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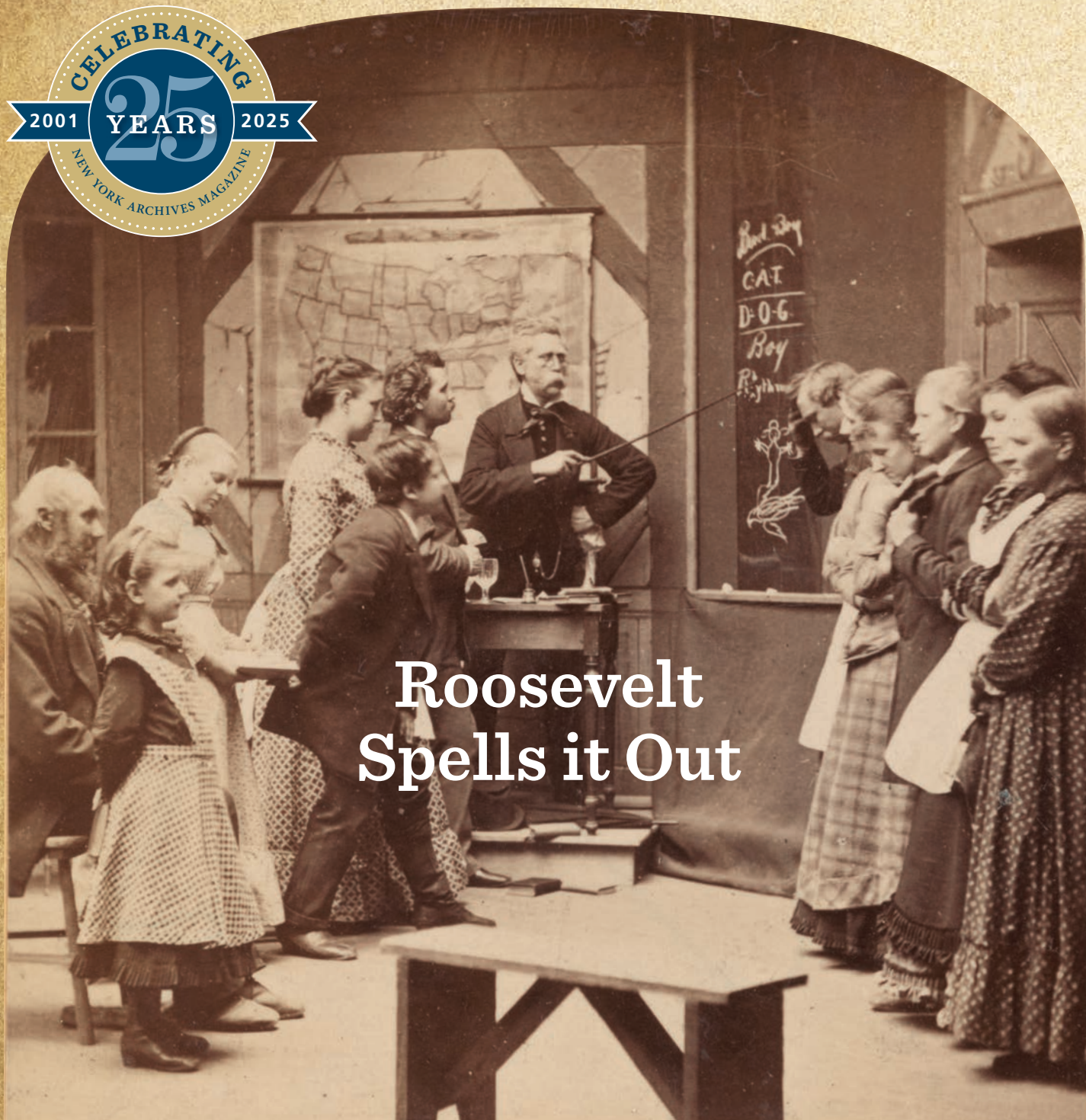
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archives



Roosevelt Spells it Out

ALSO INSIDE:

The Great Erie Canal | Government Efficiency | Dominican Pride

NEW YORK
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CROWNING ACHIEVEMENT

THE GRAND

ERIE CANAL

CHANGED THE STATE AND THE NATION.

BY JOSEPH COLLEA

Upstate New York residents had the unique opportunity between 1817 and 1825 to witness not only history in the making but also a transformation of their state and nation. Anyone who lived along a general east-west axis from Albany to Buffalo had box seats—first for the construction of a manmade wonder and then for the political, social, and economic effects that this marvelous accomplishment had on their communities, state, and nation.

Unlike major conflicts like the French and Indian War, the American Revolution, and the War of 1812—all of which found innocent New Yorkers caught unavoidably in their paths—the construction of the Erie Canal

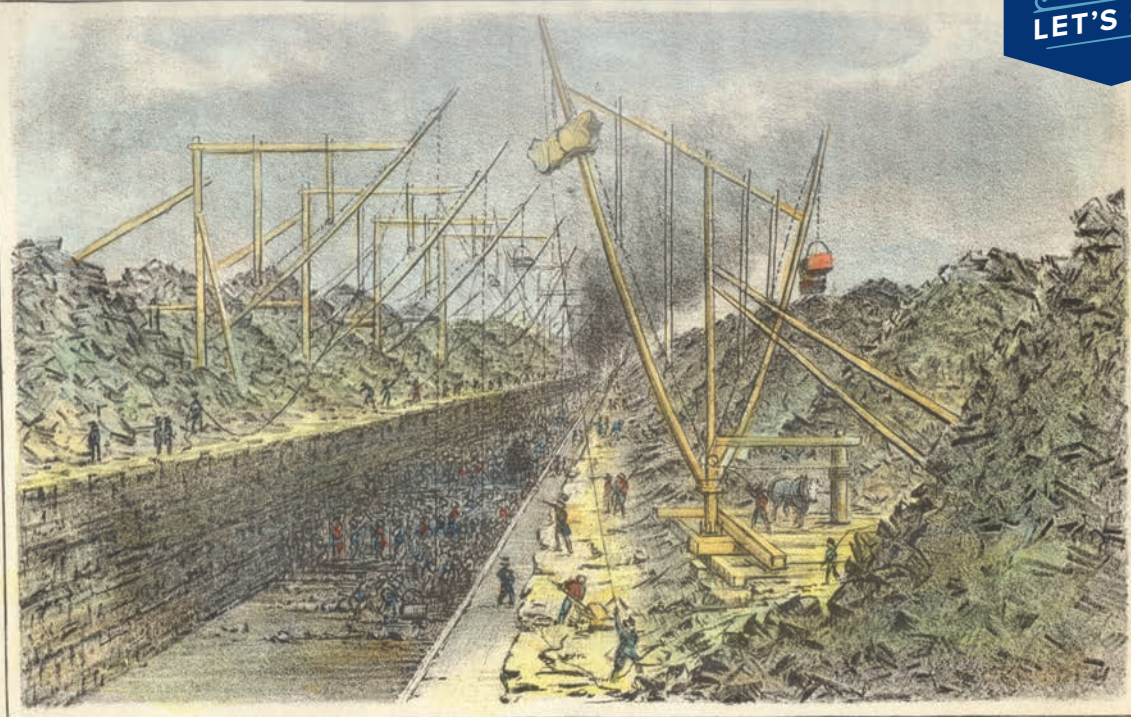


DeWitt Clinton, ca. 1823
WIKIMEDIA

was, for the most part, a low-key intrusion in their lives, yet one that nevertheless produced a profound and lasting impact. In its wake, New York would never be the same. What had begun as a small Dutch colony in 1624, would flourish two centuries later, in the post-canal era, as the prosperous and powerful “Empire State.”

Old Idea

The concept of building an artificial waterway west through New York was not new or original by the time the state legislature finally approved funding for the project. In fact, the idea dated back to the late-eighteenth century and was given somewhat of a promising impetus in 1808, when a survey for a possible route



PROCESS OF EXCAVATION, LOCKPORT.

COURTESY OF THE ERIE CANAL MUSEUM, SYRACUSE, NY

DID YOU KNOW?

The Erie Canal cost \$7 million to build, which is equivalent to \$166 million today.

was conducted. But despite being a frequent talking point in some circles, the project had lacked a champion—a leader who possessed the imagination, the desire, and the power to advocate for the canal and see it materialize from a notion to a reality. Such a man stepped forward in DeWitt Clinton. Appointed to the Canal Commission in 1811, his persistent advocacy for the waterway's construction paid off in 1816. At this



Erie Canal Locks, Lockport, N. Y.

Top: *Excavation of the Erie Canal at Lockport, NY*

time, the state legislature agreed to fund the project, after overtures to the federal government for its backing were rebuffed.

In 1817, Clinton was elected governor of New York, and digging the Erie Canal became the state's priority. Seven million dollars were

PRIVATE COLLECTION



Map and profile of the Erie Canal, published in Laws of the State of New York, 1825

up the overall completion, but it also gave people along the planned route a chance to witness history unfolding. Watching the progress of the "Big Ditch" was possible at many sites across the state.

Spectators were often treated to never-before-seen sights. One was a "tree puller," which, by means of a cable affixed to its top, yanked an entire tree from the ground, roots and all. Since so much terrain along the projected right-of-way was heavily forested, this device proved a decidedly spectacular and efficient time-saver.

Some of the larger growth still required removal the old-fashioned way—with axes and muscles. In these instances, stumps were left. To remove these impediments, another new contraption called a "stump puller" was used. This mechanism amounted to a pair of oversized wheels—each sixteen feet in diameter—connected by an axle. In the middle of the axle was a smaller third wheel with a rope attached. After wrapping one end of the rope around a stump and the other to yoked oxen, the little wheel was turned, and then, like pulling up a bucket from a well, the stump

appropriated to cover the canal's cost, a sum that constituted a large outlay of taxpayers' money. In today's dollars, it would be slightly more than \$166 million. By comparison, building the Freedom Tower in New York City cost \$14.8 billion, so in some ways the Erie Canal was a bargain. In fact, by way of tolls alone, the state recovered its initial seven-figure investment as early as the canal's ninth year in operation.

Big Ditch

With the financial backing secure, ground was broken for the first stretch of the canal at Rome, New York, on July 4, 1817. Unlike the Transcontinental Railroad, the Erie Canal was not started at its two endpoints and built continuously forward to meet at a designated spot somewhere in the middle. Instead, three different sections were dug simultaneously by local contractors and ultimately joined.

Not only did this approach speed



ERICANAL.ORG

DID YOU KNOW?

The Erie Canal was built without the use of dynamite.



Governor Clinton depicted aboard the Seneca Chief with representatives from places along the route of the Erie Canal

popped out with much less effort required than digging would have expended.

Still other pieces of equipment appeared for specific needs that arose as the construction progressed. The wheelbarrow, so commonly used today, arrived on the scene in 1819, the product of the fertile mind of a Rome, New York, contractor. A "slip

scraper" and a "dirt scraper," pulled by horses or oxen, helped loosen up dirt, remove roots, and cart away the debris from the canal's bed.

In some ways, the equipment the builders of the Erie Canal did not have was as impressive as the devices they did have. With no pneumatic or steam-driven machinery available, picks, shovels, and axes were the primary

tools used by the thousands of immigrants who labored daily to produce a 363-mile-long channel, four feet deep and forty feet wide. Dynamite was not yet invented, so cutting through solid rock became a backbreaking chore that required the intensive use of sledgehammers and chisels.

But perhaps the most glaring absence at the start of the project was that of civil engineers. America had no institutions of higher learning to train them, and those living in Europe did not care to trek across the ocean to work under primitive conditions. While digging a ditch was a rather straightforward process, the technical challenges came in clearing the land, building locks, and constructing aqueducts. The eighty-three locks were necessary to raise canal boats up and down the 500-foot elevational difference between the canal's two principal termini, while the numerous aqueducts were

RATES OF TOLL, ON THE Erie and Champlain Canals.	
On Salt manufactured in this state, per ton per mile,	0 5
On Gypsum, the product of this state, per ton per mile,	0 5
On Brick, Sand, Lime, Stone unwrought, Clay, Earth, Leached Ashes, Manure and Iron Ore, per ton per mile,	0 5
On Household Furniture, per ton per mile,	1 0
On Timber, squared and round, per 100 solid feet per mile,	1 0
On Boards, Plank and Scantling, reduced to inch measure, and all Siding, Lath, and other sawed stuff, less than one inch thick, per M feet per mile, if conveyed in Boats,	1 0
The same if transported in Rafts, per mile,	2 0
On Shingles, if conveyed in Boats, per M per mile,	0 2
The same if transported by Rafts,	0 4
On Split Posts and Rails, for fencing, per M per mile,	4 0
The same if transported in Rafts,	8 0
On Wood for fuel, (excepting such as may be used in the manufacture of Salt, which shall be exempt from toll,) one cent per cord per mile, if in Boats,	1 0
The same in Rafts,	2 0
On Staves and Heading, for Pipes, per M per mile,	1 0
On do. for Hogsheads, per M per mile,	0 7
On do. for Barrels, or other vessels of less size,	0 5
On all Staves and Heading, if transported by Rafts, twice the above rates,	
On Boats made and used chiefly for the transportation of property, per mile,	2 0
On Boats used chiefly for the transportation of Persons, excepting those which pass on the Junction canal, per mile,	20 0
On Boats of the above description, which pass on the Junction canal, and which are not connected with regular lines of Boats for the transportation of passengers on the Erie or Champlain canals, per mile,	50 0
On all articles not enumerated, which are passing towards tide water, per ton per mile,	1 5
On all articles not enumerated, passing from tide water, per ton per mile,	3 0
Passengers in freight Boats, estimated at 150 lbs. each, per ton per mile,	1 5
Passengers under 12 years old in freight Boats, to be estimated at 75 lbs. each,	
Ordered that hereafter the above Rates of Toll be charged and collected on the Erie, Champlain and Junction canals.	
STEPHEN VAN RENSSELAER, SAMUEL YOUNG, HENRY SEYMOUR, WILLIAM C. BOUCK.	
March 17th, 1825.	

Crawell & Van Bostuyes, Printers, No. 77 State-Street, Albany.



Above: Transportation charges for goods and passengers along the canal

Right: Canal boats in the Erie Basin, ca. 1910

Below: Steel fleet on Erie Canal near Ilion, NY

DID YOU KNOW?

62% of US trade went through the Erie Canal in 1853.

were held at stopping points. Upon reaching the Atlantic, from the bow of his packet, the *Seneca Chief*, the governor poured a keg of fresh water drawn from Lake Erie into the briny sea of the city's harbor; this act constituted a "wedding of the waters."

With the highly visible construction phase of the canal completed, the court of public opinion now wondered whether the whole expenditure of time, money, and manpower had been worth the outlay. Over the course of the next three-quarters of a century, the verdict was a resounding "Yes!"

Canal Benefits

New Yorkers prospered economically because of the canal and did so for generations. And the beneficiaries were not limited to residents of the Empire State. In short order, the entire nation gained from the regional trans-

The story continues after the insert.

required to carry the canal over the countless rivers and streams that ran perpendicular to its route.

For those who had watched the construction slowly wend its way through their backyards, the grand finale came on October 26, 1825. Starting with an opening ceremony in Buffalo, Governor Clinton led a flotilla

on an end-to-end celebratory excursion. Lasting nine days, the procession went all the way to Albany via the canal and then down the Hudson River to New York City. Along the route, church bells rang, and cannons—placed a mile apart—boomed as the boats were sighted. Crowds turned out to watch, and gala dinners



COURTESY OF THE ERIE CANAL MUSEUM, SYRACUSE, NY

1825–1862

THE ORIGINAL ERIE CANAL

- Constructed 1817-1825
- 363 miles long
- 40 feet wide and 4 feet deep
- 83 locks (90 feet by 15 feet)
- 18 aqueducts

1862–1918

THE ENLARGED ERIE CANAL

- Constructed 1836-1862
- 350.5 miles long
- 70 feet wide and 7 feet deep
- 75 locks (110 feet by 18 feet)
- 32 aqueducts

1918–Today

NEW YORK STATE BARGE CANAL

- Constructed 1905-1918
- 12 to 23 feet deep and 120–200 feet wide
- **ERIE CANAL**
340 miles, 35 locks
- **CHAMPLAIN CANAL**
60 miles, 11 locks
- **OSWEGO CANAL**
24 miles, 7 locks
- **CAYUGA-SENECA CANAL**
17 miles, 4 locks



portation accomplishment. Some of the positive outcomes were readily apparent: a 90 percent decrease in shipping costs from west to east; movement of goods in both directions much more quickly; the rise in shipments of raw materials from the West; and an overall increase in two-way trade.

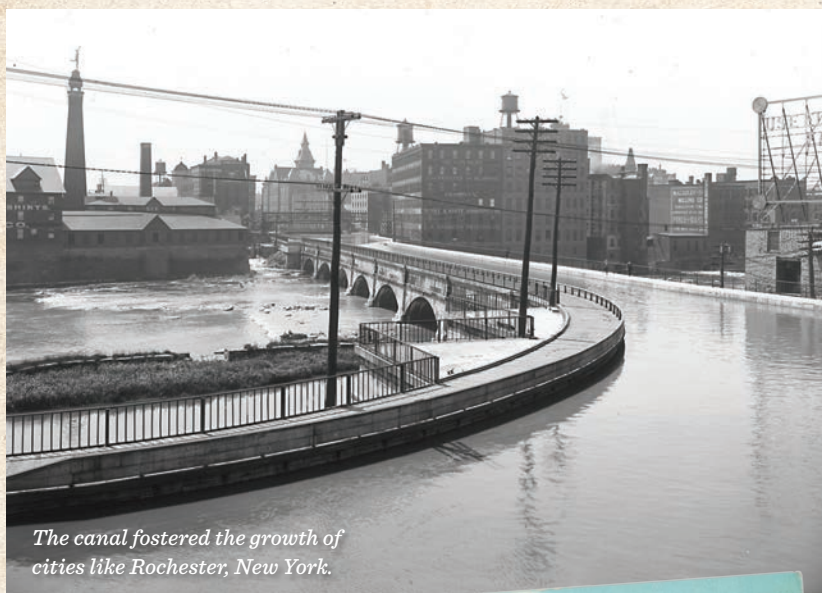
Other developments attributable to the canal's existence were more long-term, but nevertheless profound in their impact. One of these was the influx of settlers and immigrants into western New York and on into the Ohio Valley. The canal also fostered

the urbanization of hamlets and small villages, which blossomed into towns and cities of sizable proportions, such as Buffalo and Rochester. New industries sprang up along the canal, especially in the Mohawk Valley, which became a manufacturing corridor, with products shipped throughout the world. New York City was transformed into the nation's leading center of trade and commerce, and the entire northeast soon gained a power in the affairs of the nation that would be maintained until after World War II.

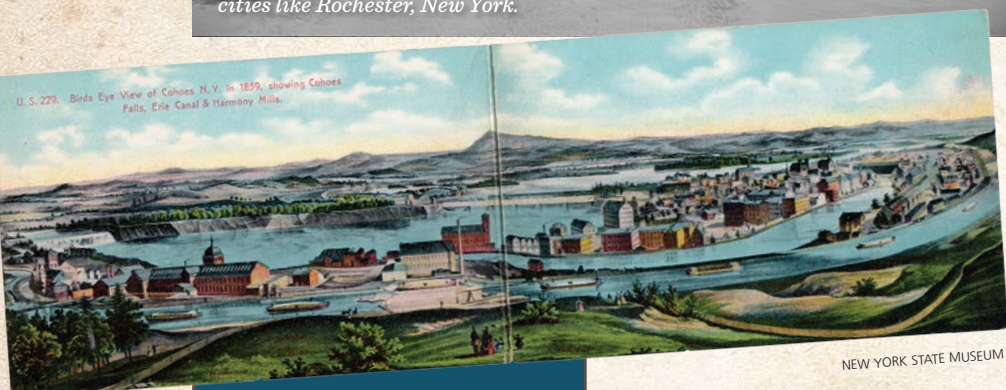
In time, the original canal had to be widened and deepened, allowing

increased loads on larger steam-powered boats to ply its waters. Gone were the towpaths, mules, and low bridges. But even the improvements could not stave off the canal's biggest competitor—the railroad. Gradually, the Erie Canal lost business until there were only a few disconnected sections left to accommodate local traffic. In many places, the channel was filled in.

A resurgence in canal-borne traffic occurred for fifty years or so when the New York State Barge Canal System was opened in 1918, after the completion of a thirteen-year construction project. But this network met its demise too, when trains, trucks, and the St. Lawrence Seaway usurped its customers. Now, the traffic along its 563-mile route consists mostly of pleasure craft. Marinas are found at various locations, offering pleasant sites for recreation. Its locks still operate, for those who might like to view the process of raising and lowering boats.



The canal fostered the growth of cities like Rochester, New York.



NEW YORK STATE MUSEUM

DID YOU KNOW?

Canal boats were capable of carrying 30 tons of produce.

As for the Erie Canal of DeWitt Clinton's era, parts of the channel, the stone walls of the locks, and portions of aqueducts still exist. Among these sites are Schoharie Crossing, the Syracuse Canal Museum, the Jordan Aqueduct, and Chittenango Landing. Informative museums or historic artifacts at these sites help to preserve the past and inform the present of what a remarkable feat the construction was, and of the canal's vital contribution to the growth and development of a young state and new nation.

Despite the skepticism of early naysayers, the task was eventually completed, and its success would turn references to the once scorned "Clinton's Ditch" and "Clinton's Folly" into the much lauded "Grand Canal" and "Lifeline of America." The canal's legacy as an engineering marvel and transformative force lives on. Its construction was an achievement that should be included in any mention of what gave substance to New York's proud stature as the "Empire State." ■

Joseph Collea is a retired history teacher and the author of *New York and the Lincoln Specials: The President's Pre-Inaugural and Funeral Trains Cross the Empire State* (McFarland, 2018).

THE archives CONNECTION

The story of the Erie Canal—upon whose banks my hometown flourished—has always been of interest. Books like *Wedding of the Waters: The Erie Canal and the Making of a Great Nation* by Peter Bernstein, *Stars in the Water: The Story of the Erie Canal* by George E. Condon, and *Erie Canal: The Ditch that Opened a Nation* by Dan Murphy are among those that deepened my knowledge.

Various period newspapers—preserved through the New York State Library's "Newspaper Project"—for Albany, Utica, Syracuse, Rochester, and Buffalo for the years of the canal's creation, as well as its ensuing decades of high-volume usage, reveal much historical insight into the construction and ongoing success of the waterway.

For those who want to study the canal's history through further research in primary sources, local historical societies, libraries, archives, and museums in towns across the state maintain relevant records. The New York State Archives also maintains vast holdings of original documents that span over 100 years of the canal's existence. Consult the Archives's guide "The Mighty Chain" to learn more about the records held there:



For more on the history of the Erie Canal, see:

- "Ambitious Waterway" by Art Cohn, Spring 2025
- "Early Erie Canal" by Craig Williams, Winter 2025