

Urban and Rural Industrial Sites of Central New York:  
A Surface Survey



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## A Surface Survey

### Abstract

The highland region immediately west of New York's Hudson Valley includes both the Adirondack and Catskill Mountains ranges and the headwaters of rivers leading to the Gulf of Saint Lawrence, Chesapeake Bay, and various points in between. Due to the region's abundance of fast running streams, this region was also among the earliest industrial regions in the United States. Shortly after the peak of water-powered industry the region was home to over 2,500 water powered industrial sites. This report discusses recent research meant to ascertain the scope of water-powered industry in the region and the state of these sites today.

To the west of New York's Hudson Valley is a mountainous region that includes the Catskills—a division of the Appalachians—and the Adirondacks—a southern division of Canada's Laurentian Range. The region contains the headwaters of the Susquehanna and Delaware Rivers as well as the Hudson itself. The Hudson's chief tributary, the Mohawk River, bisects the region to create the only water route through the mountains connecting the Hudson Valley to the Great Lakes Plain. Lying immediately west of New England, this region of headwaters became home to some of the earliest textile mills in the United States as the Yankees began their great push west after the American Revolution<sup>1</sup>.

Water powered textile mill technology was the driving force of the Industrial Revolution. Beginning in England in the mid-eighteenth century, the new technologies spread rapidly after their introduction. The Arkwright System, first operated by Richard Arkwright in 1771 at Cromford, England, was smuggled to the United States by his engineer, Samuel Slater. Slater built the first American water-powered cotton mill at Pawtucket, Rhode Island in 1793<sup>2</sup>. In a rare instance of just desserts, one of Slater's engineers, Benjamin Walcott, built similar mills throughout southern New England through the turn of the century, including the first cotton mill in New York State, aptly named New York Mills, in 1808<sup>3</sup>.

New York Mills took advantage of the fast running streams of the Headwaters Region. Built along an extensive race system fed by Sauquoit Creek, a tributary of the Mohawk River near the city of Utica, the mill would not be alone for long. Already there was a woolen mill in nearby Frankfort that had been built in 1807<sup>4</sup>, and by the 1810 census there were 5 cotton mills and 24 fulling (wool) mills in Oneida County

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<sup>1</sup> Thomas, Alexander R. *A Historical Demography of the Headwaters*. Utica: Utica College Center for Small City and Rural Studies, 2013.

<sup>2</sup> Conrad, James L. "'Drive That Branch': Samuel Slater, the Power Loom, and the Writing of America's Textile History." *Technology and Culture* 36, no. 1 (1995): 1-28.

<sup>3</sup> Pula, James S., and Eugene E. Dziedzic. *United we Stand: The Role of Polish Workers in the New York Mills Textile Strikes, 1912 and 1916*. Boulder: East European Monographs, 1990.

<sup>4</sup> Greene, Nelson. *The Old Mohawk Turnpike*. Little Falls: Journal & Courier, 1924.

alone, making the region along the Upper Mohawk River one of the most industrialized in the new nation.

The concentration of the textile industry in the Headwaters Region extended beyond the banks of the Mohawk River as well. As early as 1809, settlers from New England were building a substantial complex of mills along the Upper Susquehanna River and Oaks Creek near modern Cooperstown. As surprising as the budding industrial development may have been in the Mohawk Valley—the Erie Canal would not open until 1825 and the Schenectady and Utica Railroad a decade later—it was arguably more surprising in the Susquehanna Valley. The upper reaches of the drainage, at Otsego Lake, is over 15 miles to the water route of the Mohawk Valley, requiring an arduous overland journey ascending over 1,200 feet in elevation from the Mohawk to the top of the Appalachian Plateau. In time, the building of water-powered mills extended to the entire region.

This paper reports on recent work that attempts to assess the extent of early industry in the region and the status of these early sites today.

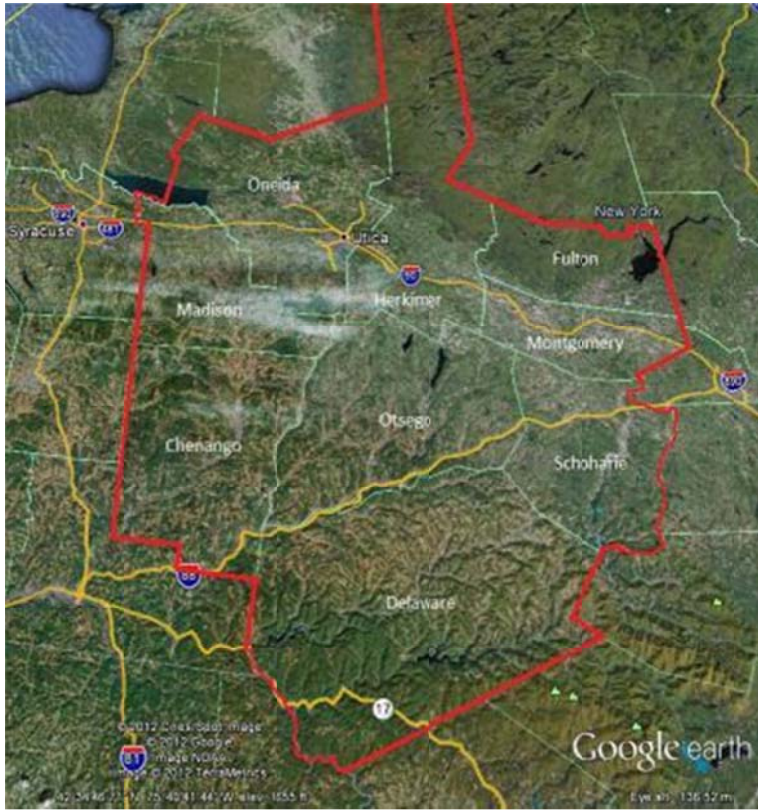
## **Method**

The Millponds Project is a multidisciplinary research effort to understand this early stage of American industrialization in the region. This paper utilizes two levels of data collection: an analysis of where in the region water-powered mills were found, what they produced, and the relationship to settlement patterns. The second phase of this study is a surface survey of a subset of these sites.

The Headwaters Region includes nine counties stretching from the Pennsylvania border to the heart of the Adirondack Park. The region grew rapidly after the American Revolution, from perhaps only a few thousand after the Revolution to 315,270 by 1830 and nearly half a million by 1890; the region today is home to 672,054 residents. After 1850, however, population growth had slowed or even reversed in the rural portions of the region even as growth continued in the cities and towns of the Utica Metropolitan Area<sup>5</sup>. This trend appears to be due to the intense urban growth triggered by the massive scale of steam-powered industry that arrived by mid-century.

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<sup>5</sup> Thomas 2013.



For the first phase of data collection, maps published between 1868 and 1875 were consulted for the locations of various types of mills that could potentially have been oriented toward non-local trade. This is a difficult distinction to make based on map data, and of questionable utility since industrial mill owners tended to sell to whomever asked, whether local or not. Nevertheless, such local trades as blacksmith shops and cooper shops were excluded from the data as these were nearly always oriented toward the local community. Other industrial operations, such as

cotton mills and tanneries, typically had a wider market area. In the middle are such mills that could be oriented to export or local consumption, such as saw mills and grist mills. We suspect that most such mills were oriented to local markets, but the scale of the export-oriented lumber industry in Delaware County and even the production of cheese for urban markets closer to the Mohawk River challenge this assumption. As such, we included saw and grist mills alongside more obvious export-oriented industries. We also noted the location of industrial water systems in the region. We further coded the types of settlements in which sites were located. Sites located in settlements demarcated as "urban" by the mapmaker by providing an inset map were coded as hamlets if they are today unincorporated places, as villages if they are today incorporated as villages under New York State law, and as cities if they today have city charters. Sites not shown in insets were coded as present in a rural setting.

The second phase of this research involved site visits to a subset of this initial data set. Sites along major tributaries of the Mohawk River in the metropolitan area and rural sites along the Otsquago, Canajoharie, and Oaks Creeks as well as the upper Susquehanna River in the Cooperstown area were visited and coded according to their state of repair<sup>6</sup>. The coding criteria are shown in table 1.

**Table 1:** Codes for Mill Sites

<b>Class 4</b>	<b>Fully functioning</b>
<b>Class 3</b>	By and large intact, non-functioning
<b>Class 2</b>	Intact but with significant disrepair
<b>Class 1</b>	Extreme disrepair
<b>Class 0</b>	Nearly completely destroyed

## Findings

**Table 2:** Industrial Sites by Setting, ca. 1870

Settlement	Number of Settlement Types	Number of Ponds	Number of Industrial Sites
Rural	--	736 (75.6)	1,640 (64.2)
Hamlet	266 (74.1)	146 (15.0)	437 (17.1)
Village	85 (23.7)	73 (0.07)	312 (12.21)
City	8 (0.02)	19 (0.02)	165 (0.06)
<b>Total</b>	<b>359 (100)</b>	<b>974 (100)</b>	<b>2,554 (100)</b>

Table 2 gives an overview of the data from the circa 1870 maps. Although industrialization is often presented as an urban phenomenon in the popular imagination, in the Headwaters at least industrialization was very much a rural phenomenon. Nearly two-thirds of the industrial sites were found in rural locations. Industrialization did create conditions for the intensification of land use as evident by the fact that there were only 736 water systems serving the 1,640 mills in rural settings: the average millpond served over two mills. Although steam power was in use during this time period, this was found primarily in more urbanized settings.

<sup>6</sup> Thomas, Alexander R., and Achim Koeddermann. *Industrial Water Systems in the Headwaters: A Preliminary Surface Survey*. Utica: Utica College Center for Small City and Rural Studies, 2012.



**Table 3:** Select Industries by Setting, ca. 1870

<u>Settlement</u>	<u>Banking</u>	<u>Lumber</u>	<u>Textiles</u>	<u>Miscellaneous</u>
<b>Rural</b>	0	968 (82.7)	37 (31.2)	41 (22.4)
<b>Hamlet</b>	0	122 (10.4)	38 (33.6)	24 (13.1)
<b>Village</b>	33 (66.0)	67 (5.7)	28 (24.1)	53 (30.1)
<b>City</b>	17 (33.0)	13 (0.01)	13 (11.2)	65 (35.5)
<b>Total</b>	50 (100)	1,170 (100)	116 (100)	183 (100)

Table 3 shows the data for selected industries in the region. Not surprisingly, the lumber industry was primarily a rural phenomenon: less than 20 percent were located in an even minimally urbanized setting. In contrast, banking was an exclusively urban phenomenon during this same time period, found only in cities and larger villages. As late as 1870, however, even the textile industry was found primarily in smaller towns and rural areas. What the data conceal in this regard, however, the difference in scale between such mills, shown quite graphically by aerial photography of two such sites (figure 2). Miscellaneous industries, primarily related to consumer goods (such as carriages, jewelry, and breweries) were somewhat more common in urbanized settings, but it is perhaps noteworthy that such were more numerous in cities than textiles.



**Figure 2:** Aerial Photography of a Rural and an Urban mill from 1,900 feet. At left, the Hope Mill complex near Cooperstown. The building shown was a large grist mill, and to the right (where the road now is) was a cotton mill that was about twice the footprint. At right is the Mohawk Valley Cotton Mill in Utica.

Not only did the city mill take up four times the space, but it was four stories tall, compared to only three stories at Hope Mills.

Site visits of a subset of these sites revealed that most sites are either destroyed or significantly degraded today (see table 4).

**Table 4:** Status of Industrial Water Sites, by Type of Stream and Class, 2013

Class	Metropolitan Streams (%)	Non-Metropolitan Streams (%)	Subset Totals (%)
0	32 (64.0)	8 (47.1)	40 (59.7)
1	6 (12.0)	6 (35.3)	12 (17.9)
2	6 (12.0)	0 (0)	6 (9.0)
3	5 (10.0)	3 (17.6)	8 (11.9)
4	1 (2.0)	0 (0)	1 (1.5)
<b>Total</b>	<b>50 (100)</b>	<b>17 (100)</b>	<b>67 (100)</b>

Data reveal that sites in urban locations are at greater risk than those in rural locations. Sites in our subset are more likely to be destroyed due to the rebuilding of streambeds or other new construction. Along Sauquoit Creek, for example, five sites were lost to the Sauquoit Valley Expressway alone (see figure 3) and are thus class 0.



**Figure 3:** Aerial photography of the relocated Sauquoit Creek and Sauquoit Valley Expressway in New Hartford, a suburb of Utica. Source: Google Earth Pro



Class 1 sites are not destroyed, but there is significant disrepair evident, enough so that the majority of the site is destroyed. It is not uncommon to see the embankments of a dam or perhaps the remains of a floodgate, but much of the rest of the site is unrecognizable. Figure 4 shows the remains of a dam at a saw mill along Sauquoit Creek near Cassville.



**Figure 4:** Left, remains of Saw Mill dam near Cassville. Right, remains of a millpond. Note that the stream is cutting through the silt in the foreground and the vegetation is lightly wooded on the former pond embankment in the background.

Class 2 sites are by and large intact but nevertheless show substantial levels of disrepair. Figure 5 shows a class 2 system along West Canada Creek in Herkimer. This industrial suburb was home to an extensive system that diverted the stream into ponds north of the community and then down an industrial canal through what is now the heart of the village. Today, one of the ponds still exists, a dam for a second is still largely complete (see picture), but portions of the industrial canal are now a park (see picture).



**Figure 5:** Remains of a dam in Herkimer, and the park on top of the former industrial canal just downstream.

Class 3 sites are substantially intact and could in principal be utilized with relatively little investment. The eight sites covered in this study could thus theoretically be utilized in the future. Figure 6 shows pictures of two such sites, one in Oriskany Falls and the other in Canajoharie.



**Figure 6:** Two class 3 sites. At left is a former textile mill in Oriskany Falls with wheelhouse still over the creek; at right is a dam in Canajoharie.



**Figure 7:** Class four site in Newport. The site is currently used to generate electricity.

There are only three class 4 sites in the study area, and only one is in the subset. Two of the region's sites are today tourist attractions: The Fly Creek Cider Mill near Cooperstown and the Hanford Mills Museum near Oneonta. The one class 4 site in the study area is in Newport and today generates electricity (see figure 7).

## **Conclusion**

The industrialization of the Headwaters region in New York State demonstrates a rapid diffusion of water-powered textile technology. In less than two generations the premier technology of England's Industrial Revolution had made its way to the rugged upstate frontier. As important as this region is in American industrial history, our findings indicate that over sixty percent of the metropolitan sites and half the non-metropolitan sites have little or no trace of this history, and even among those still in existence only a handful are in good enough condition to be restored or even utilized. In the future more care should be taken to learn about the earliest stages of American industrial history before these sites are reclaimed by the soil out of which they were built.

## Works Cited

- Greene, Nelson. *The Old Mohawk Turnpike*. Little Falls: Journal & Courier, 1924.
- Conrad, James L. "'Drive That Branch': Samuel Slater, the Power Loom, and the Writing of America's Textile History." *Technology and Culture* 36, no. 1 (1995): 1-28.
- Pula, James S., and Eugene E. Dziedzic. *United we Stand: The Role of Polish Workers in the New York Mills Textile Strikes, 1912 and 1916*. Boulder: East European Monographs, 1990.
- Thomas, Alexander R. *A Historical Demography of the Headwaters*. Utica: Utica College Center for Small City and Rural Studies, 2013.
- Thomas, Alexander R., and Achim Koeddermann. *Industrial Water Systems in the Headwaters: A Preliminary Surface Survey*. Utica: Utica College Center for Small City and Rural Studies, 2012.

## About the Author

*Alexander R. Thomas* is director of the Center for Small City and Rural Studies at Utica College and Professor of Sociology at SUNY Oneonta. Dr. Thomas is a comparative sociologist who studies the development and functioning of urban systems. His current research aims at comparing New York City and its satellites to other urban systems in other places and time periods.

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