The Proposal and Building of the Erie Canal and its Subsequent Impact
The turn of the 19th century marked a very significant time period in American History. After gaining their independence from Britain, America began to turn their eyes and attention towards the west as well as the rest of North America. On April 30th, 1803, the United States bought the Louisiana Territory from France for 15 million dollars, in the Louisiana Purchase.¹ The United States was a little unsure of what they had just purchased, which resulted in the expedition of Lewis and Clark in 1804 to map out the new territory.² The Purchase of the Louisiana Territory, coupled with the westward expansion fervor that had swept the nation, created some interesting problems for America. One of the central problems created from national expansion was how to transport goods to and from these new towns and cities that were being established. This problem led to the proposal and eventual construction of the Erie Canal.

Transportation during the beginning of the 19th century was a large problem for the nation. Proposals to improve transportation in the country began shortly after the War of 1812.³ The United States was a rural nation that stretched from the Atlantic coast to the trans-Appalachian frontier and the means for transportation were very primitive and even non-existent in some parts.⁴ As Paul Johnson points out, $9 would move a ton of goods across the 3,000 mile North Atlantic, but that same $9 would move that same ton of goods only 30 miles inland.⁵ This illustrates that transportation was not only difficult, but quite expensive as well. Johnson also notes that transporting goods by water into western settlements was incredibly challenging, and that skilled sailsmen could only navigate 15 miles a day, which resulted in the trip from New Orleans to Louisville taking 3-4 months.⁶ The length of travel and the amount of money it required had a significant impact on the economy because it drove up the prices for goods.

Improvements to the transportation system were undertaken by Congress in 1816, when they resumed work on the National Road, that linked the Potomac River with the Ohio River.⁷
The construction of the National Road, along with the invention of the steamboat by Robert Fulton, made the transportation and trade of goods with the west quite feasible. In 1817, DeWitt Clinton, the governor of New York, was able to talk the New York Legislature into building a canal that would link the Hudson River with the Lake Erie. This landmark undertaking would become known as the Erie Canal.

Opponents of the Erie Canal would often sarcastically refer to it as “Clinton’s Ditch,” or “Clinton’s Folly,” due to what people thought was a near impossible physical achievement as well as the massive amount of money a structure of this magnitude would require. However, as the canal proved to be a giant success, many people have stepped forward to try and take credit for the canal, which prompts us to take a look back in time to the origins of the canal’s proposal.

Although DeWitt Clinton’s name will forever be linked with the construction of the Erie canal, there were other early canal advocates that included the likes of George Washington, Elkanah Watson, Thomas Eddy, Joshua Forman, and Jesse Hawley. Evidence also suggests that the idea of improving inland waterways and constructing canals that linked the Hudson River with the Great Lakes was in existence as early as 1721, which predates the existence of the United States itself. Even though the idea of building canals was around since the first quarter of the 18th century, it was not until the last quarter of the 18th century that the canal movement really took off.

There were several prominent figures that were advocates for the construction of canals, such as Governor Morris of New York, who proposed the idea as early as 1777. Elkanah Watson also met with President George Washington on several occasions to discuss the bridging of several major waterways such as the Potomac and Ohio Rivers. Washington imagined being
able to open the west to settlement and trade as well as establishing a port in Northern Virginia.\textsuperscript{15} Even with Washington’s dreams of a canal linking the Potomac and Ohio, the heart of the canal movement was still centered in New York, with the idea of linking the Hudson and Erie.\textsuperscript{16}

Along with Clinton, Jesse Hawley was probably the most influential person in gaining support for the building of the Erie Canal. In 1807, Hawley developed the first actual plan for the construction of a canal that would link the Hudson River with the Great Lakes.\textsuperscript{17} Hawley, a flour trader from New York, drew up his plan while serving a 20 month sentence in debtors’ prison. He wrote a series of essays that were published in the *Genesee Messenger* under the pen name Hercules. These essays can be seen as very similar to the Federalist papers, with the difference being trying to gain support for the construction of a canal, rather than the ratification of the constitution.\textsuperscript{18} In the 14 essays that he wrote, Hawley touched on a variety of topics, including a general observation on canals, his proposed size for the canal, how the canal would be funded, as well as a list of other general internal improvements that could be made.\textsuperscript{19}

In Hawley’s first essay, “Observation on Canals,” he makes a very compelling argument as to why a canal should be built. He notes that the extent of American territory mirrored that of Europe and that the climates were similar as well. Hawley also points out that the natural resources that America possesses are far beyond what any other country has. He argues that nations often chase “Phantoms of glory,” such as building pyramids or monuments that serve no real purpose to the improvement of the country. He points out that England has had a lot of success with canal building and that it has helped to increase their national revenue, and that these improvements bring more treasure than the plunders of war, since wars are expensive to fund. Lastly, Hawley argues that navigation offers the cheapest, most familiar, and most
extensive intercourse with distant places. According to Hawley, since America is intersected with bodies of water, it only makes sense to build canals and not let our resources go to waste.

In essay number five, Hawley uses the Canal of Clyde as a template and estimates that the cost of the Erie Canal would be around 6 million dollars. In essays seven and eight, he mentions several ways of securing the capital to build the canal, and the three sources that he comes up with are: the individual capital of the citizen, the capital of foreigners, and that of the national treasury. Hawley ruled out the first two options and settled on arguing that the national government should pay for the construction of the canal. He notes that even though the constitution does not contain an article that deals with allocating surplus revenue towards internal improvements, an amendment should be passed that gives the government the right to do so. In Hawley’s eyes, this would avoid the problems of local prejudices and selfish jealousies, which would allow new establishments to rise and flourish.

Hawley turned out to be incredibly accurate in his essays, and the route that he charted was almost identical to the one that was chosen and his estimated cost of 6 million was only one million off the actual cost. More importantly, Hawley set the wheels in motion for discussion and action on the building of the canal. Also, his ideas caught the attention of DeWitt Clinton, who was able to convince the New York Legislature to build the canal.

In 1808, the New York State Assembly adopted a resolution proposed by Joshua Forman and Benjamin Wright to survey a canal route that would link the Hudson and the Erie. Thomas Geddes was chosen by the assembly to conduct the survey. The assembly gave the survey project $600 to determine the feasibility of different routes and to explore funding possibilities.

Thomas Eddy, who was the Western Inland Lock Navigation Company treasurer, approached Dewitt Clinton and asked to serve as the canal commissioner. Eddy’s reason for
approaching Clinton was that he believed it would bring some political balance to the project and make the building of the canal more feasible since up until that point, the canal was a cause that had been championed solely by the Federalist Party. The rest of the canal commission was made up of Governor Morris, Stephen Van Rensselaer, Simeon De Wit, William North, and Peter B. Porter, while Robert Livingston and Robert Fulton joined a year later.

In 1811, the canal commission reported on two routes that looked appealing. The first route was an Ontario route that would run along the Mohawk from Lake Oneida to Lake Ontario, then along the Niagara River to Lake Erie. The second proposed route was an inland route that would run from Lake Oneida, directly to Lake Erie. The inland route was the route that was eventually chosen. The commission also advocated for public funding rather than a public/private partnership. This decision was based on the idea that the federal government would see the benefit of building the canal and would agree to financially support the project.

In April of 1811, the New York Legislature passed a canal law which sought loans, land grants, and financial support from the federal government. However, federal support would never come to fruition as sectionalism, political maneuvering, and the War of 1812 limited the canal to a state project.

Although the War of 1812 interrupted the proposal and process of constructing the Erie Canal, the war was important in showcasing why the need for a canal was an imperative. The war showed how significant the Great Lakes were and the idea of being able to link them would open up the area to incredibly wealth. However, politics, as they always seem to do, bogged down the process, and funding seemed to be the major obstacle for the project. John C. Calhoun introduced his “Bonus Bill,” which sought federal money to use for expansion and internal improvements. It seemed like a foregone conclusion that the bill would pass since it had passed
in the House of Representatives and the senate; however, it was vetoed at the last minute by President Madison. Madison vetoed the bill because as Jesse Hawley had noted in his 14 essays, there was no article in the constitution that dealt with using federal funds to invest in projects that dealt with internal improvements. As a result, DeWitt Clinton went on a public relations campaign similar to that of Jesse Hawley. He penned a series of letters in the *New York Evening Post* using the pen name Atticus, where he argued in support of the canal, while also recruiting petitions of support for the canal from across the state.

Clinton’s relentless campaigning along with the commission’s solid plan for the canal, helped to make the canal a reality. On March 18, 1817, the New York Legislature proposed a measure that would appropriate 7 million dollars to begin construction on a small part of the Erie Canal that would connect the Seneca and Mohawk Rivers. This piece of the canal was actually in the middle of the canal in Rome, New York. The rationale for starting in the middle was that once that area was completed, New York would have a usable canal even if construction on the rest of the canal was not completed. The proposal passed the assembly and went on to the senate, where again, the issue of funding still remained a sticking point. Clinton was able to win support from Martin Van Buren, who formerly had opposed the canal. Van Buren began to recognize the growing popularity of the canal and was able to help the proposal pass the senate.

The last obstacle that the proposal faced was the Council of Revision, since they had the power of the veto under the state constitution. The council consisted of 5 members and the deciding vote came down to James Kent, who eventually sided with the bill. The proposal of the Erie Canal was a long and sluggish battle but Dewitt Clinton, along with the help of Jesse Hawley, the canal commission, and Martin Van Buren, finally succeeded into making the canal a reality. Now that the proposal for the canal had finally passed, the biggest challenge still remained. Up
until this point in American history, no project of this magnitude had ever taken place and there was no template to go by.

Construction on the Erie Canal began on July 4, 1817 and was completed in October of 1825. When the canal was completed, it was 363 miles long, 40 feet wide at the surface, 26 feet wide at the bottom, and 4 feet deep. The canal also contained a system of 83 locks, 27 of which were contained in the first 15 miles between Albany and Schenectady. Construction began in Rome, New York and once this middle section was completed, the western section was started on next, followed by the eastern section.

Since the canal did not receive national funding, the New York State Canal Commission contracted out sections of the canal to bidders. John Richardson was the first contractor and his contract was drawn up and signed on July 12, 1817. The commission allowed people to bid on as little as one-quarter of a mile of ditch to try and maximize how many people could get in on the bidding.

The canal also proved to be great for the economy and was very cost-effective. As Paul Johnson notes, a lot of the men who helped to build the canal were Irish immigrants, farm workers, and even convict laborers. Labor convicts provided free labor, while the canal provided jobs for the Irish immigrants and farmers who were fearful of dropping prices and bad harvests. Since the pool of workers was so large, it helped to drive down contract bids and helped to decrease construction costs by about 30%. Also, because of the amount of jobs that the canal provided, it helped to lessen the impact of the Panic of 1819. Overall, the average cost of the canal per mile was $26,241 and the total cost turned out to be $7,143,789. Small parts of the canal were already in use before it was completed in 1825, so while the cost was already quite reasonable, this helped to offset the cost of construction even further.
It is interesting to note that politics continued to play a role in the Erie Canal even after construction began. There was competition in Western New York between the town of Buffalo and Black Rock as to which town would serve as the port at Lake Erie. Both towns began using publicity campaigns as well as slander to try and win out. Eventually a compromise was reached and it was determined that the canal would pass through both towns.\textsuperscript{49}

Politics also helped lead to the temporary decline in popularity for DeWitt Clinton. Clinton was closely allied with the Federalists due to the fact that they were the party that had supported the building of the canal. However, a political shift took place that led to a decline in Clinton’s popularity and he was not re-elected for governor at the conclusion of 1822.\textsuperscript{50} Clinton however, like he always seemed to do, bounced back from this setback and was re-elected in 1824 as the popularity of the canal grew, and was able to see the construction of the canal to its completion. In October of 1825, Clinton boarded the Seneca Chief as it departed Buffalo and pulled into New York Harbor on November 4\textsuperscript{th}, in what is remembered as the “wedding of the waters.”\textsuperscript{51} On November 7\textsuperscript{th}, a large party was thrown as Clinton was able to celebrate an accomplishment he had worked so hard for.\textsuperscript{52}

At the time the Erie Canal was built, it was a modern marvel and an astounding feat in engineering. Jesse Hawley and others were familiar with the canals that existed in Europe but at the time the Erie Canal was built, there wasn’t a single engineering school in the United States.\textsuperscript{53} The Erie Canal also helped to set the standard for canal building and was also nicknamed the “Erie School of Engineers,” since no engineering schools existed in America at the time.\textsuperscript{54}

The engineers that worked on the canal had to learn on the fly. Even though they were give the title of engineers, none of them were actual engineers and they only knew how to use basic tools like the compass, level, and chain.\textsuperscript{55} This can be illustrated when pointing out that the
two “chief engineers,” Benjamin Wright and James Geddes were a judge and a lawyer respectively.\textsuperscript{56} Canvass white proved to be an instrumental figure in the building of the canal. He was sent to England to study canal and more specifically locks. Upon his return he was able to share his knowledge with the other crew members and helped to design the lock system that was used in the canal.\textsuperscript{57} Building these locks proved to be a problem however, since cement that would harden under water was needed. There didn’t seem to be a large supply of cement in the country and people feared that they would have to import it from Europe. However, limestone was discovered in New York, and when it was burned, crushed, and mixed with sand, it would create cement that would harden underwater.\textsuperscript{58}

Along with the arduous process of building locks and aqueducts, removing stumps and brush seemed to be a large problem as well. However, a stump-puller was invented that enabled six men along with a team of horses to pull around 30 stumps a day, and they were also able to develop a device that could pull down trees easily.\textsuperscript{59}

The creation of a stump-puller and the discovery of limestone help to show the ingenuity of the workers and why the project turned out to be a success and would set the standard for canals built in the future. However, besides those two inventions, most of the work on the canal was done by hand. Men used picks and shovels to dig while animals were used to carry the loads away. Gunpowder was used to blast through rock but even drilling through the rock so the gunpowder could be placed inside was done by hand.\textsuperscript{60} Despite their lack of knowledge headed into the project, the engineers showed incredible ingenuity and a knack for adapting along the way. Even with all the obstacles they faced, it still only took them eight years to complete the canal, while setting the golden standard of canal building in the United States.
The Erie Canal had a large impact on New York and the rest of the country as well. Besides setting the standard for canal building in the United States, its success prompted a canal boom that lasted for the next 20 years. As Paul Johnson notes, before the Erie Canal was built, there was less than 100 miles of canal in the nation, but by 1840 there was over 3,300 miles of canal. Most of these canals were centered around the great lakes which helped to bring prosperity to previously isolated regions and also directed a massive flow of trade through New York City. The amount of goods being transported along the canal was so great that the canal had to be expanded twice before 1900. This boom in trade made the $7 million investment seem miniscule. The canal also helped to save enormous amounts of money on freight rates as the cost of moving a ton of freight from Buffalo to New York was $10 compared to the $100 that it took to move it by land. In 1837 the canal was transporting 500,000 bushels of wheat a year, a significant increase from the 3,640 bushels that were transported in 1829.

By 1840, New York had turned itself into the busiest port in America, outpacing the efforts of Boston, New Orleans and Baltimore combined. What helped out New York so much was that just about every major city in the western part of the state fell along the canal route and 80% of upstate New York’s population lived within 25 miles of the canal.

Besides having a large impact on the state of New York, the canal also had a significant impact on the rest of the country. Along with the Louisiana Purchase, the construction of the canal was probably the most significant event prior to the Civil War that led to westward expansion. At the conclusion of 1810, there were only 18 states in the nation and they were mostly located along the east coast. There were pockets of unsettled territory surrounding the Great Lakes as well as the recently purchased Louisiana Territory. As the canal was finished, towns began springing up along the canal and allowed for many people to begin moving
westward and settling these previously unexplored territories.\textsuperscript{70} The result of this was a bond that was created that linked the east with the west.

It wasn’t just goods that were carried along the canal. New York became the main landing sport for many European immigrants that traveled up the Hudson to settle in the old northwest. This immigration patter can be seen by the fact that between the years 1800-1845, over 300,000 immigrants landed in New York, but the city’s population increased by only 80,000.\textsuperscript{71} Immigrants were not the only ones to head to the old northwest though; many small farmers from New York and New England made the trip to try and find new spots of fertile land.\textsuperscript{72} As more and more people settled into the northwest territory, the production of western New York began to decline, while there was a large boom in the northwest which became the new “breadbasket” of the country.\textsuperscript{73} The Erie Canal helped to open up the country to the west which would later help in the push for “manifest destiny.”

Lastly, it can also be argued that the canal played a large role in the Civil War and the preservation of the Union.\textsuperscript{74} The bond that the canal created between the east and west was crucial in gaining the old northwest’s allegiance to the Union. If the canal hadn’t created an outlet for the northwest to ship its goods east, they most likely would have shipped their goods down the Mississippi, thus creating an alliance with the south.\textsuperscript{75} The canal prevented the south from using the north as a pawn as well as reducing the North’s reliance on the south for agricultural goods.\textsuperscript{76}

The beginning of the 19\textsuperscript{th} century was an incredibly important time period in United States history. The purchase of the Louisiana Territory along with the idea of westward expansion posed an important dilemma for the country. The nation’s transportation system was incredibly weak, time consuming, and very expensive to transport goods westward. There were
many bodies of water situated throughout the country and the idea of linking these waterways was a valuable idea that held a lot of merit.

The idea of linking these waterways had been around for quite some time but it was not until the late 1700’s that the push for a canal that would connect the Hudson River to Lake Erie would gain momentum. Although DeWitt Clinton’s name will forever be associated with the Erie Canal, and he enjoyed a lot of success from its construction, he does not deserve all the credit. Jesse Hawley and his publishing of his 14 essays were crucial in gaining support for the construction of a canal and Clinton owes a lot of his success to Hawley. Other people like James Kent and Martin Van Buren were also instrumental in allowing construction to finally begin. Although the War of 1812 and the lack of national funding proved to be small setbacks, construction on the canal finally began in 1817.

The construction of the canal was a monumental feat in American History. At the time of construction there were no engineering schools in the country and many of the builders had to learn on the job. The ingenuity of people such as Benjamin Wright and James Geddes made the construction possible. The discovery of limestone and the invention of a stump-puller helped to ease the building process. The canal also helped to provide jobs for many people and helped to ease the Panic of 1819. A project that Clinton was originally ridiculed for turned out to be one of the greatest successes in American history.

The impact that the canal had was immeasurable. New York became the leading port in America and the canal allowed for freight to be shipped at a dramatically lower price than ever before. The canal also proved to have a national impact as well. It created a bond between the east and west and allowed for westward expansion and the settling of new territories which resulted in the Old Northwest becoming the new “breadbasket” of America. Lastly, the canal
proved to be incredibly valuable in helping to preserve the Union during the Civil War. The canal provided a way to transport goods from east to west and vice versa. This prevented the Old Northwest from building an alliance with the south and helped to keep the Old Northwest loyal to the Union. Overall, the Erie Canal was a tremendous achievement that helped to transform the landscape of America and turn it into an incredibly wealthy nation.
Notes

5. Johnson, Paul. The Early American Republic:1789-1829. P64
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