. Instead, each society learned from its predecessor. As new societies emerged, they applied the lessons learned through the experimentation of converting water into a tool of development.

The study of human anatomy and physiology suggests that a significant portion of human body weight is comprised of water. Humans average as much as seventy pints of water in the adult body. This total body water consists of water found within skin, muscle, bone, and cellular tissue. While blood can contain as much as ninety percent water, lean muscle tissue may contain seventy-five percent or more water. Without predictable sustainable access to water, the individual human dies of massive organ failure due to severe dehydration. Human necessity for water to maintain homeostasis leads to an internalized auto response to seek out usable water sources and secure access to them at all times.  

In the civilizations of antiquity, the Fertile Crescent best illustrates the importance of water as a basic building block of society. The societies of Mesopotamia, the Cradle of Civilization, emerged from harnessing the waters of the Euphrates and Tigris Rivers. Covering more than four hundred thousand square kilometers, the broad fertile alluvial land basin watered by the two rivers comprises much of what today is the Middle East. This geographic region combined with the presence of water provided an ideal situation

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to lure in wildlife, assist establishment of plant life, and aid nomadic humans’ search for basic sustenance of life. In turn, this environment also provided the necessary means by which domestication of flora and fauna gradually occurred.\(^\text{20}\)

While on one hand, water provided fertility and the breeding ground for domestication of animal and plant life, the basis for agriculture, it also provided for the establishment of larger and more complex societies by providing a means for trade and transportation. Perhaps no stronger example exists in antiquity than that of Egypt and the Nile River. The Nile itself formed an ecosystem that provided sustenance to not only existing life but also the continued expansion of life in the region. Although the Nile River held much potential in its natural state, the emerging complexity of society in Egypt signaled a shift from usage of the natural environment to manipulating the natural environment to achieve specific outcomes. Natural environmental flooding of the Nile replenished the soils of the delta and surrounding lands, aided in seed dispersal, and provided needed moisture for agricultural production in the flood basin.\(^\text{21}\)

This seasonal flooding combined with constant water flow provided a basis by which a society relied more intensely upon a specific geographic location for all of its basic needs. However, as populations grew the Nile came to represent more than just a waterway offering seasonal flooding and renewal of soil fertility. In fact, the Nile rose to become a symbol of Egyptian society. In hopes of keeping the gods happy, the people of the Nile valley presented to the Pharaoh and other religious entities offerings representing

the bountiful harvests rendered from the fertile Nile valley soils. In exchange, they believed that the gods used the Nile to provide the yearly renewal of soil fertility by which agricultural crops were grown and livestock watered.  

The Nile also provided Egypt with the opportunity to become a regional power as the society transported food and conducted communication and commerce throughout the region. Utilizing the fertile agricultural lands along the Nile to produce such grains as wheat and flax, and the waterway to transport the agricultural goods, Egypt found itself at the center of a large trading network that assisted in developing diplomatic relations throughout the region. While the Nile aided the development of an economic system based on agriculture, it also proved to be a strategic resource that many others wished to hold. The need to defend this vital resource laid the groundwork for the development of Egyptian armies. The armies found themselves greatly aided in their deployment and protective objectives by transportation on the centrally located waterway. At the height of the Egyptian empire, the Nile provided the impetus for both sustaining daily life and the basis for creating evermore-complex societal structures. 

Water also served an integral role in the development of other societies and represented the increasingly complex means of harnessing the resource. One such country with overlapping trading and commerce influence rose to become synonymous with trading via waterways. The Phoenicians became a major trading power of the Mediterranean of antiquity. Mastery and navigation of the waterways in and around the

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22 Ibid.
23 Ibid.
Mediterranean region brought the Phoenicians into contact with other powers such as Egypt and Greece. While the Phoenicians used their mastery of water navigation in developing a dominant trading network and economy, other societies utilized water as a means of conquer and control.²⁴

Linking three continents, - Europe, Asia, and Africa - the Mediterranean Sea and adjoining waters provided an environment that encouraged societal development built upon the successful utilization of water resources. The surrounding Mediterranean Sea served as the backdrop for a worldview that saw its inhabitants living at the center of the world. The peoples who inhabited this region, while diverse in culture, formed societies that incorporated water into their social structure. Taking advantage of the world of water, iconic ports and cities such as Venice, Rome, Florence, Seville, and Lisbon emerged throughout the Mediterranean world, bringing with them increasingly complex societies and influencing transformation within their world and beyond.²⁵

In many of the same ways that water helped to establish and expand the Mediterranean world, water served as one of the most important vectors in European exploration. Although the Age of Exploration resulted in the arrival of Europeans to the African, and North and South American continents, initial efforts at exploration sought agreeable water routes to offset less than favorable overland trade routes and associated

costs. Poised on the western reaches of the Mediterranean Sea and the Atlantic Ocean, Portugal, Spain and other nations of the Mediterranean world became hotbeds of new navigation efforts. Combining a culture of maritime navigation, a desire for economic expansion, and key technological innovations in shipbuilding, European nations embarked upon an era of exploration reliant upon mastery of water transportation.

European exploration of the Americas brought about a new economic world order in which countries sought to use oceanic transportation trade to increase wealth. While some countries sought mineral wealth, such as silver and gold, other countries sought out and implemented colonization strategies aimed at realizing profits from the land resources of the Americas. These international ventures spurred the development of transatlantic businesses in shipbuilding, travel, and colonizing supplies. Additionally, the ventures provided new occasions for governance as competing nations sought to control the ventures in the Americas and realize the greatest economic gains.

Despite this well-documented history in which water played a central role in the formation and maintenance of political states, the history of the United States has placed the role of water resources to the side. Rather, since Frederick Jackson Turner, the story of American expansion has been one with land as the central mechanism. Admittedly, a body of scholarship focused on the centrality of water in the settlement of the arid and

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26 Although current scholarship points towards Viking exploration and possible early colonization in North America, the overwhelming social investment in water route exploration by Europeans in the Age of Exploration solidified European interests and subsequent influences in the Americas.


semi-arid Far West has emerged, but no one has yet to situate water fully at the heart of the story of societal development, specifically settling the nineteenth-century American Midwest. This study seeks to do just that.

While the North American colonies eventually became synonymous with the English Empire’s expansionist ideas, water continued to be an important facet of development and governance. The English Empire required extensive networks of water transportation in order to conduct trade, communicate with its colonies, and govern from afar. In fact, while there are many nuanced and scholarly-debated interpretations for the reasons for the American Revolution, complications arising from the struggle undoubtedly include water navigation. The distance of oceanic travel between Britain and the North American colonies and the time required to traverse that distance rendered parliament and the monarchy constantly behind in their reactions to events in the colonies. Despite the complications of the distance from the colonies and the limits of technology existing within water navigation of the era, trade utilizing water routes greatly contributed to the transatlantic economic world. Through and after the American Revolution, water continued its pivotal role as a new nation emerged.\(^{29}\)

By the second half of the eighteenth century, relations between British North American colonists and the British Empire suffered. Colonists contended that the Monarchy and Parliament grew more distant and detached from matters in the colonies. Beginning in 1763 with the Royal Proclamation that limited colonial expansion west of

the Appalachians, Parliament renewed its interest in colonial matters with the passage of legislation seeking to recover the Empire’s expenditures in colonial maintenance.

Parliament viewed its renewed interest as little more than the simple administration of its legislative control over the British Empire. Colonists perceived the heightened interest from the Crown and Parliament as usurpation of their constitutional and natural rights and gave rise to calls of “no taxation without representation” and the declaration of the acts as coercive and intolerable.\textsuperscript{30}

The Enlightenment discussion of civil government and the castigation of divine rule and monarchies that consumed the minds of the leaders of the American Revolution and Early Republic provides insight into how \textit{improvement} came to embody the era of river and canal public works construction. No matter the side of historical interpretation that scholars accept while seeking better understanding of the causes and effects of the American Revolution, one continuous contribution, and perhaps the most significant, is the Enlightenment scholars. While the Enlightenment intellectuals entered into a discussion amongst themselves, themes such as freedom, democracy, reason, civil government, religion, and the responsibilities and consequences of authority filled their volumes.\textsuperscript{31}

\textsuperscript{30} George Brown Tindall and David Emory Shi, \textit{America: A Narrative History} (New York: W. W. Norton And Company, 2007), 107-122.

Although scholars still argue over the legacy of the Enlightenment, the idea of improvement over the current state in which individuals found themselves became a basis of reason and *lex naturalis*, or law of nature. Scholars such as John Locke wove together the law of nature and religious beliefs that, as Locke contended, gave rise to social contracts and the role and responsibilities of civil government.  

By 1774, conditions deteriorated to a level unacceptable to colonists. In response to the worsening conditions, representatives from the British North American colonies met in Philadelphia seeking to give common voice to the colonial concerns. Despite the meeting, chances of conciliation diminished. In early 1776, Thomas Paine’s *Common Sense* pointed blame in the direction of the Crown. Paine held King George III responsible for worsening affairs that left colonists little choice but to sever relations with England. Building upon the notion of an irreparable relationship between the colonists and the Empire, the Continental Congress appointed a committee to explain the colonial position and make a case for independence.  

Penned by Thomas Jefferson, the Declaration of Independence drew heavily upon the ideas of Natural Law, and Locke’s social contract and positive government theory and highlighted their role in the foundational principles of the emerging nation and its call for independence. In the wake of the Revolution, leaders drew upon the ideas of the law of nature, positive government, and their experience of writing the Declaration of Independence, among others, in forming a new nation. Ultimately, the new nation

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embarked upon a great experiment in republicanism with the formulation of a new constitution. Concerns of balancing the fears of a tyrannical government with those of a weak government unable to stave off anarchy formed the heart of the constitutional debate.\(^{34}\)

Further, in 1791, the states of the new nation ratified the inclusion of the Bill of Rights to the Constitution, forming the first amendments. Proponents of the Bill of Rights contended that the Constitution focused too heavily upon the balance of governmental authority and process while placing too little upon protecting the basic principles of human liberty and natural rights. In essence, although man might seek the path that was most beneficial to all, man was not perfect and hence is open to corruption. Therefore, the Bill of Rights’ proponents contended that its inclusion protected the natural rights of all against violations by a few.\(^{35}\) Altogether, the events of the American Revolution and the founding of the new nation, guided by its constitution based upon consent of the governed, drew upon the Enlightenment philosophies and provided an ideological platform for the young society to improve the land for its own benefit. In turn, the social contract between society and its government imposed upon and


empowered government with the directive of assisting those it governed with the conversion of nature into property. Guided by divine providence and the Law of Nature, enabled by a positive government, a society organized upon the conversion of nature into property emerged.\textsuperscript{36}

Seizing upon the empowering spirit of improvement, George Washington epitomized the young nation’s focus on physically improving the landscape and creating a water-based transportation route that linked the East with the West via the Potomac River. Through his vision of converting the Potomac River into a viable transportation route, Washington stood ready to benefit economically and politically. Economically, Washington, a landholder along the Potomac River’s shores, gained financially with the construction of the canal that linked the resources of the Ohio Valley with the East and spurred development, agricultural production, markets, and consumers. More importantly for the nation, the successful construction of a canal offered Washington, the nation’s leader, an opportunity to put government to work for its citizens by assisting the conversion of nature into property. Washington contended that the successful completion of the work on the Potomac River stood to fulfill the potential of the nation by linking the vast resources of the interior with the populations of the East, via water-based transportation system. Washington’s vision illustrated the vital role of the environmental resource of water with the effort of improvement as a factor in the formation of the young nation. While Washington died before seeing his vision become a reality, the vision is

As the new nation entered the nineteenth century, the ideas of improvement, of more than just water, empowered by a positive government came to capture the minds and embody the actions of the young nation. By 1828, nineteenth-century American dictionaries offered an interpretation of how members of that society perceived the term improve. Noah Webster’s An American Dictionary of the English Language, published in 1828, provides several definitions of the root word improve that highlights much of the previous discussion over Enlightenment conceptions of improvement and indicate the adoption of the concepts into nineteenth century America. Webster defined the term in six manners. While associated in a physical sense with both investing monetarily in something and rendering land suitable for agricultural purposes, the term improve was also associated with advancement of society and individuals in a philosophical manner. In a context applying to humans, the term improve takes on a description of advancing the human condition from one state to a better one. It is within this context that nineteenth-century Americans viewed internal improvements. The physical internal improvement embodied the monetary investment of society, the physical reshaping of the land, water, and natural resources to better suit the needs of society, and the promise of moving society closer to a perfect moral creation.\footnote{Although the Second Great Awakening brought the issues of temperance, antislavery, educational reform, women’s rights, and transcendentalism to the national stage, many continue well into the twentieth century and perhaps still today. Noah Webster, An American Dictionary of the English Language}
Citizens of the young nation embraced the concept of improvement, converted it into action, and channeled their activities toward what they saw as positively reforming the world around them. Before them lay Nature’s abundance of resources for them to fill the great blank canvass of the North American continent. The positive spirit of individual improvement provided the basis for numerous social reform movements. All embodied the premise that individuals held within their labor the potential to cause positive change for their benefit and that of the whole of society. A wave of religious and moral revival, the Second Great Awakening, swept through the young nation as people sought Christian perfection. Religious reformers rallied against such perceived evils as liquor, war, slavery, and even corruption in government. The renewed focus on the religious and moral character of the nation highlighted the idea of introspection and the ability of the individual to influence positive change and thereby improve the condition of society. Stalwarts of religious reform efforts, social movements involving slavery, temperance, immigration, education, and women’s rights moved beyond the Second Great Awakening and became symbols of social improvement in the antebellum.39

With the concept of improvement and reform shaping their worldview, nineteenth-century Americans envisioned a more perfect society emerging on the untapped landscape before them. Capturing this spirit of religious morality, democracy, and the untapped potential of the western lands, the editor of the New York Times and the Democratic Review, John O’Sullivan, in 1845, wrote, “it was the nation’s manifest destiny to overspread and possess the whole of the continent which Providence has given

us for the development of the great experiment of liberty and federated self government entrusted to us.”^{40} As the population increased and settlement expanded westward in nineteenth century America, the need for internal improvements became more important. Although internal improvements played a part in the discussion of national development from the beginning, the stress of increasing populations in the federal territories brought the issue onto the national stage. Blessed with an abundance of waterways, the expanding nation turned to the construction of transportation routes based largely on waterways. While some individuals claimed the need for more comprehensive and reliable infrastructural developments, others fought against them. Despite the increasing population and expanding nation, internal improvements became a contentious topic in American politics.

Historian Carter Goodrich claimed that a “spirit of improvement” permeated the nineteenth century.^{41} An increasing population, industrialization, western migration and expansion, and the rise of economic markets created a need for transportation networks. Even though the Early Republic supported economic aids such as plank roads and bridges with public funding, the fervor only increased throughout the nineteenth century, especially after the Louisiana Purchase brought new lands and control over the vital port of New Orleans within the expanding Republic, with discussions increasingly focused upon water transportation routes. The spirit of improvement echoed throughout the country. Goodrich stated that, “to improve the country’s natural advantage by

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developments in transportation was...a duty incumbent both on governments and on individual citizens.”

Further, he stated, “when canal and railroad companies were organized, individuals were often urged to buy stock not only for the dividends they would receive, but also for the satisfaction of bearing an honorable part in a great state or national work.”

The spirit imbued private companies also. Not only did private capitalists invest in internal improvements to strengthen connections with their markets, but also state and national governments facilitated the improvement movement. Through the issuance of land grants, state and national governments aided the construction of a national transportation network.

Ideas of internal improvement and expansion spread throughout the United States, testing prior notions of the status quo. Prior federal government involvement in constructing internal improvements was minimal. However, the nineteenth century brought about change in federal policy. While the status quo involved state, local, and private funding of improvement projects, westward expansion strained the traditional mechanisms for such projects. In response, the national government assisted efforts to construct transportation systems that met national objectives. Internal improvements provided the expanding nation a defensive transportation infrastructure through which to

43 Ibid.
ship military personnel and supplies, opened frontier regions for settlement, and facilitated connections between consumers, suppliers, and their markets.

Goodrich suggested that federal support of internal improvements arose from two factors. He argued that regional wealth and population contributed to the decision making process of the national government in awarding land grants to the states. Congress awarded land grants based on a perceived need by a region, territory, or state. He contended that following the westward expansion of the United States, the national government offered economic assistance in developing a transportation infrastructure to facilitate the shifting population. However, in applying a second criterion, the national government did not extend the offer of economic assistance, such as the land grants, if the region or state possessed enough private capital to fund the projects.\(^{46}\) In support of Goodrich, historian Charles Holt stated that federal government involvement in facilitating economic development, by way of internal improvements, did not begin at the state level. He argued that the federal government acted in response to state support and activism; if the state did not actively support internal improvements then the federal government did not offer economic assistance. Holt stated that, “from the beginning of the record [1800] to the late 1830s, state government expenditure policy increasingly emphasized transportation.”\(^{47}\) Holt further suggested that, “such a system, coupled with a money-market financed a program of internal improvements, must have had the effect, if not the intent, of fostering a rapid pace of economic advance.”\(^{48}\)

\(^{46}\) Ibid., 3-16.
\(^{48}\) Ibid.
Throughout the antebellum period, internal improvements, largely built upon the utilization of the young nation’s waterways, represented one of many issues of debate in the expanding country. Nationalists such as John C. Calhoun petitioned for nationally funded improvement programs such as a network of canals and roadways. In an address to the House of Representatives in 1817, Calhoun called for the federal government to pursue a vigorous policy of a “perfect system” of canals and roadways by which to bind the country together. Though Calhoun was a Nationalist, he argued that federally funded improvement projects needed to be limited to those that were truly of national interest and to the benefit of all states, such as collective national defense. Sectionalists, in contrast, focused on the economic aspects of the infrastructure projects. If a particular project did not equally benefit each state, they believed local and private resources should support the project exclusively. While they were not directly arguing against the benefits of internal improvements, Sectionalists contended that no state should expend its resources, economic or otherwise, to support a project in another state if it did not enhance both states.49 For sectionalists, this view cohered within an emerging states’ rights platform argued by Southern states and contributed to the struggle over federal authority.50

Like many national debates during the antebellum period, the basis for both petitions on internal improvements focused on constitutional authority. The argument did not center around a constitutionally enumerated power to create a national transportation infrastructure to aid economic development, but rather focused on the vague ability to

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raise money to pay for the general defense and welfare of the country. William Freehling in *Prelude to Civil War* described broad constructionists as those who believed “that the enigmatic elastic clauses could be stretched to give Congress additional authority to meet new problems.”\(^{51}\) Strict constructionists, however, held that federal power was limited to only the explicitly expressed powers; thus they argued that the government did not have the power to pursue a policy of planning and funding internal improvement. Sectionalists believed that if the federal government obtained authority to expand enigmatic clauses that the outcome would lead eventually to compromising the rights of the individual states.

Despite these disparate interpretations of the Constitution, Congress demonstrated a commitment to the nation’s internal improvements and passed the General Survey Act in 1824. The act authorized the President of the United States to order surveys aiding the establishment of roadways and canals that were “of national importance, in commercial or military point of view, or necessary for the transportation of public mail.”\(^{52}\) Subsequent acts of Congress added provisions for the improvement and maintenance of the nation’s waterways. The General Survey Act of 1824 captured the social idea of progress and internal improvement. While the passage of the act embodied the political realm of internal improvements in nineteenth-century America, internal improvements also evinced physical manifestations of an emerging distinct social identity in the North. An emerging sectional identity in the northern United States characterized improvement and progress as a social good that included moral reforms, city sanitation and public

works reform, governmental intervention in expanding economic markets, emergence of manufacturing industries, and related work reforms. Historian Carol Sheriff suggested, “For them [nineteenth-century Northerners] progress meant, in large part, that men and women were taking an active role in realizing a divinely sanctioned movement toward the perfectibility of the natural and human worlds.” The diverging social identities of the North and South would add to the sectional crisis, contributing to the Civil War.

The contention that public good and private gains were not incompatible permeated the Northern progressive ideology and laid the groundwork for practical republicanism. Supporters of the ideology of practical republicanism “believed that the nation’s common good depended on prosperity, individual opportunity, and an equal emphasis on rural and urban growth.” Governmental intervention in the markets, in the manner of tariffs and improvements, would guide the economic development of the nation. To lead the government, practical republicans believed the country needed to look towards individuals with financial success in the markets and a commitment to good works. The successful navigation of market intervention by the government, run by successful and virtuous individuals, would ensure a prosperous, virtuous, and strong nation.

**Putting the Public Domain to the Work of Improvement**

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52 United States Congress, *Appropriations for a Survey of the Des Moines River, United States Statutes at Large* Vol. IV, Ch. 46 (1824).


54 Ibid, 24.
In an effort to assist western expansion and migration, the federal government developed national policies concerning the disposal of lands from the public domain. Throughout the nineteenth century, lands became part of the public domain of the country through various means such as the Louisiana Purchase, the Oregon Compromise, and the cessions of lands from Mexico.\(^{55}\) The acquisition of millions of acres of land, and the migration of settlers created the need for a national policy governing the lands of the public domain. By 1840, the federal government had developed policies to assist settlers migrating westward. During the first two decades of the nineteenth century, the federal government established a General Land Office that assisted registration of lands and attempted to control settlement. Historian Paul Wallace Gates noted that “In 1812 the administrative organization for the public lands was brought to the form it would keep until the twentieth century: the General Land Office was created and the duties previously handled by the Secretary of the Treasury were delegated to a Commissioner who was to be head of the new office.”\(^{56}\) In addition to the establishment of the General Land Office, the federal government established a method of credit-based disposal of the public lands. While Congress experimented with specifics of interest rates, land value, and repayment terms during the period, speculators and settlers exploited the situation and attempted to acquire as much land as their credit allowed. The crash of 1819 placed further strains on


speculators and settlers. By 1820, Congress found itself in the position of creditor rather than land seller and subsequently abandoned the credit-based system.\(^{57}\)

With the credit-based system abandoned, the federal government instituted a policy of cash payment for lands. The federal government allowed individuals the right to claim and purchase any lands remaining unsold after public auction at the rate of one dollar and twenty-five cents per acre. Attracting the attention of speculators, the government also removed minimum and maximum acre requirements thereby allowing speculators to purchase vast parcels of land. In return, the speculators often resold the lands for a profit by extending credit and payment lengths to settlers.\(^{58}\)

Other organizations manipulating the government’s land disposal policies appeared between the 1820s and 1840s. Claims associations formed as a means of securing titles and low prices on lands. Both squatters and speculators formed groups and used methods such as intimidation to ensure their lands sold at the lowest possible market prices at auction or remained unsold. The early years of settlement in Iowa, between the late 1830s and 1840s, highlight the rise of such claims associations working with eastern speculators. Together, the groups undermined the government’s attempts at a balanced land disposal policy.\(^{59}\)

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\(^{57}\) Hibbard, *History of the Public Land Policies*, 82-100; Gates, *History of Public Land Law Development*, 140-143. Under the credit-based system, the federal government established land value at two dollars per acre. Some reasoned that the relatively high price would discourage land speculation while still making land available to those wishing to farm or otherwise improve the land. The policy met with mixed success as entrepreneurs still participated in land speculation.


With a federal land policy exploited by land speculators and claims associations, reform in land disposal policy again took center stage. While the federal government previously offered other temporary acts of preemption, 1841 signaled the official government endorsement of the policy. Preemption provided squatters a means of protecting their claims other than turning to claims associations and eastern capitalists. Preemption allowed squatters the “preferential right” to buy a claim of land at the designated price. The preferential right focused on the notion that the individual usually lived and made improvements on the land before official settlement. Without the protection of preemption, many squatters found themselves without legal protection from evictions and no recourse for recovery of the improvements made upon the lands. The passage of the 1841 Preemption Act attempted to remedy those concerns.

Further supporting western expansion and encouraging settlement, the federal government established the policy of conveying lands to states and territories. Congress ceded lands to the States to fund the construction and establishment of schools and other public institutions, in addition to payment of service for members of the military.

In order to facilitate settlement and market development in the expanding western United States, the federal government also initiated a policy of granting lands for transportation such projects as canals, wagon roads, river improvements, and railroads that aided the general public good. Throughout the nineteenth century, the federal

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62 Gates, History of Public Land Law Development, 249-340; For more discussion on the establishment of specific land grants and military land tracts see: Hibbard, History of the Public Land
government conveyed just over one hundred land grants aiding transportation development.\textsuperscript{63} Undertaking such projects required capital that many territories and newly formed states lacked. Granting lands from the public domain provided a source of capital to fund these projects. While the century began with river and canal development by public entities, a transition to private railroad development assisted by federal support occurred by the century’s close.\textsuperscript{64} The lessons learned from canal and river improvement projects assisted the transition to a national transportation network based upon rail technologies.

**Behind the Numbers of Improvement**

Despite the most positive of ideas, government found itself without an established system of governance over such matters and experimented with the best means of walking the proverbial tightrope between the positive roles of governmental authority and letting private entities participate in the emerging markets. To this end, governmental strategies of initiating and bringing to completion internal improvements changed dramatically over the course of the nineteenth century. Statistical analysis highlighting this transition demonstrates the responsive shift of governance over nineteenth-century improvements.

In 1908, by order of the Secretary of the Department of the Interior, the General Land Office compiled a data set listing land grants conveyed by Congress for the purpose

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\textsuperscript{64} Goodrich, *Government Promotion of American Canals and Railroads*, 3-16.
of aiding the construction of internal improvements throughout the nineteenth century. The completed data set contains entries pertaining to the date of the grant, purpose of the grant, size of the grant, projected and actual size of the finished project, the entity that received the grant, and the forfeiture status of the 110 land grants conveyed by the national government for internal improvements during the century.65

The 110 grants conveyed by Congress contributed to the construction of four types of improvements - railroads, wagon roads, canals, and river improvements. Illustrated in Table 1, Congress conveyed eighty-seven grants for the purpose of constructing railroads, which comprised seventy-nine percent of the total improvement land grants conveyed in the entire nineteenth century, more than the other three types combined. The next highest number of conveyed grants contributed to the construction of eleven canals. River improvements and wagon roads combined account for the remaining twelve grants.

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65 Department of the Interior, *Statement Showing Land Grants Made By Congress To Aid in the Construction of Railroads, Wagon Roads, Canals, and Internal Improvements together with data relative thereto* (Washington DC: United States Government Printing Office, 1908) 1-28; Although the data set provides insights into the way internal improvements were conceived and supporting land grants conveyed, usage of the data set. Despite the organized collection of data in the governmental publication, the data set presents some challenges for scholars. The first challenge is the possible lack of accurate recording. Data recorded pertaining to the size of the grants conveyed and the published size of the projects are recorded as an often very large numerical value a recording mistake could result in an error that limits the accuracy of applying statistical methods. The lack of complete entries and explained data collection methods present a second challenge. Recording practices vary and although the General Land Office recorded comments with many of the grant entries, the comments offer little explanation for such variances. The comments do not address issues such as forfeiture occurrence and if Congress then conveyed the grant to a new entity. Not all grant entries are complete, with many missing final size measurements and completion length. While the data set consisted of only 110 grants, the lack of complete entries further hinders the accuracy of applying statistical principles. The most significant deficiency of the data set is the lack of any data on involvement at the state level. The lack of comparable data between state interest and support and the federal data set makes it difficult to analyze anything other than federal involvement and trends in regards to internal improvements. Despite its shortcomings, the data set offers a starting point in which to begin a quantifiable examination of the role of federal government in internal improvements. For a discussion of the application of statistical methods to historical research, see: Charles H. Feinstein and Mark Thomas, *Making History*
Table 1. Federal Improvement Grant percentages for 19th Century.

<table>
<thead>
<tr>
<th></th>
<th>Railroad</th>
<th>Canal</th>
<th>River Improvement</th>
<th>Wagon Roads</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of grants</strong></td>
<td>87</td>
<td>11</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td><strong>Percentage</strong></td>
<td>79.1</td>
<td>10</td>
<td>2.7</td>
<td>8.2</td>
</tr>
</tbody>
</table>

Although the data set shows the majority of internal improvement efforts in the nineteenth century focused on the establishment of a railroad transportation network, it offers little to suggest why. A general assumption echoed in much of the nineteenth century literature is that of technological change. Railroads offered the nation something that the other improvement types could not. Because canal and river improvement projects were limited to construction on waterways or between water sources, they offered no advantage to states with limited waterways to connect or expand upon. Wagon roads also offered only a limited improvement as seasonal weather easily rendered them impassable. However, railroads offered a reliable transportation system despite the seasonal or geographic obstacles that impaired other transportation projects. This data also points to a transition from one mode of transportation infrastructure to another. As Table 2 indicates, some states, such as Wisconsin, embarked upon multiple types of improvement projects that allowed the best adaptation to the state’s specific geography.

*Count: A Primer in Quantitative Methods* for Historians (Cambridge: Cambridge University Press, 2002). Statistical data collected and input into MiniTAB, a Statistical software package.
Table 2. Federally Funded Grant Types, By State.

<table>
<thead>
<tr>
<th>State</th>
<th>Railroad</th>
<th>Canal</th>
<th>River Improvement</th>
<th>Wagon Road</th>
<th>Total Grants per State*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>12</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>Arkansas</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Florida</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Illinois</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Indiana</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Iowa</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>7</td>
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<tr>
<td>Kansas</td>
<td>5</td>
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<td>5</td>
</tr>
<tr>
<td>Louisiana</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Michigan</td>
<td>9</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>Minnesota</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Mississippi</td>
<td>5</td>
<td>0</td>
<td>0</td>
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<td>5</td>
</tr>
<tr>
<td>Missouri</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Ohio</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Oregon</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>68</strong></td>
<td><strong>11</strong></td>
<td><strong>3</strong></td>
<td><strong>9</strong></td>
<td><strong>91</strong></td>
</tr>
</tbody>
</table>

* Data does not include grants to private companies (19 grants) as their grants usually crossed state lines.

Historian Charles Holt maintained that federal government involvement in facilitating economic development by way of internal improvements did not start at the state level. Instead, he argued that the federal government acted in response to state support and activism; if the state did not actively support internal improvements then the federal government did not offer economic assistance. “From the beginning of the record [1800] to the late 1830s, state government expenditure policy increasingly emphasized transportation.” Holt further suggested that, “such a system, coupled with a money-market financed a program of internal improvements, must have had the effect, if not the intent, of fostering a rapid pace of economic advance.”66

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Historian Carter Goodrich contended, “to improve the country’s natural advantage by developments in transportation was, in the eyes of Washington and many others, a duty incumbent both on governments and on individual citizens.” Further, he stated, “when canal and railroad companies were organized, individuals were often urged to buy stock not only for the dividends they would receive, but also for the satisfaction of bearing and honorable part in a great state or national work.” Table 2 supports the Holt and Goodrich theses, as the table presents the states that were most successful in supporting the development of internal improvements and attracting the economic assistance of the federal government. Under their theses, states such as Michigan, with thirteen total grants, and Wisconsin, with grants for all four types of improvements, also exhibited the most active promotion from state governments and citizens, and served as a hotbed of improvement.

Conversely, because Congress conveyed grants to only fifteen states, as Table 2 illustrates, the data set allows for two other possibilities. First, as Holt and Goodrich contended, the states without land grants did little to lobby or attract economic support in building transportation systems from the federal government. Secondly, because the data set contained only data from the nineteenth century at the federal level, it lacks information on land grants or other economic aids for the construction of internal improvements initiated by states or private interests before the nineteenth century.

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Throughout the nineteenth century, Congress utilized the conveyance of one hundred ten land grants across the United States for four types of internal improvements rather than outright monetary support. Figure 1 illustrates the distribution of land grants and the type of projects they aided. The most noticeable issue focuses on the heavy concentration of internal improvement land grants in the states that at one time comprised the region referred to as the Northwest Territory. While historians such as Goodrich and Holt suggested that support for internal improvements originated at the state level, often in the form of boosterism, they also contended that economic conditions and population growth added to the decision of the federal government in conveying land grants for such projects. If the scholars’ contentions holds true, then the illustration in Figure 1 represents not only internal improvement grants but also population growth and economic status.
Four main types of improvements were visible in the Old Northwest region. The region offered a varied topography that lent itself to the construction of numerous types of internal improvements. Canal construction extended the reach of the Great Lakes into the surrounding states throughout the whole of the nineteenth century. Three states - Iowa, Wisconsin, and Mississippi - attempted federally supported river improvements in order to connect regional farmers to markets and to expedite water transportation of commerce. Railroads and wagon roads offered the region alternative transportation methods where waterways and geography limited the utilization of canals and rivers.

Table 3. Land Grant Purpose by Region.

<table>
<thead>
<tr>
<th></th>
<th>Railroad</th>
<th>Canals</th>
<th>Wagon Roads</th>
<th>River Improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern States</td>
<td>59</td>
<td>11</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Southern States</td>
<td>28</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total*</td>
<td>87</td>
<td>11</td>
<td>9</td>
<td>3</td>
</tr>
</tbody>
</table>

* Table includes grants conveyed to private companies.

Figure 1 also illustrated what appears to be a Northern bias toward internal improvements and supports the traditional literature of emerging opposing sections within the nation. As shown in Table 3, no matter the type of improvement, the federal government aided the efforts more intensely in Northern states. Northern railroad grants constituted approximately sixty-eight percent of the total railroad grants conveyed by Congress. The federal government conveyed all the canal and wagon road grants to Northern states while it split the three river improvement grants in favor of Northern states - two grants for the North and one grant for the South.
Table 4. Grants before and after 1861.

<table>
<thead>
<tr>
<th>Pre and Post Civil War Improvement Distribution</th>
<th>Confederate State Grants</th>
<th>Union State Grants</th>
<th>Total Grants*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Civil War</td>
<td>26</td>
<td>38</td>
<td>64</td>
</tr>
<tr>
<td>Post Civil War</td>
<td>6</td>
<td>40</td>
<td>46</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>32</strong></td>
<td><strong>78</strong></td>
<td><strong>110</strong></td>
</tr>
</tbody>
</table>

*Table includes grants (19) conveyed to private companies.

The diverging societies interpretations, presented by Freeling and Roland, suggest that Southern states fell behind the Northern states in regard to internal improvements.

As Table 4 illustrates, Congress conveyed sixty-four grants to all the states before the Civil War. The Northern states, or the states that remained in the Union as of 1861, received twelve more land grants than the Southern states, accounting for approximately sixty percent of the pre-Civil War improvement land grants. The thirty-two land grants conveyed to the Southern states comprised only twenty-nine percent of the total nineteenth century improvement land grants. The data in Table 4 adds economic and legislative legitimacy to the premise that Northern society supported efforts to expand the economy through efforts such as internal improvements.

If Holt’s contention of state interest directly contributing to the level of support by the national government holds, then the data in Table 4 also adds support. The lesser number of grants conveyed prior to the Civil War, twenty-six, appears to suggest that the Southern states lacked support for internal improvements. In other words, the actual lack of land grants in the Southern states quantified the successful rhetoric of the state’s rights platform and rejection of growing federal powers argued by many Southern states.

The dividing line established in 1861 with the secession of states that formed the Confederate
However, the arguments by Holt, Goodrich, Freeling, and Roland do not suggest why Southern states accepted the twenty-six land grants and constructed internal improvements, despite contradicting the state’s right platform. The data set clearly indicated that the federal government conveyed twenty-six grants to Southern States before 1861, and an additional six after the Civil War ended. This supports an argument that not all the Southern states were as deeply devoted to the state sovereignty platform as presented by Calhoun and others. Although the acceptance of an internal improvement land grant undermined the state’s rights platform and state sovereignty, it might have more importantly served as an irresistible economic boost to states that further complicated thoughts of Southern secession. Even though Southern states tended to be more agrarian, an advantage of more efficient transportation systems undoubtedly made acceptance of a grant economically advantageous and thus extremely tempting. As internal improvement projects reached into different regions and facilitated the movement of goods, services, and people, it was difficult to contain the benefit of the project to the boundaries of one state. Therefore, with larger agrarian areas and fewer urban areas separated by larger distances, the improvement projects may have influenced regional markets as much, and maybe more so, than those confined to states.

The six grants awarded to the Southern states after the Civil War offer little support for the idea of Reconstruction in which the federal government promoted and aided the rebuilding of the Southern states’ infrastructure. Rather, the lack of post-Civil

States of America was used in determining the status of grants applied to North and South states.
War grants may indicate a residual state’s rights ideology by the Southern states and a resulting reluctance to accept aid from the national government.

Figure 2. Internal Improvement Public Land Distribution, Pre and Post Civil War.

Internal improvement land grants for both Northern and Southern states fell dramatically after 1861. Historian Charles Holt contended that by 1854, state expenditure policy shifted from internal improvements and transportation to education and echoed a
new area for improvement.\textsuperscript{69} Figure 2 appears to support Holt’s thesis in that Congressional land grants awarded to states after 1861 only reached twenty-seven, thirty-seven less grants than in the sixty-one years prior.

To explain, historian Carter Goodrich argued that federal support of internal improvements arose from two factors. He argued that regional wealth and population contributed to the decision making process of the national government in awarding land grants to the states. Congress awarded land grants based on perceived need by a region, territory, or state. Goodrich argued that following the westward expansion of the United States, the national government offered economic assistance in developing a transportation infrastructure to facilitate the shifting population. However, a second criterion emerged. If the region or state possessed enough private capital to fund such projects, the national government did not extend the offer of economic assistance, such as land grants.\textsuperscript{70}

Goodrich’s thesis applied to Figure 2 helps make sense of the lack of improvement land grants in the eastern coastal states, or the original thirteen colonies. With the majority of the population still residing east of the Appalachian Mountains, the region contained the majority of the country’s wealth. Therefore, because the region contained enough wealth and people to fund and construct any needed improvement project, the national government did not convey economic assistance in those states.

Furthermore, by the nineteenth century a transportation infrastructure already existed in the eastern states.

Additionally, Carter Goodrich asserted that nineteenth century America underwent two phases of internal improvement development. The first phase encompassed improvement projects that assisted in westward expansion over the Appalachian Mountains, through the Great Lakes region, and into the Mississippi River Valley corridor. The data in Figure 2 for the years of 1861 and before supports this thesis. The states that accepted Congressional land grants are almost exclusively contained within the region outlined by Goodrich.

The second phase encompasses land grants awarded to internal improvement projects that facilitated movement past the Mississippi River corridor, across the Great Plains, and to the Rocky Mountains. The data presented in Figure 2 for the years after 1861 illustrate the concentration of improvement land grants conveyed to states along the Mississippi River corridor that would enable the movement of goods, services, and people to and from the lands west of the Mississippi River.

In addition to Goodrich’s two-phase thesis, historians such as Alan Bogue, Dorothy Schwieder, Jack Larkin, and Glenda Riley maintained that the speed of settlement and migration westward also increased during the nineteenth century. By the 1830’s, increasingly more territory of the trans-Mississippi West opened for settlement and highlighted the transformation underway. By horseback, wagon, rail, and steamboat settlers made the journey westward. In large part, advancement of transportation technologies aided the prairie-bound settler. The nineteenth century American traveler
was able to exploit those advancements. Scholar Jack Larkin suggested that radical advancements in nineteenth century America in “speed, scale, and experience of traveling came with the application of newly emerging transportation technologies - the railroad, the steamboat, the building of canals - to American conditions.”

Upon harnessing steam power, steamboat traffic on the Mississippi River increased and the river became a major thoroughfare for both the transportation of goods and the migrating population.

Table 5. Number of Grants by Type, before and after 1861.

<table>
<thead>
<tr>
<th></th>
<th>Railroads</th>
<th>Wagon Roads</th>
<th>Canals</th>
<th>River Improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Before 1861</strong></td>
<td>51</td>
<td>4</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td><strong>After 1861</strong></td>
<td>36</td>
<td>7</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

Earlier scholars argued that as westward expansion reached further into the western regions, the speed of transporting people and goods also increased. As the narrative presented by Bogue, Larkin, and their colleagues suggested, traditional literature focused heavily on the technological innovations of the railroad adding the migration population. However, the data set simply does not verify their contentions of increased railroad grants serving as a manifestation of the technological evolution. Table 5 illustrates intended purposes of the land grants during the nineteenth century. The data set indicates that not only did the federal government convey fewer total grants in the second half of the century, but it also conveyed fifteen fewer railroad grants.

Although the number of grants conveyed does not support the technology thesis, other information in the data set differs. A comparison of the sizes of the various land

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grants throughout the nineteenth century reveals a transition in the second half of the century. As indicated in Table 5, the latter half of the century saw the federal government convey fewer land grants for internal improvements, however, data in Table 6 shows that Congress offered, on average, larger sections of land per grant. After 1861, the average grant size increased by 1,492,643 acres, an increase greater than the average pre-1861 grant size. Further, the smallest grant conveyed after 1861 contained 41,496 acres more, almost forty-two times more, than the smallest pre-1861 grant.

Table 6. Area of Improvement Land Grants throughout the 19th Century.

<table>
<thead>
<tr>
<th>All Grants</th>
<th>Average Grant Size (AC)</th>
<th>Largest Grant Size (AC)</th>
<th>Smallest Grant Size (AC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before 1861</td>
<td>606,421</td>
<td>3,249,181</td>
<td>1,115</td>
</tr>
<tr>
<td>After 1861</td>
<td>2,099,064</td>
<td>30,427,439</td>
<td>42,611</td>
</tr>
</tbody>
</table>

The data indicates that grant sizes increased as the century passed, although during the same period, state governments received fewer federal land grants. Further, if Holt’s thesis that states’ support waned after 1854 is correct, another entity supplanted the state role in internal improvement construction.73 Table 7 illustrated the century long transition of improvement land grants from state entities to private companies. Although the federal government conveyed only seventeen percent of all nineteenth century improvement land grants to private companies, the transition in federal policy is very evident. Before 1861, the federal government conveyed no improvement land grants to private companies. However, after 1861, private companies received all nineteen of their improvement land grants conveyed by Congress during the nineteenth century.

Table 7. Number of Improvement Land Grants, Private v. Public.

<table>
<thead>
<tr>
<th></th>
<th>Private</th>
<th>Public</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before 1861</td>
<td>0</td>
<td>64</td>
</tr>
<tr>
<td>After 1861</td>
<td>19</td>
<td>27</td>
</tr>
<tr>
<td>Total Grants</td>
<td>19</td>
<td>91</td>
</tr>
<tr>
<td>Percentage</td>
<td>17.3</td>
<td>82.7</td>
</tr>
</tbody>
</table>

Further evaluation of grant conveyance in the data set, illustrated in Table 8, adds to the validity of the traditional literature of Bogue and his colleagues. The data set supports their contentions that technological advancement, in the form of railroads, expedited the cross-country journey of people, goods, and services as the century progressed. While grants conveyed to states contributed to the construction of all types of improvement projects, the nineteen grants conveyed to private companies exclusively contributed to the advancement of a national railroad system.

Table 8. Conveyance of Grant, Public v Private.

<table>
<thead>
<tr>
<th></th>
<th>Railroad</th>
<th>Wagon Road</th>
<th>Canal</th>
<th>River Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>68</td>
<td>11</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Private</td>
<td>19</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Statistical analysis showed a –0.349 correlation between the transition of public to private grants and the year in which Congress conveyed them. The –0.349 correlation suggests that, while other factors influenced the change in federal policy, the data indicates that as federal land grant size increased, the number of grants awarded to states decreased. Regression analysis showed that a relationship between a specific year of the

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nineteenth century and the status of federal awarding policy only explained approximately twelve percent of the factors influencing the policy transition.

In light of the disparity of grants conveyed to private and public entities, evaluation of the data set based on the criteria of private versus public offers validation for the thesis of Carter Goodrich as well. As westward expansion reached past the Mississippi River corridor and towards the sparsely populated regions of the Great Plains and Rocky Mountains, the federal government aided economic development by conveying grants. However, the data presented in Table 9 also addresses the disparity of land size per grant. Not only did the federal government transition from exclusively awarding public entities to conveying to private companies in the first half of the nineteenth century, it also then conveyed grants of comparatively larger sizes to the private companies in the western regions of the country.

Table 9. Improvement Land Grant size, Public versus Private.

<table>
<thead>
<tr>
<th></th>
<th>Public (AC)</th>
<th>Private (AC)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Before 1861</strong></td>
<td>606,421</td>
<td>0</td>
</tr>
<tr>
<td><strong>After 1861</strong></td>
<td>567,132</td>
<td>4,492,706</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>586,777</td>
<td>4,492,706</td>
</tr>
</tbody>
</table>

Analysis showed a –0.428 correlation between land grant size and the transition from grants awarded to state to private companies. That is to say, as the land grant size increased, the federal government awarded fewer grants to states. However, regression analysis showed that the relationship only accounted for approximately fourteen percent of the total policy transition. Although statistical analysis showed a reasonably strong negative correlation between the transition of public to private grant policy and grant size,
the data revealed a weaker, approximately fourteen percent, correlation between the change in grant size and the year conveyed.

Holt argued that state support waned in the second half of the nineteenth century and created a problem for the federal government in issuing land grants to western states and territories. The data supports the thesis that the federal government transitioned to a practice of hiring out the development of a national transportation infrastructure by conveying land grants to private companies. The combination of the theses presented by scholars and the data set point toward a government that turned to the private companies to construct far reaching transportation networks across a sparsely populated, and often lacking the necessary economic resources to complete the projects, western United States. The question remains, “How did government and society actually go about achieving such goals?”

Efforts of positive government to fulfill the needs and desires of its people to improve upon nature and build a more perfect society proved an enormous challenge. Despite the conveyance of lands for the purpose of improvement projects, the manner in which conveyance occurred and the problem of how best to meet the most needs presented new challenges for the national government, states, and territories. They faced difficulties in developing effective administrative and financial hierarchies. Legislatures experimented by trial and error in finding the best means of managing the diverse projects; and all the while the national government struggled with balancing public and private interests.
In an effort to oversee all the complex facets of the land grants and improvement projects, states and territories created land offices, sought out additional sources of financing, and explored various methods to supervise construction and a timely completion of the projects. While some states turned the improvements into great state run projects, others turned to private entrepreneurs to provide further funding and oversee completion. Privatization added to the complexity of improvement projects and pitted state and federal government’s agendas of serving the public good against those of economically driven private companies.

Harnessing the nation’s waterways as a form of transportation and economic growth provided the government with some of its most important training grounds and formative avenues. It is in those training grounds that government created lasting mechanisms of assisting the conversion of nature into a tool of societal development. While the process was neither easy nor simultaneous throughout the nation, the resulting legislative experimentation, litigation, political discussions, and economic investment in water-based transportation provided a learning experience and an atmosphere that highlighted the ongoing negotiations of the social contract that created a durable shift in the development of the United States. Societal desires, economic difficulties, and political debate surrounding the successes and failures of water-based projects drove government to seek out avenues of assistance. As the nineteenth century progressed, governmental strategies shifted from public works to enabling private development. In direct response to the trials of canal and river improvements, national and state governments, private business, and citizens negotiated new directives in positive
government. To provide a clearer understanding of the transformative dynamics that water resources provided in the nineteenth century, I turn the attention toward the narratives of three specific internal improvements cases on Midwestern waterways in Chapters Two, Three, and Four.
Chapter Two:

From Fall Line to Cornerstone:

Louisville and Portland Canal

The completion and federal acquisition of the Louisville and Portland Canal in 1874 fulfilled years of planning and struggles to provide the inhabitants of the Ohio Valley region with a safe, efficient, and effective passage around the Falls of the Ohio River. Regional and special interests sought to secure the construction of a canal on their respective sides of the Falls. Economic advantages created by securing the canal on their side of the Falls provided much of the impetus for the regional competition. However, desire to secure the canal alone proved inadequate. Technological limitations, insufficient capital and labor, special interests, and political ideology complicated the construction of a canal. Until society addressed each of the limiting factors, an adequate passage around the Falls of the Ohio remained elusive. Only then, did a durable shift in the development of society occur and provide the opportunity for the Louisville and Portland Canal to fulfill the needs of society.

The Challenge of the Falls

Meriwether Lewis set sail down the Ohio River from Pittsburgh, along with approximately eleven other men, destined for Clarksville in the Indiana Territory, opposite present-day Louisville, Kentucky, in early October of 1803. The journey downriver from Pittsburgh- in a newly made keelboat- signaled a transition in the
landscape of both the Ohio Valley region and the nation. Slowly, with each river bend, shallow sandbar, and river snag encountered, Lewis and his small group left behind more and more of the established world of the Early Republic. At the same time, an increasing complexity of environmental barriers inhibited their westward progress. Lewis was to meet up with William Clark in Clarksville. Clarksville, named after William Clark’s older brother George Rogers Clark, holds the distinction of being the first town in the Northwest Territory and rested only a short distance downriver from the infamous Falls of the Ohio.  

While Lewis made his way downriver from Pittsburgh to Clarksville, Clark scoured the neighboring towns, including cross-river Louisville, and the countryside for the necessary resources for the journey that lay ahead.

Commissioned to survey and catalog the vast interior of the North American continent by President Thomas Jefferson in the aftermath of Jefferson’s historic purchase of the Louisiana Territory from Napoleon Bonaparte of France, Lewis and Clark captained the Corps of Discovery on its epic overland journey. Although St. Louis, Missouri often receives acknowledgement as the official departure site of Lewis and Clark’s Corps of Discovery into the significantly uncharted inland of the continent, Clarksville and Louisville served as both the strategic and a symbolic point of origin of the great American overland journey. While Clark made his way downriver from Pittsburgh, Clark sought out able-bodied men from the edge of the frontier with skills that

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suited the expedition. Underscoring the necessary skills for the overland journey, scholars contended,

The captains drew their men from three principal sources: Anglo-American frontiersmen from the Ohio Valley, U.S. Army enlisted men, and the French settlers of Illinois and Missouri. In the letter offering Clark the chance to second him on the expedition, Lewis wrote that his friend should recruit some young men in Kentucky and Indiana. Clark was instructed to pick backwoodsmen, skilled in hunting and outdoor life and used to hardship, rather than ‘young gentlemen.’

As a result, Clarksville, Louisville, and the adjoining area provided men battle tested by the variable frontier conditions, men with a history of combating the natural elements and paving the way for the society of the East to advance westward.

While the search for worthy frontiersmen for the expedition highlighted the state of society in the Ohio River region and the region’s place within a national context, the captains’ rendezvous just below the Falls of the Ohio drew attention to the state of modernity of the East juxtaposed against the natural state of the Western lands. The Ohio River rises out of the convergence of the Allegheny and Monongahela rivers at Pittsburgh, Pennsylvania with no less than thirteen rivers contributing to the total volume of water before reaching the Mississippi River. Located between present day Louisville, Kentucky and Clarksville, Indiana, the Falls of the Ohio impeded the flow of traffic on the Ohio River. Consisting of rock ledges stretching across the river, one of the greatest hindrances to water travel on the Ohio River, the Falls accounted for twenty-two feet of elevation change in approximately two miles. The Falls prohibited uninterrupted travel


on the Ohio River. As a result, Louisville, Clarksville, and other neighboring communities emerged as important commercial centers offering valuable services oriented toward the portage of goods around the Falls.

For the Lewis and Clark expedition, converging on Clarksville on the downriver side of the Falls undoubtedly made great logistical sense. In 1803, the Falls of the Ohio largely represented the last point of settlement and the first great step into the interior of the continent. The trip over or around the Falls proved cost prohibitive for the transportation of all necessary men and goods for the expedition and only further illustrated the limitations of settling the region, and converting the Ohio River into a regional and national transportation route. The return trip east by the Lewis and Clark expedition traveled much of the same stretch of the Ohio River to the Falls. Although almost three full years had passed since the expedition set out, the Falls of the Ohio again served as a transition back to the modernity of the Early Republic. The Falls still remained an obstacle for the young nation as it spread into the Ohio Valley region. While the natural barrier allowed Louisville and other communities of the immediate area to emerge as significant centers of commerce on the Ohio River, it also represented the environmental challenges facing expansionist ideas of early American life and the commercial development of the entire Ohio Valley region.

Early Activity in the Ohio Region

Although Americans of the Early Republic pushed westward across the Appalachians and into the Ohio River Valley, they were not the first to see the Ohio River as central to the region’s importance. Indigenous peoples and French missionaries, fur
trappers, and explorers used the waterway as a hub of transportation for communication and goods. Although indigenous populations utilized the Ohio River and its tributaries for generations before European contact, “the first significant waterborne travel and commerce… largely stemmed from [European] military activities.” During the eighteenth century, the Royal Engineers of France extensively mapped the region’s waterways, undertook several basic river improvements, and initiated a chain of fortifications from Lake Erie to the Monongahela River, including Fort Duquesne [later Pittsburgh] at the headwaters of the Ohio.77 The collective French efforts in the Ohio Valley region and its waterways aided the development of the fur trade in the region and epitomized much of the French colonial venture in North America.

British colonists ventured over the Appalachians and into the region by the middle of the eighteenth century as they sought to expand their foothold on the North American continent. While the French presence in the Ohio Valley came mostly by way of water routes such as the St. Lawrence River, the Great Lakes, and the Mississippi River, British presence came from the eastern areas and across the Appalachians. The rugged and often densely wooded mountainous trans-Appalachian foot, horse, and wagon routes often made the risks of waterway transportation hazards worth the risk to navigate. The confluence of multiple empirical and indigenous interests in the region resulted in conflict over the region’s resources and ultimately culminated in outright violent conflict between the British, French, and indigenous cultures in the French and Indian War.78

77 Ibid, 1-2.
The outcome of the French and Indian War and the suppression of Pontiac’s rebellion in 1763 left the Ohio River Valley under British control. To ensure controlling interests, British expeditions embarked down the Ohio River in order to secure the former French outposts and forts in the region. The British quickly realized that protection of the newly acquired region required proper surveys and subsequently dispatched surveyors to map the Ohio River and its major tributaries.\(^79\)

Despite the British investments to inventory and survey the Ohio River Valley, conflicting policies and diverging views on the status of the British North American Colonies lay on the horizon. While British North American colonists argued with Parliament and the Crown over funding of troops to protect North American colonial and British interests, unauthorized colonists ventured past the Appalachians and into the Ohio region. Despite colonists that lacked proper British authority to enter the region, larger matters remained more pressing as the relations between North American colonists and the British Empire deteriorated into war.\(^80\)

In the aftermath of the Revolutionary War, Americans of the newly formed country resumed their pre-war push west of the Appalachians and into the Ohio River Valley. By the turn of the century, former revolutionary war personnel sought out opportunities in the western lands with the help of military tract land grants. William Clark’s brother, George Rogers Clark, came into possession of the land along the Ohio River below the Falls, and the subsequent location of Clarksville, Indiana Territory, in

\(^80\) Thomas P. Abernethy, *Western Lands and the American Revolution* (New York: Russell and Russell, 1959) ; Fred Andersen, *Crucible of War: The Seven Year’s War and the Fate of Empire in British North America, 1754-1766* (New York: Vintage, 2001);
just such a manner. In explaining the procurement of the lands in exchange for military
service debts, Historian Ross F. Lockridge wrote,

An area which became known as Clark’s Grant was reserved by Virginia when
she ceded to the Union her claims to the Northwest Territory. This strip of
149,000 acres on the north bank of the Ohio, comprising most of what is now
Clark County and parts of Scott and Floyd counties in Southern Indiana. Clark’s
Grant was the formal fulfillment of the assurance that Jefferson, Madison, and
Wythe had given him at the beginning of his campaign.\textsuperscript{81}

Others not fortunate enough to obtain land grants for military service or through other
measures also made their way into the region. To the region’s settlers in the Early
Republic, the Ohio River became a lifeline fostering communication, settlement, and
commerce throughout the region.

\textbf{Nature’s Abundance and a Blank Canvas}

The dawning of the nineteenth century ushered in a wave of immigrants, former
Continental soldiers, and emigrants from the eastern side of the Appalachians into the
Ohio River Valley, with more than one million settlers moving west of the Appalachians
by 1810.\textsuperscript{82} The flood of new people to the region initiated the transformation of the
region as the new arrivals put their labor to use rendering from nature homes, fields,
bulging towns and cities, and commerce. The newly arrived inhabitants brought with
them remnants of their past. Historian R. Douglas Hurt wrote, “Culturally, they drew
upon their knowledge of the frontier past from their home regions. The agricultural
practices of the transappalachian frontier differed little from the older frontiers east of the

\textsuperscript{81} Lockridge, \textit{George Rogers Clark}, 45, 46, 61, 161.
\textsuperscript{82} R. Douglas Hurt, \textit{American Agriculture: A Brief History} (West Lafayette: Purdue University
mountains." Additionally, those that arrived in the region also exhibited a commercial mentality and an early desire to use the area’s natural resources to aid market development. Illustrating the commercial mindset of the new arrivals, Hurt wrote, “Those who braved the wilderness and hostile Indians remained subsistence agriculturalists until they gained access to markets via flatboats along the Ohio River for the sale of commodities such as butter and cheese.”

Others of the region planted such crops as corn, tobacco, and hemp, and raised beef cattle and hogs. By 1810, Ohio farmers had driven as many as 70,000 head of Ohio Valley-raised hogs back east to markets. Of course, with the intensity of pork production within the region, packing centers such as Cincinnati rose up along the Ohio River by the 1820’s as they converted the live hogs purchased from the region’s farmers into consumer-ready processed pork. Highlighting the early development and significance of the region in pork production, R. Douglas Hurt wrote, “debits in Cincinnati could be paid for with barrels of farm packed pork.” In turn, the processed pork, cheese, and other agricultural goods made their way into the national and international market via routes east over the Appalachians and by water down the Ohio River to the Mississippi River and to the Port of New Orleans.

Despite the rather rapid emergence of the Ohio Valley region’s agricultural and commercial endeavors, their development remained initially rather isolated and lacked adequate transportation to eastern markets. On the one hand, the Appalachian Mountain

83 Ibid.
84 Ibid.
85 Ibid, 100.
86 Ibid, 128-129.
Figure 1. The Louisville and Portland Canal in Relation to the Falls of the Ohio and the Ohio River Valley.
range proved a formidable obstacle and rendered pack animal and wagons inefficient as modes of transportation. On the other hand, while the Ohio River and its tributaries offered a natural advantage for the development of the region, the condition of the waterways proved ill suited for the increasing volume of traffic, particularly for those travelling upriver and eastward.

Although the presence of the Ohio River and its tributaries greatly aided the early settlement push into the region, it also limited further growth. While early shallow keelboats traversed the waterways with relative ease, the increasing volume of traffic and its cargo of agricultural and manufactured goods pushed beyond the river’s capabilities and often resulted in disruption of the flow of commerce into and out of the region. A National Waterways Study conducted in 1983 on the history of water navigation of the region contended, “Although early navigators with light-draft vessels opened the Ohio to transportation, later use with deeper draft craft often fell victim to rocks, snags, shifting sandbars, and shallow channels, as well as other hazards.”

Seasonal changes with annual periods of high water shifted the locations of sand bars, river snags, and the main channel causing navigators to maintain a constant state of alert. The 981-mile length of the river also provided a high level of variability, dropping 429 feet from its headwaters to its confluence with the Mississippi River. These fluctuations stymied travel in shallow sections as the current slowed and caused great dangers in areas of dramatic slope change.

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87 Robinson, *History of Navigation in the Ohio River Basin*, 4; Shallow keel boats remained the preferred means of transportation due to it needing less water depth and offering additional leeway when encountering hidden snags, sandbars, and other often hidden river hazards. However, the shallow keel vessels came with a cost. The Shallower vessels also resulted in lower carrying capacity; a premium for any commercial means of transportation.

with the resulting swift currents often carrying vessels over boulder strewn main channels. The variable and seasonal nature of the river’s water levels restricted heavy transportation to specific times of the year and left the region isolated and reliant upon natural providence.

Communities on either side of the Falls grew into points of commerce. Louisville on the Kentucky side and Shippingport on the Indiana side seized upon the needs of the waterway based commerce through developing businesses focusing on unloading ships on either side of the Falls, providing cargo storage, and portaging goods around the Falls. Consequently, as the burgeoning region invested more intensely in commercial market involvement, the people of the region sought out ways to reshape and improve the capabilities of the waterway for transportation.90

**The Entrepreneurial Landscape of Improvement**

While numerous project aimed at improving the continuous flow of commerce on the Ohio River and its tributaries occurred, the chief navigation obstacle centered around the Falls of the Ohio. Although scholars point to legislation originating from the Kentucky legislature in 1825 as the official origin of plans to bypass the Falls of the Ohio, the earliest efforts at state sponsored calls for action originated with incorporation of the Ohio Canal Company. In September 1805, The Ohio Canal Company’s nine managers, consisting of Thomas Prather, George Wilson, Jason Hunter, Alexander Parker, John Bradford, James Crawford, Nicholas Clark, Adam Steele, and Wingfield Bullock, met in

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89 Ibid.
Louisville, Kentucky with the specific purpose of gathering information, physically examining the area around the Falls of the Ohio, and developing a plan of action regarding improvement of navigation by way of a canal.\textsuperscript{91}

The managers of the company arrived in Louisville, Kentucky on the heels of the previous year’s legislation passed into law by the Senate and House of Representatives of the Commonwealth of Kentucky incorporating the Ohio Canal Company.\textsuperscript{92} Passage of the incorporating act resulted in the creation of a private company seeking the construction and management of a canal around the Falls of the Ohio River. Aided by a recently completed survey of the lands adjacent to the Ohio River at the Falls - conducted by Jared Brooks - the members assembled in Louisville to determine the official course of the canal. While Brooks’ survey included numerous sketches and alternative routes for construction of a canal, rampant regional partisanship publicized the decision making process of the managers of the canal company. While Kentucky sought to create a viable passage around the Falls on the south side [Kentucky side], competing parties from the Indiana Territory sought like-wise for their side [the south side].\textsuperscript{93} In fact, the opening address of the proceedings by the managers underscores the competitive partisan spirit within the region. In outlining the reasons for their arrival in Louisville, the managers wrote,

\textsuperscript{91} Proceeding of the Managers of the Ohio Canal Company, at Louisville, on Wednesday, the 11\textsuperscript{th} Day of September 1805 (Lexington: Daniel Bradford on Main Street, 1805).

\textsuperscript{92} Although I was unable to locate the original 1804 Kentucky Legislature act incorporating the Ohio Canal Company, the 1805 amendment to the 1804 incorporating act, clearly shows that the original legislation existed.

\textsuperscript{93} Proceeding of the Managers of the Ohio Canal Company, at Louisville, on Wednesday, the 11\textsuperscript{th} Day of September, 1805 (Lexington: Daniel Bradford on Main Street, 1805). Numerous correspondences are included within the official records of the proceeding of the managers between managers reflecting both their own personal views of the canal route as well as the views of others they met.
having discovered from want of information, both with regard to the utility, as well as practicability of opening a canal for the purpose of navigating the Falls of the Ohio river; and from various impressions, in consequence of an association for opening a canal on the North side of said river, under an act of incorporation by the Indiana Territory, the citizens have discovered an indifference to taking shares.\textsuperscript{94}

Not only did the canal company’s managers meet to decide the route of the canal around the Falls, but they also faced strong competing regional interests. Specifically, competing boosters and citizens on the Indiana Territory side of the Ohio River sought the advantages that securing the canal’s construction on the north side of the Falls would eventually bring. To this end, supporters of a canal constructed on the Indiana Territory side of the Ohio River contended that the geographical features of the area suited the construction and maintenance of the canal much more so than construction on the Louisville, Kentucky side. Consequently, the residents on the Indiana Territory side of the Ohio River saw no advantage in supporting the construction of the canal on the south side, or Kentucky side, which left the managers of the Ohio Canal Company seeking further investment and purchasers for company shares.

Seeking to secure a canal on the Indiana side, a similar canal company comprising directors such as George Rogers Clark, former Vice President Aaron Burr, and other politicians received approval in the Indiana Territory in 1805. With loyalty to the Indiana Territory, their recommendations included the construction of a canal on the North side of the river. Their calls for a canal on the north side of the river, in Indiana Territory, served as the major concern to the Ohio Canal Company’s managers at their meeting in Louisville in September 1805. However, despite the presence of seemingly influential

\textsuperscript{94} Ibid.
national political figures, the Indiana Territory chartered company accomplished little more than appealing for governmental aid. Uneasy over the company’s motives, Congress quickly sank their hopes by soundly rejecting their appeals.95

After consultation with Jared Brooks and sifting through all the pertinent information gathered, the Ohio Canal Company managers concurred with Brooks’ opinion. Brooks contended that despite geographical and geological information that supported construction of a canal on the Indiana Territory side, further analysis of the long-term success of the canal did not. While construction of the canal on the Indiana Territory side might be easier and thereby, less costly, constant environmental challenges would undoubtedly face the most upriver portions of the canal. The upriver opening of the Indiana Territory canal faced constant hydrological forces that raised the cost of canal maintenance. The upriver head of the canal required constant rock and gravel abutments to ward off the undercutting force of the greater downward flow rates and icing and debris damage.

In contrast, long-term maintenance costs offset any challenge in the construction of a canal on the Kentucky side of the Ohio River. Additionally, Brooks speculated that the upriver opening of the Kentucky side canal option provided protection from winter ice and storm debris. The slower rate of water that collided with the opening because of the bend upriver from Louisville also removed much of the concern over the high costs associated with rock and gravel abutments. In the end, all information pointed to cheaper construction costs but higher maintenance and operational costs for a canal on the Indiana

95 Johnson and Parrish, *Triumph at the Falls*, 20.
side. Conversely, a canal on the Kentucky side held greater initial construction costs, due mostly to the greater prevalence of bedrock throughout the proposed route. Despite the higher initial costs, the continual maintenance and operational costs fell below that of the Indiana side because of the more favorable location in relation to potential damage from channel flow.\textsuperscript{96}

Despite the general optimism that came from the official determination to construct the canal on the more physically challenging Kentucky side of the Ohio, almost twenty years passed before even the slightest bit of actual progress on the opening of a canal on the stretch of the Ohio River occurred. The major barrier restricting initiation of the canal project arose over raising enough capital. In December 1805, the Kentucky General Assembly issued a resolution requesting the Kentucky governor,

\begin{quote}
... to transmit to the governors of the states of Pennsylvania, Virginia, Ohio, New-York, and Maryland, a copy of the act incorporating the Ohio Canal Company, and to invite the enlightened co-operation and aid of the said states in cutting a canal around the rapids of the Ohio river, in the accomplishment of which the whole western country is so deeply interested.\textsuperscript{97}
\end{quote}

Though the state of Kentucky requested assistance in the great undertaking from other regional governments and communities in the Ohio Valley, few responded to the call. In reality, while the region contained the beginnings of commerce centers such as Louisville and Cincinnati, the region largely still lived in the shadow of settler society.

\textsuperscript{96} Despite the intensive manual labor required for any canal’s construction in the early years of the nineteenth century, the discussions by the managers of the canal at the Falls in 1805 provided no details as to the acquisition of labor, free or slave. Comparatively, as discussed later in this chapter and Chapter Three, workers from the Erie Canal provided much of the labor by the time the canal is actually constructed.\textsuperscript{97} Laws of Kentucky, “An Act to amend the act incorporating the Ohio Canal Company: to which is prefixed a memorial to the Congress of the United States” (Frankfort: William Hunter, Printer to the State, 1806), ii.
In discussing the offer from Kentucky, future United States Supreme Court Chief Justice Salmon P. Chase contended, “Ohio declined, in consequence of the embarrassed state of her finances at the commencement of her State Government.” Ohio found itself unable to provide economic assistance to the construction of any significant works on the Ohio River. Coming into the Union almost eleven years behind Kentucky, Ohio lacked the necessary capital and turned to chartering its own private canal companies for works on the Ohio River.

Despite the beginnings of a burgeoning economy based upon river transportation of agricultural goods from the Ohio Valley region, Ohio simply did not respond to Kentucky’s 1803 request. Similarly, despite the calls from the Indiana Territory for the canal’s construction on their side, the territory’s government also found itself lacking the economic ability to assist in the construction of any works at the Falls. However, in 1805, the Indiana Territorial Legislature also incorporated a canal company seeking the construction of a canal on the north side of the river and entered into direct competition with the Kentucky chartered Ohio Canal Company. Although the region’s state and territorial governments sought out assistance, regional boosterism, lack of governmental capital, and competing interest offset opportunities for successful completion of improvements at the Falls. Consequently, the people of the Ohio Valley region found themselves with governments and private companies unable to address their desires.

The lack of a cooperative spirit to participate in the development of a common canal by many, if not all, of the region’s governments highlights the competitive nature of

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98 Salmon P. Chase, Improvement of the Falls of the Ohio; May, 1852 (Cincinnati: Cincinnati Daily Commerce Office, 1851), 6.
the era, as competing interests sought to secure a foothold in the region’s emerging economy. Greater population divisions resulting from the admission to statehood process placed state governments in the position of experimenting with legislation and solutions that met the needs and desires of their populations. Equally, although not unequivocally, a transformation from regional, or territorial, identity to state identity as a defining characteristic of the populace emerged. However, the lack of consensus also set the stage for the expansion of national governmental authority and relegated the construction of a canal around the Falls to future decision makers. While the region’s governments might have sought to act in the interests of its people, without a source of external uniting authority the governments of the region simply found themselves unable and largely unwilling to respond to a need for regional improvement.  

In the absence of consensus, states such as Kentucky exercised the one portion of authority they had. That authority focused on the legislative process of securing the completion of improvements for the benefit of the society. For Kentucky, that included securing private funding and support, and binding the private company to the project through state charters. As such, in response to the lack of additional support by competitive neighboring governments, the Kentucky legislature passed an act incorporating a private company to undertake the work of improvement in the region and through the act allowed the private company to assist in the development of the region and its economy. In turn, the company received the rights to manage the canal and charge

99 Johnson and Parrish, Triumph at the Falls, 20.
100 Although the construction of a Kentucky side canal would not directly benefit the people of the Indiana side, the increased traffic on the portion of the Ohio River resulting from any canal undoubtedly
tolls as the burgeoning river traffic made its way through the canal. The ability of the private company to seek out and acquire other means of capital potentially opened the door for private economic growth, while also giving government an avenue by which to initiate steps for the betterment of its society.\footnote{101}

Despite the creation of the private company and the meeting of its managers in Louisville in early fall of 1805, the state of Kentucky, the Ohio Canal Company, and the Ohio Valley region lacked the necessary capital for the undertaking at the Falls. The most positive of hopes rested with the private company selling its shares to raise the $200,000 in capital necessary to construct the canal on the Kentucky side. While the ability to purchase stock received early enthusiasm from around the region, the sale of stocks fell well short of the needed amount; the canal company managed to raise only $70,000 before turning to the state later that year.\footnote{102}

Only two months after the meeting of the Ohio Canal Company’s managers in Louisville, the Kentucky General Assembly solicited assistance from the national government. To Kentuckians, as well as all inhabitants of the Ohio Valley region, the creation of a canal around the Falls held great consequence to the young nation. Approved on December 10, 1805, the Commonwealth’s General Assembly contended, stood to increase the capital in the region and opened the door to commercial development, either in direct support of the shipping industry or producing goods to be shipped, throughout the region.

\footnote{101}{The economic rationale of frontier regions is supported by Carter Goodrich’s a study of canal and railroad development in the United States. For further discussion see: Carter Goodrich. \textit{Government Promotion of American Canals and Railroads, 1800-1890} (New York: Columbia University Press, 1960).}

\footnote{102}{Johnson and Parrish, \textit{Triumph at the Falls}, 21.}
“that the opening of a canal at the Falls of the river Ohio, will be of great public utility, interesting to the commerce and agriculture of this state and the western country.”

A memorial to Congress in December 1805 painted the picture of the region’s need for the waterway improvement by submitting, “to the consideration… whether the accomplishment of that useful undertaking would not greatly increase the value of the national domains, and render them a much more productive source of revenue for the United States.” As such, the General Assembly solicited the national government for aid and cooperative efforts, “either by subscription or donation in land, or otherwise… to be invested in the said company.” A congressional committee responsible for reviewing the request from the Kentucky General Assembly resulted in mixed outcomes. On the one hand, the overall plan for the canal seemed quite feasible to the committee. On the other hand, Congress lacked the financial resources to assist as Congress had already earmarked the necessary funding for other projects. Despite the supportive words echoed from the halls of Congress, the Ohio Canal Company exhausted its economic resources and faded into the history of the region without accomplishing the great canal work at the Falls.

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103 Laws of Kentucky, “An Act to amend the act incorporating the Ohio Canal Company: to which is prefixed a memorial to the Congress of the United States” (Frankfort: William Hunter, Printer to the State, 1806), 7.

104 Laws of Kentucky, “An Act to amend the act incorporating the Ohio Canal Company,” v.

105 Ibid.

Seeds of Defensive Improvement

Despite the best efforts of the Kentucky General Assembly, only a limited spirit of cooperation and little necessary capital existed in the opening decades of the nineteenth century. Although early efforts to entice others in the region to participate in the construction of the canal around the Falls struggled, others, regionally as well as nationally, realized the emerging importance of the waterway to their own welfare as well as the overall region’s welfare. Contributing to the emergence of a national awareness, by 1812 the Ohio Valley region found itself the battleground for much of the War of 1812.

Key to military strategy in the region, the Ohio River and its tributaries held great defensive value. The waterway connected battlefields with faster and often more efficient supply lines and communications, increased the speed and mobility of the forces around the region, and offered important escape routes. In the prosecution of the War of 1812, the national government seized upon the region’s advantages in resources such as timber, shipbuilding, and water navigation knowledge. Toward the end of the war, Secretary of War James Monroe sought out and contracted with Robert Fulton to supply steamboats to the national government with the intended purpose of plying the Ohio and Mississippi Rivers.

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The contribution of Robert Fulton to the development of the Ohio Valley region began years before Secretary Monroe and the national government came calling. Born in 1765, in Lancaster, Pennsylvania, Robert Fulton’s fascination with harnessing steam power and shipbuilding brought him to international prominence. In 1797, he followed his passions of combining the two endeavors to Europe where he experimented with torpedoes and vessels to carry and launch them. While in Europe, Fulton caught the attention of Napoleon Bonaparte. In 1800, with the support of Napoleon, Fulton received a commission to develop the first practical submarine, the *Nautilus.* After attempts at creating a working steamboat on the River Seine in 1803, Fulton returned to the United States. In 1807, with the help of United States Ambassador Robert Livingston who Fulton had befriended in Europe, Fulton built the first commercial steamboat, the *North River Steamboat*, which later became known more commonly as the *Clermont.*

Fulton’s invention expedited the speed of transportation, increased payload size, and made plying the nation’s inland waterways more reliant upon securing continuously open and navigable waters. The advance in water transportation technology held great consequences for the Ohio River region and its people. With the breakthrough in technology that made river transportation, especially upriver, more efficient, private companies and the national government alike sought out Fulton and others to produce the new vessels. Unfortunately for Fulton, the conclusion of the War of 1812 also brought about the end of the military contract for his steamboats. Regardless, the introduction of the steamboat to the United States’ inland waterways changed the economic landscape

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110 Morgan, *Robert Fulton*, 1-149.
of the Ohio River region, as private business, and local, state, and national governments all viewed the Ohio River and its tributaries as resources of ever-growing importance. Despite the significance of the Ohio River in the economic and military infrastructure of the Early Republic that emerged during the second decade of the nineteenth century, the physical landscape of the Ohio River still lacked the improvement of a canal. With little work done on the upper reaches of the Ohio River, the lack of improvements at the Falls illustrated the reality that very few truly public efforts backed by governmental action emerged until the 1820’s.

**Governmental Instrumentalism and Private Enterprise**

Responding to the changing economic and technological landscape of the region, both Indiana and Kentucky sought the initiation of a new wave of private companies to undertake the construction and management of a canal at the Falls. The inaugural Indiana legislature, in 1816, passed an act chartering the Jeffersonville Ohio Canal Company for a canal on the north side of the Ohio, in Indiana. Just like previous canal companies chartered to construct a canal around the Falls, the act provided the canal company with the power to sell one million dollars in company stock and raise additional funding through a lottery. While this provided investments from individuals and business within the region, as well as outside investors and speculators, the act limited the ability of the canal company to raise additional funds for the construction and maintenance of the canal. Despite general optimism and an official groundbreaking in 1819, the company
undertook less than a mile’s worth of canal construction on the north side before lack of capital forced the company to cease operations.\textsuperscript{112}

Similarly, in 1818, Kentucky also witnessed a resurgence of canal fever and revisited the idea of canal construction on the south side of the Falls in 1818. Despite the interest, economic fortunes took a turn for the worse the next year and ultimately caused the collapse of the new canal effort. The first major United States financial crisis of the young nineteenth century hit in 1819 and signaled an end to the economic expansion arising from the War of 1812. The Ohio Valley felt the effects of the economic crisis as it reduced the demand for agricultural goods and cut commercial transportation on the Ohio River. The effects rippled through the commercial centers along the river and consequently dried up vital capital for the canal construction. Exacerbating the economic crisis, the region also suffered from a period of drought that dropped water levels on the Ohio River and its tributaries, further restricting river commerce as numerous locations including the Falls became impassable.\textsuperscript{113} The financial constriction reduced the economic potential of the region and left the likelihood of canal construction to future entities.

Although the availability of funds remained low and competition between states and private companies to construct a canal around the Falls remained divided, the importance of a canal’s construction galvanized the region and two main options emerged. As Brooks indicated in his surveys of the Falls in 1804, either a canal on the North side or an opposing canal on the south side remained viable options. Both options

\textsuperscript{112} Johnson and Parrish, \textit{Triumph at the Falls}, 24.
\textsuperscript{113} Ibid.
highlighted the limitations of technological and engineering ability in constructing a central canal channel. The rationale for this decision rested with the geological formation that throughout generations created the Falls as the river cut its course.

As a seemingly geographical oddity that rendered the Ohio River impassable in all but the most extreme high water levels, a giant coral reef cut across the river’s channel. The physical barrier highlighted the transformative but often limiting power of the natural environment. More likely found at the bottom of the ocean, the giant coral reef creating the Falls of the Ohio harkens to ages past. A relic of the Devonian geological epoch, the giant coral reef in fact did occupy space in the bottom of an ancient ocean that existed over three million years ago. In the ensuing years, slow and continuous transformative powers buried the mass as glaciers advanced and retreated in the region. In the years since the last major North American ice age, the gradual retreat of glaciers buried the reef beneath glacial till and the erosive hydraulic forces began cutting away at the landscape as water made its way through the region. When Europeans first gazed upon the Ohio River Valley, the coral again reached from beneath the earth as the obstacle creating the Falls on the river. To those interested in improving the Ohio River at the Falls, the removal of the enormous mass remained technologically out of reach. By the 1820s, the numerous surveys conducted by competing interests clearly pointed to projects that bypassed the Falls and rendered the construction of a canal as the most likely to succeed.¹¹⁴

While the options for canal construction coalesced into two options, by 1824, the state of Ohio approached both Kentucky and Indiana with a new proposition. Ohio

proposed a joint venture whereby all three states combined technologic, economic, and labor resources toward the construction and operation of a canal at the Falls. The efforts of a cooperative endeavor underscored the importance of the Ohio River to the region’s economic welfare.

Despite the overtures of a multi-state cooperative project, Ohio also realized that completion of the improvement project rested with the accumulation of capital. In other words, at stake for the area’s communities and individuals were great economic advantages that fostered regional competition. Ohio seized the moment and offered a rationale that directly sought to highlight the competitive nature of the region’s boosters. Removing preference based upon sound geographical, hydraulic, and topological construction, Ohio suggested that in the event of all parties entertaining the offer, the location offering the greatest economic and political interests dictated the preferred placement of the canal.¹¹⁵

Despite Ohio’s efforts at a multi-state cooperative public venture, little groundswell for the idea surfaced. In fact, while the overtures of great cooperative public improvement works on the Ohio River never materialized, the rhetoric of improvement reached new heights and turned toward themes of patriotism, regionalism, state pride, and the improvement of the human condition. Boosters of a Kentucky canal put pen to paper to communicate the significance of the project to their neighbors. Illustrating the significance of the Ohio River to the nation one such pamphleteer wrote, “It has been proved enough… that this canal would be a grand friendly accommodation for the

commerce of the whole Union on the western waters, and... one of the most valuable capitals that human industry could create.”

Echoing the economic sentiments of numerous others, the pamphleteer contended that there should be no delay in creating the canal as it served as a “permanent and constantly growing source of revenue” for Kentucky. Not wanting Kentuckians to be left behind, the pamphleteer questioned, “Shall we be sleeping, when the rest of the American family is busily working at internal improvements? Let us rouse from our slumber!” Calling upon the spirit of the revolutionary era, he harkened, “Like in ’76, let us be patriots.” However, he quickly acknowledged the economic self-interests in the region also, “if we are unwilling to act as patriots, let us think only of self interest. Where is the Kentuckian, who, after a moment’s reflection, will not find his self interests, at seeing this done?” If the project’s economic significance to the individual remained unclear, the pamphleteer put it into simpler terms, “It is to be the center point of our affairs, of a great commerce in the western world, either out and home, a magazine of wealth, for distribution. Let every citizen contribute his mite, and we shall have it.”

Despite the pamphleteer’s pro-canal stance, not all business owners saw the construction of any canal as a positive. Business owners in Louisville making a living in portaging, or transfer of cargo via land, and storage of cargo stood to lose much of their business with the opening of a canal. If the

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116 “Considerations on Some of the Matters to be Acted on, or Worth Acting on, at the Next Session of the General Assembly of Kentucky” (Louisville: A.G. Hodges and Company, 1824), 36.
117 Ibid.
118 Ibid.
119 Ibid.
120 Ibid.
ships plying the Ohio River no longer required the offloading of their contents before confronting the Falls, all involved in such commerce risked tremendous financial loss.\footnote{121} While the pamphleteer and others sought to spur action for a canal’s construction, the citizens of Kentucky found themselves embroiled in a great debate over whether the construction and operation of the canal should rest in private or public hands. Historian Paul B. Trescott argued, “Articulate public opinion appears to have been favorable to a state project, and was in some cases overtly hostile to creating a private company.” Hostility resulted from the idea that the creation of a private corporation to operate the canal would rob the state and its treasury of income to the detriment of Kentuckians. Specifically, concern centered on the power of the private company to charge tolls as they saw fit at the cost of investment on behalf of state improvement.\footnote{122}

**The Politicization of Privatizing the Falls**

Ultimately, political partisanship and maneuvering gave rise to the Commonwealth of Kentucky chartering a private canal company in the face of strong public opposition. Historian Paul B. Trescott wrote on the matter explaining that the proposal for a public project “became snarled in the bitter political fight raging in Kentucky.” The fight to which Trescott referred resulted from attempts to stave off the economic crisis that hit the Early Republic after the War of 1812. Attempting to limit the effects of the economic downturn, the state government instituted a wide reaching plan offering relief.

\footnote{122}{Ibid.}
Despite the attempts at limiting the economic effects on the region, one specific measure focused on protecting the loss of individual assets. Specifically, the Kentucky General Assembly passed legislation creating a replevin law that greatly extended the rights of many who found themselves in debt resulting from the economic crisis. Heavily favoring the debtors, the replevin law provided a remedy to recover property deemed taken wrongfully by creditors. As such, creditors sought and achieved the replevin law ruled unconstitutional. Trescott contended that an outraged citizenry demonstrated their disdain for the ruling by ushering in an election victory for a significant number of pro-replevin politicians. The pro-replevin politicians ran on an anti-business platform that included efforts of private companies seeking charters for canal construction and operations.

The overwhelming political firestorm that ensued witnessed the abolishment of the sitting court that ruled the replevin law unconstitutional. The removal of the “old court” and the appointment of a “new court” set the stage for an antagonistic relationship between relief-seeking legislators and their creditor supporting counterparts. Trescott explained that these competing interests between using government for public benefit and

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123 *Gilbert Law Summaries* (1997), s. v. “replevin.” *Gilbert Law Summaries* provided the following definition of replevin, “An Action to recover the possession of personal property that has been unlawfully taken from the plaintiff.” As it involves the new court and old court controversy, legislative action taken by the Kentucky legislature sought to provide legal assistance in relieving some of the economic burden felt by private individuals of the region. However, in providing a measure of protection to individuals, the legislature also restricted the economic bottom line of private companies seeking to collect outstanding debt from those conducting business with the privately held companies. Lowell H. Harrison and James C. Klotter, *A New History of Kentucky* (Lexington: University Press of Kentucky, 1997), 108-113.

those supporting the interests of private business owners spilled over into the discussion of canal construction on the Kentucky side of the Ohio River. ¹²⁵

In January 1825, a bill supporting a state canal project met sound defeat by the state legislature. Because not all of the “new court” legislators supported a public canal construction project, the likelihood of the bill’s passage lessened. With “old court” legislators firmly set upon exacting a measure of revenge over the court’s ouster, the vote on the state canal project fell to defeat. The vote, 49 to 38, dashed the hopes of a publicly constructed and operated canal at the Falls.

Despite Trescott’s views of competing interests over the conflict, the aftermath of the state canal bill’s passage illustrated the desire of the state for the construction of a canal, as both private business and the individual citizen stood to benefit from the project. Seizing upon the groundswell of feeling, politically savvy “old court” legislators exploited the overlapping interests of the state’s various constituents. Drawing votes from the “new court” contingent that overwhelmingly supported the canal project while additionally securing the votes of “old court” and private business supporter, the introduction of a bill chartering a private canal company succeeded. Two days later, on January 12, 1825, the Governor of Kentucky signed the bill into law. With great skill, Kentucky politicians supporting private enterprise secured the privatization of canal construction at the Falls. It was in the wake of such patriotic rhetoric and boosterism for canal construction and political conflict that the General Assembly of the Commonwealth of Kentucky introduced legislation, in 1825, chartering a new canal company, the

¹²⁵ Ibid.
Louisville and Portland Canal Company. With the charter’s passage, realization of the economic potential and current limitation of the region echoed from Congress. Before Congress in 1835, Representative Patrick H. Pope of Kentucky addressed the circumstances that surrounded the situation. Pope asserted the Kentucky legislature and the state’s citizens “were aware that there was no surplus of local capital, and it was to tempt employment of foreign means in the undertaking.”

Despite the controversial means by which the Louisville and Portland Canal Company came into being, general optimism surrounded the venture. Illustrating its positive view, the Kentucky legislature chartered the canal company with initial stock of $600,000, with each share at $100. While the $600,000 in stock provided the company with initial capital, the funding fell short of the necessary amount needed for the canal. As such, the shortfall set the stage for the private company to seek additional funding from the national government. In other words, the financial construction of the charter illustrated a commitment from the citizens and government of Kentucky while also presenting to the national government the clear limitations of its abilities to act solely on behalf of its own citizens. In retrospectively commenting on the chartering process of the canal company in 1851, Salmon P. Chase reported, “This was undoubtedly the best mode of improvement that could have been resorted to, at the time.”

Showing support for the project, the Kentucky legislation set forth a rather liberal charter for the canal company. Under the incorporating charter, the canal company’s

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management “consisted of a president and four other directors chosen annually by the stockholders.”¹²⁹ In addition to the initial stock capitalization, the charter provided the authority to the president and directors to secure other funding as desired. The state of Kentucky reserved only one significant regulatory oversight pertaining to the Louisville and Portland Canal and the canal’s company. The initial charter established basic toll rates for the canal at twenty cents a ton. However, the charter also provided the canal company with the ability to raise the tolls if the “annual profits after operating expenses, repairs, and improvements, should fall short of 12 ½ per cent of the capital.”¹³⁰ With a responsive eye toward the effects of water tolls on citizens and commercial interests, the charter also provided the Kentucky legislature with the reserved right to “reduce the toll if the profits exceeded 18 per cent.”¹³¹

By the 1820’s the majority of the land around the Kentucky side of the Falls of the Ohio rested in private ownership. Seeking to secure the completion of the canal and limit conflicts in securing land important to the canal’s construction, the charter also provided the use of eminent domain to seize the land.¹³² Eminent domain rises from an agreement between citizens and their government that it is government’s responsibility to use society’s resources to the benefit of the whole of society. In the instance of eminent domain, the governed convey to the government the power to “take, or authorize others to take, private property for the common good provided that just compensation is paid for

¹³⁰ Ibid
¹³¹ Ibid.
¹³² Louisville and Portland Canal Company, Charter: An Act to Incorporate the Louisville and Portland Canal Company (Louisville: S. Penn, 1825).
it.” In this manner, the use of eminent domain assisted in defining the role of a responsive democratic government as it sought to serve the needs of its citizens as a whole. As a result, the conveyance of eminent domain to the canal company expedited the process of canal construction to the benefit of the whole of society and conveyed a clear understanding of the improvement’s significance to the Ohio River region.

However, the seemingly extraordinary conveyance of the power of eminent domain to a private company exposed the company to potential misuse and public skepticism. Nonetheless, the conveyance of eminent domain to the canal company provided the directors of the company with a powerful economic tool. Subsequent legislative and legal action limited the company’s power of eminent domain through requiring independent appraisals of lands seized.

Outside of the ability to act on toll charges and conveying the power of eminent domain, the Kentucky legislature sought to limit decision-making oversight while hopefully creating an environment that encouraged private investment and development.

In general, the state government attempted the construction of a charter that held the private company to assisting economic development of the Falls and the Ohio River while allowing the canal company the autonomy to conduct themselves as a truly private company. In fact, outside of the regulation of tolls based on the private company’s profits

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133 Gilbert Law Summaries (1997), s. v. “Eminent domain.” Gilbert Law Summaries provided the following definition of eminent domain, “A government’s power to take, or authorize others to take, private property for the common good provided that just compensation is paid for it. In theory, the sovereign has superior dominion over all land, and its “owner” holds it medially or immediately and must surrender it when the sovereign reasserts its dominion over it.”

134 Johnson and Parrish, Triumph at the Falls, 30.
and expense reports, little governmental discussion over initial construction decisions surfaced.

Conversely, excluding the passage of the canal company charter, the legislature also provided little economic assistance. Summarizing the state’s involvement in the Louisville and Portland Canal, Trescott concluded, “No other limitations were placed on the valuable privilege granted the company… There was no time limit on the charter, no provision for subsequent purchase or participation by the state.”\textsuperscript{135} While the practice of land grants and economic aid existed in other projects emerging in the Early Republic, the incorporating charter of the Louisville and Portland Canal Company provided nothing more to the stockholders than potential future stock profits.\textsuperscript{136}

\textbf{The Business of Canal Construction}

Unsurprisingly, the charter members of the canal company represented a roll call of prominent Louisville residents. The charter members strongly represented the commercial and local and state governmental interests as city trustees, a state legislator, bank owners, and marine insurance agents highlighted the company’s list.\textsuperscript{137}

\textsuperscript{135} Trescott, “The Louisville and Portland Canal Company, 1824-1874,” 690.

\textsuperscript{136} One such significant improvement project of the era was the Erie Canal. To the East, connecting the Eastern seaboard with the Great Lakes and the inland reaches of the New England area, the Erie Canal scene emerged. Focused on creating economic markets with agricultural goods, the planners of the Erie Canal sought out numerous additional funding sources that included state, federal, local, and private. These sources provided land, eased restrictive laws, invested with personal and public finances, and collectively vested themselves into seeing through the successful completion of the Erie Canal. For more details on the Erie Canal from idea to reality see: Carol Sheriff, \textit{The Artificial River: The Erie Canal and the Paradox of Progress, 1817-1862} (New York: Hill and Wang, 1996).

\textsuperscript{137} The charter members included attorneys James Guthrie and Charles Thurston, John Jacob, William Vernon, and Isaac Thom served as Louisville bank directors, Shippingport civic leaders Nicholas Berthoud and John Colmesnil, Revolutionary War soldier and city trustee Robert Breckenridge, Jefferson County clerk Worden Pope, Louisville port warden Simeon Goodwin, Louisville’s branch president of the Bank of the United States James Hughes, and noted citizens Samuel Churchill, James Brown, James Overstreet, and Daniel Fetter.
Undoubtedly, the establishment of local citizens as charter members of the canal company provided a vested interest in the canal company’s success. The strategy seemed to work as the members almost instantly sold their first thousand shares of company stock. Particularly innovative, the members initiated a payment plan for the purchasing of company stock. Specifically, the company required only ten dollars of the one hundred dollar share price at the time of purchase with the remaining ninety dollars due in ten-dollar quarterly payments. The installment price plan lowered the initial costs required to buy into the canal company and made easy installment payments more palatable to a region still crawling out of the aftermath of the financial crisis. The strategy met great success and allowed the company to sell more than a thousand shares by March 1825, with over $350,000 received by March of the following year.  

Additionally, investment from outside the region laid to rest Kentuckians’ concerns of private interests corrupting state and local government. Historians Leland R. Johnson and Charles E. Parrish highlighted the initial external investment in the canal company, “John Shackford of St. Louis became the first major investor, subscribing for 1,000 shares.” Shackford’s ownership of a river warehouse and commission business in St. Louis and his relations to wealthy seafaring family in Portsmouth, New Hampshire exemplified an emerging awareness of the regional and national importance of the Ohio River and improvements upon it. For Shackford and others economic speculators, the

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140 Johnson and Parrish, *Triumph at the Falls*, 30.
investments diversified their financial holdings while also contributing to the rise of regional and national markets.

Other significant investment came by way of Philadelphia. Historian Paul Trescott asserted, “There is considerable evidence that the Bank of the United States, which had its main offices in Philadelphia and a branch in Louisville, served as an informal channel for bringing outside funds into the project.” While a nineteenth century paper trail has not surfaced to concretely document this contention, it is significant to note that leading investors in Philadelphia also held connections to the Bank. On the other hand, charter members of the Louisville and Portland Canal Company also held positions with local banks with charter member James Hughes serving as president of the Louisville branch of the Banks of the United States. \footnote{Johnson and Parrish, \textit{Triumph at the Falls}, 30; Trescott, “The Louisville and Portland Canal Company, 1824-1874, 691.} Regardless of the reality of such connections, for the citizens of Kentucky and the Ohio River region, the investment by outside sources provided needed financial assistance for the development of their region. The investment from external sources also created a vested interest in the outcome of the project and added a measure of stability to the economy of the region.

With local, regional, and national financial investments in the canal’s construction pointing toward a positive outcome, the canal company proceeded with its work. The positive spirit surrounding the canal’s construction paved the way for speculation over the construction timeline consuming little more than $300,000 and lasting no more than one summer. \footnote{With optimism running high, the company directors announced groundbreaking festivities in July 1825. While interests in construction of an}
Indiana side canal faded into history, the Louisville and Portland Canal Company utilized the groundbreaking ceremonies as both pageantry and symbolism. Seizing upon the growing fervor over the national economic importance of improvement projects and the potential economic role of the canal to the citizens of the region, the canal company’s directors invited Dewitt Clinton, governor of New York who navigated the development of the Erie Canal, to Louisville to break ground for the canal. Clinton arrived in Louisville on July 15, 1825, after a whirlwind tour and ceremonial groundbreaking for Ohio’s canal system.143

For DeWitt Clinton, the Erie Canal improved upon the natural wealth of abundance that the region offered. The agricultural hinterlands provided lands ready for settlement and production, the expanding urban centers required agricultural goods to feed growing populations, developing manufacturing required reliable and efficient modes of transportation to acquire necessary raw materials and ship finished goods to consumers. Clinton realized the significance of the developing networks of regional and national markets and sought to secure the interests of New York in the emerging economic transformation. For Clinton, a network of water transportation routes, connecting the eastern seaboard at New York City with the Great Lakes, serving the needs of the numerous markets and their constituents were of the utmost importance for realizing the true untapped potential of nature.144 Clinton captured the canal’s significance in the battle between society and the environment while addressing the

143 Johnson and Parrish, Triumph at the Falls, 31.
Louisville crowd at a banquet. Upon referring to the providence that placed the obstacle comprising the Falls, Clinton proclaimed, it “has also provided great facilities for its removal, and the ingenuity and industry of art, will produce a speedy accomplishment.”

In one natural occurrence, the Falls of the Ohio presented an impediment to the expansion and further development of a society, while also providing society a mechanism for social, political, and economic development.

Despite the positive speculation and ceremonious groundbreaking, one historian referred to it as “pathetically over-optimistic.” In reality, the construction of the Louisville and Portland Canal fell victim to numerous complications. Work began in March 1826, with more modest goals of completion in two years. Initial construction and digging work reaffirmed Brooke’s turn of the century surveys. While construction on the Kentucky side might limit exposure from downriver current, debris, and ice damage, the hardened bedrock greatly complicated and slowed digging and raised the overall costs of construction.

Environmental challenges did more than slow construction and postpone the eventual opening of the canal. The euphoric proclamations of an early completion created unrealistic expectations for shareholders, citizens, and river users. When news of environmental delays struck, shareholders confidence and public opinions soured. The effects of disappointed shareholders and investors left the canal company reeling,

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144 For one of the newer examinations on the political life and historical significance of DeWitt Clinton and his vision for internal improvements see: Evan Cornog, The Birth of Empire: DeWitt Clinton and the American Experience, 1769-1828 (New York: Oxford University Press, 1998).
145 Johnson and Parrish, Triumph at the Falls, 31.
147 Ibid.
ultimately the company admitted to the loss of $160,000 in pledges through individual defaults by the end of 1826. After reviewing the company’s stockholders lists, Trescott contended that the shares defaulted comprised “people in the locality who were best aware of the difficulties.”148 Lacking local public financial support, the company found itself with a canal project behind construction timelines and facing significant financial shortfalls needed to get the project back on track and see it to completion.

National Government Becomes a Stockholder in Canal Development

With initial public financial support dwindling and construction falling behind, the canal company sought other avenues for securing the necessary construction and operation funds. The financial crisis that hit the region and the nation in the years after the War of 1812 faded into memory as the 1820’s went on. The ensuing years held witness to the rapid development of agricultural production and regional population in the Ohio Valley region. Subsequently, with the region’s development its importance to the nation grew. By 1826, the completion of a canal around the Falls of the Ohio River became a necessary improvement for the advancement of the region and the nation. For a canal company in dire need of an infusion of capital, the regional and national importance of the canal played to their advantage.

If there was a good time for financial problems, the canal company found itself there. With the emerging regional and national importance of improvements growing, the canal company found heightened interests before the national government. In March 1825, John Quincy Adams ascended to the Presidency and brought a longstanding

148 Ibid.
nationalistic political belief as a member of the Federalists, Democratic-Republicans, National Republican, and Whig parties. He also firmly ensconced himself within social efforts of improvement and modernization calling for the abolition of slavery, and educational reform. Complimenting his stances on improvement and nationalism, Adams selected Kentuckian Henry Clay as his Secretary of State. Clay’s reputation as a skillful orator, statesman, and his role in the United States Senate and House of Representatives earned him the nicknames, “The Great Compromiser,” and “The Great Pacifier” while bringing together opposing sides. Strongly rooted in Alexander Hamilton’s American School of Economics, Clay advocated modernizing much of the nation’s economy. Through tariffs to protect and encourage industry, the establishment of a national bank, and internal improvements such as canals, river improvements, railroads, and ports, Clay contended the nation would prosper and successfully compete against international interests. In the wake of Adams’ own contributions to the Monroe Doctrine, Clay’s views of economic modernity backed up the strong words of warning the doctrine issued. With Adams, Clay, and others rising to the highest levels of national political power, market oriented public works project, met with increased interest from

149 For more information pertaining to the political life of John Quincy Adams, see; Bennett Champ Clark, John Quincy Adams (Boston: Little, Brown, and Company, 1933).
150 Scholarship provides evidence that the 1824 election resulted in significant political maneuvering as none of the presidential candidates (Adams, Clay, and Jackson) secured enough electoral votes. The resulting bargain between Adams and Clay provided Adams with the majority of the electoral votes and Clay accepted Adams’ appointment of Clay as Secretary of State. For a greater detailed discussion of the “Corrupt Bargain” see: Robert V. Remini, Henry Clay: Statesman for the Union (New York: W. W. Norton & Company, 1991), 251-272.
151 Remini, Henry Clay, 210-233.
152 While serving as Secretary of State under James Monroe, Adams spent considerable energy formulating the basis of what would become the Monroe Doctrine. The doctrine, issued in 1823, stated that European powers were to no longer colonize or interfere with the newly formed United States, with any European activities in violation signaling acts of aggression with the United States responding accordingly.
Washington, D.C. For the shareholders of the Louisville and Portland Canal Company, the transition to a political ideology supportive of improvement projects proved more than timely.

With the political climate leaning towards economic support of improvement projects, the directors of the Louisville and Portland Canal appealed to Congress for financial assistance in bringing the canal to completion. The growing awareness of the importance of the Ohio River in commerce brought the plight of the canal company to the public and those plying their wares on in the river’s commerce provided the political incentive for Congress to act. Positively responding to the needs of its constituents in May of 1826, Congress, undoubtedly aided by the political skills of Clay, voted to purchase $100,000 shares of company stock. The purchase provided the company with vital financial resources while also creating a unique situation.153

With the stock purchase, the national government became a shareholder in the private canal company chartered under the laws of the Commonwealth of Kentucky. In this manner, the national government found itself in a most complicated situation of assisting the public good while using the nation’s economic resources to buy into a private company. However, these competing and concurrent roles often found the national government’s actions at odds over the ensuing years. While the government sought to assist development for the region and the nation, the private company’s first responsibility rested with profit for its shareholders. As a result, the government found
itself with a vested interest in the completion and economically successful operation of the Louisville and Portland Canal.\textsuperscript{154}

Although the purchase of canal company stock by the national government held great significance and conveyed positive governmental support, the reality of the situation after the 1826 stock purchase remained relatively unchanged. Last minute changes in the canal’s channel complicated construction decisions and placed the project even further behind deadline. Further complicating matters, nature stepped in to delay construction efforts once contractors mobilized. Almost endless stretches of water met the contractors at the construction site in March 1826. Severe seasonal flooding swallowed the adjacent lands and swamped much of Louisville. While the city’s streets became thoroughfares for water vessels, the canal site remained submerged beneath the surging waters. Although the canal company directors quickly addressed the situation with claims that an earthen levy on the south side of the canal would eliminate future concerns, the flood damage extended to subcontractors and investors. As some contract partners sold their stakes in the project, workers lined up for the project also scattered. While the canal company secured many workers from the Erie Canal project, the uncertainty created by the flooding, rumors of disease, and the numerous other improvement projects springing up proved to be the impetus for laborer exodus and further delayed construction.\textsuperscript{155}

\textsuperscript{154} I would be remiss if I did not acknowledge the significance of this statement in light of the federal government’s current (2008-2009) financial “bail-outs” placing the government in the role of shareholder of private companies while utilizing taxpayer money. The conditions place the federal government acting upon the greater needs of society, financial stability, while directly contributing to investing in often financially ill-situated companies, often in direct contrast to the needs of society.

\textsuperscript{155} Johnson and Parrish, \textit{Triumph at the Falls}, 39-40.
With pressure from competing canal projects, commercial interests, and the region’s citizens mounting, the canal company sought avenues to get the project back on track. Before the flooding in early 1826, the canal company directors and contractors sought out individuals with prior experience with the hopes that it would translate to successful construction of the Louisville and Portland Canal. Specifically, the contractors turned toward workers with experience in the Erie Canal. However, while a few laborers undoubtedly made their way to Louisville and the canal, the contractors found the task difficult to accomplish as numerous factors worked against them. Chiefly, many laborers avoided the project in the wake of 1826 flooding for fear of disease. Rumors, fueled by newspaper reports throughout the region, spread word “that the first workers were afflicted by smallpox and other diseases.”

Low wages, especially in light of disease rampant rumors, also made it difficult for contractors to attract quality workers to the project. As a result, the contractors raised their proposed wages from eight dollars per month to ten dollars a month. While this attracted a few workers, the increase lacked the needed appeal to fill out the workforce. Ultimately, the contractors increased pay to twelve dollars per month “plus lodging and all the wholesome food and whiskey the workers could consume.”

Countering any notions of dragging work out, the contractors also instituted extra incentives for drillers by offering pay per inch drilled. For skilled drillers, such an incentive surely seemed enticing.

Attempts at luring experienced individuals to the canal project did not stop with laborers. By early 1828, the company found itself with construction on the canal less than

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156 Ibid, 40.
157 Ibid.
half-completed and increasing conflict with contractors and subcontractors. At the center of the conflict, workers, contractors, and subcontractors claimed the canal company owed back wages and expenses. Regardless of the validity of the claims, the conflict highlighted the precarious situation surrounding the canal company’s finances. In response, the company directors turned toward the tried and true methods to get the improvement project back on course and looked to Canvass White. White, from Philadelphia, held the significance of being one of the nation’s leading canal experts with experience on the Erie, Delaware, Raritan, and Union canals. Despite offering to appoint White the Chief Engineer of the project, White’s health precluded him from serving in such an active role. However, White “visited Louisville several time to give technical advice” ranging from recalculation of work completed to revision in lockgate designs. Despite the efforts of the canal company’s directors to bring in leading national canal experts, by the end of 1828 the canal around the Falls of the Ohio River remained incomplete.\textsuperscript{158}

The early months of 1829 opened to increasing financial difficulties for the canal company. Within the first months of the new year, the canal company called in all remaining pledges for stock shares purchases and consumed nearly all its available finances. With a vested interest in seeing a successful completion of the canal, both the Kentucky legislature and Congress acted with assistance for the company. Upon determining that work could not be completed without additional resources, the State of Kentucky passed legislation amending the canal company’s charter by increasing the

capital stock by one thousand shares while also authorizing the company directors to
borrow money. Due to difficulties in 1826 and 1829, mostly over flooding and lack of
workforce, the canal company also found itself with numerous forfeited shares in the
company.\footnote{159 Trescott, “The Louisville and Portland Canal Company, 1824-1874, 692; Report Relative to the
Purchase of Individual Stock in the Louisville and Portland Canal Company (H. R. Doc. No. 66, 28 Cong.,
} Although the Kentucky legislature acted swiftly to increase the capital stock
of the canal company, with numerous shares already in forfeiture the state authorized
increase provided little to no relief for the company.

While the state legislature sought to extend mechanisms to the private canal
company, the increase in capital stock proved ineffective with few potential shareholders
in the general public willing or able to purchase the stock. Like Kentucky that held a
vested interest, that of the benefit of its citizens, in the completion of the improvement
project, the national government also held a vested interest in the project on behalf of the
betterment of the nation’s citizens. While the national government previously came to
the aid of the canal company by purchasing shares that provided a necessary influx of
money, the canal company found itself in familiar territory, again lacking the needed
funds to complete the canal’s construction. This time around, the national government
found its commitment to the project’s completion two-fold. On one hand, the same
commitment to assisting the improvement of the nation’s citizens and society remained a
steadfast rationale for investing in the canal company. On the other hand, the national
government found itself as a stakeholder in the private company using money entrusted to
the national government by the nation’s citizens. As such, thousands of citizens’ dollars
remained at risk in the possible failure of the canal company. In this manner, whether the
national government remained convinced any true merits of the canal remained largely irrelevant. The only hope of recovering the citizen’s investment in the Louisville and Portland Canal Company rested with exercising governmental authority for further investment in the canal company. As such, in March 1829, Congress authorized the purchase of forfeited canal company shares totaling $133,500, comprising the increased capital stock authorized by the Kentucky legislature.\textsuperscript{160}

**Reversal of National Politics and Improvement**

With Congressional approval for the purchase of the forfeited, stock in hand, the canal company directors expeditiously awarded new contracts totaling $150,000 for the completion of the canal. Unfortunately, the quick response by the Kentucky legislature, Congress, and the canal company directors came to naught. The old Adams and Clay national political alliance supporting internal improvement project and other mechanism of economic development fell under attack. The culmination of the national political shift resulted in the election of Andrew Jackson. To Jackson, defeating the Adams administration served as a repudiation of ever-increasing corrupting powers of private interest in government. Whether as an act of retribution or of political ideology, President Jackson rarely allowed a bill supporting internal improvements of transportation to cross his desk without vetoing it. When the legislation authorizing the

\textsuperscript{160} Trescott, “The Louisville and Portland Canal Company, 1824-1874, 692; “An Act to Authorize a subscription for stock the part of the United States, in the Louisville and Portland Canal Company,” *Statutes at Large*, 20\textsuperscript{th} Cong., 2\textsuperscript{nd} Sess. (1829), 353; Chase, *Improvement of the Falls of the Ohio*, 7.
purchase of the forfeited Louisville and Portland Canal Company arrived on Jackson’s desk he refused to sign it.\footnote{Johnson and Parrish, \textit{Triumph at the Falls}, 53.}

Jackson’s refusal to sign into law the authorization of forfeited canal company stock highlighted the national conflict over competing ideologies of a positive government. While Adams and Clay sought to develop and strengthen a national government and serve all the nation’s citizens through legislation aimed at mechanisms that facilitated economic and social growth, Jackson saw the centralization of power within a national government to be the manifestation of corrupting influences and opened the door to regional, sectional, and individual interests. To this end, Jackson thought it irresponsible for the national government to find itself wrapped in matters of state governments or private companies. In Jackson’s estimation, congressional authorization of the forfeited canal company stock entangled the national government with state government and private company matters. Further, because the Kentucky legislature conveyed the rights to charge tolls on the canal to a private company, Jackson felt it was improper for the national government to utilize the authority and finances entrusted to it by the citizens of the country to assist private company development. Historians Leland R. Johnson and Charles E. Parrish captured Jackson’s thoughts in summarizing his veto response to Congress, “The power which General Government would acquire within the several States by becoming the principal stockholder in corporations… and giving a proportionate vote in all their elections, is… in my view dangerous to the liberties of the people.”\footnote{Ibid, 53; Trescott, “The Louisville and Portland Canal Company, 1824-1874,” 692-693.} Although President Jackson’s veto staved off further investment in the
Louisville and Portland Canal Company for the time being, it did little to remove the finances already extended by the national government. As such, the financial investment of the citizens of the United States, via the national government, remained tied to the success or failure of the canal company.

The news of a presidential veto shocked the canal company directors and left them scrambling to keep the company and the construction project alive. While the presidential veto did little to help attract new investors, the company directors ordered a prospectus demonstrating the profitable viability of the company once the canal opened. Additionally, with prior attempts at securing large-scale investors to purchase company stock resulting in mixed success, the canal company directors added a new twist to attracting prospective investors. The company turned to borrowing money from willing lenders with the option of receiving canal company stock as repayment. With prospectus and borrowing approach in hand, the directors again turned to private capitalists to secure the future of the canal. Fortunately, for the canal company, efforts at drawing eastern investors paid off as the prospectus caught the attention of Thomas Hulme.

Hulme, then residing in Philadelphia, made his name in bleaching and coloring fabrics in England. Hulme grew frustrated over English politics, especially confiscatory estate taxes, and immigrated to the United States and arrived in Philadelphia in 1817. Perhaps by providence, Hulme embarked upon a trip down the Ohio River seeking out investment opportunities and consequently became all too well acquainted with the

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obstacles affecting travel on the Ohio River. When the canal company directors arrived in Philadelphia in 1829 seeking investors, Hulme, with intimate knowledge of the obstacle facing river transportation at the Falls, jumped at the opportunity. Employing their new strategy to make the canal company a viable investment opportunity, the directors appealed to Hulme for a loan of $100,000 rather than purchasing company stock in installments. The immediate infusion of capital allowed the canal company more maneuverability in dealing with contractors and resuming the canal’s construction. In exchange for the loan, the directors offered Hulme the opportunity to accept repayment in the form of company stock, if he preferred. Additionally, the directors sweetened their offer by appointing Hulme a director in the canal company. To the canal company, the investment of money by Hulme created a vested interest—only as long as he remained unpaid—if he chose repayment rather than stock. Enticing Hulme to opt for repayment in stock concretely vested him not only in the short-term completion of the canal but also the continued fortunes of the company once the canal opened for business. Hulme agreed to loan the canal company to $100,000 in cash, equaling approximately a thousand shares, and accepted appointment as one of the company’s directors. The transaction and subsequent repayment in company stock resulted in Hulme becoming the largest investor in the company. With the much-needed money in hand, the directors refocused their efforts on construction with excavating resuming in early 1830.\textsuperscript{165}

\textsuperscript{164} Upon arriving in the Untied States Hulme also befriended Henry Clay and undoubtedly held common the importance of internal improvements in the development of industry and a market economy.\textsuperscript{165} Johnson and Parrish, \textit{Triumph at the Falls}, 53-54; Trescott, “The Louisville and Portland Canal Company, 1824-1874,” 693.
The Operation of a Canal

While the canal lacked finalized construction details, the canal company actually opened in early December 1830, complying with the original charter legislation requiring the canal’s completion no later than January 1831. The canal lay two miles long with three locks. The bottom of the canal channel lay over one hundred feet from the top of the levees, with the tops of the levees spanning two hundred feet of water. The canal’s significance was not lost on the nation, as it was “the first major improvement to be successfully completed on the great central river system of the United States.”

Situating the importance of the canal within the national context, Trescott wrote, “By comparison with the Erie Canal and other eastern projects, is was gigantic in dimensions – ‘having a capacity equal to that of 25 common canals’ – and became a cynosure of tourist interest.” The size and the scope of the canal reflected the growing reliance upon water commerce and the resulting increase in both vessel size and cargo and in vessel quantity plying the Ohio River. To the people of the Ohio Valley region, specifically Louisville and Kentucky, the canal represented the ingenuity of society, positive government, private economic investment, and the improvement of nature to more accurately reflect modernity.

Despite the addition of Hulme and his financial resources, Trescott maintained, “This sum was sufficient to get the canal opened in December, 1830, but it was still unfinished and the company had to borrow more money in 1831.” The Kentucky legislature passed legislation approving an unlimited increase in capital stock on the basis

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167 Ibid.
that the sale of additional stock went toward any remaining completions needed on the canal in addition to payments of interest on outstanding loans. Attempting to get its financial matters in order, the canal company found itself $190,000 in debt but with an operating canal in 1831. However, even the most skeptical now admitted that the company stood to make a healthy sum with the canal in operation. As such, most of the creditors responded more than willingly to the company’s offer of payment in the form of stock shares in the Louisville and Portland Canal Company. So positive was the response that of the $190,000 outstanding debt, the company settled $172,000 with payment of shares. Not to be forgotten, with the completion and opening of the canal, the national government held $290,000 in capital stock of the privately held canal company.\footnote{Ibid.}

**Corruption of Public Good for Private Gain or Economic Reality?**

Despite the proliferation of traffic on the Ohio River during the antebellum era, the opening of the Louisville and Portland Canal did little to reduce the already steadily dropping costs of transporting commerce on the Ohio River and Mississippi River networks. For those transporting goods on the Ohio, hopes of cost savings with opening of the canal at Louisville proved unfounded. The savings resulting from no longer needing to portage goods around the Falls now filled the coffers of the canal company as those hauling freight now paid toll for passage through the safer canal route. While the canal removed much of the volatility of the Falls, little savings materialized with the canal’s creation. Further, although the proclamations of greatness at the opening of the canal heralded a new era of commerce on the Ohio River, almost immediately the canal
company began fielding complaints concerning the restrictive size of the canal when compared to the ever-growing size of transportation vessels. The complaints would set off a continual battle throughout the nineteenth century between advances in water vessel technologies that allowed greater shipping volumes and cost effective expansions and revision to the canal addressing the changes. Specifically, as the canal company adjusted toll rates to cover improvements to the canals, shippers sought to move greater volumes through the canal at a given time to offset the toll rate increases.

Admittedly, profitability arising from tolls remained elusive in the first years of operation. However, the company thereafter began realizing a significant profit such that by 1837 the company raised toll rates from twenty cents to sixty cents per ton. By 1839, the canal hit full stride with 300,000 tons of boats, people, and goods passing through the canal. Although dramatically rising profits reassumed shareholders, commercial transporters utilizing the canal found the tolls unrealistically high and ever on the rise. In 1833, boats passing through the canal paid forty dollars on average. Only five years later in 1838, using the canal cost nearly double. Despite the realization of profits, the canal company found itself returning to its stockholders less than eight percent per year on their stock.\(^{170}\)

For commercial shippers invested heavily in water transportation and the Ohio River, profits to the stockholders meant little. The rapidly increasing toll costs combined with the increasing costs of changing technologies hurt their bottom line. Responding to the increased toll costs, commercial shippers remained on the lookout for more efficient

\(^{169}\) Ibid.
and most importantly cheaper means of bypassing the Falls and the canal with some reversioning back to portaging goods around the Falls. While on the watch for cheaper alternatives for transporting goods, the growing commitment to water commerce placed added burden to those plying the rivers. As such, those heavily involved in utilizing the Louisville and Portland Canal and forced into paying tolls petitioned the national government for relief. Referring to the significance of the canal and its controlling private company, Salmon P. Chase declared, “they were in possession of a completed Canal – the lock and key of communication between the Upper and Lower Ohio.”

Concerns over the centralizing power resulting from private control of the canal continued to grow. The Kentucky legislature echoed the petitions of commercial interests by calling upon the national government to take over controlling interest in the canal. Underscoring the heightened tensions over the matter, reports of current stockholders willing to sell their shares, at reasonable rates, to the national government surfaced. In part, the stockholders stood to lose if the national government took over the canal without purchasing their stock. Additionally, stockholder attentive to their finances feared renewed interests from competing states and private companies seeking to resurrect canal construction on the Indiana side of the Falls. In the end, if the national government took over the canal without reimbursing them, or the canal on the Indiana side materialized, the stockholders of the Louisville and Portland Canal Company stood to suffer significant losses to their investments.

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In June 1836, the United States Senate passed a bill endorsing a buyout of the private stockholders of the canal company with the hope of limiting, if not removing, tolls at the canal. Despite the intention of the Senate to respond to the petitions concerning tolls, the bill died in the House of Representatives. The death of the bill resulted from a coalition of seemingly unlikely cohorts. Although individuals petitioned the national government for relief, not all petitioners purely represented the ideas of holistic public good. Old tricks died hard as the growing concerns over tolls at the Louisville and Portland Canal developed. Regional, state, and private interests again revived the idea of an Indiana side canal. In fact, the Indiana legislature only shortly before the introduction of the Senate bill enacted legislation chartering a new canal company. As such, the most significant concerns arose from Indiana interests. As the coalition for the construction of an Indiana side canal pandered to those involved in river commerce for support, they also joined in petitioning Congress. Reviving the old competing interests, the Indiana contingent fought the idea of national government buyout limiting their ability to construct and operate a competitive canal on their side [the North side] of the Falls.

In addition to the Indiana contingent, opposition concerned with the constitutionality of Congress’ actions surfaced. In part, this group echoed the stance argued by Jackson concerning the role of the national government in private business. More significant to the group, however, was the perceived invasion of state rights by authorizing the purchase of a private company with finances given to the national treasury by all the states. In their minds, such actions by the national government offered no clear advantage to states not connected with the Ohio River system and, above all, rested
outside of constitutional authority. Further, they argued, even if the actions proved constitutional, the future operation of the canal by the national government would undoubtedly be less efficient than under private control.¹⁷³

While the coalition in opposition to the national government further funding the canal company ultimately was triumphant in defeating the bill, the increasing outcries against canal tolls at the Falls signaled a shift in public opinion. During the formative years of the region, when its population needed improvements at the Falls to assist expansion and development, the region’s population supported the construction of the canal. However, desires and needs changed with a canal in operation. For commercial and individual interests alike, the operation of the canal and collection of tolls by private entities became both a symbolic and a real restriction to free flowing river commerce and communication. For citizens of the adjacent state of Indiana, chartering the canal under Kentucky jurisdiction provided little benefit for either economic or social development. For citizens and surrounding states, with a privately operated canal in operation, the promise of river improvement for water transportation and regional development now symbolized the restrictive accumulation of power by private capitalists.

The canal presented obstacles for those involved in commercial endeavors on the river also. Changes in shipping and boat technologies put larger boats on the waterway. Unable to match the pace of technological change, the canal became restrictive with many

¹⁷³ Numerous memorials appeared before Congress prior to the full purchase of the canal by the national government. Usually arising from individuals, states, and municipalities located along the Ohio River and its commercial tributaries among others, the following petitions arrived before Congress:

Memorial of Sundry Inhabitants of Pennsylvania (Senate Doc. No. 11, 22nd Cong., 2nd Sess. [1832];
Memorial of Sundry Inhabitants of St Louis (Senate Doc. No. 5, 24, 26, 31, 43, 23 Cong., 2nd Sess. [1832];
Memorial of Sundry Inhabitants of Cincinnati, & C (Senate Doc. No. 6, 23rd Cong., 1st Sess. [1833].
ships reverting to offloading cargo into Louisville and bypassing usage of the canal. For the shippers, the canal no longer fit their needs as the canal’s size restrictions forced them to decide between relying on smaller ships to fit through the canal or bigger ships with the prospect of offloading at Louisville and bypassing the canal altogether. No matter the decision made, the canal left commercial interests on the river paying more in tolls or more for the portaging of goods around the canal. It was with these negative aspects in mind that the petitions reached the floor of Congress and soundly defeated the funding bill.

Growing opposition, coming from all corners, to the privately held canal signaled a shift in the Ohio Valley region and the nation’s perception of the purpose and usage of the canal. With the canal seemingly representing an obstacle to economic and societal development, the company directors displayed an astute awareness of the changing climate. As financial investors, the directors realized that construction of a competing canal stood to inflict financial damage. The opening of an opposing canal held the promise of toll competition between the two canal companies that would lower the profits of the Louisville and Portland Canal Company. Further, the construction of a competing canal provided the opportunity for the integration of new technologies in canal operation as well as modifying canal size while directly addressing the growing concerns over the limiting size of the Louisville and Portland Canal. The result of such adaptation stood to indisputably drive business away from the Kentucky chartered canal company.¹⁷⁴

¹⁷⁴ Chase, Improvement of the Falls of the Ohio, 8-9.
The growing sentiment against the tolls on the Portland and Louisville Canal amongst the region’s citizens echoed the political shift occurring on the national stage. President Jackson implemented his ideology of the role of government through vetoing the appropriation of national government finances supporting private companies. Jackson, using veto power, sought to limit those seeking to utilize the government to funnel resources and authority to private business. To Jackson and likeminded politicians, the Northwest Ordinance of 1787 promised to make the nation’s waterways free of tolls.\footnote{Jackson stance on Canal represented his larger ideology on checking national government power and the regional and booster interests. Vetoing such internal improvements as the extension of the National Road in 1830 on the grounds it provided little to society on the national level, Jackson called the proposed expenditure an imprudent use of money. In addressing Jackson’s stance on federal authority over internal improvement projects, Historian Robert V. Remini contended Jackson’s veto “stopped just short of denying federal power over internal improvements. It did… affirm the right of Congress to appropriate money for defense and other national interests.” For further discussion of Andrew Jackson’s thoughts on federal authority and internal improvements, see: Robert V. Remini, \textit{Andrew Jackson} (New York: Harper & Row, 1966), 95, 99, 100, 107, 126, 186.; Extolling the virtues and freedoms outlined in the Northwest Ordinance on the riverways and lands North-West of the Ohio River, Salmon P. Chase addressed a crowd of interested Louisville locals about matter of the canal in 1851. Speaking directly to the point of tolls on the Ohio River, Chase stated to applause, “All this is charged upon the commerce of the river – that river, let it be borne in mind, whose navigable waters, were by the ordinance of ’87, declared common highways and forever free, without any tax, impost or duty.” See: Chase, \textit{Improvement of the Falls of the Ohio}, 9.} The enforcement of such tolls on the waterways only inhibited expansion, development, and utilization of the waterway. While the Kentucky legislature broke from this spirit in conveying the authority to place tolls upon the users of the canal to the private company as an enticement for the canal’s construction, by the 1840’s the authority to charge tolls to the Ohio River and Louisville and Portland Canal users increasingly served only the interests of the private company. To this end, the region, nation, and Ohio River users stood ready for the removal of toll charges at the canal.

Despite the general readiness, by all but a few investors, to remove tolls at the Louisville and Portland Canal, the private company status provided the directors with the
legal authority to enforce the tolls. However, while the directors of the canal company proceeded with operation of the canal, individual investors developed a strategy to neutralize the numerous opposition forces and at the same time return a profit on their investments in the canal. Primarily, the company appealed to the Kentucky legislature in a memorial expressing their concerns over calls by Indiana and others interests for the national government to offer a remedy by building a competing canal.\textsuperscript{176} The canal company did not completely disagree with the injurious petitions by others. Specifically, in presenting the memorial to the Kentucky legislature, the canal company wished to show that it was most interested in seeing the waterway eventually rendered free from tolls. However, the company faced ruin and inability to pay its shareholders in the event that Congress or any other governmental authority incorporated a new canal company at the Falls.

Sensing the shift concerning public support of private improvement projects and the door closing to national government investment, the investors proposed a remedy to the Kentucky legislature. To correct the situation, the company devised a plan to “avert all competition by a disposition of their stock, which promised to make the Canal ultimately free and at the same time to secure to the stockholders ample return.”\textsuperscript{177} The consolidation of stock into the hands of fewer and fewer shareholders relieved many of their commitments to the canal company while easing the complicated process by which the government moved toward sole ownership of the canal. While the altruistic plan to


\textsuperscript{177} \textit{A Bill to Provide for the Completion of the Louisville and Portland Canal Around the Falls of the Ohio River at Louisville, Kentucky} (House Misc. Doc. No. 83,40\textsuperscript{th} Cong., 2\textsuperscript{nd} Sess. [1868].
free the canal, and subsequently the Ohio River, from the shackles of tolls served the
good of the society, the investors most certainly held financial motives. Under the
repurchasing plan, only the company directors held the authority for reacquisition of the
capital stock. The company directors held in trust the collected stock until the directors
repurchased all other company stock.

With the Kentucky legislature convinced of the virtues and inevitability of free
passage through the Portland and Louisville Canal, legislation authorizing the company to
apply all yearly profits solely toward the repurchasing of company stock materialized in
January 1842. Although the company sought, and received, the authority from the
Kentucky legislature to buy back company stock at inflated prices rather than paying
dividends, the consolidation of shares into the hands of a few left the few with stronger
bargaining power and greater financial rewards. With the authority of the Kentucky
legislature, the canal company put the plan into action repurchasing only as much
company stock as the net earnings from each year provided.\textsuperscript{178} Significantly, any
involvement or authority arising from the national government remained missing from the
plan and subsequent state legislation amending the canal company charter. As such, the
Kentucky legislature authorized the canal company’s plan to allow the national
government to purchase the canal and remove the tolls without Congressional consent or
intentions of buying the canal. Unfortunately, the canal company directors’ plan did little
to improve conditions for all pleading for governmental relief and removal of the
economic burden of the canal tolls.

\textsuperscript{178} Ibid.
Despite offering no immediate relief from tolls, the canal company continued upon its course of buying back its stock. With favorable economic conditions and traffic through the canal between 1843 and 1855, the company made steady progress toward the stock purchase. The consolidation of the stocks continued until 1855 when the company held in trust all capital stock, excluding one share for each director. The charter incorporating the canal company required each director to own shares in the company as a measure of financial accountability. For others not so protected by the charter, repurchasing of their stock by the canal company left them contemplating the significant loss of potential revenue and illustrated the economic power the canal tolls provided to the company directors while highlighting a fear of governmental oversight. Historian Paul B. Trescott identified one stockholder commenting on the topic in 1854. The former shareholder wrote,

Thus are my individual interests all retired from that company, and I fear I shall never be able to find as good an investment for the money as that has been. And I understand that another year will pay off all the private stockholders, when I suppose the concern will fall into the hands of some democrat pet of the Government, and of course go to the dogs.\textsuperscript{179}

Regardless of the rumination over lost economic opportunities by prior shareholders, the work of reacquiring canal stock consumed thirteen years of company efforts, culminating with the report of the final shares repurchased in 1855. In January 1855, word reached United States Secretary of the Treasury James Guthrie that the canal company finalized the acquisition of the individual shares of stock and held them in trust for the national government to purchase and convert the canal into a publicly held entity
under the authority of the national government. While initial communication from Secretary Guthrie contained a sense that the finalization of the conversion by the national government remained a mere formality, true finalization remained elusive.  

The directors remained in control of the operation and management of the canal while waiting for the government’s buyout of the canal company to obtain approval. On the suggestion of Secretary Guthrie, the canal directors reduced tolls by half, dropping them to twenty-five cents per ton. While the reduction in tolls seemed to calm tensions for the short term, little evidence exists to show any increase in traffic resulting from the reduction. Additionally, Secretary Guthrie sought to address concerns over the operation of the canal by authorizing the company to use surplus revenues for canal improvements and repairs. While the Secretary authorized repairs on the canal, he explicitly directed the directors of the canal company not to undertake any projects aimed at enlarging the canal. 

Secretary Guthrie’s involvement with the canal company seems rather questionable. James Guthrie’s connections to the Louisville and Portland Canal emerged long before his appointment as Secretary of the Treasury. Guthrie numbered among the charter members of the canal company when the Kentucky legislature incorporated the company. Accordingly, Guthrie’s allegiance fell squarely with the Ohio River region, specifically Louisville proper. As an aspiring attorney, Guthrie rose to prominence and 

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180 Ibid, 699-700; A Bill to Provide for the Completion of the Louisville and Portland Canal Around the Falls of the Ohio River at Louisville, Kentucky (House Misc. Doc. No. 83, 40th Cong., 2nd Sess. [1868].
represented Louisville in the state legislature where he supported improvement-friendly legislation and action. During the latter part of the 1820’s and through the 1830’s, Guthrie also served the canal company in a dual role as both a director and company legal counsel and successfully fought off numerous contractor claims against the company prior to 1840. However, by 1850, John Hulme’s self-imposed removal from the canal company left the door open for the ascension of Guthrie to the top position within the canal company.

Guthrie more than adequately filled the position vacated by Hulme. By 1850, Guthrie had risen through the ranks of Louisville elite, becoming the largest landowner in Louisville with over two hundred acres in his possession. With his social ascension gaining statewide notice, Guthrie received word that Kentucky governor Lazarus Powell wished to appoint Guthrie successor to Henry Clay’s Senate seat in 1852. Guthrie declined the appointment despite the prestigious nature of the offer. President Franklin Pierce called upon Guthrie to accept appointment as Secretary of the Treasury in his administration and Guthrie found President Pierce’s offer too good to pass over. Guthrie accepted the offer and placed himself squarely at the center of the Louisville and Portland Canal transfer plan. Guthrie stood to make both significant financial and political gains with the successful navigation of the canal from private ownership to public ownership and operation. For the canal company, and in the most optimistic of eyes, Guthrie’s appointment paved the way for the final realization of safe, and more importantly, free passage through the Falls of the Ohio.

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When the matter of finalizing the transition appeared before the national government in 1853, Secretary Guthrie lacked the authority to finalize the purchase of the canal. As such, Guthrie understandably stopped short of any financial transaction between the national government and the canal company. However, Secretary Guthrie’s actions, on behalf of the national government, ultimately held no legal authority, rendering his suggestions of toll rate reductions and authorizations of canal revenue usage as nothing more than suggestions. Since the national government held capital stock in the company, due to the initial financial assistance under the Adams administration, Secretary Guthrie may have held the authority to represent the national government’s interests in the canal company. Even if this scenario were the case, questions remain over the constitutional origins conveying authority to Secretary Guthrie in representing the national government in the canal company, as no legislation originating from Congress nor any executive order originating from the President currently known details such authority. Despite the perceived questionable constitutionality of Secretary Guthrie’s actions, no significant concerns appeared in the historical record and the citizens and government of Kentucky, surrounding states, and the directors of the canal company seemingly accepted without reservation Secretary Guthrie’s recommendations and directives. As the matter stood in 1853, the canal company found itself holding in trust all company shares, a national government debatably unable or unwilling to purchase the canal company, and tolls still assessed for those using the Louisville and Portland Canal.

Despite Secretary Guthrie’s directives to the canal directors, the national government’s unwillingness to purchase the company left the entity in limbo. Legislation
presented to Congress in 1854 authorizing the President to finalize the purchase and assume control of the canal passed in the Senate but failed in the House of Representatives. The introduction of the bill in 1854 began a repetitive cycle covering the next twenty years before a final resolution completed the transfer of canal ownership.\(^{184}\)

**Treading Water at the Falls**

Despite Secretary Guthrie’s close connections with the Louisville and Portland Canal Company, matters of greater national importance continually pushed the governmental purchase of the canal to the side. While repeated attempts to remedy the canal’s affairs surfaced before Congress, the sectional crisis loomed on the nation’s horizon. While polarizing issues such as slavery, states’ rights, and economics increasingly dominated the national political stage, usage of the Portland and Louisville Canal remained important to commerce on the Ohio River. Although the canal company directors, with the assistance of Secretary Guthrie, sought to complete the transition of the canal to governmental control, the inaction by Congress and the President left the canal directors locked in perpetual uncertainty.

By 1853, the canal directors found the canal falling into great disrepair and further behind the technological curve. With the capital stock repurchase winding down, the canal company began diverting profits toward repairs on the canal. Specifically, Guthrie applied the funds toward repairing “crumbling locks and widening the canal from its restrictive fifty-two foot width.” Examining the effects of the finished repair and

\(^{184}\) Trescott, “The Louisville and Portland Canal Company, 1824-1874,” 700; “Louisville and
widening in 1856, Historians Leland R. Johnson and Charles E. Parrish declared, “Guthrie’s project made the canal a useful adjunct to military logistics during the civil war that followed.”\textsuperscript{185}

Guthrie effectively maneuvered between the role of Secretary of the Treasury and one of the canal company directors and select few remaining shareholders. Using political influence, Secretary Guthrie kept the national government purchase of the canal constantly before the minds of congressmen and the executive branch. At the same time Guthrie served as secretary, he continued serving as one of the directors of the canal company and set forth an agenda to focus on maintaining and upgrading the canal. Guthrie realized allowing the canal to fall into disrepair would worsen the company’s position of attempting to convince the national government to purchase the canal. If the canal fell too far into disrepair, its economic viability greatly diminished. First, to repair the canal to operable standards undoubtedly would require significant investment of citizen’s finances. As trustees of the nation’s finances the national government, Congress and the president might find it much more palatable to abandon the Louisville and Portland Canal for new canal construction. Further, the costs of upgrading the canal for modernizing river transportation technologies grew greater with each passing year that they delayed the upgrades. Without such upgrades, the viability of successful operation of the canal became less appealing.

Additionally significant, with each passing year without governmental purchase of the canal, the overall technological changes in transportation modes held great

\textsuperscript{185} Johnson and Parrish, \textit{Triumph at the Falls}, 91.
consequence. With mid-century approaching, a transformation in support of transportation modes swept westward. More cost effective modes of transportation such as railroads gained more of the nation’s focus. Railroads offered greater flexibility as rail lines required much less site preparation and leveling, allowed multidirectional layouts, promised navigation around significant geographical obstacles with greater ease, and remained accessible even in winter. Encountering natural obstacles such as geographical formations creating barriers to regional, state, and national expansion required greater ingenuity in problem solving on waterways. Addressing similar concerns, railroads offered the option of simply skirting the obstacle. Juxtaposed with railroads, canal construction proved highly inflexible even with modern technological innovations in dredging and construction. Construction of canals through great expanses that lacked waterways proved extremely costly and limited most canal construction to deepening, widening, or temporarily diverting from a current waterway.

Utilizing its authority to assist the canal company and the state’s citizens, the 1857 session of Kentucky legislature amended the canal company’s original charter providing the company with the authority “to construct, with the revenues, and on credit of the corporation, a branch canal sufficient to pass the largest class of steam vessels navigating on the Ohio River.” The actions of the Kentucky legislature provided a greater degree of maneuverability for the canal company in order to provide a canal that met the needs of the region and states river users. While the Kentucky legislature did not provide economic assistance, it provided new avenues of securing needed funding to improve the
canal while not interfering in the canal company’s plan for the national government’s purchase of the canal. Rather, the actions of the Kentucky legislature provided a measure of commitment to assuring the canal’s viability until the national government acted.

Despite the unsuccessful previous attempts at gaining Congressional approval for the purchasing of the canal, Guthrie presented for the consideration of Congress a bill authorizing $500,000 for further construction specifically aimed at building a branch canal and locks to expedite boats passage through the canal in 1857. Once again, Guthrie and the canal company received an unfavorable decision as Congress rejected the request. Illustrating the increasingly vitriolic and partisan nature of politics in the 1850’s, Louisville newspaper editors blamed the bill’s failure on a political coalition from Indiana. The editors specifically placed the blame at the feet of Indiana Free-Soilers and their nominee for president in the 1856 election, John Fremont. Surely, the Louisville editors concerned themselves more with the likelihood of Indiana boosterism and the resulting partisanship favoritism should an Indiana politician rising to the presidency.

In light of growing social, economic, and political tension, Secretary and canal director Guthrie balanced the politics of both roles in maintaining a profitable canal in the midst of growing national transitions away from private ownership of waterway improvements. Maintaining the viability of the Louisville and Portland Canal through the 1850’s proved a significant challenge. While organizing a political majority in favor of finalizing the purchase of the canal remained out of Secretary Guthrie’s grasp, director

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187 Johnson and Parrish, Triumph at the Falls, 103.
Guthrie and the canal company persevered through the allocation of revenues toward canal repairs and improvements. Widening the canal to sixty-five feet and opening two basins for opposing boats to pass each other numbered among the major accomplishments during the 1850’s on the canal. Although the canal company initiated numerous canal revisions, improvements, and upgrades during the 1850’s, technology stayed at least one-step ahead.\textsuperscript{188}

\textbf{Improvement through Political Stalemate}

In May 1860, with the nation caught in the escalating climate of sectional conflict, Congress adopted legislation in favor of the Louisville and Portland Canal Company. Finding itself needing to tread lightly, Congress reaffirmed its support of the canal’s continued operation but did little concerning the purchase of the canal company. The volatility of governmental action carried the baggage of regional, state, and sectional interpretations. With states’ rights supporters outraged over what they perceived as the corrupt use of governmental authority and their opposition likewise concerned, paralysis struck Congress rendering it mostly ineffective in conducting the business of the nation. For the canal company, Congress addressed their concerns by maintaining the status quo. In the joint resolution, Congress took no action pertaining to the governmental purchase and operation of the canal. However, Congress confirmed the viability of the canal by voting for the continuation of the canal company as a private company while pledging its shareholder votes in support of undertaking significant improvements. Further, the joint resolution confirmed the Kentucky legislature’s amendment authorizing the use of

\textsuperscript{188} Ibid, 91-104.
revenues and corporation secured credit for financing the improvements. Despite the positive support lent to the canal company by Congress, additional resolution provisions prohibited the company from pledging the “faith or credit” of the national government and that under no circumstance should the national government be liable for the improvements. Finally, the resolution also required that upon completion of the improvements, the canal company could not collect any tolls in excess of the costs of canal repair and management. Historian Paul Trescott insisted, “The measure assuaged the objections of the economy bloc and appeased the state-rights advocates and the Indiana interests.”

In addition, to appeasing of competing interest groups, the actions by Congress in passing the joint resolution of 1860 signaled a shift in the national government’s involvement in the canal company. While the national government provided financial assistance in the early years of the canal’s construction and operation, government left business decisions to the canal company’s management and directors. While the 1860 joint resolution provided no measures to finalize acquisition of the canal, for the first time in the history of the Louisville and Portland Canal the national government dictated company policy and business plans. Although the transition did not transfer or finalize ownership, the actions of Congress conveyed a quasi-ownership presence through providing directives. Ultimately, the joint resolution formalized the national government’s authority in overseeing the canal company’s management that Secretary


Guthrie exhibited through his concurrently held roles as Secretary of the Treasury and director of the canal company.

The shift in congressional actions of dictating company policy and establishing a quasi-ownership of the canal by the national government provided tense moments for the directors. Although the national government refrained from taking legal control of the canal, by 1860 the consolidation of nearly the entirety of company stock rested in trust while awaiting the government’s purchase. Pointing to the unique nature of the collective, historian Paul B. Trescott wrote, “The federal government owned, in fact if not in law, 99.95 per cent of the stock, while the management, holding the other 0.05 per cent, retained operating control.” As such, the directors found themselves acting on behalf of the best interests of the national government while also acting upon the interests of the stockholders of the private canal company. While the objectives of the two interests often fell into line, the canal directors found themselves with great autonomy with a nation severely divided over sections difference and the outbreak of conflict and war. In fact, so convinced of the inevitable purchase of the canal, the canal directors ceased compiling and submitting their annual reports to the Kentucky legislature and Congress after 1860.

Canal Operation during War

The outbreak of the American Civil War in 1861 brought more of the same for the Louisville and Portland Canal Company. Company directors juggled the need for repairs, maintenance, improvement, and expansion with financial obligations while the national
government largely deferred decision-making of canal matters in favor of focusing on war matters. In the absences of financial assistance or congressional and national governmental involvement, the directors found undertaking any improvements to the canal difficult as the Union threw intensive efforts behind winning the war. With commercial traffic slowed in the first year of war, the canal company faced the necessity of raising tolls to fifty cents per ton despite the directive from Congress restricting the increase in tolls. Again, the canal company directors pointed to the lack of action in purchasing the company stock held in trust. Until the canal company received payment for the stock held in trust on the government’s behalf, they were under no legal obligation to abide by the directive. Initial increases in tolls temporarily relieved the financial strain of undertaking the improvements. However, by 1863 and 1864, the financial situation worsened, reflecting the deepening wartime financial problems.

By 1866, the directors stood precariously on the edge of ruin, hemorrhaging with over $1,600,000 in debt and unable to continue the improvement constructions, forcing the cancellation of the remaining items on the construction and repair agenda. Unfortunately, the canal company found itself back in familiar territory as it lacked the finances for much needed improvements and repairs, without investment opportunities, and unable to attract the attentions of the national government for financial assistance. With a canal in significant disrepair, falling behind the needs of commerce, and

191 Ibid, 703.
192 Ibid.
193 Ibid, 703-704.
194 Ibid, 704.
financially restrained, securing national governmental assistance remained the only viable option despite less than favorable national interest.

**Undercurrent of Change**

Fortuitously, the conclusion of the Civil War held great promise for the Louisville and Portland Canal and its company. Although the realities of war left the nation with significant wounds, both physically and psychologically, the nation found itself with a monumental rebuilding task ahead. Sustaining significant physical damage from conducting the war mainly on its soil, the South faced massive infrastructural rebuilding and expanding just to return to prewar conditions. Despite comprising only a portion of the massive reconstruction needed, post-war support shifted toward investment of national resources into reconstruction efforts. While the South suffered significantly greater infrastructural damages resulting from the war, regional, and state interests throughout the North and West captured the reinvigorated spirit of improvement. Although states and territories further to the west faced a conundrum over which modes of transportation infrastructure best suite their needs, the massive investment on the Ohio River at the Falls remained to significant to abandon.\(^{195}\)

Focused on assessing the state of the Ohio River system in 1866, the Army Corps of Engineers initiated surveys of the Portland and Louisville Canal as part of its Ohio River improvement program. Corps officials, quickly recognizing the importance of the canal, became significant supporters of the canal despite the unfinished state of improvements. Although the early days of commerce on the Ohio river system and the
canal served a major route between the agricultural activities of the Ohio Valley region, by the 1860’s the agricultural and frontier regions of the United States pushed westward out across the Mississippi River Valley and onto the Great Plains assisted by railroad development. The population shift lessened the significance of the Ohio River system and the Louisville and Portland Canal on the nation. However, the river system and the canal at the Falls continued to provide a vital role in the transportation of the nation’s market goods, albeit shifting to shipments focused on “heavy, low-value industrial supplies and products.”  

Regardless of the transformation in commercial usage of the river system and canal, it remained a vital asset of the nation and subsequently garnered great support from the United States Army Corps of Engineers. With the national mood in largely in favor of the revival of improvement projects, the Corps appealed to Congress for the needed financing to undertake another wave of massive upgrades to the canal. Highlighting the shift in national mood, in 1867, Congress authorized the Corps to proceed with surveys and preparation of costs for revision, including a revived plan for an Indiana side canal. The Indiana side canal proposal failed yet again, and Congress consented to the resulting plans devised by the Corps’ engineers. The six-year span epitomized a renewed cooperative focus by the national government on upgrading the canal to serve the needs of society through the second half of the nineteenth century.  

\[195\] Ibid.  
\[196\] Ibid, 706; Report by the Chief of Engineers Respecting Certain Public Works (H. R. Doc. No. 56, 39\textsuperscript{th} Cong., 2\textsuperscript{nd} Sess. (1867), 317-319.  
\[197\] Trescott, “The Louisville and Portland Canal Company, 1824-1874,” 706; A Report Relative to a Ship Canal Around the Falls of the Ohio River (H. R. Doc. No. 181, 40\textsuperscript{th} Cong., 2\textsuperscript{nd} Sess. (1868); A
While the immediate post-war years provided the conditions the canal directors hoped for with the national government finally passing legislation improving the canal, the new conditions strained the relationship between the private canal company directors and the national government. While the government authorized the Army Corps of Engineers to undertake massive improvement projects on the canal, it lacked the authority to do so. Because the private canal company still held in trust all the shares of the company, minus the original investment by the national government in 1829, the national government lacked authority to dictate company policy.

With the ownership of the canal now creating legal restriction to fulfilling the objectives of the national government, Congress addressed the matter. Thirty-one years after the canal company directors skillfully created a plan to transfer ownership of the canal to the national government while protecting their investment, their efforts proved successful. The early months of 1873 witnessed the national government officially beginning the transition with the passage of legislation authorizing the Secretary of the Treasury to “assume control and management of the canal and appropriate the necessary funds.”

Although the legislation provided the mechanism for the purchase of the canal with the public’s finances, one hurdle remained. Despite Congress’ intentions, outstanding bonds taken on by the canal company for repairs and improvements to the canal remained outstanding until 1866 and created a barrier preventing the national

government from fully acquiring the canal. However, breaking with its past reluctance to assume ownership, Congress pressed onward. In May 1874, Congress authorized the Army Corps of Engineers to take over operation of the canal and the Treasury Department to acquire all the private company’s shares while paying off all remaining outstanding bonds, debts, and other financial obligations of the canal company.  

In June 1874, with legislation passed by Congress, the national government completed the acquisition of the Louisville and Portland Canal from the privately held company. Although an additional eight years passed before Congressional legislation officially removed all tolls from the canal in 1880, the national government rose to its role of serving the needs of its society through the eventual purchase and operation of canal vital to the nation’s internal transportation system.

As settlers pushed into the Ohio River Valley region, settlers lacked necessary and efficient means of transportation. Environmentally blessed with the Ohio River and its tributaries, the region’s settlers turned to the waterways as viable means of transportation. The growth of populations and emergence of market-oriented production increased demands upon the region’s waterways, straining them. Geographic happenstance created natural barriers like those forming the Falls of the Ohio and hindered further development of the region. Lacking capital but needing improvements to provide more efficient and

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safe water-based transportation, citizens, boosters, and government sought means of improving nature for their use.

State and regional governments lacked finances for large-scale improvement efforts. In turn, they used their authority to secure the needed works through the chartering of private companies. Governments conveyed ownership and operation oversight of the projects upon completion to the private companies in exchange for overseeing the construction of the improvements. In turn, the private companies sought investment from both local and national interest to secure the future of their companies. With the legal authority to charge usage fees such as tolls, the companies stood to realize significant financial gains. However, the companies balanced profits with repairs, upgrades, and necessary public support.

The implementation of tolls and other charges by private companies created centralization of power while creating new economic barriers for citizens and commercial users of canals and other improvement projects. As the region and the nation underwent a shift in views over privately held improvement projects, the national government retreated from supporting them financially. Investors with much to lose with the nationalization of private improvement companies struggled to transfer power to the national government and protect their financial investments.

While, undoubtedly, numerous private and public improvement projects failed, others such as the Louisville and Portland Canal Company succeeded in significant part due to timing of social and political shifts. Although the private canal company struggled with securing necessary financial assistance for providing a canal serviceable for societal,
regional, and commercial needs, it greatly benefited from the national post-war shift towards expansion, reconstruction, and a revival of the improvement movement. While the private canal company provided the business structure and plan for construction and operation, neither the canal nor the canal company seemed likely to succeed without the intervention of the federal government.
Chapter Three

Illinois and Michigan Canal:

Perfecting Nature’s Project

Completion of the Illinois and Michigan Canal fulfilled years of planning and struggles to provide the inhabitants of the fertile prairie peninsula with an effective connection between two great water transportation routes, the Great Lakes and St. Lawrence waterways and the Mississippi and Ohio Rivers corridor. Regional and special interests sought to secure the construction of a canal across the continental divide and link Lake Michigan with the Illinois River.\(^{201}\) Settlers, farmers, and commercial interest alike stood to benefit from the economic advantages created by securing a canal that linked the interior of the continent with eastern markets via the Great Lakes and the Mississippi and Ohio River networks. However, desire to secure the canal alone proved inadequate. Technological limitations, insufficient capital and labor, special interests, and political ideology complicated the construction of a canal. Until citizens, businesses, and government addressed each of the limiting factors, an adequate link between Lake Michigan and the Illinois River remained elusive. Only at the time when the factors coalesced in the right order did a durable shift in the development of society occur and provide the opportunity for the Illinois and Michigan Canal to fulfill their needs.

\(^{201}\) Four continental divides are located within the North American continent. The divides, roughly delineated by the Rocky Mountains (Great Divide), the Appalachian Mountains (Eastern Divide), Northern Divide, and St. Lawrence Seaway Divide. The continental divide cutting through the Chicago portage region comprises a portion of the St. Lawrence Seaway Divide. Waters from Lake Michigan drain north and east, while waters to the south of the divide drain into the Mississippi River network and into the Gulf of Mexico.
The Incomplete Work

By the seventeenth century, French colonial ventures reached into the inland of the North American continent “in search of water links through the continental interior between Quebec and Louisiana.”

Stretching upward, from present day New Orleans, on the Mississippi River and down the St. Lawrence River to the Great Lakes, French explorers sought out the vast resources of the untapped continent. Together, French interests “combined imperial strategy and trade with native peoples whom they sought to convert to Catholic Christianity.”

Like other French explorers focused on inland trading network development and religious conversion of the indigenous populations, Canadian explorer Louis Jolliet and French Jesuit priest and explorer Father Jacques Marquette set out to explore and survey the vast Canadian wilderness. Their journey carried them through much of the Great Lakes region, including much of what would become the Northwest Territory. However, in 1673, Jolliet and Marquette’s journey wove generally southward via waterways, ultimately reaching the Mississippi River. Their arrival at the Mississippi River in 1673 signaled the arrival of Europeans to the upper Mississippi River corridor. The discovery of the massive inland waterway dissecting, north to south, much of the lower half of the North American continent assisted launching the French inland trading industry. For Jolliet and Father Marquette, reports and fears over encountering hostile indigenous

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Figure 2. Location of the Illinois and Michigan Canal, in relation to Lake Michigan, the Illinois River, and Chicago.
peoples further south halted further exploration of the Mississippi River. Instead, the explorers turned their attention northward, and to their return trip.  

Jolliet and Marquette made their way northward via the Mississippi River, reaching the confluence of the present-day Illinois River. Upon reaching the junction, the explorers deviated from the Mississippi River and followed the Illinois River northeast, making a short portage to the Chicago River and moving on to Lake Michigan. Despite the loss of Jolliet’s drawings and diary in an incident at the rapids on the Montreal River, Marquette’s diaries of the journey capture the thoughts of the exploring duo.

Acute insight and awareness of the region’s geographical formation are of particular importance in the recordings of Jolliet and Marquette’s explorations. Specifically, the portage area between the Illinois River and the Chicago River, ultimately reaching Lake Michigan, garnered their attention. The area held unique natural environmental features and drew societies, from the Paleo-Indian era onward, repeatedly to the area.

While the land mass comprising the portage area is small enough to make portaging of small vessels acceptable, the area represents a continental divide. The region’s geography provides a natural and uninterrupted waterway from the Gulf of St. Lawrence to the Gulf of Mexico, if not for the short distance forming the natural barrier of the continental divide. Thus, waters from the Chicago River and northward drain into the Gulf of the St. Lawrence, while waters from the Illinois River drain into the

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Mississippi River and the Gulf of Mexico. Upon arriving in the area in 1673, Jolliet noted that with waterways to either side of the divide, “it would only be necessary to make a canal, by cutting through but half a league of prairie, to pass from the foot of the lake of the Illinois [Lake Michigan] to the river Saint Louis [Des Plaines],” providing a navigable water passageway to the Gulf of Mexico.206

Despite Jolliet and Marquette’s favorable views toward the construction of a navigable connecting waterway, another noted Frenchman, Réné-Robert Cavalier, Sieur de la Salle thought otherwise. LaSalle arrived in the region in 1682, leading the effort to reestablish French authority in the area after British-supported Iroquois attacks forced their retreat from the region. LaSalle strengthened French dominance in the region, resulting in French control of the fur trade in the area. Resulting from French entrenchment, LaSalle gained significant insight on the fur trade and commercial navigation on the region’s waterways, including the portage between the Chicago River and the Illinois River. LaSalle concluded that money stood in the way of the canal. However, even if the capital existed it would be useless until they undertook additional work on the Illinois River. By LaSalle’s estimate, deepening and widening near forty leagues of the Illinois River was the main barrier. In fact, as historian Michael P. Conzen pointed out, “LaSalle was technically correct, and it would be nearly a century and a half before anyone gave practical consideration to realizing Jolliet’s broader vision.”207

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Changing conditions in the struggle for control over the North American continent partly consumed the century and a half before serious canal consideration again occurred. Similarly to the conflict of European empires discussed in Chapter Two, the confluence of multiple empires and indigenous interests in the region resulted in conflict over the region’s resources and ultimately culminated in outright violence conflict between the British, French, and indigenous cultures. The British and their Iroquois allies gradually wrestled control of the region and its lucrative fur trade away from the French. The gradual removal of the French from the region culminated in the French and Indian War. With consequences larger than the regional fur trade, British, French, and numerous indigenous nations fought over securing access to resources. Ultimately, the British and British-allied indigenous nations proved victorious in 1763.208

The aftermath of the French and Indian War left the region firmly under British control. While British expeditions embarked down the Ohio River in order to secure the former French outposts and forts in the region, much of the upper reaches of the Illinois River Valley and the portage near Lake Michigan remained of lesser importance. Despite the British advances into the Illinois River Valley, conflicting policies and diverging views on the status of the British North American colonies lay on the horizon. British North American colonists argued with Parliament and the Crown over funding of the troops to protect North American colonial and British interests. Unlike the attempts of unauthorized colonists to venture past the Appalachians and into the Ohio region, few reached into the Illinois River Valley. While larger matters remained more pressing as

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208 For a more in-depth discussion of competing colonial and indigenous interests in the Great Lakes Region and Ohio River Valley region see: Richard White, *The Middle Ground: Indians, Empires,
relations between the North American colonists and the British Empire deteriorated into war, settlement of the region by British colonists lagged.\textsuperscript{209}

In the aftermath of the Revolutionary War, citizens of the newly formed United States resumed their pre-war push west of the Appalachians. While the initial wave west reached into the Ohio River Valley, settlement further west into the area of the Illinois River and Lake Michigan remained sparse. Despite the lack of an immediate wave of settlement into the region, in 1803 the national government established Fort Dearborn at the mouth of the Chicago River. The fort served much the same purpose as the previous French forts of the region. Years of wars between French, British, colonial, and indigenous cultures, in addition to western expansion over the Appalachians after the Revolutionary War held profound effects on the indigenous populations. The rapidly changing world forced many indigenous societies to migrate westward in hopes of staying in front of, and often away from, white settlers. With the establishment of Fort Dearborn in 1803, traditionally located indigenous societies and those newly arrived formed the basis of the last profitable fur trading ventures of the region. Despite the multicultural trade network, by the 1820’s a new wave of settlement swept the region.\textsuperscript{210}

\textbf{The Right Place, Wrong Time}

Anticipating both the future settlement and economic growth of the area along the Illinois River and the Southern portion of Lake Michigan, Peter B. Porter of New York proposed the development of a commercial network, reaching from the Great Lakes by

way of the Mississippi River to the Gulf of Mexico through a series of canals. With hopes of securing financial assistance of the national government, the proposal reached Congress in 1810.\textsuperscript{211}

With great optimism, a national system of water transportation that included the canal replacing the Chicago portage, appeared in 1810 before Congress. However, no legislation materialized despite the grandeur of this a nationalist plan.\textsuperscript{212} In part, the limited population growth experienced by the region in the first few decades stymied economic aids such as infrastructural improvements. For a region based largely on the fur trade and using relatively light vessels for transportation, any canal development at the time provided little to no great benefit to development. Further, as settlement migrated westward over the Appalachians, through the Ohio Valley, and into the region south of Lake Michigan, prime fur trapping and trading regions of the inland shifted further westward. Ultimately, caught for the time between two frontiers, the region lacked regional boosters and national support to obtain a canal across the portage.

In contrast, early efforts at securing financial resources, lands, and governmental approval for the construction of the Erie Canal proved more successful in the east. In large part, a greater availability of capital, societal need, and economic development concerns reached the critical mass necessary to pressure local, state, and national

\textsuperscript{210} Annals of Congress, 11\textsuperscript{th} Cong., 2\textsuperscript{nd} Sess., 1387-1393; Cozen and Carr, eds., The Illinois and Michigan Canal, 6.


\textsuperscript{212} Annals of Congress, 11\textsuperscript{th} Cong., 2\textsuperscript{nd} Sess., 1387-1393.
legislators to push for the canal’s construction. Far to the west, the region utilizing the portage lacked private capital for investment, and held little consequence to the nation as a whole in the early decades of the nineteenth century.\(^\text{213}\)

As with the Ohio River region, the War of 1812 highlighted the role of waterway transportation in the young nation. Accenting the transformative events of the War of 1812, Historian J. W. Putnam wrote, “The unfortunate experiences of that war emphasized the importance of such a route over which military and naval forces could be transported to the northern frontier expeditiously.”\(^\text{214}\) In other words, an infrastructural development of the nation’s transportation provided defensive networks, commercial avenues, and facilitated communication between regions resulting in connecting the farther reaches of the young nation with the most settled and developed centers of the east. As such, the War of 1812 squarely placed the Chicago portage and future canal construction before the nation, despite the sparsity of settlement at the time.

Claims to land by indigenous populations limited the influx of settlers to the Illinois Territory. Fears of violent retribution from indigenous cultures against settlers flowing into the territory created a barrier regardless of the validity of claims.\(^\text{215}\)


\(^\text{215}\) While some scholars may insist upon the usage of *Native American* or *Indian* to typify and categorize the pre-European habitants of the Americas, both deny a significant portion of the peoples’ agency as there were over 500 ethnically identifiable nations on contact. Each nation represented unique cultural and linguistic traits. As a means of simplifying, without feeding into the agency-robbing terminology of previous generations, I utilize the term *indigenous*. It is not only the role but also the responsibility of historians and scholars to push beyond the traditional, and often stereotypical, categorization of populations to break down biases of the past. This is especially important when the members of the community under discussion largely do not agree with the traditional scholarly terminology. In this manner, current discussion over the appropriate terminology for the pre-European habitants focuses on the utilization of the term *indigenous*. For current reflections on this dynamic, see: Joseph M. Marshall,
Additionally, lands held sovereign by indigenous populations limited migrating settlers’ access to land for homesteading, ultimately limiting economic development. To combat this barrier to society development, government officials initiated discussions with the respective sovereign nations with the hope of securing land in the name of the United States. In 1816, the national government entered into a treaty with the united tribes of the *Ottawas, Chipawas, Pottowottomee*, among others, securing from them title to lands consisting of much of the territory surrounding the southern portion of Lake Michigan and the Illinois River Valley.\(^{216}\) To the national government, the 1816 treaty and subsequent land cession removed the barrier created by the habitation of the region by indigenous peoples. Not only did the treaty transfer the lands to the national government, in turn, the government facilitated the redistribution of the land to private citizens as a means of assisting territorial development. It is of no small consequence that the ceded treaty lands contained the region targeted for canal development. Underscoring this most important connection, Putnam stressed,

> Ninian Edwards, one of the commissioners who negotiated the treaty, afterwards asserted that the Indians were influenced to make the sale of this land by the oral assurance that canal would be opened through it, thereby increasing their opportunities for trade.\(^{217}\)

Specifically, the lands ceded included a strip “twenty miles wide from the upper Illinois River to the mouth of the Chicago River on Lake Michigan,” comprising the portage area between the two waterways.


With the treaty approved by Congress, efforts to transfer the lands into the public domain proceeded. The process by which the treaty lands transferred into the public domain came as a result of the American Revolution. As Americans looked to the newly secured western lands with anticipation, conflicting claims to the lands limited the utilization of the lands in an orderly manner. The Continental Congress reached a compromise after much debate between the states over the issue of claims to western lands by Massachusetts, Virginia, and Connecticut. In exchange for the states with western land claims ceding those lands to the national government, all the states ratified the Articles of Confederation. With the western lands in the possession of the national government, Congress passed the Land Ordinance of 1785. The ordinance authorized the survey and orderly sale of the lands while also setting the precedent of using surveying methods set up on a grid system that included 36 sections per township.218 As a result, the 1785 Ordinance provided the procedure by which the lands ceded by the 1816 Indian Treaty in the Illinois Territory underwent survey and transfer into the public domain.

The national government conducted two additional surveys of the lands. While the initial survey focused on establishing townships and sections for the impending onslaught of settlers, the two new surveys focused on topographical information. The resulting surveys both highlighted the importance and ease of a canal’s construction across the portage while differing on the more specific details of canal construction that would be most advantageous.219 While both surveys called for a canal linking Lake

Michigan to the Illinois River, they differed in two primary aspects. While one survey pointed toward construction of a canal, with locks at both ends and fed with water from the adjoining Des Plaines River, the other tipped toward construction further to the southwest and fed with water from Lake Michigan. Both surveys offered viable avenues for the successful construction of a canal linking the Great Lake system with the Mississippi River system.²²⁰

The generally growing interest in the happenings in the Illinois Territory also highlighted the increasing pressure of population growth as the settler frontier encroached upon the region. With government acting on behalf of the strong national interest in western expansion and settlement by aiding in the acquisition and conversion of lands for their use, the territory also moved toward developing a more responsive government. Greatly influenced by John C. Calhoun’s national defensive transportation system plan, Congress responded positively to the supporters of statehood, in the Illinois Territory. State Whigs, farmers, and commercial interests claimed that the inclusion of the Chicago portage in the boundaries of the new state ultimately ensured the success of both the state and the canal. By pushing the border northward, beyond the Chicago portage region, the canal and the state linked their futures together. Further, the nation also stood to gain greatly from the completion of the canal as it linked national waterway systems together. With the northern border secured, Illinois gained admission to the Union in 1818.²²¹

Even as Illinois entered into statehood, the rest of the nation slipped into economic difficulties. The first major financial crisis of the young century hit in 1819 and signaled an end to the economic expansion arising from the War of 1812. While settlers in the Ohio River Valley felt the effects of the economic crisis as it reduced the demand for agricultural goods and cut commercial transportation on the Ohio River, the new state of Illinois remained relatively untouched.\textsuperscript{222} While undoubtedly some economic constriction occurred in the state, several key factors limited the reach of the crisis.

Although the effects rippled through the commercial centers along the Ohio River and consequently dried up vital capital for numerous improvement projects, Illinois remained less inhabited and further behind the economically developed levels of the Ohio Valley region. Further, the Ohio Valley region also suffered from a period of drought that dropped water levels on the Ohio River and its tributaries and exacerbated the economic crisis within the region; no such significant difficulties arose in Illinois.\textsuperscript{223} More specifically, as Illinois had not taken steps toward actual construction of a canal and still lacked a waterway thoroughfare such as the Ohio River, it never had the economic development to lose as the Ohio Valley region did. For Illinois and future hopes of a canal, the state’s rudimentary conditions at the time of the financial crisis limited its potential and real exposure.

\textsuperscript{222} Allan G. Bogue, \textit{From Prairie to Corn Belt} (Chicago: The University of Chicago Press, 1963), 8-28; Johnson and Parrish, \textit{Triumph at the Falls}, 24.
\textsuperscript{223} Johnson and Parrish, \textit{Triumph at the Falls}, 24.
Preparing the Frontier for Improvement

The ability of Illinois to weather the economic crisis allowed it to enter the 1820’s ready to take advantage of economic investment and development. By the 1820’s, the wave of frontier settlers pushed beyond the Ohio River Valley and into Illinois and the eastern reaches of the Mississippi River Valley. While the greatest areas of settlement focused on the southern portions of Illinois, settlers hungrily consumed the fertile lands along the river valleys, with settlement reaching up the Illinois River valley to present day Peoria, Illinois.²²⁴

While northern areas remained under the habitation of indigenous peoples, southern portions of Illinois fell before the homesteader’s plow and axe. Assisting the orderly transfer of the state’s lands from the public domain into private ownership, surveyors worked the state from south to north, east to west. In Sugar Creek, a tributary dumping into the Illinois River below Peoria, federal surveyors under Angus Leis Landham’s direction “criss-crossed more than five-hundred linear miles of Sugar Creek county in two months” in the spring of 1821.²²⁵ Historian John Mark Faragher described the environment of settlement in the region, “They advanced upon unplowed prairie and virgin timber and left behind blazed trees, numbered posts, and mounds of earth, the template of a new, rational landscape.”²²⁶ The process of applying the township system

²²⁴ Bogue, From Prairie to Corn Belt, 8-28; Cozen and Carr, eds., The Illinois and Michigan Canal, 7.
²²⁶ Faragher, Sugar Creek, 39.
of land surveying, established by the Land Ordinance of 1785, across the lands of Illinois laid the foundation for a society on the move westward.

With lands surveyed, prospective settlers poured into the area seeking out lands. Although governmental support of internal improvements facilitated the movement of resources, goods, and people, the national government also assisted the westward push through land grants and sales. The Land Ordinance of 1785 initially established the minimum purchase of 640 acres (a full section) for the price of $1.00 per acre with the finalized price established at public auction. Initial land sale efforts ran into several barriers. The minimum of 640 acres left many farmers unable to buy land, while land speculators purchased large tracts of land by effectively influencing the government to reduce the one dollar per acre requirement.227

During the early years of the Republic, debate over the nation’s land disposal policy raged between the Federalists and Anti-Federalists. Federalists such as Alexander Hamilton called for a policy of high land prices in order to deepen the National Treasury. They also sought the sale of large parcels of land to speculators rather than the sale of small parcels to individual settlers. Anti-Federalists such as Thomas Jefferson envisioned an agrarian nation built upon the idea of individual land ownership. This plan called for disposal of the public domain at modest prices, if not free, to individual settlers. The Anti-Federalist argued that an economically stable nation would develop with the transfer of the public domain into private individual ownership.228

Throughout the nineteenth century, the national government experimented with various methods and requirements of land sales that allowed individuals to realize land ownership. In experimenting with various methods of land disposal, the government extended credit to buy land, encouraged sales of large tracts of land to speculators, adjusted the area requirements for land purchase from 640 to 80 acres, and tested the land market with land prices per acre ranging up to $2.00.229

In 1803, Thomas Jefferson brokered the purchase of the Louisiana Territory from Napoleon and France. Aside from a constitutional issue arising from the presidential purchase of the land from France, the national government found itself with the additional problem of managing the massive amount of newly acquired public lands. In an effort to oversee the public domain, in 1812 the national government established the General Land Office. Although matters of the public domain previously resided within the Department of the Treasury, the magnitude of lands to manage prompted Congress to authorize the creation of the General Land Office.230

Although historical argument over the success of the government’s land sales and use policies still exists today, those individuals reaching westward to the Mississippi River corridor undertook settling Illinois and the surrounding region. Early settlement patterns concentrated on the river corridors; along the rivers, streams, and Lake Michigan, the settlers found ample forested lands that provided the necessities for survival - shelter, 

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230 Ibid.
fuel, and relative abundance of wildlife. However, as settlements expanded the settlers moved further away from the river corridors and out into the open prairie.

As settlers moved northward toward Lake Michigan and the northern border of Illinois, they viewed the region with optimism. Like much of the continent’s middle prairie lands, Illinois held great promise in its fertile soils and natural resources. Hardwoods such as oak and hickory lined the river corridors and offered a ready supply of fuel and building supplies for settlers. Despite the lack of timber, except along the river corridors and lakeshores, settlers soon began writing to relatives about the potential of the prairie soils. The rich soils that supported a prairie ecosystem held the promise of providing tremendous agricultural production. While early settlers viewed the fertile lands with skepticism, they soon found that rendering the prairie ready to grow crops required hard work but rewarded them with great fertility and productivity. With woodland growth limited to riparian zones, the Illinois lands often required little intensive effort to remove timber for planting. The soils were highly productive without the need to lay fallow, and farmers found crop rotation to eliminate soil exhaustion unnecessary.

Interest in infrastructure improvements increased as settlers poured into the region south of Lake Michigan. While the 1810 census recorded only 12,282 people in the Illinois territory, by 1830 the number swelled to 157,445. Focused mostly on agricultural production, the communities of the area grasped the need for effective means of transportation by which to ship their goods to market and needed goods back into the region. Those fortunate enough to settle on the lower sections of the Illinois River found

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231 Faragher, Sugar Creek, 61-75.
232 Bogue, From Prairie to Corn Belt, 8-12.
themselves close to the Mississippi River and Ohio River network. However, settlers north of the Chicago portage and the upper portion of the state found themselves limited to overland or lake shipment of their agricultural goods. In a larger sense, the portage area limited the development of Illinois by placing farmers at a distinct economic disadvantage to others in the region. Then again, with future settlement of the northern reaches of Illinois almost assured, establishing the state’s northern border far enough north to ensure canal placement within the state became of great state interest. Securing the additional lands served as an impetus spurring settlement and development, while directly addressing the barrier restricting the region’s development.

Notions of Improvement and Statehood

Regardless of whether the promise of a canal drove settlement and development or the opposite, by the 1820’s, a clear contingent calling for construction of a canal connecting Lake Michigan and the Illinois River emerged. While the nation as a whole struggled with recovery from the financial crisis resulting from the debts incurred during the War of 1812, Illinois turned its attention toward establishing its young government. Although providing measures of governance occupied the attentions of the first state general assemblies, thoughts of a serviceable canal rested not far away. The inaugural message of the first governor, Shadrach Bond, underscored the importance of the canal in the future development of the state. Bond contended that the canal was of the utmost

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importance to the state and once completed would link with the Erie Canal in creating a
great economic thoroughfare.\textsuperscript{234}

Despite recognizing the importance of the canal in the development of the state,
government officials and citizens realized that greater objects stood between them and an
operable canal. As a newly admitted state to the Union, Illinois lacked private capital for
investment in the canal’s construction. Additionally, with a state government barely
underway, public sources of capital remained limited or non-existent. Much like those
seeking for the construction of the Louisville and Portland Canal at the Falls of the Ohio,
limited access to necessary funding provided the opportunity for the state government to
serve its citizens by seeking new avenues for the funding of an improvement project’s
construction.\textsuperscript{235}

Setting the state’s early agenda, Governor Shadrach Bond proposed a means by
which construction of the canal might become possible. In giving the state government’s
and the governor’s inaugural message, Governor Bond presented the idea of petitioning
the national government. Governor Bond drew upon the actions of other states and
territories lacking the necessary private or state funds to undertake such drastic
modifications to the landscape. While the state lacked the capital to fund the canal
construction, Illinois still contained a great amount of unsettled land within its borders.
As such, Bond proposed petitioning the national government for “a diversion of a portion

\textsuperscript{234} Illinois House of Representatives Journal, 1st General Assembly (1818), 10; Putman, The
Illinois and Michigan Canal, 10.

\textsuperscript{235} Illinois Senate Journal, 1st General Assembly (1818), 10; Putman, The Illinois and Michigan
Canal, 11.
of the funds arising from the sale of public lands in the state to that object.” Although no immediate state legislative action resulted from the governor’s proposal, the inaugural message linked the fortunes of the state of Illinois with the construction of the canal.

As presented in Chapter One, by the 1820’s, fervor for public improvement projects increased as a responsive national government sought mechanisms assisting development in the expanding country. Often, the national government found itself unable to provide financial assistance. However, in presenting his message to the state, Governor Bond’s proposal echoed the growing trend of positive governmental action from both a state and national level.

At the state level, the Illinois government moved onto matters pertaining to the canal quickly after extinguishing the immediate issues arising from the new state’s creation. Addressing the canal topic, the General Assembly officially requested the national government’s assistance in the canal’s construction. Specifically, the General Assembly petitioned for three key matters. First, the General Assembly sought the authority from the national government to construct the canal through land comprising a portion of the public domain. Second, the state government asked the national government to transfer the ownership of the sections of public land that the canal cut through to Illinois. Finally, the General Assembly sought outright financial assistance from the national government by transferring the rights to the two percent road fund reserved from the sale of lands from the public domain to the construction of the canal.  

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236 “An Act to enable the people of the Illinois Territory to form a constitution and state government, and for the admission of such state into the Union on an equal footing with the original states,” Statutes at Large, 15th Cong., 1st Sess., (1818), 428-431.

Together, the three key components secured the future location of the canal, while also offering financial assistance. Through the transfer of the public lands under consideration to the state, the state then held the keys to development around the canal. The General Assembly envisioned that the revenue obtained from the sales of the public lands to private individuals would go toward funding the construction and future maintenance of the canal. Additionally, the Illinois legislative body pictured the lands also contributing to the establishment of communities along the canal. The communities promised to provide shipping points along the canal and to transitorily spur regional development of both agriculture and industry, ultimately utilizing the canal for the transportation of their goods to distant markets. In this manner, the Illinois project became a conduit of both economic development as well as community and town development. Although completion of the canal loomed far in the distance, the cumulative of the approach created markets, suppliers, buyers, and the network by which they interacted. Further, the request from the General Assembly placed a portion of the responsibility for a successful canal at the feet of the national government by transferring the rights to the road fund revenue to canal construction.

In March 1822, Congress addressed the memorial request by the state of Illinois. Congress provided a limited amount of direction for the state in its quest for a canal. The Seventeenth Congress approved the land grant request and conveyed the lands comprising the zone for future construction of the canal and ninety feet either side to Illinois. With the transfer of title to the state, the national government provided future revenue for the canal as the state sold the lands into private ownership. However, Congress stopped short
of the remaining requests. Instead of transferring additional public lands to the state, Congress limited the sale of public lands surrounding the canal’s route. Further, Congress provided the state with the authority to utilize any resources found on the reserved lands for the canal’s construction.\textsuperscript{238} These actions greatly limited the state’s avenue of raising revenue for the canal’s construction through sales. However, one can only assume that Congress provided resource rights to the adjacent lands in the hopes of limiting the overall cost of creating a canal that linked Lake Michigan and the Illinois River.

**Establishing the Canal Board**

While Congress’s actions limited the ability of Illinois to raise the necessary funds for total canal construction, Illinois proceeded with what plans it could. Returning to the Illinois General Assembly in February 1823, discussions pertaining to the canal resulted in state legislation establishing a board of commissioners. Of greatest importance, the legislature directed the commissioners to determine the best canal route and calculate the costs of the project.\textsuperscript{239} Executing the directives of the state legislature, the board of commissioners undertook the process of surveying for canal routes and calculating the project’s costs.

Due to marshy lands and relatively high water levels on the rivers in the fall of 1823, only preliminary examinations occurred. However, the year 1824 brought better conditions and witnessed the commissioners completing the surveys and calculations for

\textsuperscript{238} *Annals of Congress, 17\textsuperscript{th} Cong., 1\textsuperscript{st} Sess., 32, 153,160, 309, 311, 709; “An Act to authorized the state of Illinois to open a canal through the public lands, to connect the Illinois river with Lake Michigan,” *Statutes at Large, 17\textsuperscript{th} Cong., 1\textsuperscript{st} Sess., (1818), 659-660; Putman, *The Illinois and Michigan Canal*, 12.
several route alternatives. Despite some minor variations, five alternative routes projected connections of the Chicago River to the Illinois River, via the Des Plaines branch. Each route varied only marginally in its direction and connections. Further, cost estimates varied relatively little in comparison to the scope of the project with the most expensive route reaching $716,110.71 and the cheapest route at $689,746.96, with only a difference of $25,363.75 separating the five routes.\textsuperscript{240}

With the completion of the state assembly’s directives, the picture looked gloomy. Although Congress conveyed land rights for the canal’s construction, the state still lacked the finances for projected construction costs. In an effort to provide a remedy to the financial shortfall, Governor Coles proposed a rather slow process of canal construction. The governor proposed that the state set aside a portion of revenues annually in the hope of establishing a fund for the canal’s construction. While the idea held merit, the state legislature reasoned that the deferred construction resulting from the plan negated the potential benefits of the canal. They feared that if years passed before such a fund accumulated enough to begin construction, the state faced the risk of falling behind the rest of the region in economic growth.\textsuperscript{241}

In response to their fears, the state legislators again turned to the national government and petitioned Congress for the much-needed funds. The petition seized upon the spirit of improvement and focused on the benefits and national scope of the

\textsuperscript{239} Shaw, \textit{Canals for a Nation}, 143-144.
\textsuperscript{240} Illinois, \textit{Laws Passed by the 3rd General Assembly of the State of Illinois}, 1\textsuperscript{st} Session, 151-153.
\textsuperscript{241} “Application of Illinois for a Donation of Land for a Canal in that State,” \textit{American State Papers}, 19\textsuperscript{th} Cong., 1\textsuperscript{st} Sess., 437-438; \textit{Annals of Congress}, 18\textsuperscript{th} Cong., 1\textsuperscript{st} Sess., 1914; “An Act to provide for paying the state Illinois three per cent of the net proceeds arising from the sales of the public lands
work. Tied together with the other transportation improvement projects underway or recently completed throughout the nation, the completion of the canal in Illinois helped form a truly national system. Perhaps undermining the petition, a fallback option for funding also appeared. Sponsored by Daniel P. Cook, the alternative plan called for obtaining the needed revenue from the school fund. The school fund derived from the sale of public lands. The national government directed a portion of the revenue toward the funding of a school within each township. While unique in its approach, the legislation drew little serious interest from Congress and left Illinois still lacking the necessary funding.\(^{242}\)

Lacking further assistance from Congress, the state legislature returned to the work of creating a working plan for the canal. In January 1825, the Illinois General Assembly replicated a system of canal management and oversight that other improvement projects, including the Louisville and Portland Canal, found themselves under. Specifically, the 1825 state legislation chartered a private company, the Illinois and Michigan Canal Company, for the purpose of constructing the canal across the Chicago portage. Similar to the Louisville and Portland Canal Company chartered by the state of Kentucky, the Illinois legislature chartered the company with initial capital stock of $1,000,000. However, the Illinois General Assembly took the private company idea a step beyond that of Louisville and Portland Canal Company; the legislature provided the company with the authority to increase the capital stock as it saw necessary for the

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completion of the canal.\textsuperscript{243} This fundamental difference allowed the Illinois and Michigan Canal Company to maintain greater autonomy over construction and financial management rather than requiring a return to the state legislature for additional supporting legislation.

Further, the legislative charter of the canal company prescribed the process by which the company fulfilled its purpose of constructing and operating the canal. Specifically, the charter dictated when the company must begin construction, the latest completion date, and the technical details of construction such as width and depth. The specific dimensions of the canal required in the charter included forty feet wide at the water’s surface, twenty-eight feet wide at the bottom of the canal, and a depth of no less than four feet.\textsuperscript{244}

With an eye toward securing investors, the charter also authorized the company to collect tolls from those using the canal.\textsuperscript{245} Much like the Louisville and Portland Canal Company charter, the Illinois and Michigan Canal Company charter provided economic incentive for would-be investors. The charging of tolls allowed private investors to recover their initial investments and at least the possibility of making a profit. Unlike the Louisville and Portland Canal Company charter that capped tolls based upon tonnage only, the Illinois legislature dictated tolls by a combination of tonnage and miles of the canal used. Of course, the decision to charge based upon distance travelled on the canal rested with the rationale that the Illinois and Michigan Canal covered a far greater distance than the Louisville and Portland Canal. Additionally, other tributaries dumped

\textsuperscript{243} Illinois, \textit{Laws Passed by the 4\textsuperscript{th} General Assembly of the State of Illinois}, 1\textsuperscript{st} Session, 160-164.
\textsuperscript{244} Ibid.
into the Illinois River and the connecting improvement as the canal knifed its way across Illinois. While the Louisville and Portland Canal only circumnavigated the Falls of the Ohio and lacked connecting canals, the Illinois and Michigan Canal stretched a greater distance and encountered other waterways, and in the future, stood to connect with other canals planned for the region.

The company charter also provided a curious additional provision that other improvement projects often lacked. Particularly, the state legislature included a measure that allowed the state to purchase the private company in future years. In detailing the company’s charter, James W. Putman wrote, “It further provided that at the expiration of fifty years the state might acquire the canal by payment of the actual cost of construction and six per cent semi-annual interest from the date of expenditure to the date of acquisition by the state.” Unlike the neighboring Louisville and Portland Canal that lacked such a provision, the state of Illinois and the canal company legislatively sought to address future concerns over the viability and sustainability of the canal. The unique legislation provided a sense of security for investors and supporters of the canal with the incentive that the state reserved the right to purchase the canal back from the private company if the state deemed the purchase in the best interest of the state.

Despite the creative Illinois charter addressing some of the significant complications and shortcomings of the Kentucky charter for the canal at the Falls, the newly created canal company found the odds for success not in its favor. Longstanding advocate of a federally funded and supported canal, Daniel P. Cook staunchly opposed

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the state’s liberal charter on the grounds that with the state providing the canal company such substantial autonomy any hope of securing federal favor vanished. Notwithstanding the abundance of financial maneuverability conveyed by the state legislature, the canal company fell short of securing investors willing and able to purchase the $1,000,000 in canal company capital stock. Complicating matters further, Governor Coles joined the chorus of opposition to the canal company charter and questioned the benefit of heavily investing the state’s resources in a private company. Erring on the side of caution, the governor requested the General Assembly to repeal the company charter. Facing financial difficulties and strong political opposition, the canal company abandoned its efforts and the General Assembly followed with the repeal of the charter.247

With successes of the Erie Canal becoming more certain and a shift in the national mindset culminating in the improvement minded Adams Administration taking the Presidential office in 1825, Illinois turned its attention back toward securing federal support for the canal. Much as the case with the Louisville and Portland Canal’s quest for federal help, the arrival of the Adams administration revived canal supporters’ hopes. Seizing the opportunity, the Illinois General Assembly joined others around the nation petitioning the improvement friendly national legislatures. The efforts of the Illinois government found friendly ears as Congress passed legislation in March 1827 supporting the Illinois canal project. Adjusting the limitations of the previous Congressional action on behalf of the canal project, Congress provided the state of Illinois with additional lands surrounding the canal. Instead of the limited land transfer consisting of the canal

247 Ibid.
zone and ninety feet either side of the canal and resource utilization conveyed in the original legislation, Congress transferred the surrounding public lands. Specifically, Congress transferred ownership of the alternating sections of land, five miles in each direction from the canal to Illinois for the sole purpose of constructing a canal linking the Chicago River to the Illinois River. In discussing the 1827 congressional land grant to Illinois and accompanying improvement bills for other states, Putman contended, “It was in progress of these bills through the Senate that the plan of granting alternate sections of public land in aid of internal improvements was evolved.” The system of conveying alternate sections of public lands for large-scale improvement projects became a facet of almost all subsequent land grants and became integral in grants of lands for railroad construction throughout the remainder of the nineteenth century.

**Early Effort at State Improvement**

The official grant of land for the canal by Congress reawakened spirits and offered the first real prospect for the canal’s creation. Acting quickly, the Illinois General Assembly selected the odd-numbered sections on either side of the canal. In 1829, the General Assembly again took up canal matters, passing legislation creating a new board comprised of commissioners. Providing some measure of accountability, the state legislature required that the appointment process established the three commissioners. The Governor of Illinois held the appointment power in determining the three commissioners and required the appointment of new canal commissioners biennially. The bill authorized the commissioners with the authority of overseeing land sales,

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248 “Canal in Indiana,” *Debates in Congress, 19th Cong., 2nd Sess.*, (1827), 337-338; Putman, *The*
establishing the towns of Ottawa and Chicago, undertaking new surveys for the canal route, and preparing construction cost data. Despite such ambitious directives, the commissioners hired a surveyor and began their work.

The early vigor of the commissioners fell prey to old problems. In a reoccurring theme of the quest for large-scale public improvement projects in early settler societies, the commissioners’ best attempts at land sales produced a cash flow far below the anticipated and needed amount for initiating construction of the canal. Although by 1829, Illinois had witnessed enough population growth for statehood, the population growth over the next ten years fell short of the population needed to purchase the lands of the canal grant. While the national government experimented to find the correct balance between minimum size of land and price per acre of that land to sell through the General Land Office, capitalists purchased large quantities of land from the government. In turn, the speculators subdivided the land parcels and often resold the lands with various methods that individuals found more feasible. Regardless of settler motives, the reality for the canal company remained that their land sales lingered below the necessary levels for company operation and canal construction.

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The term “feasible” must not be confused with preferable. In reality, land speculators often provided opportunities for perspective buyers to place less money down, smaller total acreages, in exchange for great total price for lands. For more on land speculation and the national government’s disposal of the public domain’s lands see: Paul W. Gates, History of Public Land Law Development (Washington, D.C.: Arno Press, 1979), 150-152, 153, 268.

Responding to the canal company’s inability to raise enough funds through the sale of public lands, Illinois appealed to Congress for a remedy. The appeal to Congress hinged upon the legislative body reclaiming the unsold granted lands at the price of $1.25 per acre. In effect, Illinois sought Congressional action that nullified the grant of lands and provided instead financial assistance equal to the going rate of public land sales at the time. In this manner, the action provided the financial assistance necessary for canal construction while releasing the Illinois government from the responsibility of overseeing the sales of their own granted public lands. Much to the dismay of all involved in the canal project, the House of Representatives decisively rejected the proposal and offered alternative action.²⁵²

Adding to the dire circumstances, the canal commissioners continued with their orders and sought additional means of funding. Despite the ability of other canals to attract private investors, the commissioners experienced no such luck. Included in proposals put forward, the canal commissioners sought loans from capitalists with the hopes of spurring interest and activity.²⁵³ The lack of the slightest overture of support from the national government, aside from the original grant for the canal, greatly hurt the ability of the commissioners to attract willing capitalists.

Significant loan proposals did surface from the canal commissioners’ efforts. Scouring the eastern United States for investors, the commissioners found willing capitalists in New York. However, the willing investors asked rather steep concessions. Specifically, the investors offered funding based only upon five plans they determined. In

²⁵² Ibid.
²⁵³ Ibid.
this manner, capitalists determined the parameters of the canal project and conditions of the financial loan. The first plan consisted of the state transferring the federally granted public lands to the investors, the investors constructing the canal, and owning the finished improvement project and granted lands. The second proposed plan focused on the creation of a coinciding railroad improvement company. Under the railroad company plan, the investors demanded the state hold half of the capital stock of the state-chartered railroad company. In addition, the investors called for Illinois to transfer ownership of the canal grant lands to the company and the two entities to work jointly for the construction and operation of both the ensuing canal and railroad. The third plan proposed focused upon only a loan for the construction of the canal. While this plan fit the objective of the canal commissioners, Illinois rejected the proposed loan. Because the loan called for a repayment term of fifteen years with interest of five percent, neither the commissioners nor the Illinois legislature found the plan reasonable. Much like the Louisville and Portland Canal Company chartered in Kentucky, the fourth plan called for the incorporation of a private canal company in which the investors would purchase the capital stock. Peculiarly, any measure transferring ownership rights of the land remained absent from the plan. Finally, the fifth plan wove together investment for canal construction and land speculation. The plan called for the Illinois legislature to sell half of the federally granted lands to the investors for no more than $1.25 per acre in exchange for the investors purchasing one-half of the total capital stock arising from the creation of a private canal company. While each of the proposed plans clearly demonstrated the experimentation that occurred in creating avenues of funding and constructing
improvement project during the era, each plan decisively aided the investors more so than Illinois. Conversely, with few viable options for pushing forward with the canal, Illinois chose against accepting any of the investor proposals.254

While the search for investors failed for the time being, the proposals presented to the canal commissioners by eastern investors foreshadowed the emerging competitive threat from a new transportation technology. The proliferation of steam locomotives and the expansion of the railroads westward provided the nation with many of the same facets of commerce, shipping, and communication that water-based transported sought to address. Seeking to secure their investments, capitalists sought to balance investment in water transportation projects with rail development. They presented to the canal commissioners funding for the canal while seeking to secure access to resources, land, and governmental policies friendly to their plans of future rail expansion. In highlighting the looming competition, historian James W. Putman wrote, “By the beginning of 1831, the idea that the railroad was destined to be the mode of transportation of the future was gaining adherents in Illinois.”255

Canal supporters received another seemingly fatal blow as the chief engineer for the canal commission provided a clearer picture of the current economic realities of the canal project. Engineering reports estimated the cost of constructing a canal at $1,601,695.83 to $4,107,440.43. Two differing approaches to canal design accounted for

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254 One of the greatest contributions to the scholarly studies of the Illinois and Michigan Canal is James W. Putnam’s inclusion of Illinois Senate and House Journals. Due to their scarcity, I have been forced to rely on Putnam’s work for insight from the Illinois General Assembly debates recorded in the journals. However, while Putman’s study mostly focused on economic history, my goal is a more complete understanding of the political discussions over formative processes in the canal’s history. In this manner,
the wide-ranging estimates. While the more expensive canal drew waters from Lake Michigan and contained a deeper channel with an elevation eight feet above Lake Michigan, the more inexpensive canal constituted a shallow design. While more economically feasible, the shallow design limited the long-term viability of the passage. As such, the cheaper price tag accompanying the shallow canal also held the hidden cost of producing a shorter feasible lifespan before vessel size and capacity outdated the canal. In stark contrast, railroad advocates approximated the value of a rail line supplanting the canal route at $1,052,488.19. When examining viability of the deeper and more expansive canal, the approximately $3,000,000 additionally needed for the canal’s construction above the construction costs of a railroad provided an economic barrier the state could not accept. Although the more inexpensive shallow channel canal proved competitive in costs, the shorter lifespan resulting from its design rendered the option financially unacceptable.²⁵⁶

With canal construction taking a serious blow, the canal commissioners found the feasibility of providing an operational canal slipping away and reported to the state legislature. In 1833, the canal commissioners recommended to the Illinois General Assembly that the state should abandon canal construction and instead exhaust all avenues for the construction of a railroad. The canal commissioners based their recommendation upon three key issues. Based upon their information, the cost of a canal

²⁵⁵ Ibid.
loomed too great in the face of the more cost-effective railroad. The railroad offered a technological advantage in confronting the seasonal weather that canal technology simply could not adequately deal with. Because winter temperatures dipped below freezing, continual passage through the canal would not be possible. However, railroads remained largely immune to extended periods of freezing. Remaining open year round promised the steady flow of commerce into and out of the region. Additionally, rail travel held the promise of greater quantities of shipped goods in less time.²⁵⁷

If early railroad advocacy in Illinois wounded the canal commission, the canal commissioner’s report to the General Assembly made canal construction and its supporters the equivalency of political poison. In the face of such anti-canal sentiment, ardent canal supporter Governor Reynolds reversed his position. The governor asked the General Assembly to consider the construction of a railroad meeting the same goals and improvements as those originally outlined with the canal project. Reacting to the governor’s message, the Illinois General Assembly passed legislation in March 1833. In the act, the General Assembly abolished the board of commissioners responsible for the canal and required the return of all assets to the state of Illinois.²⁵⁸

Despite abolishing the board of commissioners, the General Assembly provided no more legislative directives. As such, the act stopped the state’s pursuit of a canal while not initiating a state supported railroad project in the canal’s place. With the pursuit of a canal stopped and no directive aimed at railroad development, the citizens of

Illinois, private business, and others of the region still lacked the transportation connection they sought.

**The State Politics of Improvement**

By the beginning of 1834, Illinois lacked a viable and uninterrupted transportation connection, via the Great Lakes and the Mississippi River transportation network to the markets of the eastern seaboard. While Illinois struggled over finding a suitable transportation connection and a means of funding and constructing the project other states found effective means to accomplish similar improvement projects. In the Northeast, almost nine years had passed since the completion of the Erie Canal. In fact, 1834 brought a renewal of efforts aimed at expanding and improving the Erie Canal. Illinois’s neighbor to the east, the state of Kentucky and private business found a way to complete the Louisville and Portland Canal and brought it into operation in 1830. Subsequent improvements on the Mississippi River and several of its connecting rivers to the west paralleled westward migration as states and territories pushed forward with improvements for navigation.\(^{259}\)

Although the town of Chicago witnessed a surge in population growth in the four years following its first lot sales, as of 1834 the lack of a more efficient and reliable connection between the lands south of the Chicago portage and the future Midwestern hub of commerce still remained a barrier to growth. While Chicago held the regional advantage resulting from its location on the south shore of Lake Michigan, the barrier created by the portage limited the access to the interior lands of Illinois. In essence, every
year Illinois remained unable to come to a resolution over the canal, the state, its citizens, and its economic development faced greater risk of falling behind other developing regions and states.²⁶⁰

The converging economic and developmental concerns of the early 1830’s found their way into the state’s political realm as the campaign season of 1834 arrived. With Northern constituents concerned over measures that protected their development of the Northern portions of the region that included the canal zone, pro-improvement politicians sought office in the state legislature. While long time canal supporter Joseph Duncan successfully ran for the office of governor, elections placed others supporting a platform of state economic activism in the General Assembly. Contending, “Time and experience have verified to a demonstration, the public utility of internal improvements,” the young legislative candidate Abraham Lincoln emerged.²⁶¹

To the new Assemblyman, internal improvements held great promise for all people of Illinois. In Lincoln’s view, every corner of Illinois stood to benefit from state supported railroad, canal, waterway, and infrastructural improvements. All such improvements facilitated connecting the most rural portions of the state with the most highly developed economic centers. For agriculturalists, the connections provided a means of more efficiently shipping crops to markets while making it possible to obtain a greater profit margin. For private business, the improvements offered better connections with their suppliers while providing more reliable and efficient modes of shipping their

²⁵⁹ For a more discussion on Erie Canal revisions, see: Carol Sherriff, The Artificial River.
goods. In other words, with the economic development of the region stood to gain as outside investment flowed in.  

Although a freshman legislator in 1834, Lincoln received an appointment to the committee on Public Accounts and Expenditures. From his position, Lincoln maintained a tremendous vantage point. There, Lincoln examined the proposals for internal improvements in the state and sought strategies to fulfill his campaign promises of pushing for state support of improvement projects. Lincoln and other improvement supporters waiting impatiently for action only waited momentarily as newly elected Governor Duncan revived the issue in his inaugural speech.

Highlighting the state’s needs, Governor Duncan espoused internal improvements throughout his inaugural speech. Historian James Putman stressed that the matter so preoccupied the state and its politicians that the governor dedicated nearly “one-third of his entire inaugural speech to an effort to convince the General Assembly that the interests of the state would be better served by a canal than a railroad.” Governor Duncan moved beyond the previously stated issues with prior economic canal construction discussions. Rather than providing an economic solution to the cost estimates previously brought before the General Assembly, the governor contended that

not just any canal would suffice. Instead, he sought the construction of a grand canal that would serve even the largest of vessels plying the nation’s inland waterways.\(^{265}\)

Rallying support for his vision, the governor cited three major improvement benefits of canal construction over railroad investment. Most significantly, the governor contended that a canal held the potential of linking together the emerging national economy and provided Illinois with a prominent role in that economy’s commercial development. Illinois stood to take advantage of serving as the middle ground between rural agricultural goods in the territories to the Midwest and West and the purchasers in the East. The construction of a canal would provide additional water to the Illinois River and subsequently improve the already navigable and highly utilized waterway. With the additional water flow, the Illinois River stood ready for future expansion and placed Illinois with an advantage of spurring further commercial development. Perhaps most controversial, Governor Duncan pitted canal construction directly against railroad development and expansion. The governor contended that a state supported canal provided greater autonomy to the state’s farmers. While monopolistic railroads limited shipping options and forced farmers to accept their terms or risk the inability to reach their markets, a state controlled canal allowed farmers to transport their own goods to market. Albeit a bit simplistically, the governor seized upon a feared railroad domination that resurfaced in the latter part of the nineteenth century with the rise of the Patrons of Husbandry, the Grange, and the Populist Party.\(^{266}\)

\(^{265}\) Shaw, *Canals for a Nation*, 144.

While the three advantages highlighted by the governor do not specifically address competition from neighboring projects, the matter undoubtedly contributed to his remarks on the large scale of the canal project. Although other improvement projects on the Ohio River came online earlier, the projects ran into complications adjusting to newer transportation technologies. While once planned to accommodate the newest vessels, projects such as the Louisville and Portland Canal faced reinvestment for modification acceptable to the needs and desires of commercial transportation. If the projects lagged behind current needs or their management refused to undergo modifications to accommodate the newer technologies, the regions and their waterways risked a retreat from the area by commercial interest. Attuned to the rapidly changing landscape of improvement and transportation technologies, the governor’s vision of such a grand canal provided a measure greater security for state development and commercial investment.

**Bridging the Divide**

In 1834, Illinois stood poised to attempt canal construction again. The citizens of the state expressed their desires for improvement projects that aided state development. Numerous memorials from the region’s communities reached the Illinois General Assembly and urged canal construction. Citizens contended that access to the waterways provided cheaper transportation options than railroads.267 The voters, in turn, elected politicians such as Duncan and Lincoln that supported using state governmental authority to initiate improvement projects that removed barriers to economic and regional

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development. In turn, the newly elected officials actively sought canal construction with a renewed vigor.

Seizing upon the groundswell of public interest and support for the canal, a bill addressing the canal arrived before the Illinois House of Representatives in February 1835. The bill called for the establishment of a board of five commissioners with similar responsibilities as those from the original canal commission. The legislation called for the commissioners to oversee the construction and operation of the canal. Additionally, the legislature conveyed special authority to the Governor and not to the board of commissioners. The Illinois Governor possessed the authority to conduct negotiations for a loan worth no more than $500,000. Specifically, the General Assembly authorized the governor to negotiate with land sales and future anticipated canal revenues arising from tolls. In other words, although the legislature provided a mechanism by which the governor utilized profit projections to secure the $500,000 loan, the state legislature limited the resources available to negotiate the terms of a loan. The General Assembly viewed the bill with great optimism and although the prescribed number of commissioners indicated in the bill underwent scrutiny from Representative Lincoln, the bill gained the approval in the House by a vote of 40 to 12. Making it official, the governor approved the bill on February 10, 1835.\(^{268}\)

With the canal bill signed into law, the state proceeded with issuing canal stock notes, drawing five percent interest and payable only after 1860. Seeking the large scale investors needed to purchase the majority of the canal stock and secure the loan
provisions of the bill, Governor Duncan sent representatives to the eastern financial centers of the United States. Despite negotiations with leading lending houses, including Rothschilds, the Illinois envoy returned no closer to securing purchasers of the loan.269

Although Eastern investors passed on the investment opportunities, the capitalists offered encouragement and advice to Illinois. Witnessing the successful completion of the Erie Canal and other improvement projects, the capitalists concluded that the proximity of the Illinois project to two major water networks almost assured success. Other investors contended the improvement spirit simply stretched their resources too far and precluded them from taking on additional ventures if the state of Illinois refused to pledge the faith of the state in supporting the investors. However, further resistance to investment stemmed from the five percent interest rate guaranteed by the state in the canal stock. Because interest rates in the United States were generally higher than the five percent provided for in the state certificates, investment in the Illinois stock appeared less lucrative than other investments. If Illinois refused to increase the interest rate offered on the stock, the state stood little chance of finding investors in the United States. As such, the only option for investment at the five percent interest rate rested across the Atlantic Ocean. However, the project also presented great risks to European investors as they often viewed projects on the American frontier with a wary eye.270

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In response to the unwillingness exhibited by potential eastern investors, Governor Duncan urgently called upon the General Assembly to provide a remedy to the problem. Despite still believing in a great canal that more than adequately handled the needs of commercial navigation, the governor recounted the events of the trip east in search of investors. Upon relaying the discussions with eastern capitalists, Governor Duncan highlighted what he perceived to be the remaining obstacles for securing the needed investors. Specifically, the governor viewed the market price of the federally granted lands to be more than sufficient, especially as increasing numbers of settlers arrived and drove up the demand for the lands. Further, the governor contended that the mood of the national government almost assuredly guaranteed further federal land grants to fund the project, if required. As such, with no fear of land sales falling short of what canal construction needed, the governor held no reservations in petitioning the General Assembly to pledge the faith and credit of the state of Illinois in exchange for the investment from eastern capitalists.\(^{271}\)

Although the General Assembly quickly engrossed itself in the work of providing the measures the governor sought, a vote on an initial bill addressing the governor’s wishes failed. Approximately a month after the governor addressed the General Assembly, the legislature passed a bill providing the requested measures on January 7, 1836. Specifically addressing the governor’s request, the new legislation provided the

\(^{271}\) Putman, *The Illinois and Michigan Canal*, 31-34.
governor with the authority to “issue stock for a loan of $500,000 with interest as ‘six per cent. annum payable semi-annually.”

Despite the role of the governor, and his envoy sent east to secure funding, Historian Wayne C. Temple contended a closer examination of the final bill signed by the governor contained components skillfully incorporated by Representative Lincoln. The final bill signed into law contained a provision allowing the governor to appoint a board of three commissioners. This stood in stark contrast to the previously failed bill that called for five commissioners. Although Lincoln provided no clear rationale for the variation, Lincoln, himself, introduced a similar amendment reducing the commissioners to three during a previous version of the bill. The political struggle over the size and scope of the commissioners illustrated the experimentation of both the state legislative and the executive bodies. Further, Lincoln also petitioned unsuccessfully for the inclusion of a clause providing the governor executive power to remove canal commissioners in the event that the General Assembly was in recess. Despite failing to get the amendment into the previously failed legislation, the Lincoln amendment resurfaced by the time the newly created legislation reached Governor Duncan’s desk in January 1836. Together, the attempts to reduce the number of canal commissioners and refine the appointment and removal powers illustrated attempts, by state politicians, to be more accountable to their constituents.

The state government moved rapidly to establish the new canal commissioners after the legislative breakthrough. Expeditiously, the commissioners sought out and

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retained the services of William Gooding. Gooding served as an integral part in the engineering of the Erie Canal and came highly recommended. Gooding and the commissioners commenced with determining the route and depths needed for canal construction. Through their calculations, the commissioners and engineers determined that “the canal should be no less than thirty-six feet wide at the bottom of the cut and sixty at the water line, with a depth of six feet.” Such a positive spirit encompassed the commissioners and state government that the commissioners extended the construction contracts upon the conclusion of the engineers’ calculations and surveys in June 1836.

The positive spirit remained too little to overcome the financial needs for constructing the canal. Although securing financial investors remained a significant target, other financial concerns resurfaced first. Despite canal construction estimates ranging upward in excess of $4,000,000, updated costs for construction of a canal capable of handling current and future demands surpassed those previously presented. Specifically, newer estimates included an additional fifteen feet in width and one foot in depth canal to handle canal traffic. Engineer Gooding and the commissioners contended that despite the extensive costs a lake-fed canal of such scope undoubtedly filled the needs of the state, its citizens, and commercial interest into the foreseeable future.

In June 1836, the commissioners proceeded with construction plans for the canal despite lacking a clear strategy for securing the necessary funding. They divided the canal into three main segments, the Summit division, the Middle division, and the

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273 Ibid.
274 Ibid; Shaw, Canals for a Nation, 144, 146, 150.
Western division. With the hope of constructing various portions of the canal at the same time, the commissioners broke the three main divisions into even further segments. The more intensive the work in any sub-divided section, typically the shorter the canal commissioners made the difficult section. However, with no solution to the financial shortage immediately available, the commissioners adapted their plan to begin work closest to Lake Michigan and the growing town of Chicago in the Summit section. In part, the canal commissioners hoped that the initiation of construction on the canal near Chicago might spur more settlement and commercial development. In turn, more settlement and commercial development would provide the commissioners with more capital through the sales of the granted lands that comprised many of the plots of the town. Additional concern surfaced over the scarcity of labor and the resulting higher wages demanded by those the canal commissioners secured. The final consideration centered upon unreasonably high contractor bids for specific portions of the canal. While the commissioners secured several contractors with reasonable bids, other contractors increased their estimates for work in large part due to skepticism over the canal’s completion. In response, the canal commissioners anticipated the more experienced contractors to finish their work and provide tangible evidence that the completion of the canal remained only a matter of time. Further, beginning construction with the acceptable contractors bought the canal commissioners enough time until labor wages and


material prices dropped enough to allow the unacceptable bids of the other contractors to fall in line with the estimates of the canal engineers.

Much to the dismay of the canal commissioners, several of the approved contractors forfeited their work before the official construction even began. While not the start of construction the canal commissioners wished for, the forfeitures by several contractors actually provided the canal project with a minimal financial increase. After accepting the contractors’ bid, the canal commissioners insisted upon the adherence to a contract that required contractors in violation of the contract to forfeit a penal bond established before work began. The forfeiture clause bound the contractors to a penalty of five percent of the original contract amount. In this manner, the canal commissioners sought only serious bidders and held them financially responsible for progress on their portion of the canal construction.277

Not all of the contractors fell through and the commissioners felt that those who remained provided enough labor and organization to begin canal construction. Drawing upon the symbolism of the patriotic and nationalistic celebration of the Fourth of July, the canal commissioners, state dignitaries, and citizens of Illinois welcomed the official beginning of construction on the Illinois and Michigan Canal on July 4, 1836. Although filled with grand ceremonies and celebrations, the official beginnings of canal construction ushered in no great buzz of canal activity. Rather, activity behind the scenes consumed the remainder of the summer and most of the fall. Instead, historian James W. Putnam contended, “Much of the time was consumed in preliminary preparations such as

constructing roads across the marsh, building houses for the laborers, and procuring machinery and other supplies.” With the expectation that work would pick up, the commissioners signaled the go ahead to additional sections on the Western section of the canal. Despite the preparations, little construction occurred on the canal throughout the remainder of the year.

Meanwhile, Governor Duncan renewed his search for canal investors. With the terms of the bonds reworked by the General Assembly, the governor found willing listeners this time around. Despite the rather inauspicious start 1836, December brought forth willing investors. In New York, the governor quickly reached an agreement and secured a loan of $100,000 at five percent interest. The work of the Illinois legislature, governor, and improvement supporters paid off with the governor announcing the loan upon his return to the state. Conveying the news of the secured loan to the General Assembly, the governor also advocated for the state to show further support by means of legislation authorizing the state government to purchase capital stock in all improvement projects in the state. Through such actions, the state provided legitimacy to the project, potential investors, and its citizens.

The Illinois General Assembly revisited the legislation at the request of the governor in the early months of 1837. On February 12, 1837, the legislature passed a bill amending the previous canal legislation. The legislation contained several significant

changes and reflected legislative experimentation with the management structure of the canal. As would be a similar political battle in Iowa over the oversight of its improvement project, the General Assembly removed the authority of the governor to appoint canal commissioners. Instead, the legislature reserved the appointment authority for themselves.\textsuperscript{280}

Although little evidence exists to conclude a political struggle between the governor and the legislative body occurred, the General Assembly clearly took issue with gubernatorial appointment. An examination of section two of the new legislation provided one possible explanation. The legislation called for the canal construction “to proceed immediately and without delay, to the prosecution and final completion” of the canal. The language of the passage indicated a growing displeasure over the rate at which the canal project progressed. Together, reserving the appointment authority and calling for more accountability sent a message of heightened accountability to the governor and the citizens of the state.\textsuperscript{281}

With the governor’s signature in March 1837, the amended canal bill passed appointment authority to the General Assembly and provided the governor with the authority to pledge the credit of the state for the purchase of capital canal stock. With little delay, the General Assembly identified and appointed the new canal commissioners.


Lincoln-supported William F. Thornton won the presidency of the board of commissioners.  

Entering the winter of 1836, the canal commissioners remained highly optimistic that the following year would witness full construction efforts on the canal. With legislative reorganization, expanded financial support from the state government, and construction preparations well underway, the canal project flirted with becoming a reality. Unfortunately, for the canal commissioners and state of Illinois, 1837 brought a national economic crisis. The status of the canal project when the Panic of 1837 hit the nation led one scholar to refer to the Illinois General Assembly and state officials involved in the canal project as a “Star-studded group who brought financial ruin to the State of Illinois through a wholly unrealistic system of internal improvements.”

While scholars have referred to numerous improvement projects of the era as “follies,” the notion is a bit troubling. Ill equipped to manage the financial, logistical, and political issues enveloping such expansive projects, settler societies found their opportunities for infrastructural improvements greatly limited. With limited means of accumulating the needed capital and a federal government offering little more than lands of the public domain for further funding, regional, state, and territorial governments faced the necessity to experiment with authority to bring the projects to fruition and meet the needs and demands of its citizens.

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282 Also of note, future Union General John A. McClernand won the position of treasurer on the inaugural General Assembly appointed canal board.

Despite the positive upswing of land sales for the canal project in the early months of 1837, by the end of the year almost ten percent of the land purchasers forfeited by failing to make their first payment.\textsuperscript{284} Optimism abounded in spite of the land sale forfeitures with officials estimating the failed transaction affecting continual work on the canal minimally. On the national stage, the Panic of 1837 provided the Whig Party with the opportunity to promote the principle of “using the state actively for the benefit of the people.”\textsuperscript{285} Specifically, supporting the intervention of the federal government to lessen the effects of the Panic enabled the Whigs to turn out voters in numbers to compete with the Democrats.

The ideology of state support promoted by Whigs directly contributed to the expansion of the country, the effort to re-establish a national bank, and the development of internal improvements supporting the nation’s growth. Whigs such as William Henry Harrison “advocated federal subsidization of internal improvements and endorsed [Henry] Clay’s scheme for distributing federal land revenues to the states for that purpose.”\textsuperscript{286} In an effort to support the “release of creative energy,” Whigs proposed legislation that promoted federal assistance for projects that benefited the general good of the nation and its emerging national economy.\textsuperscript{287}

In stark contrast to the Whig Party, Democrats stood firmly against federal involvement in such matters. Antebellum Democrats contended that under Whig policies

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\item\textsuperscript{284} Howe, \textit{Documentary History of the Illinois and Michigan Canal}, 85-88; Putman, \textit{The Illinois and Michigan Canal}, 41.
\item\textsuperscript{286} Ibid, 41.
\end{itemize}
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the national government had marched headlong into irresponsible fiscal management. Whether through the extension of land grants, credit, or other monetary means, Whig policies placed the national government and its people in great debt. Democrat Martin Van Buren echoed the party’s platform by claiming, “the less government interferes with private pursuits the better for the general prosperity.”

Historian Marvin Meyers suggested the rapid population growth and influx of capital, albeit in the form of credit, created a boom during the 1830s and 1840s. Echoing the ideas of Democrats, Meyer contended that the boom “which prompted ambitious improvement schemes strikes one as sound, the mode and tempo of execution as audacious, often reckless, sometimes (as in Illinois) absurd.”

In Illinois, the economic downturn hit home and greatly undermined canal construction. Seeking to protect itself, the State Bank of Illinois closed its doors and suspended all business on May 4, 1837. While the actions of the bank did little to stop financial transactions in the state, the move caused construction on the canal to halt. The canal board of commissioners utilized the Chicago branch of the State Bank of Illinois for its financial matters, including holding canal fund deposits of approximately $400,000.

Additionally, the second scheduled payments for Chicago land sales remained in jeopardy. With the bank shut down, the canal commissioner risked losing the additional funds, in the neighborhood of $375,000, if deposited in the state bank. While the

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287 Ibid, 7; For more discussion on the release of creative energy see: James Willard Hurst, Law and the Condition of Freedom in the Nineteenth Century United States, 4-9.
288 Holt. The Rise and Fall of the American Whig Party, 66.
temporary suspension complicated construction plans on the canal, an even greater risk remained. Illinois law dictated that the bank lost its charter if it stopped specie payment for more than sixty days. The canal risked defaulting payments to contractors and falling further behind in construction with the possible revocation of bank’s charter and subsequent liquidation of the bank’s assets. Conversely, a return to specie payment by the bank would eventually deplete the bank and force the bank to pay creditors only a portion of their original deposits. Either scenario placed the successful completion of the canal at great risk.  

In addition to the canal, the suspension of specie payment by the bank posed great risk to the overall health of the state. Considering the circumstance, the government sought a remedy to the banking crisis. Seizing the initiative, Governor Duncan called a special session of the General Assembly to address the financial crisis. The special session produced legislation extending indefinitely the suspension of specie payment. Most importantly, the removal of the sixty-day limit allowed the canal project to avoid collapse.

While the legislation provided the state with a limited remedy, staving off a banking collapse, the bill still complicated canal construction. While calling the special session of the General Assembly, Governor Duncan also called upon the legislature to take actions that threatened the continuation of state supported internal improvements.

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291 Ibid.
Seeking to remove excess financial burdens from the state government and the state’s citizens, the governor asked the General Assembly to reverse legislation pledging state backing of internal improvements within the state. While the General Assembly provided the governor with the revised legislation for state banking, the lawmaking body thought otherwise. Representative Lincoln vehemently disagreed with the governor and joined the majority in voting down the governor’s proposal to reverse state support for internal improvements. Further indicating his full faith in the state’s internal improvement projects, and the canal specifically, Lincoln joined other officials in signing a petition supporting the continued surveying of the “General System of Internal Improvements.”

With a vote of confidence from the state legislature, the canal company proceeded with construction efforts, land sales, and further surveying.

As the canal commissioners fought off a financial crisis with the help of the Illinois General Assembly, prospects for the canal project picked up in what appeared as little more than a turn of luck. By the fall of 1837, progress on the canal reached the stage of construction projected for the previous year. Owing in part to a new influx of new arrivals to the region, land sales rose and provided the commission with a much-needed financial boost. As land sales picked up for the canal commission, the new arrivals placed pressure on the state’s resources. Specifically, housing booms increased demand for building supplies and food necessities. The increase in demand for food and building supplies hit the commission’s budget and resulted higher wages and material fees in combination with creating competition that resulted in labor and material

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Ibid.

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shortages. The increased competition and resulting shortages forced several contractors to forfeit their contracts and left the commissioners searching.\textsuperscript{294}

Responding to the challenges created by the increased demand for supplies, the canal commissioners struggled to find methods of providing a steady flow of needed supplies for construction. The commissioners proposed establishing a store, located at Lockport, Illinois, to provide the canal contractors with the supplies and machinery needed for construction but not readily available in the region. The commissioners had no desire to create a profitable supply store and restricted sales to only those contracted by the canal commission and for their work on the canal only. In this manner, the commissioners hoped to provide a steady flow of materials to keep work moving forward while also restricting the loss of the needed supplies to other construction projects in the state. Financially, the commissioners provided contractors with supplies and in turn subtracted the price of the supplies from their individual contract finances. In essence, the board of commissioners became both project manager and supplier. While a bold business move, the risk proved so successful that no further contracts were lost.\textsuperscript{295}

While the nation struggled with the Panic of 1837, the canal project survived. At times during the year, the canal faced almost certain failure. A population boom, supply shortages, and a growing undercurrent of opposition to internal improvement opposition threatened the canal’s future. However, by year’s end, quick action by the state government, a providential population boom, and bold experimentation by the


\textsuperscript{295} Ibid.
commissioners placed the Illinois and Michigan Canal’s construction back on track and poised for successful completion.

In 1838, the progress on the canal remained on the upswing. By the end of the year, contracts of all but a portion of the middle division of the canal existed. Construction work remained steady with numerous sections of the western portion of the canal completed or in an advanced stage nearing completion. In general, the optimism reached new heights with the commissioners’ major concerns centered upon balancing ledgers. In reporting to the Illinois House of Representatives in early 1839, Representative Lincoln contended work progressed so far that ‘if we would, we cannot retreat from it, without disgrace and great loss.” Although not a ringing endorsement, the statement by Lincoln highlighted the financial and political losses Illinois risked with a retreat at such an advanced stage of construction.

With the immediate finances of the commission secured for the year, the commissioners began expressing concerns of impending future financial difficulties. As more and more contractors working on the canal reached completion on their sections, the commissioners needed more capital on hand to pay contractors in full. While sales of the federally granted lands remained brisk, the sales fell short of the pace needed for payment of contractor services. With a shrinking treasury and increasing expenditures, the commissioners gradually faced a familiar situation and called upon the state government for assistance.

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The Illinois General Assembly addressed the matter in the early months of 1839. In reporting to the legislature, Representative Lincoln introduced a new initiative. Lincoln proposed that Illinois purchase unsold lands from the public domain from the national government and resell them. In order to make the venture worthwhile, Lincoln suggested purchasing the lands for twenty-five cents per acre from the national government, followed by Illinois reselling them to willing individuals at $1.25 per acre. If approved, the canal commission stood to gain the one-dollar profit from the land sales.

While advantageous to Illinois and the canal project, the plan held little, if any, benefit for the national government. Despite Lincoln’s attempts to persuade congressional representatives of the benefits to Illinois and the nation, the federal government found the idea difficult to support. As much of the nation still suffered from the effects of the Panic of 1837, Congress found little to like about Lincoln’s proposal. While the plan assisted Illinois and the canal, the nation stood to lose a great deal from accepting a price substantially below the established sale price for lands of the public domain.

While Lincoln’s proposal failed, the commissioners still needed an influx of finances. Responding to the commissioners’ needs, Illinois authorized a new loan of $400,000 with six percent interest. Illinois representatives found willing investors for the authorized sums. However, the terms of the loans negotiated provided only marginal immediate assistance. Terms of the loans required monthly payment of $100,000 to the state and thus stretched the $400,000 sum out over the much of the remaining year.

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By June 1839, the project required immediate help as the commissioners’ ledgers showed a deficit of over $200,000. Governor Thomas Carlin, succeeding Governor Duncan in 1838, moved swiftly authorizing $500,000 of state bonds on the market with the funds applied to the canal finances. Few willing buyers surfaced with the canal commissioners only selling $100,000 of the bonds. With the release of state bonds failing, the governor turned to the State Bank of Illinois to provide funding to cover canal construction for the remainder of 1839. Governor Carlin hoped the measure proved enough to keep the pace of construction constant and progressing while continuing the search for additional sources of funding.299

Searching for purchasers of the remaining loan, Illinois representatives approached European investors and broker houses again. With few takers, Illinois finally secured purchasers for the loan with the brokerage firm of John Wright and Company. Negotiations resulted in an agreement for the brokerage firm to eventually acquire $1,000,000 in state bonds. Perhaps highlighting the reason for the brokerage firm’s willingness to work with Illinois, the firm folded before purchasing the entirety of bonds. Because of the incomplete transaction, the canal commissioners only received an influx of approximately $145,000.300

The limited inflow of capital for construction left the state of Illinois and canal commissioners mired in a perpetual financial struggle. With a nation suffering from the financial aftershocks of the Panic of 1837, Illinois found only a few willing and

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financially stable investors. Reflecting the height of financial severity reached in Illinois, Governor Carlin called a special session of the Illinois General Assembly in December 1839. In addressing the legislature, Carlin, “pleaded with the legislators to solve the financial problems of the State which was in debt over 11 million dollars.” Over $42,400,000 of outstanding canal stock, with six percent interest, alone contributed to the financial crisis. Evaluating the circumstances surrounding the canal in 1839, historian Wayne C. Temple contended, “The Canal would cost Illinois taxpayers 8 million to finish.” By the end of 1839, monthly canal construction expenditures reached upward of $150,000.

By 1840, the canal ledgers highlighting little positive flow mirrored the financial state of Illinois as a whole. Unfortunately, for the fortunes of the canal, the special session of the legislature provided little relief. While proposals calling for the suspension or cancellation of all state improvement projects rose, only two measures passed. Representative Lincoln accounted for one of the measures. Lincoln introduced a proposal providing the General Assembly with the authority to elect a Treasurer for the board of canal commissioners. Whether the measure provided a concrete benefit or break from the past, the passage of the measure suggested a concern with accountability. In theory, the joint legislative body electing the treasurer instilled a higher level of accountability. The elective power reserved by the joint assembly held the promise of a more thorough

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302 Ibid.
304 Ibid.
pursuit of the candidate’s qualification. In turn, the legislators held firm to the idea that financial viability of the canal project stood a much greater chance with a truly qualified treasurer.

In addition to the minor revision pertaining to the manner in which the board of canal commissioners received its treasurer, the only other substantive measure that arose provided an unlimited power to the commissioners for the full calendar year of 1840. The joint body authorized the commissioners to sell as much of the canal grant lands as necessary to pay the interest on the canal loans. However, the General Assembly immediately turned the measure upside down. Perhaps in hopes of luring the return of Providence to the improvement project, the legislature courted good favor by authorizing the transfer of granted lands to religious organizations at no cost. Regardless of the intent, the offer of free lands limited the available parcels for the canal commissioners to sell. As a result, it undermined the nature by which the legislation materialized.305

With contractor bills coming due and little resulting from the special session of the General Assembly, the canal commissioners again turned to alternative plans to fulfill contractor payment. With little option, the commissioners resorted to issuing checks, payable in the future, to contractors. Due to the financial instability, the commissioners could not set a specific future date for payment. Instead, the commissioners leveraged interest to offset the inability to pay immediately upon services rendered. The commissioners extended checks, accruing six percent interest annually, and payable to contractors at such a time as funds became available. The commissioners hoped that the

305 Ibid.
lure of accruing interest provided contractors with assurance that ultimately they would receive more than full pay. Additionally, the board trusted that the interest paid would entice other contractors to continue work even in the event word spread of the commissioners’ inability to make immediate payment. In the meantime, the commissioners pressed onward with land sales under the new and more liberating authority granted during the special session.306

At the end of 1840, even the most optimistic mind struggled to remain convinced of the canal’s eventual completion. Although the commissioners continued with land sales, the result amounted to little more than a great disappointment. Sales of lands during June and July barely produced $7,000. Mindful of their responsibilities to the citizens of Illinois, the commissioners deemed that continued sales of lands extremely suppressed prices benefited no one. As such, the commissioners abandoned funding the improvement project through land sales.307

With little remedy for the canal’s financial woes coming from the legislature, sales of granted lands, or investors, progress on the canal slowed to a crawl. Fearful of losing their investments in the canal, the project’s major contractors gathered for a meeting in Lockport. The meeting resulted in a proposal that converted contractors into partial investors of the canal. The contractors proposed they purchase $1,000,000 in state canal bonds at full value.308 With the purchase at full price, the contractors provided the canal commissioners with much needed capital and, in turn, allowed the contractors to

307 Ibid.
proceed with their work. Rather than purchasing the bonds at the depressed market price, the contractors exposed themselves to tremendous potential loss. However, the acceptance of the contractor’s proposal converted the contractors into vested parties in the canal’s success as they only stood to make money, or at least break even, with the opening of the canal. For Illinois and the canal commissioners, the proposal dispersed authority and distributed financial responsibility amongst more parties. With the transaction completed, the canal commissioners and contractors enabled construction on the canal for a few more months.\textsuperscript{309}

\textbf{The “Great Emancipator” or “Great Facilitator?”}

By the early months of 1841, the commission extinguished the funds secured from the project’s contractors. However, the commissioners and contractors carried on with construction, convinced that the state legislature would finally provide a true and successful financial solution for the canal. Shortly before the new year began, Governor Carlin again called upon the General Assembly. With the state’s internal improvements in dire financial shape, the governor implored the legislators to provide true relief. Seeking a strong leader to provide a quick and pragmatic solution for the internal improvement problems, the first session of the General Assembly resulted in the appointment of Lincoln to the committee on Canal Lands. Historian Wayne C. Temple contended, “As floor leader of the Whigs, Lincoln exerted stalwart influence upon the

\footnote{309 Ibid.}
entire legislature. He had a reputation for honesty and common sense.”

Although highly debated, little relief surfaced for the canal during the first session.

Only two days later, the General Assembly opened the second session and attention turned immediately to the financial situation again. Grabbing the attention of the legislature, Lincoln swiftly introduced legislation providing payment of the interest on the state’s canal debt. Following the introduction, Lincoln dutifully dove headfirst into canal legislation. Building upon his long held promotion of internal improvement projects in the state, Lincoln supported legislation urging the continued and early completion of the canal voted upon on February 27, 1841. With the votes counted, Lincoln successfully secured the passage of the legislation by the House, 37 to 33. However, the bill met defeat in the Senate. While the attempt to secure early completion failed, the legislation seeking the payment of interest on the state debt introduced by Lincoln succeeded. Resulting from the Lincoln introduced legislation, the General Assembly authorized a new tax of on all property in the amount of ten cents per one hundred dollars of property value. To pay any additional uncovered interest on the debt, the legislature also directed the commissioners “to raise $300,000 by pledging internal improvement bonds.”

The year 1841 held great significance for the Illinois and Michigan Canal. With canal funds depleted and no stable financial solution found, the future of the canal teetered perilously on the edge of complete failure. Adding to the dire financial circumstances surrounding the canal, Illinois’ internal improvement lost one of its most

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310 Temple, Lincoln’s Connections with the Illinois and Michigan Canal, 13.
ardent legislative supporters. With the close of the legislative session in 1841, Representative Lincoln left the state capital and never sought re-election to the state government. While the state’s financial matters undoubtedly weighed heavily upon Lincoln, the 1840’s witnessed Lincoln’s fate intertwined with the changing nature of American politics.  

Lincoln, a member of the Whig Party, found himself at odds with Democrats over the use of public funds for internal improvements and economic development. Deeply rooted in a frontier region that required assistance in development, Lincoln found it the duty of government to respond to the needs of its citizens. Much like the argument for the Illinois and Michigan Canal, regional improvements assisted the immediate region and state in addition to connecting the nation together. The very process of improving upon the landscape wove together the interests of the nation and its citizens and solidified their futures.

The contrasting political ideologies of the two parties diverged further in the late antebellum period and saw the Whig Party lose prominence. A rebound in the nation’s economic fortunes after the Panic of 1837 combined with the splintering of the Whig Party over the issue of slavery, specifically the compromise of 1850, undermined the

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312 While scholars struggle with unraveling Lincoln’s personality, painting him as a sufferer of depression and a calculative and pragmatic intellect, the precise reason for his withdrawal from state government remains elusive. For a comprehensive evaluation of Lincoln as a private citizen and a statesman, see: Carl Sandburg, *Abraham Lincoln: The Prairie Years and the War Years* (New York: Harcourt, 1954).
party’s platform and led to the entrenchment of Democrats.\textsuperscript{313} While the Whig Party struggled to reunite, the emergence of the Republican Party spelled their end.

The issues of slavery, economic development, western expansion, and the Mexican War divided the parties of both Whigs and Democrats. Democrats fell along regional lines of North and South in supporting slavery. While Northern Democrats generally supported a more moderate approach to slavery, Southern Democrats stood strongly behind the sovereignty of the states to decide the slavery issue. Northern Democrat Stephen A. Douglas epitomized expansionist Democrats that saw benefits in national improvement projects such as the trans-continental railroad. In an attempt to skillfully navigate the political waters and ensure a northern-based route for the railroad, Douglas offered to southern senators a compromise. To calm southern senators wanting the national rail line to pass through southern cities, Douglas offered the doctrine of popular sovereignty in the 1854 Kansas-Nebraska Act. Despite the splintering, many Democrats remained united behind the state’s rights platform offered by Douglas.\textsuperscript{314} However, the unity of the Whigs further split due to the rise of other parties such as the anti-immigration, “American” Know-Nothing Party. The deep divisions within the Whig Party and the regional division between Democrats allowed the Republican Party to successfully elect Abraham Lincoln as President in 1860.\textsuperscript{315}

With many of the ex-Whigs migrating to the Republican Party and influencing the party’s ideology, they looked favorably upon expansion and internal improvement projects. Upon Lincoln’s election as President, Southern states called for secession from the Union. In response, Lincoln threatened military force in preserving the Union. Under growing tensions, many southern elected officials resigned from their positions in opposition. While the crisis devolved into the Civil War, it allowed the Republican controlled Union government to chart a favorable agenda for a strong central governmental role in shaping the development of the national economy.\textsuperscript{316}

For Illinois and Representative Lincoln, 1841 signaled the shift in national focus and political influence. By the time the new state legislature began, Democrats held firm control and few supporters of the canal or internal improvements remained. The political shift left visible marks on the canal as construction waned, several contractors forfeited their contracts and money, and little financial investment loomed. Along the canal corridor, state bonds sold to fund the canal project had long before become common currency. Illinois allowed holders of state warrants and bonds to redeem canal lands for the script, few willing individuals wished to take a chance on the lands. Without an operable canal cutting through the area, the reoccurring problems of transportation offset the potential of the lands. As such, most bondholders retained their script with the hope of collecting full value in the future. However, as Illinois’ financial situation worsened, the state bonds flooded the market.\textsuperscript{317} With little state or national government support, severe financial problems, and fewer willing takers, depreciation set in and work ground

\textsuperscript{316} Ibid, 31-38.
to a halt on the canal. Only contractors capable of providing their own funding for work continued while holding onto hope that the completion of the canal offered the best scenario for recovering their costs.

**From Problem to Solution**

While few held onto hope, February 1842 brought about bad news again. With the Panic of 1837 still restricting capital throughout the nation and Illinois’ finances in desperate shape, news broke that the State Bank of Illinois had collapsed. Undoubtedly, the failure of the State Bank hurt Illinois as a whole as state debt approached nearly $14,000,000. One of the major contributors to the financial difficulties of the state undoubtedly remained the canal, with interest due on canal loans reaching over $800,000 per year. The state found itself in great debt resulting from internal improvement investment and as yet had no significant canal linking the two major waterways together and making Illinois the center hub. With debt reaching $14,000,000 for the canal project, the path forward remained difficult. While canal supporters searched for avenues forward, the high debt load also created great difficulty for Illinois to save face and retreat from the project. With few options emerging, the completion of the canal and the fulfillment of its potential provided the only foreseeable solution to the financial crisis of the state.318

Although the Panic of 1837 contributed to the disappearance of willing investors and available capital, the Illinois and Michigan Canal project placed great financial

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constraints on the citizens of Illinois. However, the canal also provided the one opportunity for the state to improve its financial situation. Though the canal planted the seeds of financial burden, by the 1840’s it continued to hold the promise of providing Illinois with great wealth and stability. As Representative Lincoln foreshadowed with comments before his fellow legislators years before, the advanced state of improvement then ongoing in Illinois prohibited the option of retreat. The only path forward remained to finish construction. The canal’s completion then provided a source of revenue through tolls for canal users. In turn, the presence of the canal created an environment more conducive to settlement and development. With more settlement and development, Illinois stood to gain more revenue and greater overall property value establishing a greater tax base.  

The rhetoric and facts surrounding the canal’s status and potential in the early 1840’s differed little from its earliest contemplated days. Despite seeing the potential, capital remained the most significant barrier between a vision and a functioning canal. With no investors willing or capable of completing the project, the only viable option that remained was plunging the state further into debt. With estimates for the canal’s completion reaching upward to $3,000,000, the proposition of sinking further state resources into the project simply stood as too great a challenge. With the insolvent

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circumstances Illinois faced, releasing such an enormous amount of bonds onto the market proved unrealistic and highly improbable.\textsuperscript{320}

Seeing no other recourse, attentions turned toward finding alternative methods for finishing the canal. With finances comprising the greatest barrier confronting the canal’s completion, efforts centered upon cost savings. Almost from the initial stages of planning, the canal commissioner and contractors sought to minimize cost overhead through the planning and contract bidding process. Few options remained for contractors to reduce construction costs. In searching about for a solution, a close re-examination of the early stages of canal planning provided a sliver of hope.

In the initial push for canal development, surveyors presented two significant canal proposals representing a wide expanse of financial outlay. Original discussions suggested that while the more expensive canal drew waters from Lake Michigan and contained a deeper channel with an elevation eight feet above Lake Michigan, the more inexpensive canal constituted a shallow design. Although the shallow design estimates provided a more economically feasible canal, the shallow design limited the long-term viability of the passage. As such, the cheaper price tag accompanying the shallow canal also held the cost of a shorter lifespan before finding itself outdated by vessel size and capacity. Although the more inexpensive shallow channel canal proved competitive in costs, the shorter lifespan resulting from its design rendered the option financially unacceptable.\textsuperscript{321}

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\textsuperscript{321} Putman, \textit{The Illinois and Michigan Canal}, 21.
\end{flushright}
The 1840’s placed the completion of the canal in a much different context. Illinois no longer held such optimism for the canal. Instead, based upon financial constraints, finishing construction on the deep channel, the lake fed canal simply was not possible. Rather, many contemplated the lost opportunity to build the much cheaper shallow-cut canal from the onset. While the long-term prognosis for the cheaper canal left many remorseful over the lost opportunity, the operable canal could have released much of the financial burden Illinois now held. Further, with a steady flow of capital, albeit less than the deep channel canal, Illinois could have entertained ideas of expansion in later years. Instead, Illinois bet its financial stability on the construction of a massive canal and the economic fortunes of the young country.\footnote{James W. Putman contended in his economic analysis of the Illinois and Michigan Canal that the idea surfaced from Justin Butterfield, a friend of Arthur Bronson, the largest investor in the canal. With the idea coming from investors, state officials felt positive that the plan would move forward and spur further investment from eastern capitalist.}

Lamenting over missed opportunities did little to relieve the current problems. However, the discussions provided a potential solution to the state’s canal situation. Despite the financial complications, construction on many of the sections of the canal reached completion. Those sections remaining unfinished stood as the physical barrier to completion. As such, the idea of applying the shallow-cut canal plan to the unfinished sections emerged as a viable solution. Instead of finishing the remaining sections with the deeper channel, canal supporters proposed that construction focus only on a much shallower, albeit navigable channel in those sections. The plan provided the potential for a completed canal while the shallower cut also required less construction investment. A shallower channel consumed less time, required less labor, and most significantly, less...
money.\textsuperscript{323} Of course, the trade-off for Illinois remained that the shallow sections of the canal ultimately limited the shipping potential of the entire canal. However, for the sake of Illinois, any canal was a better option than no canal.

With a possible solution in the wings, attention turned toward determining the costs of the modified plans. Calculations revealed that a sum of $1,600,000 stood between the state and a finished canal. Although still a steep price, the shallow-cut plan cost almost half of the needed amount estimated for finishing the deeper channel. With favorable overtures from investors reaching the state, Illinois jumped to action.\textsuperscript{324}

During the remainder of 1842, the commissioners and state officials judiciously laid the groundwork for the revised canal plan. During the summer months, the Illinois legislature authorized the Chairman of the Committee on Canal and Canal Lands to travel to New York and meet with leading investors. News of Illinois’ willingness to accept and implement the modified canal plan met with welcoming feedback. With the consent of the major investors, canal commissioners and state officials turned their attention toward passing supporting legislation.\textsuperscript{325}

Opening a new era in the canal project, supporting legislation gained passage in February 1843. The successful legislation authorized the governor to enter into negotiations to secure a loan for the $1,600,000 estimate of the shallow channel plan. Under the bill, the state legislature authorized the governor to go “all-in” in order to secure the capital. However, reversing its prior stance, the legislature allowed the

\textsuperscript{324} Ibid.
\textsuperscript{325} Ibid.
governor to utilize all the canal’s assets and potential to secure the loan. In past attempts at securing investment and the completion of the canal, Illinois looked specifically to land sales and investors. Illinois never seriously considered any legislation transferring or selling operation, oversight, or possession of the canal to secure the necessary funding. However, desperation dictated new levels of negotiation. Under the new legislation, Illinois presented the idea of establishing a deed of trust to secure payment. In exchange for the capital, the state implemented a board of trustees to oversee the canal. While the state stopped short of giving all power over canal matters to private investors, the new board of trustees relinquished the majority. The board, consisting of three trustees, included one state appointed trustee and two investor chosen trustees. However, the legislature sought to limit potential exploitative motives while protecting the interest of the citizens and state of Illinois. Significant limitations included restrictions governing the conditions of land sales or leases, usage and sale of town lots, and the assigning of water rights and waterpower from the canal. Although the limitations appeared inconsequential, they highlight legislative attempts at securing the future interests of the state. Without the restrictive oversight measures, Illinois stood to lose the ability to respond to the needs of its citizens as they arose. Instead, private investors might harness much needed water from the canal and legally restrict access and usage of the resource.

In any event, the legislation provided greater latitude for investors while still protecting the interest of the citizens of Illinois.326

326 Illinois House Journal (1844), 10-20; Illinois House Journal (1846), 10-12; Ironically, although beyond the scope of this study, the life of the canal and region fell into great controversy over sanitation and free water availability to the emerging Chicago Metropolitan area. If Illinois had entirely relinquished its control of water rights and land rights, providing a remedy to correct the contaminated and
With American investors secured, representatives of the state and canal turned their attention to Europe once again. Unlike their American peers, European creditors remained less enthusiastic. The financial crisis of the nation and the turmoil of Illinois led European investors to remain leery of investing in the canal. Further, with few, if any, favorable returns produced for European investors to date, the restructured canal and management hierarchy added to their wary view. However, the arrival of former governor Davis in Europe to present the new canal plan and lead negotiations provided enough comfort. The summer 1844 trip by the former governor resulted in securing the European investors. The investors agreed to take on the remaining portion of the needed loan on the condition that Illinois reinstitute the interest tax the state repealed in 1843. In no real position to protest, the Illinois delegation accepted the condition.\textsuperscript{327}

By June 1844, the state secured the much-needed loans and the board of trustees took their places. Assuming control of the canal project, the trustees vigorously prepared to resume construction on the canal. With the funds from the new loans scheduled for payment in September, the trustees needed to move fast to open the bidding process for the revised canal plans. The trustees awarded new construction contracts to several of the canal’s long-time contractors as their revised bids met the trustees’ expectations. While the remaining contractors resumed construction on their sections, the trustees opened the sections not under contract. With much of the region still suffering the aftereffects of the Panic of 1837, the new trustees found numerous willing contractors for the work

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\textsuperscript{327} no longer potable waters along the south shore of Lake Michigan and the Chicago River could not have occurred without even more controversy, litigation, and ultimately more money! One of the numerous detailed accounts of the sanitation struggle include: Louis P. Cain, \textit{Sanitation Strategy for a Lakefront Metropolis: The Case of Chicago} (Northern Illinois University Press, 1978).
remaining. Unlike the early years that presented material and labor shortages, the trustees found more than adequate material and a relative abundance of labor. As the Panic shut down much development, settlement slowed and demands for food and building supplies lessened. With few projects requiring workers, contractors had little difficulty securing laborers willing to work much cheaper. Further, investment in agricultural development throughout the region resulted in an abundance of agricultural goods in the region’s market. As a result, the economic downturn provided numerous advantages for the canal trustees that previous commissioners never had.\(^{328}\)

The years since the slowdown and stoppage of construction of the canal exacted a toll on the canal. Deterioration and unfinished work allowed the incomplete canal to fall into general disrepair. As such, with construction renewed on the canal, repairing the general decay consumed much of the remainder of 1845. The 1843 act creating the board of trustees required the completion of construction of the canal within three years of the trustees taking possession. With the finished sections in disarray and other sections still needing extensive work, contractors had much in front of them.\(^{329}\)

Rising to the demands of the challenging timeframe, contractors and workers poured their labor into the construction. The mid-decade years of 1845, 1846, and 1847 still presented challenges to the canal workers. Abnormally high precipitation hit the region during the final years of construction with flooding adding to the difficulties of construction. Although the flooding slowed work and increased costs, the surplus of

construction supplies, labor, and food limited financial complication. Although abundant labor kept wages relatively low and construction on track, the flooding caused work conditions to deteriorate. Subsequently, sickness and disease increased for workers on the canal. Despite the complication, for the first time in the project’s history, the canal’s financial circumstances remained adequate and allowed construction to continue unabated.330

As 1848 dawned, Illinois stood on the verge of fulfilling the promise of creating a transportation route that linked together the great waterways of the Great Lakes and the Mississippi River systems. As the snow retreated from the region and the ice pack melted on Lake Michigan, the Illinois and Michigan Canal lay ready to unite the waters so long separated by the continental divide. Centuries of human observations marveled at the untapped potential of the near perfect corridor. Limitations in technology, capital, labor, and resources placed the unfinished work of nature out of the reach of those that inhabited the region. Numerous false starts, plan revisions, limited financial resources, and political bickering undermined the pursuit of a canal. Despite the barriers placed before the canal, the Illinois and Michigan Canal opened for business in April 1848. Although an additional twenty-eight years passed before the trustees of the canal finally retired all debts in 1871, securing the completion of the canal provided a strong foundational base for the development of Illinois and the region.331


331 The foundational base established with the completion of the canal brought about great change to the state and region. Additionally, without the focus on economic development, the rise of the urban
Chapter Four:

Forging the Way Upriver:

The Des Moines River Improvement

The Des Moines River Lands Grant and Improvement Project embodied years of planning and struggles of providing the inhabitants of the Des Moines River Valley region and western settlers with a safe, efficient, and effective passage into and out of the prairie lands and upper Midwest. Regional and special interests sought to secure the construction of the river improvement project to assist settlement, provide a defensive transportation networks, and connect the region with developing markets. However, desire to improve the river alone proved inadequate. Technological limitations, insufficient capital, special interests, and political ideology complicated the construction of the river improvement. The struggles over the project provided an example of the mechanism by which a new social contract emerged. Despite the project never reaching operable completion, the process of creating the Des Moines River Improvement Project provided platforms by which commercial, social, political interests in society refined the role of government.

Unlike the previous case studies presented, the Des Moines River Improvement Project never reached completion. However, the project on the Des Moines River served as a mechanism of durable transformation. As such, the Des Moines River case places metropolis of Chicago as a regional economic hub stood in some doubt. For more discussion of the role the canal played in the development of Chicago and the connections the canal forged with its regional resources, see: William Cronon, Nature’s Metropolis: Chicago and the Great West (New York: W. W. Norton & Company, 1991). For a specific discussion of the contributions of the canal, see pages 63-67.
activist governance and process as a more significant factors in durable shifts, while relegating successful completion of great public works to a lesser role.

**Onto the Prairie**

In 1673, the French explorer Louis Jolliet and his party landed on the western bank of the Mississippi River and became the first known Europeans to step foot in the lands comprising the future state of Iowa. Numerous Native American tribes - Meskwaki, Sauk, Ioway, Santee Sioux, Winnebago, Potawatomi, Missouri, and Oto - populated the region during the seventeenth, eighteenth, and nineteenth centuries. Many of the tribes practiced semi-nomadic lifestyles, migrating through the region with seasonal change. The Meskwaki and Sauk, however, located settlements along the major river ways and planted crops such as corn, beans, squash, and pumpkins in the fertile river bottom soils.\(^{332}\)

With both Spanish and French explorers present in the region, Spain and France disputed its possession until 1803. While nominally under French possession, Napoleon offered at the bequest of the United States the lands of the Louisiana Purchase, including Iowa, for the sum of fifteen million dollars. Historian Dorothy Schwieder wrote, “With the purchase, the size of the American nation more than doubled, and the region later to become Iowa officially became part of the United States.”\(^{333}\) The region encompassed part of the territories of Louisiana, Missouri, Michigan, and Wisconsin before becoming its own territory in 1838.

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\(^{333}\) Ibid, 21-26.
White settlement strained relations with many of the Native Americans. Conflicts such as the Black Hawk War of 1832 and numerous settler murders heightened tensions while undermining tribal claims to lands. Through numerous conflicts and cessions of lands, tribes relinquished their land rights to the federal government and opened the way for further white settlement of the territory. A rapid influx of settlers to the region resulted in the national government admitting the Iowa Territory to statehood in 1846.

By horseback, wagon, rail, and steamboat settlers made the journey to the eastern edge of the Iowa territorial lands. The trail experience for most settlers traveling to Iowa was unlike that of the overland routes further to the west. Historian Glenda Riley wrote, “Most Iowa-bound settlers were traveling over parts of the country which were comparatively well-settled.” In large part, the advancement of transportation technologies aided the traveling experiences of the Iowa-bound settler. The nineteenth-century American traveler was able to exploit those advancements. Scholar Jack Larkin suggested that radical advancements in nineteenth-century America in “speed, scale, and experience of traveling came with the application of newly emerging transportation technologies - the railroad, the steamboat, the building of canals - to American conditions.” While there were not yet any railroads that cut into the Iowa landscape, those that already reached into Illinois facilitated movement westward. Upon harnessing

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335 For a discussion of the particular requirements of statehood, see: Paul W. Gates, History of Public Land Law Development, 75-86.
steam power, boat traffic on the Mississippi River increased and the river became a major thoroughfare for both the transportation of goods and the migrating population. Prospective settlers could arrive along the eastern border of Iowa simply by buying passage on a steamer going down the Ohio River, then back up the Mississippi River to ports such as Keokuk or Dubuque.338

On June 1, 1833, the Iowa Territory opened for settlement. As settlers moved westward into the Iowa territory, they viewed the region with optimism. The territory of Iowa held great promise in its fertile soils and natural resources. Hardwoods such as oak and hickory lined the river corridors and offered a ready supply of fuel for settlers. Additionally, the hardwoods proved valuable in making equipment handles, repairing wagon wheels, and building homes. Despite the lack of timber, except along the river corridors, settlers soon began writing to relatives about the potential of Iowa’s soils. The rich soils that supported a prairie ecosystem held the promise of providing tremendous agricultural production. While rendering the prairie ready for agriculture required hard work, the fertile soils rewarded many settlers. The settler could extract a profit from the land without intensive efforts to remove timber. The soils were highly productive without the need to lay fallow, and farmers found crop rotation to eliminate soil exhaustion unnecessary.339

Numerous waterways cut north to south aiding settlement of the territory. The Des Moines River, with headwaters in present day Minnesota, bisects the State of Iowa passing through the current state capital of Des Moines, and converging with the Mississippi River at Keokuk. As such, the route of the Des Moines River proved to be of key importance - steamboats delivered settlers into the center of the region, exported their goods to other markets, supplied outposts such as Fort Des Moines, and tied the interior farmlands of the state to the Mississippi River transportation network. The perceived promise of the region drew 1,194,020 people within the first thirty-seven years of official settlement of the region. The rapid influx of settlers allowed Iowa to achieve statehood on December 28, 1846.

Governmental Improvement

Early political influence in the Iowa territory by the Whig party shaped the region’s growth and land disposal policies. Despite the abundance of fertile soils for agricultural production and people’s willingness to work the lands, state Whigs argued that without local and federal aid Iowa would not be able to maximize its role in economic markets. Historian Robert Cook suggested “The Whigs central contention was that notwithstanding the fertility of the prairies, the lands were valueless until it was first improved…and then linked to the market by an efficient financial and transportation

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infrastructure.”

One call for investment in improvements came by way of the Des Moines River Lands Grant. The first session of the twenty-ninth Congress passed a bill providing $3,300 for the employment of a competent engineer to survey the Des Moines River under the direction of the Secretary of War.

With the endorsement of the possibilities of successful navigation on the Des Moines River from the river survey, Congress constructed the Des Moines River Lands Grant, which gained approval on August 8, 1846. Creation of the Des Moines River Lands Grant allowed the federal government to provide Iowa with public land “for the purpose of aiding said territory to improve the navigation of the Des Moines River from its mouth [located at Keokuk, Iowa along the Mississippi River] to the Raccoon Fork [present day Des Moines, Iowa].” Congress further provided that the composition of the saleable lands be,

“one equal moiety, in alternate sections, of public lands, (remaining unsold, and not otherwise disposed of, encumbered, or appropriated), in a strip five miles in width on each side of said river; to be selected within said Territory by an agent or agents to be appointed by the governor thereof, subject to the approval of the Secretary of the Treasury of the United States.”

Upon the conveyance of the lands from the public domain, the responsibility fell to Iowa to sell the lands and thus fund the construction of locks, dams, and canal sections necessary to make the Des Moines River navigable.

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345 “An Act Granting Certain lands to the territory of Iowa, to aid in the improvement of the navigation of the Des Moines River, in said Territory,” *Statutes at Large*, 29th Cong., 1st Sess., (1846), 77-78.

346 Ibid.
In creating the land grant, Congress added provisions, listed in four sections, which forced the Territory of Iowa to follow a specific process, thus assuring proper conveyance of the lands. While Congress intended the selling of the land conveyed under the grant to offset the cost of the construction projects, it also established a process with which Iowa chose the conveyed lands. Congress offered alternating sections of land on each side of the Des Moines River, extending outward five miles in both directions from the river. In an effort to minimize multiple title claims to the same sections of land, Congress reserved from the grant lands already claimed or conveyed under other grants. 347

Congress also established the certification process to which Iowa adhered. The selection of alternating sections fell to agents appointed by the governor. Further, upon completion of land selections, certification required federal government approval, specifically from the Secretary of the Treasury. In 1846, the General Land Office and stewardship of the public domain fell under the jurisdiction of the federal Department of the Treasury. 348

Under the second section of the grant, Congress restricted the land conveyance and disposal power of Iowa. The grant tightly limited Iowa’s ability to freely convey the chosen lands needed to complete the improvement project. The legislation allowed Iowa to initially sell lands up to the value of thirty thousand dollars. Upon reaching the thirty thousand dollar level, Congress required certification to the President of the United States by the governor of the Territory that expenditures on the River project reached one-half,

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347 Ibid.
348 Ibid.
or fifteen thousand dollars, of the thirty thousand dollars obtained from land conveyance. Successful completion of the initial certification in turn allowed Iowa to sell additional land until it again reached the thirty thousand dollar plateau. Congress intended the process to be repeated each time the sale of lands reached the plateau, thereby triggering recertification, until all the lands were exhausted and the project was completed.349

In expressing the federal government’s policy to assist national economic development through transportation infrastructure projects, Congress declared the Des Moines River a public highway. The declaration ensured that the river “shall be and forever remain a public highway for the use of the government of the United States, free of any toll or other charge whatever for any property of the United States, or persons in their service passing through or along.”350 The declaration restricted the ability of private entities to limit movement of people, goods, and services through the nation’s transportation network. The establishment of tolls or other restrictions on transportation systems such as canals, ferries, railroads, and wagon roads raised the cost of transporting people and goods to and from markets and undermined the federal government’s policy encouraging western expansion and the emergence of a national economy. Allowance of tolls and other charges by the federal government served only to hinder people with limited capital who were moving into the region.

Congress restricted the amount of money, however, that the Territory could charge per acre for the disposal of the granted lands. Section three of the grant “provided

349 Ibid.
350 Ibid.
always, that it shall not be competent for the said Territory or future State of Iowa to
dispose of said lands, or any of them, at a price lower than, for the time being, shall be the
minimum price of other public lands.” The federal government’s pricing restrictions
allowed Iowa to sell land to aid construction of the improvement project and assist
settlement of the region but at the same time not create an unfair advantage over other
territories and states vying for settlers to purchase their lands.

Congress constructed section four of the River Lands Grant in an effort to remove
any foreseeable complications or controversy arising from admission to statehood by the
Iowa Territory. Section four enacted, “That whenever the Territory of Iowa shall be
admitted into the Union as a State, the lands hereby granted for the above purpose shall
be and become the property of said State, for the purpose contemplated in this act, and no
other.” Concluding the grant, Congress required that the Iowa legislature accept the
grant for its intended purpose only.

**Failure at the State Level**

Upon completion and passage of the grant by Congress on August 8, 1846, the
grant transferred into the hands of the territorial legislature. The early years of the project
consisted of legislative struggles to establish mechanisms for the disposal of the granted
lands, and coordination of work on the Des Moines River. On December 28, 1846,
before the Iowa Territory legislature acted on the grant, the federal government admitted
Iowa into the Union. On January 9, 1847, in a joint resolution of the newly established

351 Ibid.
352 Ibid.
Iowa Legislature, the state accepted the grant with the official selection of the odd numbered sections.\textsuperscript{353}

With the transfer of the grant to the Iowa General Assembly, attention turned to devising a means to oversee all facets of the improvement project. Construction of twenty-eight dams and nine locks began in earnest to ensure that the two hundred and four mile distance of the Des Moines River from the Raccoon River fork (Des Moines) to the Mississippi River became navigable. An engineering survey determined the precise placement of each dam ensuring the proper pool depth upriver at the location of the next dam. The plan also called for the construction of three canal sections with the hope of shortening the route.\textsuperscript{354} The details of the survey encouraged the chief engineer Samuel Curtis. In referring to Curtis’ optimism historian Jacob Swisher wrote, “Taking all things into consideration he said it was ‘mathematically certain’ that the Des Moines River could be made a great thoroughfare for the transportation of mid-western produce.”\textsuperscript{355}

Despite this initial optimism, the project only completed the first seven sets of dams and locks reaching upriver from the Mississippi River. Dams eight and nine remained incomplete and construction on the remaining locks and dams never began. Additionally,

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\textsuperscript{353} Gatch, “The Des Moines River Land Grant,” 356.
\textsuperscript{354} The three canal sections were included in the original plans of the project to shorten the distance and straighten large bends and oxbows. The three canal sections were to be located 1) north of Ottumwa, Iowa, 2) at Talley’s Ford, 3) and the mouth of Whitebreast Creek. The lack of completion above dam 10 and the northern location of the three canal sections resulted in construction of the canal sections never undertaken.
the litigation wrought by the Des Moines River Improvement Project remained in the courts through the 1890s.\textsuperscript{356}

The Des Moines River improvement did not occur in a vacuum; rather the project in Iowa represented only one of numerous projects during the nineteenth century, each with its own distinct challenges. Other improvement projects, such as the Erie Canal, offered the Iowa Legislature examples of how to administer the grant lands and oversee day-to-day improvement project activity. Although most funding for the Erie Canal came from state and private sources rather than federal land grants, the Erie Canal and the Des Moines River Improvement Project presented a comparison of two improvement projects’ administrative structures. While other factors undoubtedly contributed to the successes

\textsuperscript{356} Swisher, “A Plan That Failed,” 281-282; Previous studies have portrayed the project as a complete failure and blamed controversies arising from an ambiguous land grant, adversarial titles, conflicting land grants, and the arrival of railroads as sources of the failure. Colonel Conduce H. Gatch, a member of the Des Moines River Navigation and Railroad Company’s legal counsel, became the first to examine the Des Moines controversy. Although Gatch reviewed the elements of the controversy in the first edition of the \textit{Annals of Iowa}, he focused on recounting the “facts” and offered little interpretation. During the 1930s scholar James B. Weaver reviewed “The Des Moines River Lands.” Weaver’s review focused on the promise such an improvement project offered in encouraging settlement despite the fact it fell well short. Historian Jacob A. Swisher and editor of \textit{The Iowa Journal of History and Politics} John Briggs echoed fellow scholars in declaring the Des Moines River Improvement Project “a plan that failed.” Swisher contended that although “elections ensued, committees met, officers reasoned, lawyers argued, and judges disagreed…Iowa ‘spent ten years [on the actual construction] and one million dollars’ on an experiment that failed, and the Des Moines River was still unimproved.” Historians Dave Hubler and Charles Negus revisited the controversy during the late 1960s and early 1970s. Hubler called the navigation on the Des Moines River “Great Expectations Unfulfilled.” Like Weaver, Hubler emphasized the promise such a project offered in settlement of the region. In “The River of Mounds,” Negus focused on the politics of the region from pre-white settlement to early statehood politics and emphasized that the project fell under heavy corruption, mismanagement, and accomplished little towards improving the river’s navigation. Admittedly, the dream of a navigable Des Moines River serving as a great commercial thoroughfare for the produce of the Upper Midwest remained unrealized. However, the heretofore-exclusive emphasis on the failed construction project has obscured the fact that such projects were important agents of institutional development and change. Nineteenth-century America transformed in response to the tensions wrought by evolving social, political, and economic forces. This transformation reflected in part new legal interpretations of individual property rights and corporations and through new conceptualizations of the appropriate roles of state and federal governments as well. This thesis argues that, despite the fact that it was never actually completed; the Des Moines River improvement project significantly facilitated the rapid development of social, political, legal, and economic structures in Iowa.
and failures of the two projects, the relative effectiveness of managing the projects greatly contributed to the respective outcomes. Begun in early nineteenth century and not completed until 1862, the Erie Canal project encountered many of its own controversies and complications, but served as a model for many other internal improvement projects.\textsuperscript{357} While there is no indication that Iowa specifically utilized the experiences of the Erie Canal to inform the Des Moines River project, many administrative similarities existed.

Upon acceptance of the River Lands Grant, the Iowa legislature established the process by which the state would oversee the improvement project. Much like the Erie Canal Board established in 1826, the Iowa General Assembly passed legislation on February 24, 1847 that enabled the Board of Public Works to oversee sales of the granted lands, application of the revenue, and construction of the improvement project on the Des Moines River. Five appointed commissioners comprised The Erie Canal Board, while the Board of Public Works consisted of the elected positions of president, secretary, and treasurer. Although the officers on each board held different titles, their responsibilities remained similar.\textsuperscript{358} Additionally, the Iowa General Assembly’s legislation gave the Board of Public Works power to appoint a chief engineer and various other assistants as deemed necessary, and strongly encouraged an industrious effort to secure the completion of the improvement project as quickly as possible.\textsuperscript{359} Historian Conduce Gatch wrote,

\begin{footnotesize}
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\item Long before the litigation over the land grants was resolved, the people of Iowa were well settled and tied politically as well as economically to both the cultural and commercial fortunes of the American nation. \textsuperscript{357}
\item Sheriff, \textit{The Artificial River}, 1-8.
\item Swisher, “The Des Moines River Improvement,” 143-144; Sheriff, \textit{The Artificial River}, 82-83. \textsuperscript{358}
\item Swisher, “The Des Moines River Improvement,” 143-144; Iowa, \textit{Des Moines River, Laws of Iowa} (1848), Vol. 1, Ch. 41:39-40. \textsuperscript{359}
\end{itemize}
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The first meeting of the Board was held September 22, 1847, and provision was then made for raising funds, with which to defray the expense of visiting other states for inspection of [similar] works... for the employment of a chief engineer, and for the purchase of necessary instruments and material to begin the prosecution of the work.\textsuperscript{360}

In 1848, the state delegates supplemented the previous year’s legislation that created the Public Works Board. The additional legislation presented a legal process to dispose of the lands and handle possible claims of preemption encompassed within the Des Moines River Lands Grant boundaries.\textsuperscript{361} While the legislature acknowledged the rights of settlers under the federal acts of preemption established in 1838 and 1841, they expanded the process of legal certification. Passed into law on January 1, 1847, the original act provided the legal owner of lands granted by the federal government to the river improvement project, with the “privilege of pre-emption and [the ability to enter] three hundred and twenty acres” of land.\textsuperscript{362} The legislature defined a legal owner broadly as any person who was either over twenty-one years of age or the head of a family. Additionally, the initial act established a legal process for dealing with trespassing on the granted lands. While the act recognized the preemption rights of settlers, anyone entering onto those lands or in possession of those lands outside the certification requirements became the subject to legal recourse. The legislature declared anyone found guilty of trespassing on the lands “liable for such trespass or waste in double the value of such trespass or waste.”\textsuperscript{363} The legislature further gave the Public Works Board the power to

\textsuperscript{360} Gatch, “The Des Moines River Land Grant,” 356.
\textsuperscript{361} Swisher, “The Des Moines River Improvement,” 143-144; Iowa, Des Moines River, Laws of Iowa (1848), Vol. 1, Ch. 41:39-40.
\textsuperscript{362} Ibid.
\textsuperscript{363} Ibid.
collect the fine by appearing before a court, and it directed the Board to apply such collected fines towards the improvement project’s completion.

The ensuing act in 1848 authorized the Board of Public Works to place granted lands on the market with several provisions. “The Board, after having given public notice, and reasonable time for pre-empting, which shall be at least two months, offer the residue of said lands at public sale in such parcels, and at such times as they may find necessary and convenient in the prosecution of the work.”\(^{364}\) The act further established that a person purchasing any of the granted lands within a year after the official public notice, that contained improvements upon the land by another individual, must pay that individual [usually recognized as a squatter] “reasonable compensation” for the improvements, while paying no less than two dollars an acre for the lands.\(^{365}\)

As early as 1850, however, the General Assembly believed that the project had stalled and passed a series of bills to “secure a more vigorous prosecution, and early completion” of the project.\(^{366}\) Iowa and the Board of Public Works could not sell lands fast enough, or for enough money to keep pace with the expenses of surveys and construction. The state legislature introduced several proposals considering the issuance of bonds to secure money but no legislation materialized. Referring to the efforts of the General Assembly in securing the completion of the project, historian Jacob Swisher wrote, “casting about for a way out, the Board called the attention of the General Assembly to the fact that the States of Indiana and Illinois had undertaken similar improvement projects, and had given them over to companies of capitalists to

\(^{364}\) Ibid.  
\(^{365}\) Ibid.  
\(^{366}\) Ibid.
Unlike the Board of Public Works, the Erie Canal Board had the authority to find other methods of funding the project. Under the Iowa General Assembly’s legislation, the Board of Public Works’ only option for funding arose from land sales. The existing acts greatly limited the ability of the Board and exposed the project’s success to the demand for specific parcels of land and the fortunes of a market economy.

As a result, the Iowa General Assembly addressed the situation again in February 1851. In an effort to “secure a more vigorous prosecution and early completion of the Des Moines River improvement,” the legislature amended the provisions of the 1847 act that established a Board of Public Works. The 1851 amendment abolished the Board of Public Works and its offices of president, secretary, and treasurer. In return, the legislature bestowed authority upon the individual holding a new position, the commissioner. The act called for appointment of the commissioner by the governor, “with the consent of the Senate.” The commissioner of the Des Moines River improvement held office for two years, from the first day of February in the year appointed. In an effort to hold the commissioner responsible for keeping the improvement project on a reasonable time schedule, the General Assembly required the commissioner take the oath,

I _____ do solemnly swear that I will to the best of my ability, honestly and faithfully, discharge the duties imposed upon me as commissioner of the Des Moines River improvement, and to the utmost of my exertions, strive to promote the vigorous prosecution, and secure the early and economical completion of the improvement project.

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366 Swisher, “The Des Moines River Improvement,” 143-144.
367 Swisher, “The Des Moines River Improvement Project,” 156-158.
368 Sheriff, The Artificial River, 81-85.
370 Ibid.
said work; and that I will give my constant and unremitting personal attention thereto.\textsuperscript{371}

Further emphasizing the legislature’s resolve to see the improvement project carried out in the most industrious manner, provisions of the act required the commissioner to secure a bond of thirty thousand dollars, indicating the commissioner’s vested interest, and present it to the governor and secretary of the State. With the appointment made by the governor, the oath taken and the bond secured, the General Assembly then authorized the commissioner to undertake his work.\textsuperscript{372}

The commissioner’s responsibilities began immediately upon confirmation by the senate. Similar to that of the Erie Canal Board, the commissioner’s responsibilities included “oversight and control of the improvement as it progresses; - examining each and every part thereof as often as practicable; - to do all things properly devolving upon such an officer.”\textsuperscript{373} Additionally, responsibility fell to the commissioner to “take charge of all books, papers, plans, and other matters of whatever kind…now in the possession of the board of public works” and settle all outstanding matters with contractors resulting from contracts entered into with the Board of Public Works.\textsuperscript{374}

In addition to the commissioner, the legislature created the position of register of the Des Moines River improvement. Like the commissioner, the legislature required the register to take an oath swearing to promote the speedy completion of the river project and secure a bond. However, the Legislature required an increased bond of fifty thousand

\textsuperscript{371} Ibid.  
\textsuperscript{372} Ibid.  
\textsuperscript{373} Ibid, 133; Sheriff, \textit{The Artificial River}, 82.  
\textsuperscript{374} Iowa, \textit{Des Moines River Improvement, Laws of Iowa} (1851), Vol. 3, Ch. 58: 131-138.
dollars for the register. The legislation does not explain the larger sum, although the register’s relatively sensitive position opened itself to bribery and falsification. The General Assembly authorized the register to take over the responsibilities of the treasurer and secretary of the Public Works Board. Those responsibilities included sale of granted lands, recording of land sales, and all other related issues arising from the disposal of lands.

The state legislature also granted to the commissioner and register the authority to enter into contracts between Iowa and private companies to complete various construction projects on the river below Keosauqua, Iowa. Additionally, the General Assembly broke with the previous federal stance authorizing both officers to exchange land and water rents and tolls along the river below Keosauqua with private companies in lieu of payment for their construction efforts. However, the General Assembly provided that lands exchanged be no less than one dollar and twenty-five cents per acre (the same rate that the federal government charged for other public lands). The legislature left the negotiations of water rents and tolls partially at the discretion of the commissioner and register. The responsibility to determine the length of contracts for the water rents and tolls fell upon the two elected officials, while the legislature restricted the value of the rents and tolls. The General Assembly wrote in section eight of the act, “the tolls shall not exceed in their average rate those now charged on the Monongahela River, in the State of Pennsylvania, nor shall the water power thus to be surrendered include the water

\textsuperscript{375} Ibid.  
\textsuperscript{376} Ibid.
power needed for the purpose of lockage."\textsuperscript{377} The General Assembly extended similar provision, as below Keosauqua, to the stretch of river between Keosauqua and the Raccoon Fork to fund the improvement project. Despite the authority granted to the commissioner and register by the act, the legislature required all contracts entered into by the officers of the river improvement to contain the approval and signature of the Governor of Iowa.\textsuperscript{378}

Over the next three years, the General Assembly enacted several supplemental acts pertaining to the commissioner, register, and the Des Moines River improvement project while it wrapped up outstanding issues involving the former Board of Public Works. In 1851, the state legislature allowed payment of fees, in the form of grant lands, owed to the former secretary of the Board of Public Works. The land presented in lieu of payment consisted solely of the river grant lands. The legislature directed the extension of payment in land at an exchange rate of no less than one dollar and twenty-five cents per acre.\textsuperscript{379}

In 1853, with the improvement project advancing toward completion at a rate slower than anticipated, the General Assembly further amended the 1851 legislation that had created the offices of commissioner and register. The legislation contained three key changes to the management structure of the river improvement project. The first change focused on abolishing the appointment process by which the commissioner and register took office. In its place, the legislature established the right of “qualified citizens” of

\textsuperscript{377} Ibid.
\textsuperscript{378} Ibid.
\textsuperscript{379} Ibid.
Iowa to vote for the officers. Those in the positions still held office for two years before reeelections occurred and then followed the course of other elected state officials.

The transition to popular elections for the commissioner and register echoed a similar transition of the Erie Canal Board. In 1844, the legislature overseeing the Canal Board passed a law requiring the election of commissioners. In part, they envisioned that electing officials would provide more accountability.

The amendment also abolished the security bond required of both officers. While the legislature intended that the bonds tie the officers personally to the successful completion of the improvement project, the state of the project in 1853 proved otherwise. Although subletting of construction occurred, companies entrusted with the work fell behind schedule due to various environmental challenges such as excessively rainy seasons and episodes of cholera.

The finances of the project also fell behind, as lands sales could not keep pace with the costs of the project, and the commissioner struggled to find the resources to pay outstanding debts resulting from the Board of Public Works. The abolition of the security bond and the implementation of voting for the offices effectively removed any political liability that was present under the appointment process. Outwardly then, the new election process provided the possibility to limit corruption that

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380 Iowa, Des Moines River Improvement, Laws of Iowa (1853), Vol. 4, Ch. 103: 162-164; Iowa Constitution (1846). The Iowa constitution extended suffrage to white males citizen of the United States, twenty-one years old, of sound mind, residing in Iowa for at least six months before the election.

381 Sheriff, The Artificial River, 82.

existed under the appointment method and created a sense of accountability to the general
population. 383

In an effort to assist the overburdened officers of the improvement project, the
General Assembly extended authority to the officers to appoint assistants. The legislation
specifically named the first two assistants, Uriah Biggs of Wapello County and George G.
Wright of Van Buren County, and bestowed upon them powers equivalent to the
commissioner. In essence, the legislature doubled the management personnel of the
improvement project by extending the authority of contract negotiations and daily
operation decisions to the assistants.

To further influence the completion of the project, the legislature established a
mechanism that forced the officers into action. The General Assembly, in an effort to
distribute the responsibility of the project, directed the commissioner and assistants to
enter into contracts only if the other party undertook significant responsibility,
specifically forcing the other party into extending no less than $1,300,000 in expenses
and payment of outstanding improvement debts. To ensure pursuance of contracts
meeting the requirements, the legislature threatened refusal of payment to the officers if
no such contracts materialized by September 1853. This act severely limited the number
of parties willing and financially able to enter into contracts, and pressured the officers
into making questionable decisions. 384

383 Iowa, Des Moines River Improvement, Laws of Iowa (1853), Vol. 4, Joint Resolution No. 8:
204-205; Colonel C. H. Gatch, “The Des Moines River Land Grant,” 362-364.
384 Iowa, Des Moines River Improvement, Laws of Iowa (1853), Vol. 4, Joint Resolution No. 8:
204-205.
Aside from the settling of outstanding debt to the Board members, affirming the
right of the citizens to vote for the commissioner and register, and expanding the offices
overseeing the project, other legislation proved more important. Enacted during the same
1851 term, the General Assembly authorized the commissioner and register to “transfer,
or convey in fee simple…any portion or all of said lands” to a company or companies as
needed to secure the completion of the improvement project.\textsuperscript{385} Although the act did not
provide the commissioner and assistants with as many other funding options as those
involved with the Erie Canal, it still offered more options than the previous provisions.
The act signaled the State’s gradual withdrawal from overseeing the daily progress of the
project.

Although the legislature extended the legal authority to contract work in exchange
for any or all lands, the previous restrictions left the officers with few willing parties.
The amendments governing the improvement contracts established by the legislature
restricted the ability of the commissioner and assistants to find parties willing to carry out
the project’s construction and accept its financial constraints. With few small companies
or individuals finding the terms financially viable, the commissioner and assistants turned
to more financially capable investors. Similar to other Midwestern states such as Illinois
and Indiana, the officers of the improvement project looked toward eastern capitalists to
create an influx of monetary resources. The act established the legal means by which the

\textsuperscript{385} Iowa, \textit{Des Moines River Improvement, Laws of Iowa} (1851), Vol. 3, Ch. 32: 63; Demoine River
Company}. Ottumwa: Demoine River Improvement and Navigation Company, 1856 (Located in Western
Americana: Frontier History of the Trans-Mississippi West, 1550-1900 [Microform]. New Haven:
Research Publications, Inc., 1975, reel 149, No. 1583, 33; The conveyance of land by Iowa to the Des
commissioner and assistants conveyed the grant lands in large parcels to Eastern investors and land speculators.\(^{386}\)

In December 1853, the state entered into a contract with Henry O’Reilly, an eastern capitalist, in the hope of reestablishing a more reasonable timetable for the project’s completion. In effect, this contract marked the beginning the privatization of the river improvement project. Upon returning to New York, Henry O’Reilly recruited several eastern investors. Together they incorporated the Des Moines River Navigation and Railroad Company under Iowa laws and entered into a contract with the commissioner to oversee the improvement project.\(^{387}\)

The contract agreed upon between the Des Moines River Navigation and Railroad Company and the improvement commissioner outlined several key concessions in exchange for parcels of the granted lands. The Navigation Company agreed to complete all construction on the Des Moines River to the Raccoon Fork, as outlined in the original plans, no later than July 1, 1858. Additionally, the company agreed to complete one-fourth of the construction project each year by the first day of July. Further, the company

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\(^{386}\) Leonard Paulson, *The Disposal of the Public Domain of the State of Iowa* (Ames: Paulson, 1908), 7; The document by Paulson, a student of Benjamin Hibbard, has somewhat of a mysterious background. Professor Hibbard claims the document arose as a student thesis under his direction. Despite this suggestion, Iowa State College had no official records indicating such a student ever presented such a thesis. Although a mystery as to the origins, Professor Hibbard also cited the work in his own scholarship.

\(^{387}\) Demoine River Improvement and Navigation Company, *Report of the Demoine River Improvement and Navigation Company*, Ottumwa: Demoine River Improvement and Navigation Company, 1856 (Located in Western Americana: Frontier History of the Trans-Mississippi West, 1550-1900 [Microform]. New Haven: Research Publications, Inc., 1975, reel 149, No. 1583; Swisher. “The Des Moines River Improvement,” 160-162. Among the eastern investors recruited by O’Reilly were key participants in the events of the boundary dispute and property taxation litigation discussed in Chapter Two and Three. These participants included Edwin C. Litchfield, O’Reilly, Elisha C. Litchfield, John Stryker, and E.B. Litchfield; Although I have been unable to ascertain the exact reasons for the alternative spelling
accepted all responsibility relating to outstanding debt. As a result, the contract stipulated
the Navigation Company pay all debts against the improvement project ninety days from
the contract’s approval date. Attached to the payment of debts, the contract required the
Navigation Company to settle and pay all damages against the State arising from the
improvement project, including loss of income to mills along the river. Finally removing
all other financial burdens from the State, the contract required the Navigation Company
pay all salaries and expenses of the officers and employees associated with the project.388

In exchange for the acceptance of the provisions in the contract, the contract
provided the Navigation Company with all the remaining unsold lands conveyed under
the River Lands Grant and the right of collecting water rents and tolls for forty years
along the length of the project on the Des Moines River. The contract stipulated that
upon the conclusion of the forty years, all rights reverted to the State of Iowa.389

With the contracts approved, general sentiment seemed positive. However,
historian Jacob Swisher contended that the project quickly mired down again.
Misunderstandings and disagreements soon developed among the members of the
company resulting in charges of mismanagement and fraud and dashed the hopes of
citizens of Iowa.390 Continuing allegations of mismanagement and fraudulent accounting
practices and little visible advancement of the improvement project captured the attention
of the General Assembly. In December 1856, the General Assembly established a joint

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committee charged with the responsibility of investigating the allegations of waste and fraud waged against the Navigation Company. 391

The joint committee ruled that because the original contract between the State and the Navigation Company did not get the approval of the Governor by obtaining his signature, the contract never legally existed. Additionally, in the event that the contract did legally exist, the one-fourth-completion clause remained uncompleted within the prescribed time. With that conclusion, the joint committee argued the company forfeited the contract anyway. 392

By the following year, in 1857, the Iowa General Assembly again turned its attention toward the Navigation Company’s affairs. Responding to the continuing allegations, the legislature passed an act establishing an appointed commissioner to oversee the investigation. 393 The General Assembly authorized the appointed commissioner, in conjunction with the elected improvement commissioner, to again contract out the remaining improvement work. Additionally, the legislature indicated by the passage of the act, that the State of Iowa considered all contracts with the Navigation Company ended. 394

Although the legislature considered the contract void, the Navigation Company thought otherwise. In hopes of finally ending the relationship with the Navigation

390 Swisher, “The Des Moines River Improvement,” 162.
392 Ibid; Swisher, “The Des Moines River Improvement,” 164-165.
393 Iowa, Des Moines Commissioner, Laws of Iowa (1858), Vol. 7, Ch. 97: 189.
394 Iowa, Des Moines River, Laws of Iowa (1857), Vol. 6, Ch. 222: 383-385.
Company, the General Assembly again addressed the matter in 1858. With a Joint Resolution, the legislature agreed to convey all unsold lands under the 1846 grant to the Des Moines Navigation and Railroad Company in exchange for ceasing all operations by the company pertaining to the improvement project. Further, all rights to water rents and tolls returned to the State of Iowa.\textsuperscript{395}

Unlike the management of the Erie Canal project, the state of Iowa relinquished all oversight in the project to The Des Moines River Navigation and Railroad Company. Although the Erie Canal Board contracted out the project and allowed private capital investment in the canal, the Board never relinquished ownership rights. Maintaining ownership provided the Canal Board with a vested interest in the project as well as oversight in all decisions. The Des Moines Improvement Commissioner and assistants maintained only the decision-making authority over construction specifics on the river improvement.\textsuperscript{396}

In 1858, upon relieving the Des Moines Navigation and Railroad Company of its outstanding contractual obligations Iowa found itself with an incomplete river improvement project. The region still lacked a transportation system just as it had in 1846. With the advancement of railroads into the Mississippi River corridor, the State’s attention turned toward facilitating the growth of railroads in the state. Although bound by the provisions of the original 1846 River Lands grant that limited the disposal of the

\textsuperscript{395} Iowa, Joint Resolution Containing Propositions for Settlement, Laws of Iowa (1858), Vol. 7, Joint Resolution No. 4: 427-429; Iowa, Joint Resolution Instructing Governor to Enjoin the Des Moines River Navigation and Railroad Company, Laws of Iowa (1858), Vol. 7, Joint Resolution No. 7: 430. In an attempt to force the Des Moines River Navigation and Railroad Company into accepting the settlement terms, the General assembly passed legislation in March 1858, calling all contracts void if the Navigation Company refused to accept the terms by July 1, 1858.
lands only to aid the river improvement project, the General Assembly passed legislation on March 22, 1858 that transferred the lands to aid the development of railroads. The legislature conveyed the River Grant Lands not claimed by the Des Moines River Navigation and Railroad Company to the Keokuk, Fort Des Moines, and Minnesota Railroad Company. In exchange for the lands, the General Assembly charged the railroad company with the responsibility of constructing a railroad from Keokuk, along the Des Moines River Valley, through Des Moines, and to the northern state line. The General Assembly hoped that the construction of a railroad along the Des Moines River Valley would replace the river improvement project.397

The State of Iowa called upon Congress to amend the provision of the 1846 grant, allowing the state to transfer the lands to the development of railroad transportation. Not until 1862, however did Congress finally act upon the request. The Thirty-Seventh Congress passed “An Act Confirming a Land Claim in the State of Iowa, and for Other Purposes.”398 The Congress extended all previous rights of the 1846 River Lands Grant but amended the specified purpose to “aid in the construction of the Keokuk, Fort Des Moines, and Minnesota Railroad.”399 The 1862 act effectively ended the State of Iowa’s great river improvement project and opened the door for the advancement of railroads through Iowa to the Great Plains.400 Although in 1846, construction of twenty-eight dams

396 Sheriff, The Artificial River, 85-86.
399 Ibid.
400 For more discussion on the advancement of railroads into Iowa see: Leonard F. Ralston, “Iowa Railroads and the Des Moines River Improvement Land Grant of 1846,” Iowa Journal of History 56, no. 2
and nine locks began in earnest by 1860 the project had come to a complete stop with little actually achieved.\textsuperscript{401} The project only saw the completion of the first seven dams and locks reaching upriver from the Mississippi River. Dams eight and nine remained incomplete and construction on the remaining locks and dams never began.\textsuperscript{402}

The Des Moines River Lands Grant brought together two great issues of antebellum politics: land grants and improvement projects. The federal government experimented with methods of facilitating economic growth in the expanding nation. In doing so, Congress conveyed parcels of land from the public domain to territories and states in hopes of constructing improvement projects. The enormity of such projects presented unforeseeable circumstances that required legislative experimentation and action. State and territorial governments faced difficulties in developing effective administrative and financial hierarchies. Insufficient land sales, cost overruns, mismanagement, and changing technologies of economic development forced the Iowa General Assembly to gradually loosen its control and subsequently contributed to the failures of the Des Moines River Improvement project. In an effort to oversee all the complex facets of the land grants and improvement projects, they created land offices, sought out alternative sources of financing, and explored various methods to oversee construction and a timely completion of the projects.

While some projects such as the Erie Canal remained under the close supervision of legislatures, Iowa chose to relinquish its oversight of daily administration and turned to

private entrepreneurs to further provide funding and oversee the project’s completion. Privatization added to the complexity of improvement projects and pitted state and federal government’s agendas of serving the public good against each other and those of economically driven private companies. Because the state relinquished the title to much of the granted lands as well as the daily oversight of the project to a private company, Iowa found itself without a truly navigable river and consumed by numerous controversies. Iowa could not resolve the controversies on its own and subsequently turned to the federal government for assistance.

The Federal Government’s Struggle for Authority

Throughout the nineteenth century, the federal government struggled to define its role as a facilitator in the development of a national economy. Although the government aided the construction of improvement projects that in turn strengthened the national economy, the legislative, executive, and judicial branches of the federal government labored in defining their precise authority. Western expansion not only opened new territory for settlement but also aided in the development of a national economy. To strengthen the national economy, new regions required transportation infrastructure development, connecting regional markets to national markets. Citizens called upon state and federal governments to assist construction of internal improvement projects that linked growers and buyers to each other. Acting in the name of public good, governmental conveyance of such grants proved contentious and issues emerged that helped define the role of the federal government’s branches. The decision of the federal

402 Ibid, 281-282.
government to facilitate economic growth through land grants raised questions as to who had the authority to interpret, enforce, and amend the grants. The Des Moines River Improvement Land Grant presented one example of such controversy in determining federal authority between the executive, legislative, and judicial branches within the context of party politics.

The Rise of Executive Authority

Situated within the struggles of nineteenth-century American political parties, the Des Moines River Improvement boundary controversy encompassed the dispute between the State of Iowa and the national government about the land grant boundaries. The definition of the River Lands Grant boundary created several major dilemmas, chief among them the quantity of land available to the Des Moines Navigation and Railroad Company. More area contained in the land grant made it possible for the Company to reap greater profits in land speculation. Titleholders also held great interest in the resolution of the boundary dispute. The validity of land claims purchased or conveyed under the River Lands Grant varied greatly depending on the interpretation of the grant’s boundaries. Under conflicting land titles, multiple settlers claimed the same lands. Court cases exemplified complaints filed by settlers who obtained title under the Federal Land Office and called into question the legality of title held by the Des Moines Navigation and Railroad Company and its assigned landholders. However, the boundary dispute ultimately became an issue between the Des Moines River Navigation and Railroad Company and the national government. Although situated within the context of the boundary and title controversy, the River Lands Grant epitomized the struggle of the
federal government within itself to determine the authority to create, interpret, and enforce laws.

Within a year of the 1846 River Lands Grant from Congress, controversy arose over the lands available for sale under the grant. The dispute stemmed from two differing interpretations of the geographical area encompassed by the 1846 land grant. The basis for the arguments lay within the ambiguity of the grant. Although the creators of the land grant explicitly indicated that the improvement effort was to proceed from the mouth of the Des Moines River to the Raccoon Fork, they did not precisely define the boundaries of the saleable lands. Congress ordered that the land sold be made up of every other section of land within five miles of the river, however, it did not give a point of origin or a terminus. Out of this ambiguity arose the first controversy between the State of Iowa and the national government.403

The first decision regarding the boundaries of the land granted for sale came from the United States Commissioner of Public Lands based on an 1846 interpretation by Augustus C. Dodge, Delegate from the Territory of Iowa. Born in St. Genevieve, located in the Louisiana Territory, Dodge lived the life of a frontier General’s son. Historian Benjamin Gue wrote, “Augustus grew up amid the stirring events of frontier life and while a youth joined a military expedition against the Indians.”404 During the Blackhawk War, Dodge gained the position of lieutenant of a military company under his father,
General Henry Dodge. After the Blackhawk War ended, he accepted appointment as Register of the United States General Land Office and relocated to Burlington in the Iowa Territory. In 1839, Dodge accepted the nomination of the Democratic Party and represented the Iowa Territory as a delegate to Congress. He later won election to the Senate to represent the new state of Iowa in 1846.405

In a report to the Committee on Public Lands reporting the quantity of saleable land comprised by the grant, Dodge stated the amount to be 261,000 acres, expressly assuming that the range of land proposed under the grant was limited to the line “from its mouth to the Raccoon Fork.”406 The Committee concluded that since the delegate from Iowa interpreted the reach of the boundaries to include lands only to the Raccoon Fork and because Congress subsequently approved that interpretation, the only possible decision indicated that the initial grant provided lands only to the Raccoon Fork.407

Dodge’s narrow interpretation of the River Lands Grant boundaries exemplified his political ideology. His political beliefs echoed those of national Democrats who supported the ideas of state sovereignty and tried to limit the federal government’s involvement in what they perceived as state matters, in this case aiding construction of internal improvements. “During the long conflict over slavery, General A. C. Dodge supported the ‘compromise of 1850,’ and followed the lead of Stephen A. Douglas in

404 Benjamin H. Gue, History of Iowa From the Earliest Times to the Beginning of the Twentieth Century Vol. 4 (New York: The Century History Company, 1903), 75.
405 Ibid, 75-76.
407 Ibid.
voting for the famous doctrine of "Squatter Sovereignty." In 1855 the party lost control of the State and like many other Northern democrats, Dodge lost his seat to Free Soil candidate James Harlan.

In June 1848, with the presumed understanding that the River Land Grant did not extend above the Raccoon Fork, President James K. Polk issued a proclamation that opened lands above the Raccoon Fork for settlement through the national government’s land office. By the time Iowa obtained statehood in 1846, a clearly defined process of state admission to the Union emerged. The process, established in 1841 by the admission of Tennessee as the first of the public land states, required the petitioning territory recognize that the lands not specifically conveyed as conditions of statehood remained the possession of the federal government. Iowa achieved statehood similarly. With the ruling that the River Lands Grant did not include the lands north of the Raccoon River Fork and therefore remained part of the federally owned public domain, Polk proclaimed the lands open for settlement. While some of the lands included areas along the Des Moines River, he contended they remained separate from the River Land Grant. The proclamation signified the beginning conflict in the emerging second controversy over property rights, which the United States Supreme Court finally settled in 1892.

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408 Gue, History of Iowa From the Earliest Times to the Beginning of the Twentieth Century, 75; Currently, the doctrine of Squatter Sovereignty is known better as Popular Sovereignty and was developed in response to the issue of slavery expansion into the territories. Credit goes to Lewis Cass for the creation of the doctrine and contended "citizens of the territories had just as much right for self-government as citizens of the states. For further discussion on the creation of the doctrine of Popular Sovereignty, see: David M. Potter, The Impending Crisis, 1848-1861, 56-62.


411 Ibid, 16.
Figure 3. Land Grants and Disputed Lands of the Des Moines River Improvement Project.
President Polk’s 1848 proclamation placing the disputed lands on the market combined both Whig and Democratic Party principles by supporting western expansion as well as refusing federal funding for internal improvement projects. On December 2, 1845, President Polk argued that the United States needed to aggressively expand westward to the Pacific Ocean. Supporting Polk’s assertions, editor of the *New York Times* and the *Democratic Review* John O’Sullivan wrote, “it was the nation’s manifest destiny to overspread and possess the whole of the continent which Providence has given us for the development of the great experiment of liberty and federated self government entrusted to us.”

The procurement of Mexican territory and Texas, and acquisition of California and Oregon factored amongst his expansionist accomplishments that shaped the geographic identity of the United States during his tenure in office.

In contrast, Polk viewed the federal endorsement and support of internal improvements as “a proposition to plunder the treasury.” He argued that paying off the national debt required the strongest of federal government efforts rather than plunging the government deeper in debt by funding internal improvements. In a bill similar to the River Lands Grant, Congress provided federal economic support for the improvement of the Savannah River. Although the bill provided monetary funding of the project instead of land grants, Polk declared strong opposition to the bill and adamantly declared a presidential veto awaited it.

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414 Ibid, 689.
415 Ibid, 682-684.
The second ruling on the boundaries came only three years after the first decision in 1849. Secretary of the Treasury Robert J. Walker, a Democrat, overturned former President Polk’s ruling, insisting, “that the grant extends on both sides of the river from its source to its mouth, but not including the lands on the river in the State of Missouri.”

Walker’s decision supported the broader boundary interpretation that encompassed more land. The inclusion of all lands to the source, or headwaters, of the Des Moines River, underwent revision with the creation of the Minnesota Territory in 1849. Because of the Iowa-Minnesota border, Iowa lost possession of the lands outside of its own borders. Secretary Walker ruled that the authority to render a decision on the boundary dispute resulted from the fact that the General Land Office resided under the jurisdiction of the Department of the Treasury and therefore President Polk had not had the authority to decide the matter.

Secretary Walker’s decision supporting the broader interpretation of the River Lands Grant reflected his overall philosophy of the role of government in the development of the economy. Born in Northumberland, Pennsylvania in 1801, he attended the University of Pennsylvania and gained admittance to the bar in 1821. After turning down a position on the state Supreme Court, Walker won election to the United States Senate and served from 1835 to 1845, when President Polk appointed him as Secretary of the Treasury. Several key accomplishments assisted in defining the role of government in the economy. Establishment of an independent treasury system to deal with public funds figured among Walker’s most prominent achievements. He also

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supported free trade and financing of the Mexican War. His private business matters focused on entrepreneurial endeavors that included land speculation in Mississippi, Louisiana, and Wisconsin, while also selling securities for the Illinois Central Railroad in England.\textsuperscript{417}

In early 1850, the appointment of Whig Thomas Ewing as the Secretary of the Interior in the Taylor administration brought a reversal in the federal government’s official stance and reestablished the original boundary to the Raccoon Fork. Reorganization of the federal government’s executive branch transferred control of the General Land Office from the Department of the Treasury under Secretary Walker’s control to the Department of the Interior. With newly established authority over matters before the General Land Office, Secretary Ewing defended the validity of his interpretation, arguing that Secretary Walker never certified the previous judgment and therefore it merely constituted a suggestion, not a binding decision. In addition to his ruling limiting the boundaries of the grant, Secretary Ewing suspended sales of the disputed lands placed on the market by the national government under President Polk’s proclamation.\textsuperscript{418}

Secretary Ewing’s decision to adhere to the stricter boundary interpretation seemingly contradicted his other efforts and political philosophies, which he demonstrated in congruence with to the Taylor administration’s policies. Born near


Liberty, Virginia, Ewing’s early claim to fame included his adoption of William Tecumseh Sherman in 1829 and managing his subsequent appointment to West Point in 1836. After admittance to the bar in 1816 and several years in private practice, Ewing ran for the state legislature unsuccessfully. He later won election to the United States Senate and served from 1831 until 1837. In 1841, President William H. Harrison appointed Ewing as Secretary of the Treasury, and he continued the position under the Tyler administration. During his service as Secretary of Treasury, “his most important contribution involved helping draft bills to re-charter the National Bank.”

Frustrated over two separate vetoes of re-charter bills, Ewing resigned from the Tyler administration in 1841. His appointment as Secretary of the Interior lasted little more than a year as he again resigned. Ewing’s strict interpretation of the River Lands Grant boundary, and limitation of land sales, stand in contrast to his other contributions during his appointment to the Department of the Interior. He actively supported the expansion and privatization of capitalistic endeavors. His support manifested itself by his encouragement of the development of a mint near the gold fields of California that further established the validity of expansion westward. Additionally, he promoted the idea of the construction of a railroad to the Pacific coast undertaken by private investors.

Secretary Ewing’s hasty resignation explains his seemingly contradictory decision involving the River Grant Lands. President Taylor, although nominated and elected as a Whig, adhered to many principles of Democrats. Taylor, a slaveholder, promoted a


\[420\] It is during Secretary Ewing’s appointment as the Secretary of the Interior that Ewing ruled on the River Lands Grant boundary dispute.

policy that encouraged settlers in California to skip the normal process of achieving statehood by way of achieving territorial status. While assuring the state’s ability to enter as a free state, the policy supported the ideas of state sovereignty and limited the role of the federal government in the affairs of the state, effectively allowing the Taylor administration to tread the turbulent political waters. Although the policy established by the Taylor administration served the specific purpose of limiting the expansion of slavery, the administration’s policies elsewhere promoted state sovereignty and checked the expansion of federal authority. The decision handed down by Secretary Ewing in the River Lands Grant boundary dispute reflected the administration’s policy of checking the expansion of federal authority by increasing the total land acreage contained in the River Lands Grant. The strict interpretation of the 1846 grant boundaries limited the federal government’s ability to amend internal improvement projects that would in turn expand the federal government’s role in offering economic assistance in the form of public lands. It in no way restricted, however, the construction of internal improvement projects with state or private funding, thus maintaining the principle of state sovereignty.

The April 1850 decision by Secretary Ewing resulted in an appeal from the State of Iowa to President Taylor. Keeping the decision within the executive branch, Taylor referred the controversy to Attorney General Reverdy Johnson. Taylor’s choice for Attorney General suggested that the executive branch was now embracing the idea of a legal resolution to the matter. Johnson’s decision resulted in the reinstatement of the boundaries to include land north of the Raccoon Fork. In discussing the construction of

422 Ibid; For more discussion on the admittance of California as a free state see: David M. Potter,
the River Land Grant, Attorney General Johnson focused on contract language. He argued the purpose and the extent of the grant represented two distinct and separate issues. “It is the assumption of combining both the purpose and extent that led to the limited construction interpretation previously and incorrectly held.”

He further argued that to support the Raccoon Fork boundary interpretation, one must add the phrase “to the Raccoon Fork” equally to both the extent portion of the grant and the purpose portion of the grant. While the first portion did not explicitly include such language, the latter explicitly indicated the Raccoon Fork as the branch. He concluded that since the grant of 1846 lacked specific language, interpretation after the matter could not happen. Johnson also stated that any improvement done on any part of the river, above the Raccoon Fork and below, enhanced all the lands along the river. “The whole river, therefore, participates in the advantage of the work, and it is fair to presume that the lands granted were limited by the whole river and not by a part of it.”

Although nothing reviewed during his tenure as the Attorney General indicated support for federally funded internal improvements, Johnson’s political life indicated he firmly supported the emergence of a strong federal government. Born in Annapolis, Maryland in 1796, he studied law at St. John’s College and graduated in 1811. Johnson spent one year as a deputy attorney general of Maryland before election to the state legislature. A firm Whig during the party’s existence, he briefly affiliated himself with

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424 Ibid.

the Democratic Party to support President Polk’s strong expansionist policies on matters pertaining to the Mexican War.  

Despite his affiliation with the Democratic Party, Johnson’s term as a member of the Peace Convention of 1861 provided the best example of his stance on a strong federal government, specifically the executive branch. While he helped the delegates at the convention forge a compromise to stop the looming Civil War, “he [also] upheld President Lincoln’s suspension of habeas corpus,” thereby supporting the authority of the federal government to act in the best interest of the people of the nation.  

He further supported the expansion of federal authority of the executive branch by voting for the Emancipation Proclamation as well as the Thirteenth and Fourteenth Amendments.  

After a review of the boundary dispute decision made by Attorney General Johnson, Iowa’s Commissioner of Public Lands submitted an inquiry to President Taylor for clarification. The Commissioner sought not only a clarification on the Attorney General’s decision but also an explanation of why the Attorney General had the authority to make such a decision. The sudden death of Taylor, however, stalled the decision until President Millard Fillmore officially took office.

Attorney General John J. Crittenden, having accepted a position in Fillmore’s restructured administration of 1850, became the next government official to render his opinion on the improvement project. In late 1850, Crittenden refused to rule on the

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427 Ibid.  
428 Sobel, ed. *Biographical Directory of the United States Executive Branch*, 194-195; For Further Discussion on the Thirteenth and Fourteenth Amendments see: Roger K. Newman, ed. *The Constitution and Its Amendments*, vols. 3-4 (New York: Macmillan Reference Press, 1999); In addition to his support of the expanded authority of the Lincoln Administration, Johnson also proved instrumental in securing the failure of the impeachment trials of President Andrew Jackson. Impeachment of Jackson focused on the constitutionality of the President’s authority to remove an officeholder. At the heart of the impeachment was the Tenure of Office Act of 1867, which required the approval of Congress before the President could remove anyone from office. In successfully orchestrating the failure of a two-thirds majority impeachment vote, Johnson strengthened the authority of the executive branch of the federal government.
improvement grant controversy and instead referred it back to the Secretary of the Interior, with whom he believed the jurisdiction lay. Since the Department of the Interior oversaw matters of the public lands, Crittenden contented that the interpretation of the grant boundaries also fell to the department. “It would appear from this conclusion that Mr. Crittenden did not become aware that the matter was regularly before the President on appeal from the decision of the Secretary of the Interior.” After seemingly sorting out the matter, the Department of the Interior again referred the issue back to Attorney General Crittenden for his opinion.

In June 1851, Attorney General Crittenden released an opinion that again reversed the previous interpretation of the boundary controversy. He contended that,

… the letter of Mr. Walker [Secretary of the Treasury that previously ruled on the improvement grant] was not an act done, but an opinion expressed, and, therefore, had no binding effect on his successors; that the opinion of Attorney General Johnson was but advisory, having no compulsory effect on the Secretary to whom it was addressed; and that the grant, in his judgment, was limited to the lands below the Raccoon Fork.

The opinions previously offered by various governmental agencies under this interpretation were merely advisory; no “law gives them any technical, specific, or official consequence or effect,” thus procedure alone allowed Crittenden to offer the official opinion of the Attorney General. After presenting his case for authority to officially determine the true intent of the grant, Crittenden presented his decision on the

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430 Ibid.
432 Ibid.
grant’s construction. Drawing again from the original discussions of Augustus C. Dodge and the Committee of Public Lands, Crittenden agreed with the decision established by Secretary of the Interior Ewing.\textsuperscript{433} Upon rendering this interpretation, Attorney General Crittenden became the first United States Attorney General to officially render an opinion on the Des Moines River Improvement land grant and returned the northern boundary to the Raccoon River fork. In closing his judgment of the boundary dispute, Crittenden indicated that even Congress had not passed any explanatory acts in favor of a larger interpretation and that no representatives from Iowa had called upon Congress to offer any relief on the matter.\textsuperscript{434}

During the Presidency of Democrat Franklin Pierce, Attorney General Caleb Cushing did not rule on the River Land Grant boundary dispute, his only contribution to the controversy included official recommitment to the stance posed by Crittenden. During Cushing’s term of service between 1853 and 1857, however, the Des Moines Navigation and Railroad Company came under investigation for illegal business practices pertaining to the Des Moines River Improvement project.\textsuperscript{435}

The appointment of Jeremiah S. Black as Attorney General by President James Buchanan in 1857 signaled the last executive branch involvement in the Des Moines River Improvement Land Grant controversy and the further evolution of Crittenden’s suggestion that the issue ultimately required settlement outside the authority of the

\textsuperscript{433} In that opinion, Ewing contended that the River Lands Grant’s language included only those lands below the Raccoon Fork as discussed by Dodge, specifically regarding the estimated land available when Congress passed the act in 1846.


executive branch. Black argued that only the original creator of the act knew the true intent of the boundary in contention. He wrote, “a person whose faculties are sharpened by an interest in the claim can see it extending to the headwaters of the Des Moines plainly enough, while an advocate of the other side might perceive with equal clearness the construction which stops at the Raccoon Fork.” While he conceded that it appeared neither the writer of the grant nor Congress construed the act to include land north of the Raccoon Fork, Attorney General Black pointed out no rule or law guided or restricted the interpretation of the Congressional Act. In short, the ambiguity of the contract’s language provided justification for either interpretation.

Attorney General Black was no stranger to issues involving federal government authority over western expansion. After spending his early professional years serving various positions including deputy attorney of Summerset County, Pennsylvania, president judge of the Court of Common Pleas for the 16th Judicial District, and Justice of the Pennsylvania Supreme Court, Black accepted appointment to President Buchanan’s Cabinet as Attorney General in 1857. During his tenure as Attorney General of the United States, he “successfully handled many of the problems involved in land claims in California, uncovering many that were fraudulent.” His knowledge of contracts, such as the land claims in California, and their intended purposes reflected his official opinion of the River Lands Grant. His opinion supported the need for the legislative branch to clarify the original River Lands Grant of 1846, and the authority of the judicial branch to interpret the grant.

Attorney General Black also “attacked squatter sovereignty basing his arguments on the ground that territorial legislatures could not make laws violating the Fifth Amendment” although states legally could. The doctrine of squatter sovereignty centered on the idea that the people in a state or territory had the right to enact laws to shape their social institutions as they saw fit. Black argued that this directly conflicted with the Fifth Amendment that declared, “no person should be deprived of life, liberty, or property, without due process of the law, nor shall private property be taken for public use without just compensation.” Although Black remedied the situations under the authority of the executive branch, he ultimately contributed to the expansion of judicial authority by enforcing judicial decisions involving Constitutional law. Additionally, Black’s opinions expanded the authority of the legislative branch by citing the power of Congress to create laws for the good of the nation’s people. Although Black greatly aided the defining efforts of the federal government, his decision did little to change the boundary, leaving the northern boundary at the Raccoon River fork.

**The Emergence of Judicial Authority**

Attorney General Black’s resolution of the boundary dispute marked a shift away from executive control and towards a struggle for authority between the legislative and judicial branches. The Iowa legislature turned to Congress and repeated calls to resolve

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438 Ibid.; In Barron v. Baltimore, the Marshall Court decided that while the national government and territories could not pass laws violating the Fifth Amendment, the federal government held no jurisdiction in the states’ affairs. See: Barron v. Baltimore, 32 U.S.243 (1833).
the matter in a just and practicable manner. Despite these petitions, the federal judicial branch acted first by means of the Supreme Court decision in *Dubuque and Pacific Railroad Company v. Edwin Litchfield* (1860).

By 1859, numerous settlers claimed adversarial titles to land contained in the disputed territory north of the Raccoon Fork. Since property titles north of the Raccoon Fork remained unresolved, settlers found themselves with their land titles in jeopardy. With the completed transfer of the 1846 River Lands Grant to railroad development, both construction and navigation on the Des Moines River came to a stop by 1860. The transfer caused the boundary issue to become important in determining the legal validity of land titles in the area above the Raccoon Fork.

Among the disputed claimants for lands located above the Raccoon Fork was the Dubuque and Pacific Railroad Company. Under a grant from Congress in 1856, the Dubuque and Pacific Railroad obtained lands across the state from Dubuque, Iowa on the Mississippi River to the Missouri River near Sioux City, Iowa. The 1856 Railroad Grant included tracts of land along the Des Moines River Valley and thus included lands within the disputed area north of the Raccoon Fork. Competing claims arose as both the Des Moines River Navigation and Railroad Company and the Dubuque and Pacific Railroad Company held legal titles conveyed by the federal and state governments to lands in the Des Moines River Valley. Because of the adversarial title claims, the opportunity to

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obtain a judicial ruling on the boundaries of the River Lands Grant and settle the competing land claims became apparent.

On April 9, 1860, *Dubuque and Pacific Railroad Company v. Edwin C. Litchfield* came before the United States Supreme Court on a writ of error from the Iowa District Court of the United States in order to determine the adversarial claims. The District Court of Iowa previously had decided in favor of the Edwin Litchfield, an assignee of the Des Moines Navigation and Railroad Company, as the holder of land title granted by the state of Iowa in lieu of payment for the Des Moines River improvement project construction.

The Supreme Court, with Chief Justice Taney presiding, reversed the lower court’s ruling and entered judgment in favor of the Dubuque and Pacific Railroad Company. In doing so, the Supreme Court re-established the boundary of the River Land Grant of 1846 back to the Raccoon Fork. The opinion of the Court again turned to the original report of Representative Dodge to the Committee of Public Lands during the formulation of the improvement grant, in which Representative Dodge offered his understanding of the area of land included in the grant. The Court also stressed that no contemporary authorities from the State of Iowa had objected to the construction of the grant language and subsequently went about selecting lands within the originally interpreted boundary. The Supreme Court suggested,

… parties seeking grants for private purposes usually draw the bills making them. If they do not make the language sufficiently explicit and clear to pass everything

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that is intended to be passed, it is their own fault; while on the other hand, such a
construction has a tendency to prevent parties from inserting ambiguous language
for the purpose of taking, by ingenious interpretation and insinuation, that which
cannot be obtained by plain and express terms.442

In addition to ruling on the intent behind the grant’s construction, the Supreme
Court stated that Congress had granted no authority to the executive branch in the
administration of the public lands to do any more than make partition between the State
of Iowa and the United States government. That is to say, the executive branch could do
little else than to help facilitate the transfer of lands, and it subsequently but could not
interpret or alter the grant.443

Chief Justice Taney’s economically inspired jurisprudence influenced the outcome
of the River Lands Grant on two occasions. On the role of the Taney Court, Historian
Paul Finkelman wrote, “from 1837 to 1862, the Democratic-Jacksonian majority
[including Taney] crafted opinions that were generally supportive of states’ rights…and
skeptical of national power. In areas of contract and commerce, Taney led a partial
retreat from Chief Justice Marshall’s more nationalist jurisprudence.”444 The 1848 case
West River Bridge v. Dix exemplified how Taney’s economic views informed and shaped
his jurisprudence. While previous Court rulings, including Charles River Bridge
Company v. Warren Bridge Company (1837), supported the ability of the states to offer
contracts that reflected the best interest of the people of the states, West River Bridge v.
Dix illustrated the Taney Court’s further expansion of states’ rights doctrine. In support

442 Dubuque and Pacific Railroad Company v. Litchfield, 64 U.S. 66; 16 L. Ed. 500 (1860).
443 Ibid.
of the doctrine, the High Court ruled that the states had the right, under the doctrine of eminent domain, to seize corporate property for the good of the state and its people.\textsuperscript{445}

The Taney Court reinforced the doctrine of state sovereignty only to a limit, while it also expanded the authority of the federal government in other economic matters. Although Justice Story wrote the Supreme Court’s unanimous opinion, \textit{Swift v. Tyson} (1842) illustrated Chief Justice Taney’s willingness to expand the authority of the federal government while limiting the states’ authority if it contributed to the interests of the United States citizens. In \textit{Swift v. Tyson}, the Court ruled the federal government had the right to develop a uniform law to dictate commercial proceedings. The decision supported the emerging nineteenth-century American doctrine of legal formalism in that it “allowed those engaged in interstate business to rely on general rules of commercial law” that “limited the power of the states to create unique rules which might burden out-of-state litigants.”\textsuperscript{446}

Finkelman argued Taney’s decisions “which enhanced federal power, were imperative for the emerging national economy, and did not significantly hamper the ability of the states to control their own economic affairs.”\textsuperscript{447} Taney’s decision in \textit{Dubuque and Pacific Railroad Company v. Edwin C. Litchfield} (1860) also reflected his economic jurisprudence. The Taney Court carefully weighed the implications of the judicial branch offering a decision on the disputed boundaries controversy. In supporting the state’s right platform, the Court’s decision placed the right and responsibility of

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\textsuperscript{445} Ibid, 467; West River Bridge v. Dix, 47 U.S. 507; 12 L. Ed. 535 (1848); Charles River Bridge Company v. Warren Bridge Company, 36 U.S. 420; 9 L. Ed. 773 (1837).
\textsuperscript{446} Urofsky, \textit{The Supreme Court Justices: A Biographical Dictionary}, 468; Swift v. Tyson, 41 U.S. 1; 10 L. Ed. 865 (1842).
\end{flushright}
clarifying the boundary under the original 1846 grant with the State of Iowa at the time of grant construction.

Additionally, the Taney Court’s decision supported the federal government’s authority to influence the economy for the good of the nation. In ruling in favor of the Dubuque and Pacific Railroad Company, the High Court’s decision echoed the shift in federal government economic support policies from conveyance of land grants to public entities to conveyance to private entities. Because of the policy change, from the 1860 onward, the federal government conveyed land grants almost entirely to private companies, such as railroads, to build a transportation network. The decision helped establish a precedent that defined the role of the government in influencing the nation’s economy, but also limited the authority of the federal government by declaring that the language of the land grant contained no clauses that allowed the executive branch to interpret the 1846 grant.

**Congress exerts its Authority**

In response to the United States Supreme Court’s ruling in 1860 and further calls from the Iowa General Assembly, Congress passed legislation amending the original Des Moines River land grant of 1846. Congress passed a joint resolution on March 2, 1861 that relinquished all title of lands held by the United States north of the Raccoon Fork along the Des Moines River to Iowa, further stating that the Department of the Interior improperly conveyed the area under the 1846 grant.\(^{448}\) In 1862, Congress passed an act

\(^{447}\) Ibid, 468.

\(^{448}\) Iowa, *Joint Resolution to Quit Title to Lands in the State of Iowa, Laws of Iowa* (1861), Vol. 12, Joint Resolutions No. 11: 251.
confirming the broad River Land Grant claim further reinforcing the joint resolution approved the previous year. The act provided for the addition of the land north of the Raccoon Fork along the Des Moines River to the State of Iowa under the selected conditions of the original 1846 act. The act also provided that if any claim of land under the original act proved to be sold, invalid, or otherwise disposed of, additional land within the State of Iowa would be offered to remedy the title claim.\footnote{449}{"An Act Confirming a Land Claim in the State of Iowa, and for other Purposes," \textit{Statutes at Large}, 37\textsuperscript{th} Cong., 2\textsuperscript{nd} Sess., (1862), 543.}

In addition to the claims by the Dubuque and Pacific Railroad Company, individual settlers called for indemnity for their land claims in the Des Moines River Valley, north of the Raccoon Fork.\footnote{450}{Black’s Law Dictionary (1891), 3\textsuperscript{rd} ed., s.v. “Indemnity.” Henry Campbell Black defined indemnity as “a collateral contract or assurance, by which one person engages to secure another against an anticipated loss or to prevent him from being damnedified by the legal consequences of an act or forbearance on the part of one of the parties or of some third person.”} As early as 1854 settlers filtered into the region with the understanding that the land was open for settlement, under the premise of the 1841 Preemption Act of the United States. Because of Congressional amendments in 1861 and 1862 to the original Des Moines River land grant of 1846, the settlers believed their land title claims became erroneously invalid. Because of their claims, the issues remained unresolved until the 1880s.

In an attempt to assist an expanding national economy to develop a transportation network, Congress conveyed the Des Moines River Improvement Land Grant. The boundary dispute over internal improvement grant provided a stage for the nineteenth-century struggle for federal governmental authority in the economy. Opinions of what was in the best interest of society varied greatly and the River Lands Grant boundary
dispute provided one of numerous illustrations of the government’s struggle in defining its authority. The boundary dispute specifically assisted in shaping the jurisdiction of each of the branches of the federal government. While the dispute established the authority of Congress to convey grants and the executive branch to enforce them, the authority of the judiciary to interpret the grants remained in question.

Controversy over the boundaries of the 1846 Des Moines River Lands Grant illustrated a struggle for power between political parties and branches of the federal government. Throughout the nineteenth century, the federal government underwent many changes. Individuals with differing political ideologies struggled to obtain the authority to define the federal government’s role in an emerging national economy. Each political party fought to have its policies implemented, while the River Lands Grant provided an opportunity to define the roles and authority of the legislative, executive, and judicial branches of the federal government.

The executive branch seized the initial opportunity under the Des Moines River Lands Grant to define the federal government’s role in interpreting the land grant. While the executive branch struggled to assert authority, it also struggled within itself as reorganization of the executive cabinets brought ever-changing political parties into power. Each party had its own ideology as to the specific role of the federal government in the emerging national economy.

Although Congress’ role in creating legislation never seemed in doubt, the boundary dispute reaffirmed the role of Congress in amending legislation. The introduction of litigation over adversarial claims between the Des Moines River
Navigation and Railroad Company and the Dubuque and Pacific Railroad provided the judicial branch with an opportunity to assert its authority. Although *Dubuque and Pacific Railroad Co. v. Litchfield* set the stage for the emergence of the judiciary in the controversies of the Des Moines River Lands Grant, not until 1892 did it finally assert its full authority and ultimately resolved the political and legal issues raised by the initial desire to open the Des Moines River to steamboat traffic.

**Improvement through Law**

The controversies over the Des Moines River Land Grant echoed similar national struggles in the transformation of the legal system. While the numerous cases clearly helped to settle controversy arising from the conflicting land grants, they exemplified the struggles in defining nineteenth-century American law. Internal improvement projects manifested public and private goals of developing markets and establishing connections between markets, producers, and consumers. The efforts of a government to support such economically advantageous activities also presented new challenges to the legal system.

The combination of public promotion of internal improvements and private enterprise altered the physical environment and presented new challenges to the American legal system. As the relationships brought individuals closer together, disputes and conflicts over property (specifically land) became acute. Land ownership, settlement of disputes, jurisdictional issues, and the use of precedent to address new circumstances included just a few of the challenges to the nineteenth-century legal system. The nineteenth-century legal system resolved such controversies surrounding the Des Moines
River Lands Grant. The challenges aided the transformation of the legal system into a distinct body based on the doctrine of legal formalism. Legal scholars define legal formalism as the idea that judges or other public officials should be restricted to reading and administering the law as written and intended by its author(s). This practice provided for predictable interpretations of the law and facilitated property transactions.

The transformation of a distinct legal system did not occur smoothly or without setbacks. Although judicial decisions echoed the beginnings of transformation, not all justices or courts followed suit at the same pace; some adopted the emerging principles while others hesitated. Some concluded that the emerging system lacked the completeness to offer total justice and therefore gradually and hesitantly embraced the changes. The conflicting grants of land along the Des Moines River provided great friction and an opportunity to test the legal system’s readiness to address the changing environment.

Historian James Willard Hurst contended the American legal system became instrumental in shaping laws that facilitated the development of frontiers. Despite the outward appearance of lawlessness during the formation of the frontier communities, those communities provided the context in which a distinct legal system developed. Individuals used the legal system to promote the release of creative energy. This instrumental approach included the responsibility of creating law to protect the release of individual creative energy and to mobilize community resources to aid in shaping the

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452 For more information on legal formalism see: Horwitz, The Transformation of American Law, 1780-1860, 253-268.
environment. Laws that allowed or aided the release of creative energy contributed to enterprises that stimulated economic growth and other issues that benefited the greater public good. While eventually forming a regional and national commonality, each frontier developed distinct laws, at different rates and periods of time, which promoted the unique development of the region. New frontiers emerged as settlement moved westward, in which the individuals who formed the communities adopted laws that worked for their specific circumstances and created or adapted other laws where necessary.453

The frontier of the Upper Midwest offered settlers abundant land and fertile soil in which to establish a farm and make a living. The laws that allowed the construction of the Des Moines River Improvement project aided settlers with a means of realizing the release of their individual creative energy, by enabling the settlement of the region, farming, and connecting sellers to markets. The controversies of the Des Moines River Improvement land grant arose within the Midwestern frontier, specifically Iowa, during the middle and later nineteenth century.

**Into the Courts**

On November 1, 1887, plaintiffs John Stryker, Richard Chapman, William Wells, and Mr. and Mrs. Edwin Litchfield, and defendant Edward Goodnow appeared before the United States Supreme Court in five cases that typified challenges faced by the

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nineteenth-century legal system.\textsuperscript{454} The concurrent cases asked the United States Supreme Court questions arising from the same fundamental issue of adversarial title claims. Although the cases outwardly questioned state authority of taxation, the United States Supreme Court rendered a decision based on federal judicial review authority over state judgments and statutes, jurisdiction, and judicial precedent. These cases and their proceeding judicial history exemplified the doctrine of legal formalism that evolved during the nineteenth century in America.\textsuperscript{455}

The controversy over taxation of the River Grant lands, the commonly used term for the Des Moines River Improvement Land Grant, first surfaced in 1859 with \textit{Des Moines Navigation and Railroad Company v. The County of Polk} argued before the Supreme Court of Iowa. At question was the issue of property tax collection for the years 1857 through 1858 for land held by the Des Moines Navigation and Railroad Company, by way of the original Congressional land grant of 1846, within Polk County, Iowa. In reversing the lower court’s decision, the State Supreme Court reviewed the case history of the Des Moines River Improvement Land Grant boundary controversy to aid their ruling in favor of the Des Moines River Navigation and Railroad Company.\textsuperscript{456}

In 1838, the Iowa Territory adopted almost verbatim the taxation policies that applied to the region while part of the Michigan Territory. The taxation policies implemented “such elements as the general property tax, license taxes, and county

\textsuperscript{454} Stryker v. Goodnow’s Administrator.; Chapman v. Same; Wells v. Same; Litchfield v. Same; Litchfield v. Same, 123 U.S. 527; 8 S. Ct. 203; 31 L. Ed. 194 (1887); An administrator presented the case on Goodnow’s behalf because Goodnow passed away before trial; Two spellings of Edward Goodnow’s last name can be found in the historical records- \textit{Goodenow} and \textit{Goodnow}. For the purpose of clarity the spelling, \textit{Goodnow} will be used in reference to the individual.
assessment” and included the limitation that “no tax shall be imposed upon the property of the United States.”

In the Iowa territory, the responsibility of property tax assessment and collection fell to the counties. The 1846 Iowa Constitution, under which the Territory entered statehood, contained little on the topic of taxation. Among the scarce references was the requirement that “all laws of a general shall have a uniform operation.” Minor revisions continued throughout the nineteenth century as the state sought to create a uniform taxation system that formed the basis of the Iowa Code.

While the context of Des Moines Navigation and Railroad Company v. The County of Polk (1859) hinged upon the collection of property tax revenue, the larger legal debate revolved around the struggle to develop a strict legal doctrine, separate from politics. The emergence of legal formalism offered justices the ability to render predictable decisions for individuals and private companies seeking legal clarity, thereby eliminating legal risks in various enterprises.

The Polk County District Court previously ruled in favor of Polk County’s tax collection process for the years 1857 and 1858. Under the June 7, 1854 contract entered into between the Des Moines River Navigation and Railroad Company and the State of Iowa, the responsibility for the assessed property taxes fell to the Company even though the lands remained uncertified by the State Land Office. District Court justices ruled that although the contract requirements remained unmet, implied ownership existed with the Railroad Company.

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456 Des Moines Navigation and Railroad Co. v. The County of Polk, 10 Iowa 1 (1859).
457 Ivan L. Pollock, History of Economic Legislation in Iowa (Iowa City: The State Historical Society of Iowa, 1918), 289-292.
458 Ibid.
because the company previously attempted to legitimize its ownership through the acceptance of land title, commencement of work, and the further sale and distribution of conveyed lands. The Des Moines River Navigation and Railroad Company appealed to the Iowa Supreme Court and argued that a review of state statutes should render a different decision.\textsuperscript{461}

Both parties agreed that the Governor of Iowa had refused to execute a patent for the land in question until May 3, 1858 and the State Register subsequently received the patent on June 10, 1858. The Des Moines River Navigation and Railroad Company argued that because the Governor refused to certify the Company’s title to the land until 1858, it did not hold legal title to the land and thus did not have the responsibility to pay the taxes assessed against it.\textsuperscript{462}

The opinion rendered by William G. Woodward of the Iowa Supreme Court stressed the importance of the language of a contract and state statutes in determining the appropriate outcome. The Court ruled that the prior claims of the Des Moines River Navigation and Railroad Company to title of land were immaterial. The contract between Iowa and the Company remained unmet and therefore conveyance of the land title could not be complete. In this reading, the fulfillment of the contract was most important and legally binding. Because the binding language required all issuance of land patents from the State land office, signed by the Governor, and recorded by the State Register, the contract remained incomplete until June 10, 1858. The Court suggested that the legally

\textsuperscript{459} Ibid, 288-315.
\textsuperscript{460} Horwitz, \textit{The Transformation of American Law, 1780-1890}, 253-266.
\textsuperscript{461} Des Moines Navigation and Railroad Co. v. The County of Polk, 10 Iowa 1 (1859).
\textsuperscript{462} Ibid.
binding nature of the contract was of more importance than the implied interpretation of ownership and possession that could provide The Des Moines Navigation and Railroad Company with an equitable title. The State of Iowa failed to complete the required three-step certification process before June 10, 1858, and therefore had no legal right to collect taxes from the Des Moines River Navigation and Railroad Company for the year 1857 or prior.

Further, the Court ruled that according to the Iowa statute it could not enforce the collection of taxes for the land in question. Due to the incomplete certification process still outstanding at the end of 1857, the lands remained in the legal possession of Iowa, not the Des Moines River Navigation and Railroad Company. The Court ruled that because of the 1851 Iowa code, section 455 that stated the following exemptions from taxation “the properties of the United States and that of this State,” a rendered decision must restrict the collection of property taxes by Iowa or any county within the State.463

Because each individual yearly assessment and collection of taxes indicated a new and distinct transaction, the Court additionally ruled on the assessment of taxes for the year 1858. In its decision pertaining to the taxes of 1858, the Iowa Supreme Court again turned to the Iowa codes to enforce a predictable interpretation of the law. A codified system of tax assessment provided the courts with a set of guidelines by which to adjudicate legal matters in a manner easily replicated. It thereby assured a predictable administration of the law. A review of the statute of 1858, chapter 152, indicated that the assessment of taxes for the year must conclude by the second Monday of April each year.

463 Ibid.
Since the final certification by the Register was not until June 10, 1858, almost two months after the April deadline for the given year, neither the State nor any county could impose taxes for the year of 1858 on the lands in question.464

Justice Woodward’s decision supported the emergence of legal formalism. Despite Woodward’s decision pertaining to the Des Moines River Lands, he was best known because his father was defendant in the famous 1819 Dartmouth College case argued by constitutional lawyer Daniel Webster before the United State Supreme Court. Chief Justice Marshal ruled that despite William H. Woodward and the New Hampshire legislature’s effort to convert Dartmouth College into a public institution, a contract between private parties involving individual property rights did not include matters of “political relations between the government and its citizens.”465 While William H. Woodward, father, argued for state authority to convert Dartmouth College into a public institution despite the original intent of the contract, forty years later Justice William G. Woodward, son, upheld the legal system’s adherence to the importance of the contract established under Chief Justice Marshal.466

Despite the obvious economic benefit of tax collection for both the State and the counties involved in the Des Moines River Grant Lands taxation dispute, a predictable legal interpretation emerged under the State Supreme Court Justices. Under traditional common law principles, it would not be unreasonable to expect to hold the Des Moines River Navigation and Railroad Company responsible for the taxes as the district court had

464 Ibid.
466 C. Edwin Moore, Justices of the Supreme Court of Iowa, 1838-1979 (Iowa: The Supreme Court, 1979), 8.
decided. Sir William Blackstone wrote about the English common law that rights of matters such as title by grants occurred immediately upon receipt. He wrote that a “true and proper gift or grant is always accompanied with delivery of possession, and takes effect immediately.” Instead, State justices handed down a strict interpretation based on Iowa codes and the original contract that allowed them to rule against the collection in equity from the Des Moines River Navigation and Railroad Company.

Despite this initial resolution, taxation of the River Grant lands continued to be a point of contention. After Congress enacted legislation in 1861 and 1862 that amended the original 1846 River Grant to include lands north of the Raccoon Fork along the Des Moines River, the Iowa courts again weighed in on the issues. Like the previous taxation cases, the courts emphasized the importance of state statutes and the contract in determining a predictable outcome.

In 1867 and 1874, two cases appeared before the Supreme Court of Iowa involving the taxation dispute on River Grant lands. The first of these, *Stryker v. Polk County and Tiffin, Treasurer* (1867) centered on John Stryker’s claim to land above the Raccoon Fork, located in Polk County. Specifically, it called into question Polk County’s ability to assess taxes to the land for the years 1858 to 1862. The opinion of the Court delivered by Justice Wright centered on two specific periods, before and after 1861. In determining the taxability of the land for the years in question, the Court required the absolute title for the years 1858 to 1862 be determined.

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468 Stryker v. Polk County, and Tiffin, Treasurer, 22 Iowa 131 (Iowa Sup. 1867).
In *Dubuque and Pacific Railroad v. Litchfield* (1860), the federal Supreme Court ruled, on a strict interpretation of the River Grant boundary dispute and placed the northern boundary limit at the Raccoon Fork. According to the Iowa Supreme Court, the decision by the federal Supreme Court to situate the northern terminus at the Raccoon Fork placed John Stryker’s claim of *bona fide* title in jeopardy. The land claimed by Stryker and conveyed from the Des Moines River Navigation and Railroad Company to him fell above the Raccoon Fork. Thus according to *Dubuque and Pacific Railroad v. Litchfield*, his land fell outside the boundaries of the Des Moines River Improvement Land and therefore placed his land title in doubt.

In an effort to remedy the status of the settlers with land titles in jeopardy, such as Stryker, the United States Congress passed two resolutions in 1861 and 1862 that extended the River Grant boundaries to the northern limits of the State. Construction of the original 1846 grant contained a reserved right that allowed Congress to amend the grant as needed. The reserved right clause allowed Stryker and other titleholders to regain prominent title to their lands. As the acts passed into law, and the titles legitimized, the State and counties then claimed the power of taxation over the lands in dispute.

In its ruling pertaining to taxation for the period before 1861, the Iowa Supreme Court wavered from its emerging legal formalist stance. While it retraced the course of

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469 *Dubuque and Pacific Railroad Company v. Litchfield*, 64 U.S. 66; 16 L. Ed. 500 (1860). The Court turned to the opinion of the Supreme Court of the United States in the land grant boundary dispute to determine legal title.

470 “An Act Granting Certain lands to the territory of Iowa, to aid in the improvement of the navigation of the Des Moines River, in said Territory,” *Statutes at Large*, 29th Cong., 1st Sess., (1846), 77-78; “An Act to Quit Title to Lands in the State of Iowa,” *Statutes at Large* Vol. XII, Joint Resolutions, 37th
the land grant legislation, the Court ruled that intent of title had the same legal standing as *bona fide* title. Justice George G. Wright wrote in the decision of the court that although the federal Supreme Court had ruled in *Dubuque and Pacific Railroad v. Litchfield* that the northern boundary terminated at the Raccoon Fork, and thus voiding Stryker’s title to land, his intentions to secure legal title satisfied the Court.\(^{471}\) Further, since certification and registration of the land by the State took place, an implied legal recognition occurred effectively establishing an equitable title. The Court contended that, “the technical legal title may have remained in the United States; but [the] plaintiff certainly had a right which had been recognized by the concurrent action of the authorities.”\(^{472}\)

In 1874, the Iowa Supreme Court again followed this line of logic in *Litchfield v. The County of Hamilton, et al*; while involving different litigants, the issues remained, for the most part, identical.\(^{473}\) In addition to the previous taxation cases, *Litchfield v. The County of Hamilton, et al.* included legal resolution to penalty and interest imposed on the nonpayment of land taxes. Edwin Litchfield, however, who had acquired his title from the Des Moines River Navigation and Railroad Company, argued that because the prominent title was in doubt prior to 1861 due to the Court’s ruling in *Dubuque and Pacific Railroad v. Litchfield*, that placed the northern boundary at the Raccoon Fork and thus located his property outside the boundaries of the Des Moines Grant Lands, he

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\(^{471}\) Cong., 1\(^{st}\) Sess., (1861), 251; “An Act Confirming a Land Claim in the State of Iowa, and for other Purposes,” Statutes at Large, 37\(^{th}\) Cong., 2\(^{nd}\) Sess., (1862), 543.

\(^{472}\) C. Edwin Moore. *Justices of the Supreme Court of Iowa*, 9. Among Justice George G. Wright’s other accomplishments are organization of the first law school west of the Mississippi that later became the law department at the University of Iowa, director of the Rock Island Railroad, president of Polk County Savings Bank, organizer of the Pioneer Lawmakers Association, and president of the state agricultural society.

\(^{473}\) Stryker v. Polk County, and Tiffin, Treasurer, 22 Iowa 131 (Iowa Sup. 1867).

should not be liable for the interest and penalties accrued from nonpayment of taxes for the years 1859 to 1860. Although Congress amended the 1846 grant in 1861 and 1862, it did not allow for the recovery of property taxes for the years disputed, 1861 and before.

The Iowa Supreme Court with Justice Joseph M. Beck writing the opinion ruled, “mere irregularities [the issue of disputed title] in the assessment or levy of taxes will not justify the interference of equity to stay their collection.” Although the title was in dispute, due in part to the fault of the County or State, it did not “discharge the party of public burdens which they ought justly share.” Above all, tax payment responsibility fell to the party, even if the claim was in dispute, and the court “could not relieve them of the interest and penalties prescribed by statute for delinquent taxes. In essence, the taxation of the Des Moines River lands dispute provided the Supreme Court of Iowa with an embryonic platform in which to echo the larger nineteenth-century emergence of the legal formalism doctrine in American law. Legal formalism restricted the ability of justices to allow equity but adhere to codified legislative statutes instead, in this instance relief from interest and penalty caused by delay of tax payment, when the statutes of the State did not specifically allow.

While the Iowa Supreme Court weighed in on the taxation issue, it also appeared in 1879 before the federal Supreme Court with Chief Justice Morrison Waite presiding. The Waite Court gained the reputation of being industrious and rendering rulings that

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474 C. Edwin Moore. *Justices of the Supreme Court of Iowa*, 16. Justice Joseph Beck’s most valuable contribution to Iowa law was a decision “involving the equality in civil rights and privileges of all persons before the law, unaffected by race, color, or previous conditions of servitude.”

475 Litchfield v. The County of Hamilton, et al, 40 Iowa 66 (Iowa Sup. 1874). Because Congress made the original 1846 grant and further amended it in 1861 and 1862, the state of Iowa recognized that disputes arising out of the grant were the fault of the federal government rather than the state or its entities.
solidified the growth of the American legal system throughout the nineteenth century.\textsuperscript{476}

*Litchfield v. County of Webster* (1879) again focused on the same basic taxation question for the years 1859 to 1866, this time pertaining to land located above the Raccoon Fork in Webster County, Iowa.\textsuperscript{477} Chief Justice Waite’s Court ruled in favor of Litchfield while focusing on two specific areas for the Court’s opinion. While Chief Justice Morrison Waite, who wrote the opinion of the Court, contended that although Litchfield was responsible for the assessed property taxes after the 1862 amendment to the River Grant confirmed his title, he was not responsible for the taxes prior to that date. Even though Litchfield, and before that the Des Moines Navigation and Railroad Company, had laid claim to the land he did not hold legal title. Before the legislation of 1861 and 1862 that conveyed the lands north of the Raccoon Fork to Iowa, and subsequently became the possession of Litchfield, the lands remained in the legal possession of the United States. Justice Waite contended that despite the Iowa Supreme Court rulings in *Dubuque and Pacific Railroad v. Litchfield* and *Litchfield v. The County of Hamilton, et al.*, that possession was implied based on equitable title before the 1861 and 1862 amendments to the River Grant, the contract was the legally binding issue. Since the land was not legally

\textsuperscript{476} Biographer Melvin Urofsky wrote, “Over the course of Waite’s fourteen-year tenure as chief justice, the Supreme Court decided some 3,470 cases with opinions, of which 967 were authored by Waite himself.” Born in Lyme, Connecticut in 1816, Morrison Remick Waite came from a family that produced a large number of lawyers. Waite followed in the footsteps of his grandfather and father, focused on legal studies and attended Bacon Academy and Yale College. After Waite’s minimal involvement in politics, President Grant nominated him to the Supreme Court in 1874. Although not the first choice of President Grant, Waite added his own mark to the Supreme Court. Urofsky wrote, “While never a dominant intellectual force on the Court, Waite was an ‘adroit’ social and managerial leader, using his inherent graciousness and good cheer, along with his power as chief justice to assign opinions, to mold an unusually harmonious Court.”\textsuperscript{476} While Chief Justice Waite’s opinion on the taxation controversy offered little new insight, it followed the trend of the Waite Court in reaffirming the transformation and emergence of a distinct American legal system and a doctrine of legal formalism. Urofsky, *The Supreme Court Justices: A Biographical Dictionary*, 493.
or properly certified, nor transferred to the State, transfer to the Des Moines River Navigation and Railroad Company or its grantee Litchfield also remained impossible. By the strict construction of the River Grant and contract with Iowa, legal possession Litchfield could not obtain legal possession prior to 1862. Based on that reasoning Justice Waite found that Iowa, and through it Webster County, could not impose taxes, interest, nor penalties upon Litchfield.\textsuperscript{478}

The second issue addressed by the Waite Court, and written by Chief Justice Waite himself, pertained to equity. To the high court, the issue of equity denied by the State Supreme Court was in partial error. Justice Waite concluded that releasing Litchfield from the responsibility of interest and other penalties was of “an elementary principle in equity jurisprudence.”\textsuperscript{479} In the Court’s opinion, Justice Waite wrote:

That if money is lying dead to meet an obligation, and delay in its payment is caused by the fault of him to whom it is to be paid, interest during the delay is not recoverable. Here the delay was caused by the improper interference of the State and the United States with the title. Litchfield has been guilty of no fraud or willful default.\textsuperscript{480}

Since legal title to the disputed land was not conveyed until after the 1861 property taxes were assessed, it was through no fault of Litchfield that taxes were not paid in the manner indicated by the statutes of Iowa and therefore the Webster County could not enforce collection of interest and other penalties for the years prior to 1862. In the opinion, Justice Waite also made note that after 1862, when Litchfield achieved legal recognition as the \textit{bona fide} titleholder, taxes with interest and penalty then became possible. While

\textsuperscript{477} Litchfield v. County of Webster; County of Webster v. Litchfield, 101 U.S. 773; 25 L. Ed. 925 (1879).

\textsuperscript{478} Ibid.

\textsuperscript{479} Ibid.
the Court considered interest and penalties as a matter of equity prior to 1862, Justice Waite drew a distinction. The collection of interest and other penalties for delinquent taxes underwent codification within the State of Iowa with the hopes of eliminating the need for courts of equity. Codification allowed for a universal, systematic, and predictable distribution of law while it also limited a party’s ability to seek equity outside the codified laws. If the courts allowed flexible interpretations that assisted equitable recovery in instances where the codified law failed, the predictability and repeatability of legal formalism ultimately would have failed.481

While one might argue that the Taney Court’s most famous decision is *Dred v. Scott* (1857), his Court played an active role in the emergence of a distinct legal system through rulings on economic issues involving the Bank of the United States, and federal-state relations. Although decided during Taney’s first term as Chief Justice, *Charles River Bridge Co. v. Warren Bridge Co.* (1837) illustrated his stance. The Charles River Bridge Company sued the Warren Bridge Company after the State of Massachusetts extended a charter to the Warren Bridge Company to build a bridge over the Charles River. The plaintiff contended the charter of the defendant violated the monopoly established by the original offer given to the Charles River Bridge Company. In

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479 Ibid.
480 Ibid.
481 Justice Waite’s written opinion of the Court exemplified former Chief Justice Roger Taney’s economic philosophy where the legal system should be concerned. Taney came from a Maryland family that made its fortune in landholdings, slaves, and tobacco farming. Upon completion of studies at Dickinson College in Pennsylvania and reading law in Maryland, he began practicing law in 1799. Although initially a firm Federalist, Taney “broke with the party when it failed to support the War of 1812.” He continued to remain politically active and in 1828, Andrew Jackson selected him to head the Maryland central committee for Jackson’s presidential campaign. Following the election of Jackson, Taney accepted the appointment of Attorney General of the United States and gradually influenced Jackson’s policies on
illustrating the point, Urofsky wrote, “speaking for the Court, Taney concluded that ‘any ambiguity in the terms of the contract, must operate against the adventurers [stockholders] and in favor of the public.”

The Waite Court ruling in *Litchfield v. County of Webster* followed the same fundamental argument as the Taney Court’s ruling in *Charles Bridge Co. v. Warren Bridge Co.* The Taney Court supported economic development while also maintaining a need to protect the good of the public. Summarizing Taney’s stance, Urofsky pointed out, “the Taney Court followed the spirit of *Charles River Bridge* in subsequent cases—allowing states great flexibility in issuing corporate charters, but always reading those charters narrowly in order to protect the public good and the states.”

Because the State of Iowa statutes did not allow for recovery but indicated a clear process of legal validity of ownership, the court had no option but to rule in favor of Litchfield.

Although the Waite Court decision upheld the principles of the legal formalism doctrine, the taxation debate continued. Despite the Court’s ruling that released Litchfield from paying interest and penalties in the years of disputed land title, another ruling, *Wolsey v. Chapman* (1879), decided by the United States high court in 1879, established Litchfield, with title by way of the River land grant, as the *bona-fide* titleholder. During the period, the legal and legislative system worked to remedy the
land ownership dispute, the Homestead Company willingly paid the property taxes on the disputed lands and brought litigation calling for recovery of those taxes. 485

**Legal Disputes in Private Matters**

With the introduction of litigation by the Homestead Company in 1872, the taxation controversy shifted from a legal matter involving private and public parties to one involving private parties only. The emphasis of a legal system supporting economic development by way of the Des Moines River Improvement Land Grant ended. Because both litigating parties, as the controversy moved forward, represented private economic interests, the legal system looked to establish a manner to settle disputes between private individuals. The judicial system presented formalized procedures that allowed legal clarification pertaining to matters of uncertainty.

The Homestead Company acquired lands north of the Raccoon River Fork along the Des Moines River as part of a Congressional railroad land grant given to the Dubuque and Pacific Railroad Company in 1856. 486 The conflicting land claim appeared before the Supreme Court of the United States, as *The Homestead Company v. Valley Railroad*, with Chief Justice Salmon Chase writing the opinion in 1872. 487 The Supreme Court, following the Taney Court’s stance on ambiguous contract interpretation, agreed that due to the uncertainty of the northern terminus under the River Grant of 1846, the Dubuque

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485 Ibid.
486 “Grant to Iowa For Railroads,” Statutes at Large, 34th Cong., 1st Sess., (1856), 9. The Homestead Company formed out of the railroad companies represented by the 1856 Railroad grant. The company received the rights to the grant lands and in turn acted as a private land agent to sell off the lands.
and Pacific Railroad’s title claim was uncertain. However, because Congress had reserved the right to amend the legislation, and did so in 1861 and 1862, the River Grant’s claim to the land preempted that of the Dubuque and Pacific Railroad and subsequently that of the Homestead Company. Further, the Court reasoned that the legislative language of the 1856 railroad grant allowed a railroad company the ability to choose land that was not reserved from the market by any prior grant or federal and state notice. The high court inferred that under the 1856 grant, the Dubuque and Pacific Railroad Company had in fact chosen land that was restricted for sale, due to the boundary debate over the River Grant. Therefore, the Court ruled in favor of the Des Moines River Navigation and Railroad Company and its assignees.488

By late 1864, when President Lincoln nominated Chase as Chief Justice to replace the deceased Roger Taney, the nation’s battle weary attention began shifting away from divisive issues of the Civil War. Instead, Reconstruction, economics, and other social matters drew interest. The issues “reflected the nation’s transformation from an agrarian to an industrial power.”489 From 1864 to 1873, “the Chase Court…embodied past and future approaches to politics and constitutional law.”490 The Civil War brought

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488 The Homestead Company v. Valley Railroad, 84 U.S. 153; 21 L. Ed. 622 (1872). By the time the court case arrived before the federal Supreme Court the Des Moines River Navigation and Railroad Company had been relieved by the state legislature of its responsibilities to complete the waterway improvement project. As a result, the company became the Des Moines River Valley Railroad Company. While the Chase Court ruling extended the emerging legal doctrines established by the Taney Court, the Chase Court doctrines established a base that allowed later Supreme Court justices to review a state court’s judgments. The son of a New Hampshire farmer-legislator, Salmon Portland Chase graduated Dartmouth College in 1826. Having studied law in Washington D.C. under Attorney General William Wirt, Chase participated in various reform issues such as temperance and antislavery. By the 1840s, Chase’s efforts on antislavery earned him the nickname “Attorney General for the Runaway Negroes.” Urofsky, The Supreme Court Justices: A Biographical Dictionary, 101.
489 Ibid, 101-102.
490 Ibid.
individual and minority rights to light while it also “spurred the creation of a national market and raised constitutional questions about the role of state legislatures in the regulation of business and interstate commerce.” Among those considering roles, “legal theorists increasingly promoted formalism…as a means of protecting many kinds of individual rights from legislative interference, including property rights of the corporation.”

Chief among the decisions that influenced future United States Supreme Court litigation pertaining to the Des Moines River Improvement controversies was the stance of upholding national judicial review power over a state’s decisions. “In Gelpcke v. Dubuque (1864), the Court greatly expanded its review power over state court judgments by requiring Iowa to honor municipal bonds that the Iowa Supreme Court had held to be invalid.” Although the Chase Court’s rulings were in large part a response to check aggressive states’ efforts to justify federal judicial restraints on state excesses that arose during Reconstruction, they influenced the manner in which the Court responded to the River Grant taxation controversy and followed the judicial precedent established by the Marshal Court in Cohens v. Virginia (1821). In a case involving the sale of lottery tickets in Virginia where they were illegal, the United States Supreme Court ruled that the Cohens brothers were guilty of selling. In order to rule on the case, the high court under the direction of Chief Justice John Marshal laid the groundwork for judicial review. He argued that the high court had the constitutional authority to review state court rulings. Marshal contended that independent of the identity of an individual, the high court was

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491 Ibid.
492 Ibid.
required to review cases that involved constitutional questions. The high court’s job was
to determine if the case was in violation of the national constitution and therefore invalid.
The power to review a state court decision and hold a state court to a federal judicial
decision allowed the Supreme Court of the United States to review and rule on Iowa
judicial decisions in the Des Moines River Improvement controversies.494

With the title legally in the possession of the Des Moines River Navigation and
Railroad Company and its assignees, litigation arrived at the courts to determine the issue
of property taxes as Edward Goodnow, an assignee of the Homestead Company, sought
equity for taxes paid to the lands under disputed title. Between 1882 and 1887, Goodnow
brought four cases pertaining to the tax reimbursement issue before the State Supreme
Court. While involving different defendants, all assignees of the Des Moines River
Navigation and Railroad Company’s land title, the Goodnow cases addressed the same
taxation questions: the ability of the Homestead Company and Goodnow to recover taxes,
penalty, and interest paid on the disputed lands.495 Goodnow contended that denied his
claim to title, he deserved reimbursement for the money paid out in property taxes for the
disputed land.

In 1882, Goodenow v. Litchfield et al. reached the Supreme Court of Iowa on
appeal from the Webster County Circuit Court. Again, Litchfield and the other assignees
returned to court as Goodnow argued that the lower court ruled erroneously in favor of
Litchfield and others that obtained title under the River Grant. Goodnow called upon the

493 Ibid.
494 Ibid, 103-104; Cohens v. Virginia 19 U.S. 264; 5 L. Ed. 257 (1821).
Court for “an action in equity to recover money paid by the Homestead Company, the plaintiff’s assignor, on account of taxes” for the disputed lands. Goodnow contended that he paid the taxes on the disputed lands, with the knowledge of Litchfield and the Des Moines River Navigation and Railroad Company, and continued doing so in pursuance of a statutory obligation resting upon the Homestead Company of which he was the assignee while the matter again worked its way to the federal Supreme Court. However, this time a private party sought reimbursement for taxes paid on many of the same lands as the various Iowa counties had previously sought reimbursement. Litchfield and the other assignees of the Des Moines River Navigation and Railroad Company turned to Conduce Gatch as legal counsel.

Conduce Gatch played a prominent role in the closing years of the Des Moines River Land Grant controversy from the time of his hire as legal counsel in 1882 until the controversy’s conclusion in 1892. After completion of law studies in Xenia, Ohio and admittance to the bar, political involvement followed. He settled at Kenton, won election as a prosecuting attorney, held a seat in the State Senate, and became a delegate to the first Republican National Convention. He staunchly supported Lincoln’s stance on the issue of secession and raised a company for the Ohio Infantry ultimately reaching lieutenant colonel.

495 Goodnow v. Litchfield et al, 59 Iowa 226; 9 N.W. 107 (Iowa Sup. 1882); Goodnow v. Wells et al, 67 Iowa 654; 25 N.W. 864 (Iowa Sup. 1885); Goodnow v. Litchfield, 67 Iowa 691; 25 N.W. 882 (Iowa Sup. 1885); Goodnow v. Burrows et al, 74 Iowa 256; 23 N.W. 253 (Iowa Sup. 1887).
496 Goodnow v. Litchfield et al, 1882.
497 Gue, History of Iowa From the Earliest Times to the Beginning of the Twentieth Century, Vol. 4, 99.
498 Ibid.
The conclusion of the Civil War brought about change and Gatch moved to Iowa in 1866 and began practicing law. By 1882, Gatch made a name for himself in Iowa and the Des Moines River Navigation and Railroad Company and its assignees hired him as counsel. Taking a strict constructionist stance on behalf of Litchfield and the other assignees of the River Grant, Gatch argued that the payment of taxes was voluntary and that the Homestead Company’s assignor was fully aware of the questionable titles. In addition, he argued the statute of limitations legally barred the claim for compensation. Gatch further purported that right to recover the taxes ended with prior adjudication. Most importantly, however, he argued that Litchfield and the other assignees had no obligation to pay the taxes during the time in which the Homestead Company paid them. Gatch reasoned that because of the conflicting claims to the land, set up by misinterpretation and confusion by the State of Iowa and the United States, it was not the responsibility of Litchfield and the assignees to pay taxes on land.

In rendering its decision, the State Supreme Court reasoned that the case revolved around two main points. The first addressed the payment in good faith contention. In the Court’s decision, Chief Justice William H. Seevers maintained that a legal process existed by which to test the validity of the claim and to determine the responsibility of either company to pay taxes. He wrote that Goodnow made good faith payment “under the belief that the Homestead Company owned the land and was therefore legally bound

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499 Ibid; In addition to his law practice, Gatch was elected to the Iowa Senate in 1885 and served eight years. During his tenure, he authored and sponsored legislation that promoted the establishment of the State Historical Society, in addition to general laws that promoted public libraries throughout the state of Iowa. Colonel C. H. Gatch, “The Des Moines River Land Grant,” 354-370. Among his first contributions to the Annals of Iowa, Gatch authored an article on the Des Moines River controversy.

to pay the taxes."\textsuperscript{501} However, in order to recover the taxes paid on good faith, “such facts should have been alleged and established.”\textsuperscript{502} Because neither the Homestead Company nor Goodnow brought forth a question as to the legal status of the good faith payments, Chief Justice Seevers found that the payments were voluntary and did not call for recovery.\textsuperscript{503}

The second point focused on the legal doctrine of estoppel.\textsuperscript{504} Gatch argued that the decision handed down by the Waite Court in the \textit{Litchfield v. County of Webster}, created a bar that estopped recovery of taxes for the lands with disputed title. “Counsel for the plaintiff [Goodnow] insisted each payment of taxes for each year constitute a separate and distinct transaction or cause of action, and therefore an adjudication as to the taxes paid in one year cannot estop or have any bearing upon the right to recover taxes paid in a subsequent year.”\textsuperscript{505} Goodnow argued that this issue was most important because each payment “may be predicated on different and distinct rights,” as the statutes of the State may have changed for each year. The importance of settling the estoppel issue was not lost on the Court as Chief Justice Seevers wrote, “Counsel on both sides have cited a large number of cases as bearing upon the question as to what constitutes an adjudication that will estop the parties from again litigating the question determined in another action.”\textsuperscript{506}

\textsuperscript{501} Ibid.
\textsuperscript{502} Ibid.
\textsuperscript{503} Ibid.
\textsuperscript{504} Black’s Law Dictionary 1891, 3\textsuperscript{rd} ed., s.v. “estoppel.” Henry Campbell Black defined estoppel as “a bar or impediment raised by the law, which precludes a man from alleging of from denying a certain fact or state of facts, in consequence of his previous allegation or denial or conduct or admission, or in consequence of a final adjudication of the matter in a court of law.”
\textsuperscript{505} Goodenow v. Litchfield et al, 1882.
\textsuperscript{506} Ibid.
Chief Justice Seevers suggested that all the cases cited by both parties were essentially correct; however, they did not help define the status of the current action. The Court contended that determining the power of estoppel between two actions centered on “the issue in both actions and the matter on which the estoppel depends must be the same or substantially so.” Un 507 ber examining the details of the prior United States Supreme Court ruling and the action before Chief Justice Seevers, the Court conceded that the federal Court ruled against recovery by Webster County of taxes paid before 1868 and by the same reasoning it followed that Goodnow could not recover voluntarily paid taxes either. In essence, the Court ruled that the litigation brought before the Court by Goodnow was indeed governed by estoppel since the issue of recovery for taxes centered on the same litigants and facts as that ruled by the Supreme Court of the United States. 508

Justice Seevers’ ruling illustrated his strong stance on a codified system of law. Before serving on the Iowa Supreme Court, Seevers served in the Iowa House of Representatives of the Seventh General Assembly. While there, he was an instrumental code commissioner in establishing the State Code of 1873. 509

While the Iowa Supreme Court ruling focused on the statutes and recovery of taxes paid under those statutes, the transition to legal formalism and strict interpretation of contract remained flawed. Although the decision favored of Litchfield and the other Des Moines River Navigation and Railroad assignees, the Court lacked unity in forbidding an equitable solution to Goodnow and the Homestead Company. Justices

507 Ibid.
508 Ibid.
509 Moore, Justices of the Supreme Court of Iowa, 21.
Austin Adams and James G. Day of the Iowa Supreme Court filed the only dissenting opinion during the entire Des Moines River Land Grant controversy.

In their dissenting opinion, the Justices reasoned that the majority opinion of the Court misinterpreted the ability of Goodnow and the Homestead Company to seek legal remedy on the action they brought forth. If the Court’s decision was to be one of strict legal interpretation of statutes, each payment of taxes for each year must represent a distinct action with distinctly applied statutes and considerations. Therefore, the prior decision that denied reimbursement did not apply to the action brought forth in *Goodnow v. Litchfield et al.* Further, they suggested that “the great learning and ability of the Supreme Court of the United States entitle its decisions to great weight and authority, but the effect of one of its decisions as prior adjudication cannot be extended a hairs breath beyond that of a like decision made by the lowest court known to the law.”510 The Justices’ dissention questioned the Supreme Court of the United States’ jurisdictional authority to review and interpret state statutes, and its ability to effect prior state court adjudication on like matters.511

Justice James G. Day’s term on the Iowa Supreme Court lasted thirteen years but ended in controversy a year after the dissention in *Goodnow v. Litchfield et al.* His maverick attitude towards the State’s Prohibition amendment when public sentiment strongly supported it ultimately cost him reelection to the Supreme Court in 1884. That same maverick spirit, however, aided him in registering the only dissent in the Des

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510 Ibid.
511 Ibid, 18-20.
Moines River Improvement’s legal history. The other author of the dissent, Justice Austin Adams, sat on the Court as more of an intellectual. From the same family as Revolutionary War figure Samuel Adams, Adams attended Dartmouth College and Harvard Law School. “He had been for some years a professor before coming to the bar…and constantly engaged in educational work” including serving as a regent for the State University of Iowa. The 1882 dissention of Justices Adams and Day shifted the Court’s standing and by 1885 when two more cases, Goodnow v. Wells et al. and Goodnow v. Litchfield, appeared before the Iowa Supreme Court an equitable decision appeared on the horizon. It would directly influence the 1887 Supreme Court of the United States decision in Stryker v. Goodnow’s Administrator, Chapman v. Same, Wells v. Same, Litchfield v. Same, Litchfield v. Same (1887).

In 1885, Goodnow v. Wells et al. appeared before the Supreme Court of Iowa. Wells, who held legal title by way of the Des Moines River Navigation and Railroad claim, filed an appeal to the decision of the Webster County Circuit Court. The circuit court decided in favor of Goodnow and the Homestead Company. Wells called upon the Court to decide upon their claim to an action in chancery that raised many of the previously heard arguments in the taxation controversy. Ruling against the previous legal decisions on similar matters, the lower court contended that Wells, who had legal title by way of the River Grant, indeed was responsible for reimbursement to Goodnow for taxes paid on the disputed lands.

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512 Ibid.
513 Ibid.
514 Goodnow v. Litchfield, 1885; Goodnow v. Wells et al, 1885.
The lower court argued, and the Supreme Court of Iowa agreed in the appeal, that the Supreme Court of the United States ruled incorrectly in *Litchfield v. County of Webster*.515 Both the circuit court and the State Supreme Court disagreed with the Supreme Court of the United States’ interpretation of the statutes of the State in deciding the point at which legal title transferred to the hands of the Des Moines River Navigation and Railroad Company and its assignees. While the high court ruled that the legal recognition of title occurred only after locating and entering the land by the land office and the governor, the circuit court and the Supreme Court of Iowa ruled that the practice of locating and entering to certify land title did not apply based on the statutes of Iowa at the time. In Chief Justice Beck’s written opinion, he purported “it is a familiar rule that congressional grants of land of the character of the one under which defendants claim…pass the title without conveyances or other assurances.”516 He continued, “it cannot be said that the lands of the defendant were ‘entered’ or ‘located.’ They were in fact conveyed by a congressional grant.”517 Since the lands were not subject to the “enter” and “locate” provisions, they were taxable from the time of purchase from the State. The Court contended that, “the lands were not purchased from the state in 1861, but in 1858, and the legislation and patent of the state conveyed the state’s interest in the land; and the interest afterwards acquired by the state inured to the purchaser, and his title, by relation, ran back to the grant by the state.”518

515 Goodnow v. Wells et al, 1885.
516 Ibid.
517 Ibid.
518 Ibid.
Continuing the argument presented by Justice Adams in his dissenting opinion of *Goodenow v. Litchfield et al.*, Chief Justice Beck and the Supreme Court of Iowa further questioned the jurisdictional role of the Supreme Court of the United States in interpreting state statutes. In the opinion of the Court, Chief Justice Beck wrote:

“It is a rule nowhere disputed that the decisions of the Supreme Court of a state, interpreting a statute of such state, must be followed by the federal courts; and where the Supreme Court of the United States, upon mistaken view of the purport and effect of the decisions of the supreme court of the state in such a case, renders a decision in conflict therewith, such decision is not binding on the state court.”

In 1885, familiar litigants again appeared before the Supreme Court of Iowa. In *Goodnow v. Litchfield*, the Plaintiff argued before the Court similar grounds as to those in *Goodnow v. Wells*, with the Court again ruling similarly, while also reversing its 1882 decision in *Goodenow v. Litchfield et al.* However, the decision rendered in *Goodnow v. Litchfield* echoed the national transformation away from the common law and towards a more distinct American Law. For the first time in the River Grant controversy, the Court rewarded Goodnow with recovery of interest, in addition to equitable recovery of taxes paid on the disputed land.

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519 Ibid.

520 Morton J. Horwitz, *The Transformation of American Law 1780-1860*, 265-266. Although Horwitz discussion on merger of law and equity focuses on the mortgages, the merger of law and equity was being adopted in Iowa Statutes by the 1880s. Goodnow v. Burrows et al, 1887. This case was also tried on similar ground as Goodnow v. Wells et al, 1885, and Goodnow v. Litchfield, 1885. However, the Supreme Court of Iowa reversed the circuit court’s ruling. Although on the surface the case seems to contradict the emerging court logic of holding the legal titleholders accountable for taxes, the court ruled differently based on one key element. The court ruled that Webster County and Edward Goodnow agreed that he would pay taxes on property with disputed title, between Goodnow and Burrows. If the court ruled in favor of Burrows’ title claim, Goodnow and Webster County would place a lien against the property for the taxes paid. If Burrows refused, they would jointly enter into litigation to recover the taxes paid. Upon reaching the Supreme Court of Iowa, Webster County withdrew its complaint. The Court ruled that Webster County’s withdrawal voided any agreement between the two parties and subsequently Goodnow had no legal recourse against Burrows.
Two years removed from the Supreme Court of Iowa’s decision of 1885, the litigants appeared before the Supreme Court of the United States. On November 1, 1887 with Chief Justice Waite presiding, Gatch and Goodnow’s administrator argued nine cases pertaining to the taxation controversy. Due to the similarity in questions asked, Chief Justice Waite and the Court combined cases and rendered four opinions. Chief among the written opinions, the Court addressed questions pertaining to judicial jurisdiction and power, limits of estoppel, and the use of judicial precedent.

Chief Justice Waite addressed the power of the federal judicial system to decide matters of a state and its limits. In responding to the taxation debate and the ability of the federal Supreme Court to render a binding decision, Chief Justice Waite wrote,

> Whether the lands were taxable within a year after the title passed out of the United States is not a Federal question. There was nothing in the act of Congress admitting Iowa into the Union, or in any other act of Congress to which our attention has been directed, which in any manner interfered with the power of the state to tax lands as soon as they ceased to be the property of the United States. The only prohibition was against the taxation whilst the United States were the owners.

Waite further suggested that the question asked by the litigants was a question of state statute construction. Therefore, since the state statute did not conflict in any way with the Constitution or other laws of the United States, the Supreme Court of the United States did not have the authority to review the judgment of the Iowa Supreme Court.

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521 Stryker v. Goodnow’s administrator; Chapman v. Same; Wells v. Same; Litchfield v. same; Litchfield v. Same, 123 U.S. 527; 8 S. Ct. 203; 31 L. Ed. 194 (1887); Chapman v. Goodnow’s Administrator.; Stryker v. Same, 123 U.S. 540; 8 S. Ct. 211; 31 L. Ed. 235 (1887); Litchfield v. Goodnow’s Administrator, 123 U.S. 549; 8 S. Ct. 210; 31 L. Ed. 199 (1887); Plumb v. Goodnow’s Administrator, 123 U.S. 560; 8 S. Ct. 216; 31 L. Ed. 268 (1887). Goodnow’s interest in the litigation passed to an administrator as he died before the cases were argued before the Supreme Court of the United States.

522 Stryker v. Goodnow’s administrator; Chapman v. Same; Wells v. Same; Litchfield v. same; Litchfield v. Same, 1887.

523 Ibid.
While the Supreme Court of Iowa under Chief Justice Seevers already offered a sound definition of an estoppel in 1882 with *Goodenow v. Litchfield et al.*, the Waite Court also offered a clear picture of the difference between a precedent and an estoppel. Chief Justice Waite reasoned that although the assignees of the Des Moines River Navigation and Railroad Company Grant land contended that *Wolcott v. Des Moines Company* established a bar of recovery that acted as an estoppel, they were in error. Waite wrote, “The legal operation and effect of the judgment as an estoppel was confirmed to the title of the river lands and as to other parties, it stood…only as ‘an authoritative exposition’ of the views of the court.”

*Wolcott v. Des Moines Company* settled the question of title in favor of the Des Moines Navigation and Railroad Company and its assignees, with legal title, but the Court stated that the case formed an estoppel only in determining the proper title of the parties listed in the litigation. Because the litigants in *Wolcott v. Des Moines Company* varied from those before him, Justice Waite contended that the use of the case in litigation was limited to only a precedent and no effective argument existed to form an estoppel.

Again, the Waite Court’s stance on the taxation controversy confirmed previous legal thought. Much like Waite’s term as Chief Justice of the Supreme Court, neither the other justices nor the written opinion offered any radical or emerging philosophies to the decision. Instead, Chief Justice Waite’s opinion on the taxation controversy followed the trend of the Waite Court in reaffirming the transformation and emergence of a distinct American legal system and a doctrine of legal formalism. The United States Supreme

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524 Ibid.
525 Ibid.
Court under Chief Justice Waite sought to consolidate and reaffirm the nineteenth-century transformations that occurred within the legal system.

The 1887 legal decision by the Waite Court settled the long outstanding taxation controversy but also assisted in the emergence of a distinct legal system. The taxation controversy served as an agent in addressing the role of state and federal legal systems. The initial cases focused on the legal rights of the State of Iowa and its counties to collect property taxes on lands under the Des Moines River Lands Grant. Although not all branches of the legal system transformed at the same rate, the judicial systems gradually accepted the doctrine of legal formalism. The legal system saw the changes becoming deeply entrenched by 1872 as justices rendered decisions based on strict interpretations of state codes and federal laws.

By 1872, Congress amended the boundaries of the River Lands Grant and established the Des Moines River Navigation and Railroad Company with valid title to the lands involved in the taxation controversy. The legal recognition of title signaled a new phase of litigation, between private companies. Through a conflicting claim under the 1856 Railroad Land Grant, the Homestead Company acquired duplicate title to lands along the Des Moines River. The Homestead Company paid property taxes on the disputed lands. As a result, the Homestead Company sought legal remedy from the Des Moines River Navigation and Railroad Company for payment of property taxes. The courts faced with finding an equitable decision between two private companies. Instead, the courts further strengthened the doctrine of legal formalism by strictly adhering to state codes and statutes.
The legal system also used the taxation controversy to further define its own authority. The taxation controversy provided the legal system with a means of asserting its authority to interpret legislation. The litigation provided the courts with the opportunity to assert the doctrine of judicial review. Not only did the taxation controversy need settlement, but the state’s justices also questioned the federal court’s authority of judicial review. Calling on precedents to support the doctrine of judicial review, the federal court system further defined its authority in matters of the state.

Although the taxation litigation aided the emergence of a distinct legal system, the River Lands Grant controversies remained unresolved. The rights of squatters and the final boundary determination remained outstanding. The boundary and taxation controversies assisted in the creation of mechanisms that guided those issues to finality.

The Des Moines River Improvement land grant of 1846 grew out of a nineteenth century “Spirit of Improvement” that swept up in the idea of changing the individual, society, and the natural environment. The Des Moines River Lands Grant was not the first of its kind in American history, rather it resulted from an emerging national awareness and focus on internal improvements. The growth and expansion of American

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526 The exclusion of any substantive evaluation pertaining to the squatter controversy and subsequent litigation in this work is a result of the methodological approach taken. It is my intent to focus on the struggle to create social, economic, and legal remedies. As this method applies to the squatters’ controversy, the state and federal governments created institutional procedures in dealing with the competing claims. As such, while squatters deemed governmental action and response too slow and lacking, the procedural apparatus applied to the matters followed then established protocol. Beginning with calls and legal action at the state level on the behalf of the squatters, the state government turned to the federal government for a suitable remedy. Appeals continued until all suits reached the national government and subsequently brought about remedy. While one might question how beneficial a remedy the national government provided, the accepted chain of procedure for governmental action, which emerged
society brought national debates on the issue of internal improvements. While some called for internal improvements in order to provide a defensive infrastructure and facilitate access to economic markets, others argued the national government had no role in these efforts as it only pitted one state against another. The Des Moines River Lands Grant and improvement project provided a mechanism for change and transformation that proved to be central in the formation of law and politics in the State of Iowa.

The Iowa Territory held great promise as an agricultural region needing access to markets. The value of a reliable transportation route to the interior of the state made the idea of an internal improvement project, via the Des Moines River offered too much to simply pass over. With the Des Moines River Improvement land grant in 1846 came much promise, but also almost a half-century of controversy and no lasting improvements in the navigation of the Des Moines River.

Although previous scholars called the River Lands Grant and improvement project a failure, it served as an agent for change. The Iowa General Assembly experimented with administrative hierarchies while pursuing the vigorous completion of the project. Although Congress conveyed the River Lands Grant during the formative years of the State of Iowa, the project did not exist in a vacuum, uninfluenced by the rest of the country. Numerous internal improvement projects were underway or completed by the time of Iowa’s grant and served as a template for the Des Moines River improvement project. However, each project presented its own unique challenges that required attention and greatly contributed to the outcome.

through nineteenth-century development, illustrated an enduring shift in political development and the responsibilities of institutionalized governance at work.
The Des Moines River Lands Grant illustrated the federal government’s struggle for authority over improvement projects. Throughout the nineteenth century, the federal government underwent many changes. Individuals with differing political ideologies struggled to define the federal government’s role in an emerging national economy. Controversy over the boundaries of the 1846 Des Moines River Lands Grant illustrated a struggle for power between political parties and branches of the federal government. Each political party fought to have its policies implemented, while the River Lands Grant provided an opportunity to define the roles and authority of the legislative, executive, and judicial branches of the federal government.

The Des Moines River Lands Grant litigation assisted in the transformation of the American legal system. Although the legal cases arose involving the boundary and property tax assessment disputes, they served as a means of distinguishing the jurisdiction of the federal and state governments in assessing fees. Additionally, the Des Moines River Lands Grant provided the courts with a means of addressing legal jurisdictions and judicial review.

The Des Moines River Lands Grant and improvement project served as a mechanism in forming and defining the role of local, state, and regional internal improvement projects in defining the relationships between individuals, corporations, and governments in nineteenth-century America. While internal improvements served to connect markets and aid the development of a national economy, the projects presented new obstacles for individuals, challenged previous business practices, and helped redefine the roles of state and federal governments.
Conclusion

Defining the Legacy of Water and Society

Water assisted the rise of empires, the organization of societies and nations, and contributed to their collapse. The efforts of individuals and societies to control access to water and convert water into a tool of development define the pivotal and transformative role of the natural resource. In turn, great societies emerged from harnessing the waters of the planet’s oceans, seas, lakes, and rivers. While not all efforts at transforming the resource resulted in smooth and durable change, the lessons learned provided durable change to society.

In many ways, the young American nation’s focus became synonymous with improvement. The national government conveyed land grants to states as assistance in internal improvement development. Nationalists argued that federally funded improvement projects needed to be limited to those that were truly of national interest and to the benefit of all states, such as those for national defense. Sectionalists, in contrast, focused on the economic aspects of the infrastructure projects. While they were not directly arguing against the benefits of internal improvements, Sectionalists contended that no state should expend its resources, economic or otherwise, to support a project in another state if it did not enhance both states. In order to facilitate settlement and market development in expanding the western United States, the federal government initiated a policy of granting lands for projects that aided the general public good. Throughout the nineteenth century, the federal government conveyed just over one hundred land grants for such improvement projects as canals, wagon roads, river improvements, and railroads.
Statistical analysis of the century’s land grants provides detail about the level of widespread national involvement in internal improvements. The national government focused on assisting four types of projects that included railroads, wagon roads, canals, and river improvements. Geographic and topological variances and sectional attitudes influenced the adoption of the various types of projects. Economic resources and boosterism played a prominent role in national government’s conveyance of economic help. As the century progressed, the national government shifted from offering individual states smaller land grants to offering private companies larger tracts for larger scale projects. Additionally, the purpose such land grants transitioned from roads, canals, and river improvements to railroad development as the century passed. While governmental strategies of initiating and bringing to completion internal improvements changed dramatically over the course of the nineteenth century, statistical analysis only answers where governmental efforts went, but does little to explain exactly how it occurred or to what level such efforts succeeded.

As settlers pushed into the Ohio River Valley region, the Valley’s populace lacked necessary and efficient means of transportation. Environmentally blessed with the Ohio River and its tributaries, the region’s settlers turned to the waterways as viable means of transportation. The growth of populations and emergence of market-oriented production increased demands upon the region’s waterways, straining them. Geographic happenstance created natural barriers like those forming the Falls of the Ohio and hindered further development of the region. Lacking capital but needing improvements
to provide more efficient and safe water-based transportation, citizens, boosters, and
government sought means of improving nature for their use.

State and regional governments lacked finances for large-scale improvement
efforts and resulted in using their authority to secure the needed works through the
chartering of private companies. Governments conveyed ownership and operation
oversight of the projects upon completion to the private companies in exchange for
overseeing the construction of the improvements. In turn, the private companies sought
investment from both local and national interests to secure the future of their companies.
With the legal authority to charge usage fees such as tolls, the companies stood to realize
significant financial gains. However, the companies balanced profits with repairs,
upgrades, and necessary public support.

The implementation of tolls and other charges by private companies centralized
power while creating new economic barriers for citizens and commercial user of canals
and other improvement projects. As the region and the nation underwent a shift in views
over privately held improvement projects, the national government retreated from
supporting them financially. Investors, with much to lose in the wake of the national
effort to convert private improvement companies to public entities, struggled to transfer
power to the national government while protecting their financial investments.

While, undoubtedly, numerous private and public improvement projects failed,
others such as the Louisville and Portland Canal Company succeeded in significant part
due to timing of social and political shifts. Although the private canal company struggled
with securing necessary financial assistance for providing a canal serviceable for the
area’s needs, it greatly benefited from the national post-war shift towards expansion, reconstruction, and a revival of the improvement movement. While the private canal company provided the business structure and plan for construction and operation, neither the canal nor the canal company seemed likely to succeed without the positive intervention of government.

Centuries of travelers noted the near perfect water route that connected the Great Lakes with the Mississippi River System. The geographic oddity served as an environmental barrier for societal development. While pre-European inhabitants of the region portaged the distance with relative ease, advances in water transportation found the portage increasingly limiting. As French explorers entered the region, they immediately recognized the importance of the portage in the region’s migratory routes. Subsequently, a quest for control of the area occupied much of the era of French presence in the region. Despite French control of the region, alteration of the landscape to provide the missing water link never materialized. Although the interior fur trade proved immensely lucrative for the French, the region still lacked the necessary capital, labor, and technological ability to overcome the physical barrier.

In the wake of the American Revolution, the region fell into the hands of the United States of America. Due largely to its more interior location, settlement lagged behind that of points to the east. For the few inhabitants, the construction of a canal held great promise. The construction of the canal would fortify the importance of the region within the growing nation. Farmers and settlers stood to gain economically with the development of a major transportation network slicing through their region. The
likelihood of outside investment in the region increased dramatically with the increase in commercial transportation through the canal.

Despite the promise of prosperity the canal held, the region’s quest for the canal teetered on the verge of collapse throughout the antebellum era. Stymied by the young nations’ financial panic, a lack of skilled labor, material resources, and capital, the government sought out means of seeing the project through to completion. Seizing upon favorable shifts in public and political opinions, Illinois weathered the storm and emerged from tremendous debt and criticism with a completed canal. Albeit substantially revised, the opening of the canal secured the importance of the region within the national economy.

Improvement of the Des Moines River held the potential of opening up the prairie soils west of the Mississippi River for development. The congressional conveyance of the Des Moines River Lands Grant and the Iowa General Assembly’s experimentation with administrative hierarchies highlighted the social and governmental resolve to secure completion of the project. Although Congress conveyed the River Lands Grant during the formative years of the State of Iowa, the project did not exist isolated from and uninfluenced by the rest of the country. Numerous internal improvement projects were underway or completed by the time of Iowa’s grant and served as a template for the Des Moines River improvement project. However, each project presented its own unique challenges that required experimentation and greatly contributed to the outcome.
The federal government’s struggle for authority over the project is of great importance. Individuals with differing political ideologies labored to define the federal government’s role in an emerging national economy. Controversy over the boundaries of the 1846 Des Moines River Lands Grant illustrated a battle for power between political parties and branches of the federal government. Each political party fought to have its policies implemented, while the River Lands Grant provided an opportunity to define the roles and authority of the legislative, executive, and judicial branches of the federal government.

The Des Moines River Lands Grant assists in the transformation of the American legal system. Although the legal cases involve property tax assessment, they served as a means of distinguishing the jurisdiction of the federal and state governments in assessing fees. Additionally, the Des Moines River Lands Grant provided the courts with a means of addressing legal jurisdictions and judicial review.

Defining Roles

As the population increased and settlement expanded westward in nineteenth-century America, the need for internal improvements became more obvious. While some individuals claimed the need for more comprehensive and reliable infrastructural developments, others fought against them. Despite the growing population and expanding nation, internal improvements became a contentious topic in American politics as territory, state, and national governments struggled to create effective laws and mechanisms of development.
The battles waged over waterway transportation projects assisted in defining the role of territory, state, and national governments. Citizens in the territories and western states often lacked the capital required for the massive water-based improvement projects. Caught in a cycle of needing development to fund the projects and needing the projects to spur development, citizens looked to their government to provide solutions. In turn, state and territory governments experimented with legislation to provide the needed water route. While success proved difficult to achieve, defining the role of the government as responsive to its citizens’ needs emerged in the process.

When state and territorial legislatures failed to spur development, they turned to the national government to provide the remedy. In response, the national government assisted efforts to construct transportation systems that met national objectives. Internal improvements provided the expanding nation a defensive transportation infrastructure through which to ship military personnel and supplies, opened frontier regions for settlement, and facilitated connections between consumers, suppliers, and their markets.

The national government provided economic support by way of land grants. In turn, the conveyance of lands for the purpose of improvement projects presented challenges for states and territories. They faced difficulties in developing effective administrative and financial hierarchies. Legislatures experimented by trial and error in finding the best means of managing the diverse projects. In an effort to oversee all the complex facets of the land grants and improvement projects, states and territories created land offices, sought out additional sources of financing, and explored various methods to supervise construction and a timely completion of the projects. While some states turned
the improvements into great state run projects, others states turned to private entrepreneurs for further funding and to oversee the project’s completion. Through struggles to transfer the projects into private company hands, state government experimented with creating positive legislation and established the possibility of a cooperative environment between private and public entities.

Not all privatization resulted in positive relations. As a result, privatization added to the complexity of improvement projects and pitted state and federal government’s agendas of serving the public good against those of economically driven private companies. Saddled with the difficulty of constructing and maintaining operable improvements, private companies often turned back to the government. With a nation reliant upon the improvement projects for development, the government became obligated to find strategies to maintain and operate the project for the benefit of all.

Conflict over contractual obligations and interpretations often spilled into the courts of the states and nation. There, in the courts, a concerted effort to remedy contract language and solidify the obligation of all parties resulted in legislation that was more decisive. Courts refined the boundaries of the branches of the federal government, further delineated between the roles of state and federal governments, and called attention to the need for more precise and comprehensive legislative language. Clearer responsibilities of government and more comprehensive legislation language created more effective development tools for the nation.

Resulting from the struggles, water improvement in the nineteenth century provided Americans with a formative tool that assisted the reorganization of the nation.
The resource served as a mechanism for negotiating a social contract between citizens, private business, and their government. In turn, the government experienced with strategies to provide the nation with tools of development. In the process, the struggles of harnessing the natural resource provided the platform for durable political, economic, and social change. Although not without incident, the struggles of the canal and river improvement era paved the way for such future development projects as railroads, telegraph, telephone, electricity, hydroelectric power, and the interstate highway system.

Applying the Lessons Learned

The era of canal and river improvement projects served a vital role in negotiating a new social contract in the new nation. Expansion and westward migration required development of effective transportation methods. With an interior filled with an abundance of untapped natural resources, Americans looked to improve upon the continent. Facilitating the expansion of the nation, water-based transportation connected the resources of the interior with society.

Often ill equipped to handle the challenges of empowering its society, national, territory, and state governments struggled providing effective and efficient means necessary for overseeing great public works. The nation’s water resources provided the proving grounds as the nation developed a blueprint that converted ideology into application and empowered its society. The transformation of society in the era of waterway improvement established a defining legacy.

As the era of water-based improvement gave way to the newer and more versatile technologies of rail development, the lessons learned from the canal and river
improvement era provided a blueprint for legislative decision-making, economic
development, and societal development. Undoubtedly, the era of railroad development
held its own unique challenges. However, the idea of transportation development as an
aid to economic development and social benefit is rooted in the debates over the canal
and river improvement projects that preceded them.\textsuperscript{527}

Although begun in the early years of the nineteenth century, early investment in
Samuel B. Morse’s telegraph invention languished behind what the nation needed.
However, the nation’s interest in the communication development grew. Together, as the
nation expanded westward, the need for more effective means of communication exposed
the potential of the telegraph system. Utilizing the mechanism of creating great public
works established in the improvement era, the installation of the telegraph across the
American West became synonymous with railroads and western development. The
government established contracts and conveyed grants to companies willing and able to
construct the nation’s telegraph communications infrastructure.\textsuperscript{528}

The advent of telephones and electricity sparked a renegotiation of the social
contract that resulted in a new opportunity. While the integration went neither smoothly
nor rapidly, the integration of both technologies brought great change to the organization
of society and fostered a culture of governmental assistance in implementing the new
technologies. Drawing upon the facilitation of the great improvement projects of the
nineteenth century, the national government put forth a bold initiative to provide the rural

\textsuperscript{527} For more specific discussion on the Railroad era, see: James W. Ely, Jr., \textit{Railroads and
\textsuperscript{528} Carleton Mabee, \textit{The American Leonardo: A Life of Samuel B. Morse} (Fleischmanns: Purple
Mountain Press, 2000).
countryside with electricity that brought the possibility of investing in such new home innovations as the telephone, refrigeration, lighting, electric heat, and washers and dryers.\footnote{529}{Ronald R. Kline, *Consumers in the Country: Technology and Social Change in Rural America* (Baltimore: Johns Hopkins University Press, 2000).}

A significant component of the bold initiative included revisiting the nation’s waterways. A coordinated national plan for the nation’s waterways focused on flood control and harnessing the water’s potential for hydroelectric power. Combined, the plan stabilized flooding concerns and converted water into a tool of societal improvement. Coordination of local, state, and national government to successfully reach the desired outcome drew heavily upon the governmental and legal lessons learned in the early nineteenth century. Drawing upon public and private resources, the nation witnessed the successful creation of the Tennessee Valley Authority and the Hoover Dam.\footnote{530}{Philip Selzneck, *TVA and the Grass Roots: A Study of Politics and Organization* (Berkeley: University of California Press, 1984); Joseph E. Stevens, *Hoover Dam: An American Adventure* (Norman: University of Oklahoma Press, 1990).}

The coordinated efforts at capturing the potential of the nation’s waterways, common national vision, and economic development resulted in great agricultural irrigation projects of the arid and semi-arid west, while also providing potable water sources to such biomes as Los Angeles that lacked immediate access to the precious resource.\footnote{531}{For a more in depth discussion of the role of irrigation in the West, see: Mark Fiege, *Irrigated Eden: The Making of an Agricultural Landscape in the American West* (Seattle: University of Washington Press, 1999); Donald Worster, *Rivers of Empire: Water, Aridity, and the Growth of the American West*.}

Regional specialization in agriculture and manufactured goods increased the nation’s dependence on effective means of transportation. As the nation increasingly grew reliant on the automobile, a renegotiation of the nation’s transportation systems
occurred. Assisting commercial and individual desires for a more effective means of transportation, the government developed a national highway transportation system. Federal legislative and economic support provided the impetus for further development of a common transportation system that linked local, regional, and national markets. In many way overlaying the nation with a great transportation infrastructure originally sought with canal and river improvement projects in the nineteenth century.

The Continued Centrality of Water in Society Development

Early analysis of the economic downturn the nation, and the global community, currently faces in 2008 and 2009 points toward a new social contract emerging. However, early responses to the downturn suggest that the legacy of the canal and river improvement era remains alive and foundational. Wide-ranging economic stimulus plans focus on improving the nation’s power grid, constructing and improving the nation’s transportation systems, investing heavily in such new forms of harnessing nature’s resources as wind and hydroelectric power, and installation of such new communication technologies as high-speed data lines. A clear understanding of the lessons learned from the canal and river improvement projects of the nineteenth century, and subsequent eras, will undoubtedly go a long way in determining the success or failure of these current projects.

On the global stage, in the early years of the twenty-first century, the United States and the world community face challenges of securing access to potable water sources. In

(New York: Pantheon Books, 1985); Donald Pisani, *To Reclaim a Divided West: Water, Law, and Public*
the growing face of suitable water shortages, experimentation and legislation aimed at securing and providing the resource to those in need highlights the centrality of water as a defining characteristic of societies. The apocalyptical possibilities of surrounding a lack of sustainable and viable water sources point toward grave social consequences. With the lack of sustainable water sources, the world community stands to witness increases in famine, diseases, conflict, and disorder. The resulting events will require a renegotiation of the social contracts, provide new opportunities for positive government to respond to its citizens needs. In the end, such complications further underscore the stabilizing contributions that come with the positive utilization of water. The challenge of society remains developing a social contract that finds ways to harness nature in a sustainable manner that continues to assist in the development of a durable social contract, and a sustainable balance between environmental resource preservation and human utilization.

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