

**Woolen Mills In Middlefield, MA (1773-1901):
The Vital Role of Rural Manufacture**

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Introduction

Middlefield is a small town in Hampshire County in Western Massachusetts. When I say that it is small, I really mean that. You can not buy a loaf of bread or a gallon of milk in town. After going through a series of owners the general store has been closed for several years now. The Post Office is in a trailer, and there is talk of getting rid of it all together. With a population of only 500, there is no school. Children attend elementary school in the neighboring town of Chester, and they go to the regional middle and high school in Huntington along with students from six other towns. Middlefield is the kind of place that you can easily drive through without even noticing. But if you take the time to look, there are clues scattered throughout the town that hint at its rich history. The easiest way to get to Middlefield is the same route that my bus took home everyday from elementary through high school; just before the road takes the steep climb up the mountain, you can see one of these first clues. The Boston and Albany Railroad came through the area in 1841 along the border between Chester and Middlefield. At the time this was the most rugged and steep terrain in the country that railroad tracks were laid on, and the plans were ridiculed by many as being as impossible as a "railroad to the moon."¹ To cross the West Branch of the Westfield River which winds across the landscape, ten keystone arch bridges were built. The largest of the bridges towers over seventy feet above the water. Most of them are still in use today, supporting train engines which are forty times heavier than those originally used.²

¹ Friends of the Keystone Arches. "History of the Keystone Arches." The Keystone Arches. <http://www.keystonearches.org/> (accessed April 12, 2009).

² The keystone arch bridges were a marvel of engineering when they were built, and still are today. Not only were they built entirely without mortar, they were also made wide enough to allow for double tracks to be laid. At the time this was very uncommon, but it proved to be invaluable and has allowed many of the bridges to be used to the present day. Only two of the bridges are no longer in use and this is only due to the fact that the turn in the tracks was too sharp for the higher speeds of modern train engines.



Figure 1. Keystone Arch Bridge
This bridge rises seventy feet above the river and is no longer in use by the rail road.³

As you drive through Middlefield you will see the stone walls which seem to line every road and crisscross the landscape. They are a reminder of the time when the town was a thriving center of agriculture which produced some of the best sheep and cattle in the state. Even looking at a local map provides further insight in to its history; one of the streams is named Tan Brook after the tannery that was built there, and another is named Factory Brook. This last might seem strange at first; this does not seem like a place that would have factories, but this is one of the nearly-forgotten pieces of history in Middlefield.

I have always known that there were factories in town, but I never really thought about them. I remember my mom mentioning Factory Brook once when I was little; we were looking at the old town map which I found fascinating. She showed me the reservoir and told me that there had been woolen mills along the river. But it was not until I picked up a copy of the town history book and thumbed through it that I realized the extent of the factories and reservoir. It is strange because I have lived in Middlefield

³ <http://www.keystonearches.org>

all of my life, but I never really knew much about the mills. And I am not alone in my ignorance; although many people in town know that there were factories, few know any details. It is an untold history that is slowly being forgotten.

This forgetting of small rural woolen mills is not unique to Middlefield, in fact it is part of a much larger pattern in which historians have focused on the large factory towns such as Lowell, Lawrence and Waltham. The small factories that were scattered throughout New England have been forgotten and ignored; but they were a central part of the local economy and culture.

Historiography

When students learn about the Industrial Revolution the first topic is often the textile mills in Lowell, Massachusetts. The way teachers, and historians in general, address this topic makes it seem as if with the introduction of machinery from England all small-scale and home based manufacture of cloth came to a sudden end. All focus is placed on the huge factory towns and cities which were built and where hundreds and thousands of people worked in the textile industry. But despite what one commonly learns about this period, there continued to be a thriving market for small rural industry which has been neglected in the historical discourse.

The mills that I discuss were not the large factories such as those in Lowell, and although they were small and in rural settings such as the Slater mills, they were distinctly different. The Slater style mills were often owned by absentee owners who were seeking a way to invest their money. Entire families were usually employed at the mills, which included children. In contrast, these unique mills were usually owned by

natives of the towns in which they operated. Their mills grew slowly, starting as part of the local economy by providing services to the local inhabitants and slowly becoming producers of cloth for sale in the larger marketplace. The mills usually employed only a few dozen workers, and it was very rare for them to employ children.

The historian Jonathan Prude addresses the fact that there has been little effort by either nineteenth-century commentators or recent scholars to study the textile production which existed in small towns across New England. Prude states,

The New England textile factory has probably been studied as intensely as any institution connected to American industrialization...attention has been lavished mainly on large and heavily capitalized factories of Waltham, Lowell, and other major or at least sizeable Yankee towns.⁴

He explains that this focus has skewed our understanding of how industrialization came to New England and how it has completely bypassed the rural industrialism that was practiced. And yet he identifies the rural mills which he discusses as being Rhode Island-style factories. This style of mill has been researched and identified, as demonstrated by the fact that they are considered a distinctive style of factory.

In their introduction to *Labor in Massachusetts: Selected Essays*, Kenneth Fones-Wolf and Martin Kaufman also discuss how historians have focused on the large industrial factory systems. The first is the Lowell system in which young farm women were recruited to work in factory cities and lived in the boarding houses. These “Lowell Girls” have received much attention by historians and there is a wealth of research and material concerning them. The second is that of Samuel Slater, and often identified as the Rhode Island style of mills. Entire families were employed by the mills, from the children to the parents, and the mill owners often took on a paternalistic role towards

⁴ Jonathan Prude, *The Coming of Industrial Order*. New York: Cambridge University Press, 1983 p. xiv

their employees. But as Fones-Wolf notes, “in much of New England, however, and especially in the rural towns of Massachusetts, the emerging factory labor-force conformed to neither model.”⁵ This statement is in contrast to Prude, who would identify them as Rhode Island-style, and may reflect the evolution in historical thought that developed over the past several years. This may be why mills such as those in Middlefield have been overlooked by many historians; they do not fit neatly into any existing model.

Christopher Clark discusses one of the reasons why the rural textile industry has been ignored. He argues that many historians have seen the industrialization of America as being best demonstrated by the building of large factories. In comparison, the small factories of Middlefield seem unimportant. He argues that, “In the nineteenth century, rural life was something to avoid”⁶ and historians’ only interest was the decline of rural areas.

Another explanation as to why these rural mills have been neglected by historians was put forward by Paul E. Rivard. He discusses the fact that few mill villages have survived to the present day, unlike the picturesque center villages which can be found throughout rural New England. These historic town centers draw our attention to them and make it easy to forget the missing mills. The reason why the mills are gone is very simple; they have been destroyed by fires, floods and the simple erasure of time.⁷ This has made them easy to overlook by both historians and local residents.

⁵ Kenneth Fones-Wolf. *Labor in Massachusetts: Selected Essays*. Westfield, MA: Westfield State College, 1990 p.3

⁶ Christopher Clark. *The Roots of Capitalism: Western Massachusetts, 1780-1860*, (Cornell University Press, Ithaca and London) p. 9

⁷ Paul E. Rivard, *A New Order of Things*, (University Press of New England, Hanover, NH 2002) p. xxxii

I. Early History of the Town of Middlefield

In order to understand the history of the mills in Middlefield, it is important to understand the history of the town in which they were located. The town of Middlefield originated from Prescott's Grant, a 2,600 acre tract of land which was awarded to James, William and Oliver Prescott by the General Court in 1771.⁸ The Prescotts owned land along the Massachusetts and New Hampshire border and lost 2,600 acres when the boundary line between the two colonies was settled. At this time there was not much unclaimed land left in the state but this 2,600 acre area was left between the borders of five young townships. Perhaps none of the other townships claimed the land because they thought it too wild and isolated, too far from their town centers and not worth the effort of making it accessible.

After surveying their Grant, the Prescott family did not settle there. Instead they sold most of the land within the next few years.⁹ Although official records state that Middlefield was not settled until 1780, nearly two decades after the five surrounding townships, the first legal owners of the land began to move in after 1777.¹⁰ These settlers purchased the land from the Prescott family who likely marketed the land to prospective farmers from the eastern part of the state. But even before then there were people slowly moving onto the Grant. The first family to arrive was the Taggarts in 1769; they were squatters who claimed two hundred acres along one of the major streams in town which was known for several years as Taggart's Brook and was later named Factory Brook.

⁸ Edward Church Smith, *a History of the Town of Middlefield*, Massachusetts. printed by the town of Middlefield, 1924, p. 19-20

⁹ Smith, Edward Church, p. 30

¹⁰William Francis Galvin, "Massachusetts City and Town Incorporation and Settlement Dates," Citizen Information Service, <http://www.sec.state.ma.us/cis/isctlist/ctlistalph.htm#M> (accessed March 23, 2009).

They were followed by several other squatters and by 1775 there were eight families living on the Grant which at this time was referred to as “Taggartstown.”¹¹

Life on the Grant was very isolated; there was no meeting house, no community center, no stores, no churches and no school. Edward P. Smith, who gave the historical discourse at the town’s centennial celebration in 1878, recounted this early history and the trials that the early settlers endured: “Deacon Mack for several years had on Sunday gone on foot six miles to Chester meeting-house, or, in winter, with ox-sled carried the members of his own and other families thither and back, a Sabbath day’s journey indeed.”¹² This was not just a hardship faced by those living on Prescott’s Grant; many people who lived in the area surrounding the Grant were also miles from their town centers, churches and schools. There were few roads in existence in the area and the “Roughness of the Roads Steep Hills and Rapid Rivers”¹³ made any trip an arduous journey.

On September 22, 1781 the people of Prescott’s Grant, as well as the bordering portions of the five surrounding towns, gathered to sign a petition asking the General Court to create a new township with Prescott’s Grant at its center and with land from the surrounding towns. The Act of Incorporation was passed on March 12, 1783 and the town of Middlefield was created.¹⁴

¹¹ Smith, Edward Church, p. 29-30

¹² Edward P. Smith “A Historical Discourse,” *A Memorial of the One Hundredth Anniversary of the Incorporation of the Town of Middlefield*, printed by the town of Middlefield, 1883, p 14

¹³ Smith, Edward Church, p. 48, wording of the petition for incorporation

¹⁴ Smith, Edward Church, p. 48

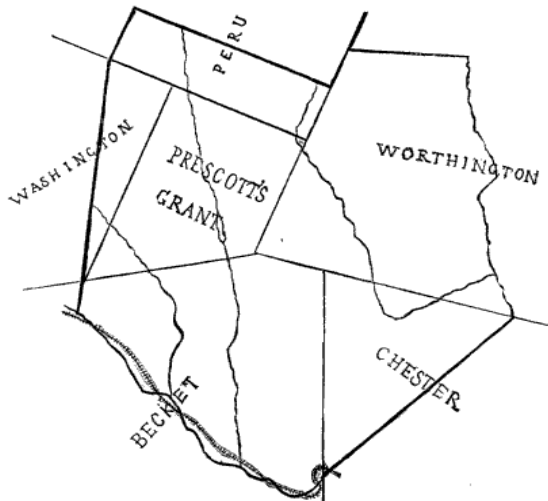


Figure 2. Map of Middlefield
This map shows the town of Middlefield, with Prescott's Grant at its center and with the land that was taken from the surrounding towns to form the town of Middlefield.¹⁵

II. Beginning of the Mills in Middlefield

Milling was a strong tradition in New England; the many rivers, streams and brooks provided a ready supply of power and so it did not take long for the new settlers in Middlefield to begin building mills. The first mill in town was built by John Rhoads in 1773. It was a combination grist- and saw-mill, which allowed Rhoads to grind grain for the other farmers as well as cut lumber for the construction of houses and barns.¹⁶ The first mill to be built on Factory Brook (which would later be the site of the woolen mills) was in 1780 by John Ford. It too was a combination of grist and sawmill. In fact, by 1800 it is estimated that there were a dozen mills built on streams throughout the town.¹⁷

Due to the widespread use of waterpower in Middlefield, it should come as no surprise that its inhabitants soon began looking for more ways to capitalize on the natural resource of the streams. Fulling mills were first introduced to the United States in 1643

¹⁵ Mary E. Sternagle, *Middlefield History* Ashland, Ohio: Bookmasters, 1985 p. 9, figure 7

¹⁶ Massachusetts Historical Commission. "Middlefield Associated Regional Report: Connecticut Valley" *MHC Reconnaissance Survey Town Report*. 1982 P. 4

¹⁷ Smith, Edward Church, p. 92

when one was built in Rowley Massachusetts, and they quickly spread throughout the colonies. Fulling mills were used to improve the quality of rough home woven woolen cloth by using hammers and solutions that shrank the cloth and raised a ‘nap’ of fibers. The cloth was then sheared to give it a soft feel and smooth look. These mills were commonly built near existing grist- and sawmills on streams in rural New England.¹⁸

The first fulling mill to be built in Middlefield was built in 1794 by Moses Herrick and was located on Factory Brook.

That even such a small and isolated town as Middlefield had a fulling mill should come as no surprise. As Gary Kulik explains in *The New England Mill Village*,

American colonists had been developing mill sites in the New World since the 1630’s ... American millwrights had no problems erecting a barnlike wooden or stone building suitable for textile manufacture, and they were adept at installing a waterwheel to power machinery.¹⁹

And so in small rural towns throughout New England fulling mills such as the one in Middlefield began to spring up after 1650. These mills allowed easy access to the local inhabitants who often paid with barter rather than money. The millwright also benefited because he had a nearly captive customer base of people who could not easily travel elsewhere to have their cloth finished.

III. The Woolen Mills of Middlefield

In 1800 Moses Herrick’s fulling mill and surrounding property were purchased by Amasa Blush, a native of Middlefield and son of the Center’s tavernkeeper. The original site on which the fulling mill was built must not have been ideal, because by 1805 Blush had erected a larger fulling mill further up the stream. By this time he also had

¹⁸ Rivard, p. 26

¹⁹ Gary Kulik. *The New England Mill Village, 1790-1860*. (Cambridge, Mass.: MIT Press, 1982) p. XXV

competition; in 1801 Ambrose Church built a fulling mill just a short distance from Blush's.²⁰ The fact that two fulling mills were running in town, and that they were in such close proximity, indicates that there was a high level of wool and cloth production in the town.

The wool industry received a boost in 1807 with the Embargo and Non-intercourse Acts which cut off trade with England. Fine woolen goods had been traditionally imported from England and those made in the United States were seen as inferior. However, the Acts created a high demand for domestic fine wool. Although at this point the mills along Factory Brook were not producing fine cloth, there was rising demand for even the rougher woolen cloth as many larger factories in New England switched over to fine wool. The War of 1812 was also beneficial to the woolen industry; the army and navy required large quantities of woolen cloth for blankets and uniforms.²¹

In 1808 Ambrose Church started the first carding mill in town. Carding is the process in which the wool is separated from any possible debris it might hold, as well as straightens the fibers so that they lie in the same direction. After the wool has been carded it is then spun to make yarn.²² The process of hand carding wool is long and laborious and according to the historian Arthur Harrison Cole, "The saving in time thus made was great,-indeed, the work of hours being reduced to that of minutes."²³ That the carding business was lucrative is shown by the large customer base that brought their

²⁰ Smith, Edward Church p. 105

²¹ Smith, Edward Church p. 106

²² Paul E. Rivard. *A New Order of Things*, (University Press of New England, Hanover, NH 2002) p. 16

²³ Arthur Harrison Cole, *American Wool Manufacture VOL. I*, (Harper and Row, Publishers, New York) p. 95-96

Cole states that the only facts he was able to find were from England; it took a man ninety-six hours to card seventy-five pounds of wool by hand, and a machine could do the same amount of work in fourteen hours. He further states that since carding was often done by women and children in America, and since it was done at irregular intervals, the process would likely take even more time.

wool to Ambrose Church's mill. According to two old ledger books which recorded his business, he carded wool for nearly every family in Middlefield; the ledger lists at least 129 families and in 1810 there were only 134 families in the town.²⁴ During the War of 1812 this customer base was greatly expanded and many families from surrounding towns also brought their wool to the Church mill. There are sixty-seven families from Chester listed, fifty-two from Washington, twenty-three from Peru, fifteen from Worthington, ten from Becket, seven from Hinsdale, and an additional thirty-seven others whose towns have not been identified and who may have lived in more distant towns. The Church mill served a total of three hundred and forty families, and what is most interesting is that there were other carding mills in the area. The Church mill must have done excellent work or had a low charge to garner so many customers.²⁵

In 1815 Ambrose Church sold his fulling mill to his cousin Uriah Church, Jr. Uriah Church was the grandson of a Scotch-Irish weaver and had specialized in home manufacture. His entire output of cloth was bought by the government during the War of 1812. When he took over Ambrose's business he decided to expand the business and built a two-story building to house the machines.²⁶ In 1816 Amasa Blush expanded his business and built his own carding shop. The building was three stories tall with a grist mill on the ground floor and according to Edward Church Smith, the historian who wrote *A History of Middlefield, Massachusetts*, it was one of the largest mill buildings in western Massachusetts in its day.²⁷

²⁴ Edward Church Smith, p. 393, Table IV

²⁵ Typewritten document of *Ambrose Church's Carding Shop* transcribed by Edward Church Smith 1950 and may be found in Historical Records at the Middlefield town office under section H This transcript records an overview of the entries in Ledgers No. 2 and 3, while Ledger No. 1 is missing.

²⁶ Edward Church Smith, p. 106

²⁷ Edward Church Smith, p. 106

The wool industry in the United States suffered once the War of 1812 came to an end, England flooded the market with textiles in an effort to destroy the young industry. Many factories which had been producing broadcloth, a woolen cloth that was used for fine clothing, were forced to shut down. But the mills in Middlefield do not seem to have been affected; this is likely because they were catering to the local economy. In Middlefield there was still a need for wool to be carded and cloth to be finished in the fulling mills. Few people in town could afford the luxurious broadcloths, and there was little need for such material by farmers.



The market took a turn for the better in 1820 when higher tariffs were passed to protect the textile industry. This allowed for the growth of mills throughout the country, and Middlefield was part of this trend.

Figure 3. Church Upper Mill

Built in 1823, the Upper Mill was one of the main Church mills and was used as a blueprint for the Lower Mill which was built latter.²⁸

IV. Cloth Manufacture

In an effort to expand his business Uriah Church had weaving done for him by locals in their own homes. He paid them a set price per yard and would then finish it in his fulling mill. It appears that he probably sold this cloth to merchants who would then

²⁸ Edward Church Smith, p. 147

bring it to market. Uriah Church was very particular about the quality of his cloth, and there are several instances in which he refused to pay the total amount which had been promised. A ledger book from 1823-1832 provides the details,

1825. John Burns. Burns has woven for me from the beginning up to this date (May 3, 1825) in all 1679 yds. Sattinett, a part of which 334 ½ yds. Wove by John McStitt was very badly done, and 455 yds. Wove by Joe Robbins 2nd was poorly done – for which I refuse to pay said Burns the price stipulated in my agreement with him of May 29, 1824.²⁹

There are several other cases which may be found in the ledger and which show that Uriah Church expected his cloth to be woven with the utmost care.

During the early 1820's Amasa Blush installed spinning jennies and power looms in the three-story factory that he had built and began the production of satinet.³⁰ Satinet was an inexpensive cloth which was made of coarse wool woven on a cotton warp.³¹ This appears to be the first instance in Middlefield in which cloth was manufactured entirely within the factory, and not put out for home manufacture. Not to be outdone, by 1823 Uriah Church built his own three-story factory and he too began the production of cloth.

But Uriah Church did not produce satinet; instead he decided to undertake the ambitious task of producing broadcloth. This was a huge break with the traditional way in which the Churches had conducted business, they had catered nearly exclusively to the local economy and had focused mostly on providing the services of carding and finishing, not producing cloth. Broadcloth was a “lordly” cloth which was worn mainly by the rich and was particularly favored by Southern plantation owners. One of the factors which

²⁹ Typewritten document of an old ledger, property of Uriah Church Jr. of Middlefield, MA (1823-1832) which was transcribed by Edward Church Smith 1948 and may be found in Historical Records at the Middlefield town office under section D.

³⁰ Edward Church Smith p. 143

³¹ Rivard, p. 86

allowed the Churches to produce broadcloth was the introduction of the Saxony sheep, a variety of Merino which produced one of the finest grades of wool.³² The Saxony sheep were first brought to the United States in 1822 by Levi Shepherd of Northampton who owned the Northampton Cotton & Woolen Company. It is likely that due to Middlefield's proximity to Northampton, Middlefield farmers were some of the first to acquire and raise the Saxony sheep.³³

Another factor which benefited both the Blushes and Churches was the Tariff of 1828 which protected the textile industry from foreign goods. This legislation had been sought after specifically by the Massachusetts woolen manufacturers who could not compete with English prices and goods. A revitalization of the industry occurred throughout the Connecticut River Valley and many woolen mills were erected.³⁴

Farmers also benefited from the tariff; only one-third of the new demand could be supplied by the existing flocks and so farmers greatly increased the number of sheep they raised. Middlefield was at the center of the expanding sheep industry and in 1836 there were 9, 678 sheep sheared in Middlefield; in fact the town was only exceeded by nearby Hinsdale and Lanesboro. This was quite an accomplishment for the small town and demonstrates just how successful the wool industry was for Middlefield.

In 1830 Amasa Blush retired and left the business to his son William Blush who expanded the business by adding broadcloth to the cloth production. But by the late 1840's business began to decline.³⁵ The Tariff of 1846 allowed for the easier importation of foreign textiles and many mills returned to the production of cheaper cloths such as

³² Edward Church Smith p. 143

³³ Massachusetts Historical Commission. *Historical & Archaeological Resources of the Connecticut River Valley*. 1984 P. 253

³⁴ Ibid. p. 254

³⁵ Edward Church Smith p. 143-144

satinet, but Middlefield was able to weather this change and became the only town in the Connecticut River Valley to still produce broadcloth.³⁶ In 1848 the Church Lower Mill was built which shows that the Church business was doing well in the difficult times and perhaps even thriving.



Figure 4. Church Lower Mill

Built in 1848 during hard economic times for the textile industry, the Lower Mill shows that the Churches were easily surviving the tough times.³⁷

The Blush mills suffered the most during this period and William Blush rented the mill to a company composed of three locals; John Smith, Lewis D. Boise and Solomon F. Root. Perhaps they hoped to profit from the woolen industry, but they picked the wrong time to do so. They operated until 1851 when the mill was destroyed in a fire. Blush left the woolen business for good, but he did erect a wood-turning shop which made wagon parts such as shafts and spokes.³⁸

³⁶ Massachusetts Historical Commission. *Historical & Archaeological Resources of the Connecticut River Valley*. 1984 P. 254

³⁷ Edward Church Smith p. 147

³⁸ Edward Church Smith p 148

V. Building of the Dams

The challenges of water power and how best to manage this resource was a constant thought of mill owners throughout New England. Small mill ponds were of little help in conserving water and were often damaged or washed away completely by spring floods. One of the best solutions was reservoirs which could hold large quantities of water and allow for a constant supply, even during dry summer months. In fact, by the 1830's it is estimated that ten percent of all floodwaters in New England and New York were held in artificial storage reservoirs and ponds.³⁹

Factory Brook was known as one of the “quickest” streams in western Massachusetts due to the snow melt, spring rains and heavy downpours which often overflowed its banks in the spring and summer.⁴⁰ This was both a blessing and a curse to the mill operators; the amount and speed of the water flow generated excellent power for the mills, but if the river ran too fast it could damage the mill and sweep away the mill ponds. Another problem was that between these times of high, fast water the stream could shrink to little more than a trickle and was not adequate to power the mill wheel.



Figure 5. Middlefield Dam

Photograph of the dam showing the road which ran across it and with the reservoir in the background.⁴¹

³⁹ Elizabeth M. Sharpe, *In The Shadow of the Dam* (New York, Free Press), p. 7

⁴⁰ Sternagle p. 245

⁴¹ Edward Church Smith, p 206

In the winter of 1835 the stream swept away the mill pond for Uriah Church's woolen mill as well as damaging the mill pond for the Church fulling mill. This, along with other damages, prompted the Churches and Blushes to construct a large dam above the mills. In 1839 work was begun on the dam which was constructed of uncemented stone backed by earth, the resulting reservoir eventually covered one hundred acres. The dam provided a constant supply of water for the mills and allowed them to continually operate and prevented high water from causing further harm.⁴²

In 1866 the Churches decided to build two smaller dams upstream of the reservoir. It is unclear why they did this but we can assume that it was to gain even greater control over the water supply. The first dam was built simply of earth and retained twenty-five acres, the second was built on a tributary of Factory Brook and was constructed of earth and stone, this became known as Goose Pond.⁴³



Figure 6. Painting of Reservoir
This painting of the reservoir was done from a photograph by Mary Sternagle.⁴⁴

⁴² Sternagle p. 245

⁴³ Edward Church Smith p. 207

⁴⁴ Sternagle, p. 245, figure 57

⁴⁵ Edward Church Smith, p. 206

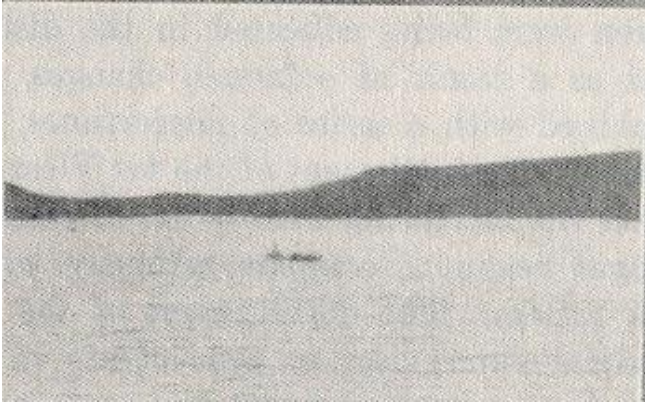


Figure 8. Fishing on the Reservoir

The reservoir was a popular fishing destination for locals and was also used in the winter to cut ice.⁴⁵

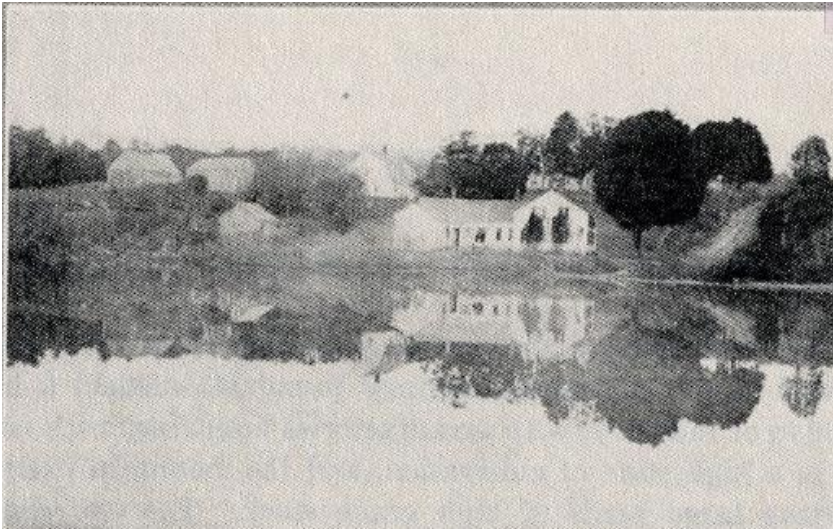


Figure 9. Farm on the Reservoir⁴⁶

⁴⁶ Edward Church Smith, p. 206

center of town). The population grew steadily until the village reached its peak of fifty-seven families in 1860.⁴⁸

Although Factory Village had several tenement houses, it was not like the many industrial villages which were built around factories for the specific purpose of housing workers. Instead, it had a gradual growth as the natural home for many of the factory workers. The village inhabitants were mostly of English or Irish descent although some were recent arrivals; there were also a number of German families as well as a large number of French Canadians.⁴⁹ Relations between the different groups seem to have been peaceful and there are no reports of conflict.

The workforce in the mills of Middlefield was very different from Lowell style factories which mainly employed young women, and also differed from the Rhode Island style mills which employed entire families, including children. Although there are not many surviving records of the mills, a ledger book kept by Uriah Church Jr. from 1823-1832 still exists. Church did not have a large number of employees, averaging between ten and twenty at a time. And the majority of these employees were men. For example, during the spring of 1824 fifteen men were in the mills along with three newly hired women.⁵⁰ As the mills grew in size so did the number of workers, but the largest number for any one mill was only fifty. A tiny number when one considers the thousands of people who could work in a single mill in Lowell.

⁴⁸ Edward Church Smith p. 393

In 1820 only 11 percent of the population lived in either Factory Village or the Center, this too hit its peak by 1860, as did the total population of the town which was 748. The only time that the population rose higher was in 1840 when approximately 1,000 laborers who were working on the Boston & Albany line camped in the town. Starting in 1860 there was a steady decline in population which went as low as 200 in 1950, today the population is on the rise again at about 500 people.

⁴⁹ Edward Church Smith p. 150

⁵⁰ Typewritten document of an old ledger, property of Uriah Church Jr. of Middlefield, MA (1823-1832) which was transcribed by Edward Church Smith 1948 and may be found in Historical Records at the Middlefield town office under section D



Figure 11. Tenement House in Factory Village

Taken in the summer of 1871, the Church Upper Mill is in the background, along with the 1815 Church mill. The building to the left was a double tenement which was lost in the 1874 flood.⁵⁰

in the business could not take a personal interest in the welfare of their co-workers.”⁵²

Due to the small scale of the business and the fact that as a small town the community would have been very close I can see how labor issues could have been avoided. And yet I also know of the many instances in which similar claims have been made, only to be refuted by the actual evidence; but in this case though we must take Edward Church Smith’s word unless records are ever recovered.

The workers in Middlefield worked long days, starting at six a.m. they had a half hour breakfast at seven-thirty; a half hour lunch at noon and an hour for supper; they often worked into the evenings until between seven and nine. There are no records of any labor disputes or strikes, and so it appears that the workers were content with their long hours and pay. Edward Church Smith writes, “The number of factory workers was not so large that the Church brothers who had grown up

⁵¹ Edward Church Smith, p. 147

⁵² Edward Church Smith p.150

There are several small facts that I did find that were of interest. One comes from the *Vital Records of Middlefield, Massachusetts, to the year 1850* and records the death of a William Smith whose death was “occasioned by falling into a dye kettle fill^d with hot liquor at U. Church Ju^f factory. Feb. 29, 1828.”⁵³ Although there will be injuries and deaths at any job I found this one particularly interesting and it made me wonder whether this incident indicates that there were unsafe working conditions. Another entry from the *Vital Records* is of the first ever suicide in town. John Gardener, born in Ireland, “Drowned himself in a fit of insanity supposed to be caused by intemperance in t[he] pond near Uriah Church’s factory. Dec. 19, 1830”⁵⁴ I can not help but wonder if this “fit of insanity” was caused by the working conditions of the mill. I do not know if Gardner even did work in the mills, but as an Irish immigrant it seems likely and raises questions as to why he would commit suicide. The last item of interest that I found was a listing of people who were known to have lived in Factory Village; in it is a man by the name of George Wilcox. He is identified as a, “boss carder, master man, able to make the lazy Frenchmen work- English, bullgod ways.”⁵⁵ I think that this indicates that the French Canadians were viewed as being “lazy” and shows that perhaps labor relations were not as smooth as we are lead to believe. I especially wonder what Wilcox did to make them work. But overall it does seem that there was an absence of labor problems which were so prevalent in the larger mills.

⁵³ *Vital Records of Middlefield, Massachusetts, to the year 1850*, (Boston, MA: New England Historic Genealogical Society, 1907) p. 134

⁵⁴ *Vital Records of Middlefield, Massachusetts, to the year 1850*, (Boston, MA: New England Historic Genealogical Society, 1907) p. 120

⁵⁵ Typewritten document of *Dwellers in Factory Village* transcribed by Edward Church Smith 1950 and may be found in Historical Records at the Middlefield town office under section I

VII. The Flood of 1874

A heavy downpour inundated Middlefield on July 10th and by the evening of the 11th the streams throughout Middlefield were overflowing their banks.⁵⁶ Worried about what effect this rain might have on the dams Deacon Harry Meacham went to check the dam near his farm which held back Goose Pond. When he arrive he was reassured by the fact that the dam was still intact and there appeared to be no seepage, but as he turned to leave he must have been horrified to see a huge section of the dam give way and the water begin to pour out. He raced home were he got his horse and quickly rode off to warn Factory Village of the impending flood.⁵⁷ At first there was hope that the reservoir dam would hold, but it soon broke from the pressure and opened a gap of sixty feet in the dam.⁵⁸

Although no one was killed, the village suffered appalling damages; many of the mills were entirely swept away, as were houses and other buildings. There was little left but a jumble of ruins and a rocky streambed which had been scoured of dirt by the torrent of water. Miss Sarah Chamberlain who had narrowly escaped the flood recalled vividly:

The great wall of water towering above us, rolling along like a great ball of mud with trees and branches moving up and down on the surface, it seemed to burst with a loud roar and swerve to the east, just missing our house, but carrying away all the fine soil and apple trees, leaving our once productive farm a desert of rocks and gravel.⁵⁹

⁵⁶ Sternagle p 2546

⁵⁷ There was a poem written about Deacon Meacham and his ride to warn the town, it is included in appendix A.

⁵⁸ Edward Church Smith p. 207-210

⁵⁹ Edward Church Smith p. 210

Further downstream, the double arch bridge under which the stream and road ran was completely washed away along with nearly 200 feet of track.⁶⁰ Damages amounted to \$330,000 with the Boston and Albany Railroad suffering a loss of \$100,000.⁶¹



Figure 12. Flood Images

These two pictures show the main road of Factory Village after the 1874 flood. All the dirt was carried away leaving only stone and gravel.⁶²



Figure 13. The Ruined Dam

Photograph of the dam after the flood, looking towards the village.⁶³

⁶⁰ "Another Mill River Valley Screen," *New York Times*, 14 July, 1874, p. 1

⁶¹ Sharpe p. 199

⁶² Edward Church Smith, p. 209

⁶³ Sternagle, p 247, figure 59

The outcome of the flood could easily have been very different, if Harry Meacham had not checked the dam the village would not have been warned and the results could have been devastating. But perhaps Meacham was wary of a dam break due to the catastrophic Mill River flood which had occurred only two months before. Only fifteen miles from Middlefield, the dam holding the Mill River reservoir which was one mile square and forty feet deep broke on the morning of May 16, 1874. The resulting flood destroyed the five mill villages of Williamsburg, Skinnerville, Haydenville, Leeds, and Florence; resulting in 139 deaths.⁶⁴ The Mill River flood was the most deadly dam failure on record in the United States, and it captured the attention of the nation; dozens of articles were written in the *New York Times* about the disaster. When the Middlefield dam broke only two months later, it demonstrated the unsafe nature of dams across the state. By the time 1874 came to a close \$1.4 million had been lost in dam failures and the state legislature appointed a new committee to oversee and inspect reservoirs.

The Middlefield reservoir was quickly rebuilt under the guidance of Emery C. Davis, a civil engineer who also oversaw the rebuilding of the Mill River dam. An article from the *Springfield Union-Republican* states,

In rebuilding the dam the Church brothers used a facing of cut stone in the section which seemed most vulnerable...large boulders were drawn from near-by pastures and meadows and cut to proper size. No upper reservoir was built so that the former source of danger was eliminated...an eighty foot spill way and gates took care of all high waters⁶⁵

⁶⁴ "Accounts from Special Correspondents" *New York Times*, May 17, 1874, p. 1

⁶⁵ "Unknown Title" *Springfield Union-Republican*, 3 September, 1939, Sternagle, p. 246

This construction was approved by the Hampshire County Commissioners and allowed the Churches to continue their operations.

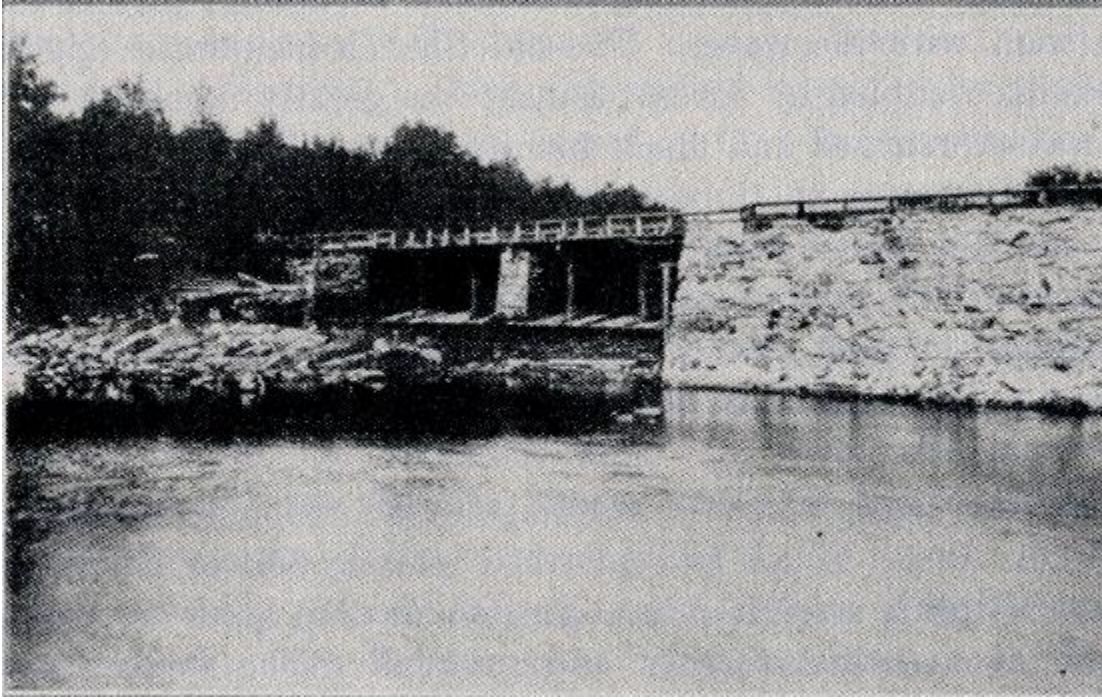


Figure 14. Rebuilt Dam

The dam as rebuilt after the flood, this image shows the road which traveled along its top.⁶⁶

VIII. Decline of the Mills

In 1855 the Church woolen business was still thriving, Uriah Church had died in 1851 but his four sons had taken over the business. The Churches had been forced to produce cheap, low quality twills due to the economic times, but Sumner Church, the oldest son, had devised a process in which a broadcloth of superior quality could be produced. This cloth was marketed as “Mountain Mills Gold Band Cloth” and sold in the markets of Boston, Philadelphia and Washington for twenty-five cents more per yard

⁶⁶ Edward Church Smith, p. 209

than any other brand. By 1855 the Churches were producing 40,000 yards of broadcloth each year.⁶⁷

After the outbreak of the Civil War in 1861 the woolen industry faced sudden changes. The broadcloth which had been so successful for the Churches had been purchased primarily by southern plantation owners and that market disappeared. But a demand for army supplies such as blankets and uniforms soon emerged; this kept the mills along Factory Brook busy day and night to supply the Union Army. For a time the cost of coarse wool, which was used for uniforms and blankets, rose to fifty cents a pound, more than was paid for fine wool at the time. After about two years of heavy production for the army, the scarcity of woolen cloth for civilian use allowed the Churches to resume broadcloth production. The following six years after the war were the most profitable for the Churches.⁶⁸

By 1870 Factory Village and the mills had reached the height of their prosperity. However, in December 1871 the two-story Church mill built in 1815 as well as the nearby Upper Mill caught fire and was destroyed; the Churches immediately began work to rebuild the Upper Mill, but it must have been very demoralizing to suffer such losses. This was followed by the loss of a large quantity of goods which had been sent to Boston to be sold, they were destroyed in the Boston fire of 1873. The climax of these losses was the Flood of 1874; the newly rebuilt Upper Mill was damaged, as were many other buildings and much machinery was lost.

With the rebuilding of the dam business continued for several years as it had before the flood and other losses, but decline was inevitable. Worsteds, a woolen cloth

⁶⁷ Edward Church Smith. p. 148-149

⁶⁸ Edward Church Smith, p. 149

⁶⁹ Edward Church Smith, p.147

made of combed rather than carded wool which has qualities of both wool and cotton, became popular and replaced broadcloth.⁷⁰ The Churches did not have any experience with Worsteds and never attempted to produce the cloth. Middlefield's isolated location proved to be a disadvantage because the large mills had begun relying on immigrant workers who could be paid less and worked for longer hours. Steam power, which was more efficient and generated more power than the water wheel, also came into use in the industrial centers. In the late 1870's two of the Church brothers left the family business. When Sumner Church died in 1884 leaving only Oliver Church to continue the business, it signaled the end of the Church woolen business. Oliver Church carried on for six more years, but the burden must have been too much and he closed the mills in 1890, almost one hundred years after Herrick's fulling mill had first been erected on Factory Brook.⁷¹

VIII. The Last Flood, 1901

The mills passed through a string of owners during the 1890's as several businessmen made unsuccessful attempts at putting the mills to profitable use. These efforts included a stocking-knitting business, followed by wire goods manufacture and finally a quartz-crushing industry. Included with ownership of the mills was that of the dam, and so by 1901 it was owned by people who had no experience with the heavy rains and possibility of floods on Factory Brook.

After a week of heavy rains, followed by a twenty-four hour downpour the Middlefield reservoir had reached capacity on April 12, 1901. The floodgates had all been closed due to a dry spell and the new dam owners did not realize the danger of

⁷⁰ Rivard, p. 124-125

⁷¹ Edward Church Smith, p 218

waiting to raise them. At four p.m. when the foreman finally attempted to raise the gates, the pressure was so great that they were unable to. As they struggled with the floodgates the water reached the top of the dam and began trickling over the road which ran along its top. After one hour the water breached the dam and surged down towards Factory Village.⁷²

Luckily, after realizing that the flood was inevitable, the village had been warned and no lives were lost. The village suffered great damage, the flood split in two with some of the water sweeping along the road through Factory Village and causing great destruction. Many of the houses were damaged and foundations weakened, entire buildings were swept away in the surging waters. The newly rebuilt Upper Mill was hit hard by the



Figure 16. Maine Street of Factory Village
All the dirt has been carried away, all that is left is rocks and boulders.⁷³



Figure 15. Aftermath of the 1901 Flood⁷⁴

⁷² Edward Church Smith, p. 220

⁷³ Edward Church Smith, p. 224

⁷⁴ Edward Church Smith, p. 224

flood and nearly all the old mills were either swept away or damaged beyond repair. The road which ran along the river was entirely washed out and an iron bridge which crossed the stream was carried away. Once again the railroad arch was destroyed and left a one hundred and fifty foot gap.

Interestingly, this flood once again hit Middlefield at a time when the danger of flooding was on the nation's mind. There had been heavy rains across the country and there were fears of flooding in Alaska, Pennsylvania, Georgia, New York and Tennessee. The small town of Middlefield was once again in the national spotlight due to its dam break and resulting flood.⁷⁵

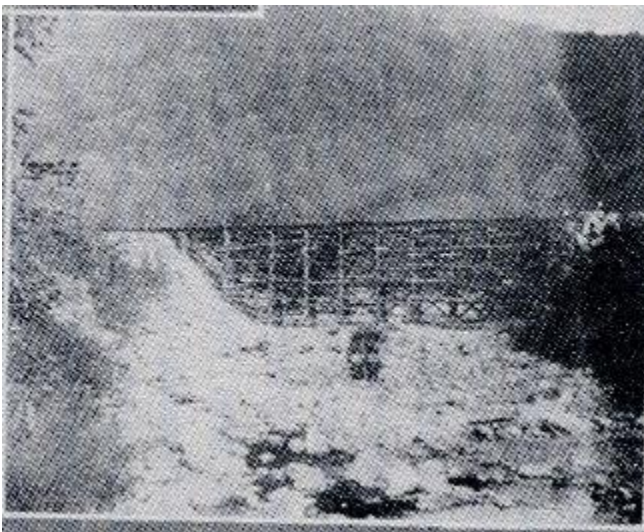


Figure 17. Flood Damage

The washed out stone railroad arch with a temporary wooden bridge and the site of the iron bridge which was carried away in the flood.⁷⁶

Nearly all evidence of the thriving woolen industry was swept away in the 1901 flood and the existence of the mills began to fade from memory. If one is to drive along Factory Brook today there is no evidence of Factory Village at all, although a few of the

⁷⁵ "Flood in New England," *the Rome Citizen*, 23 April, 1901, p.1

⁷⁶ Edward Church Smith, p. 224

stone foundations do exist if one is willing to climb along the rocky stream to search for them.

Conclusion

A question which I asked myself when I began to research this topic, and that I continued to ponder as I learned more, was *why Middlefield?* Why was the woolen industry so prosperous here and yet disappeared almost entirely? It seemed strange to me that anything other than agriculture could have prospered in my isolated little hilltown. But the more I learned the more I understood why.

The woolen industry was uniquely fitted for towns such as Middlefield. With rugged terrain and rocky soil it was difficult for farmers to grow large quantities of crops to sell at market. But livestock such as sheep were a perfect fit; they could thrive on the rough hills of Middlefield. The isolation of the town made transportation a challenge due to the rough roads and long distances over which the farmers would have to transport their goods to market; and we see how this isolation led to the incorporation of the town. The wool mills provided farmers a local market at which to sell their wool and harnessed the natural resource of water power.

This arrangement between farmer and mill owner was mutually beneficial and allowed for great prosperity in a rugged and difficult landscape. As Edward P. Smith declared at the town's Centennial Celebration, "Middlefield farmers were never more prosperous, never had more money, than in the thirty years devoted to wool-growing"⁷⁷ Despite its small size, Middlefield was able to compete with towns far more settled and

⁷⁷ Edward P. Smith, p. 38

The thirty years which he refers to is most likely the period from the 1830's to 1860's when the woolen mills were most prosperous.

developed than itself and was the third largest wool producer in the state. Indeed it is at the height of the wool industry that Middlefield had its greatest population, which even today has not been matched. Middlefield would have remained a poor, undeveloped farming community if it had not been for the woolen mills.

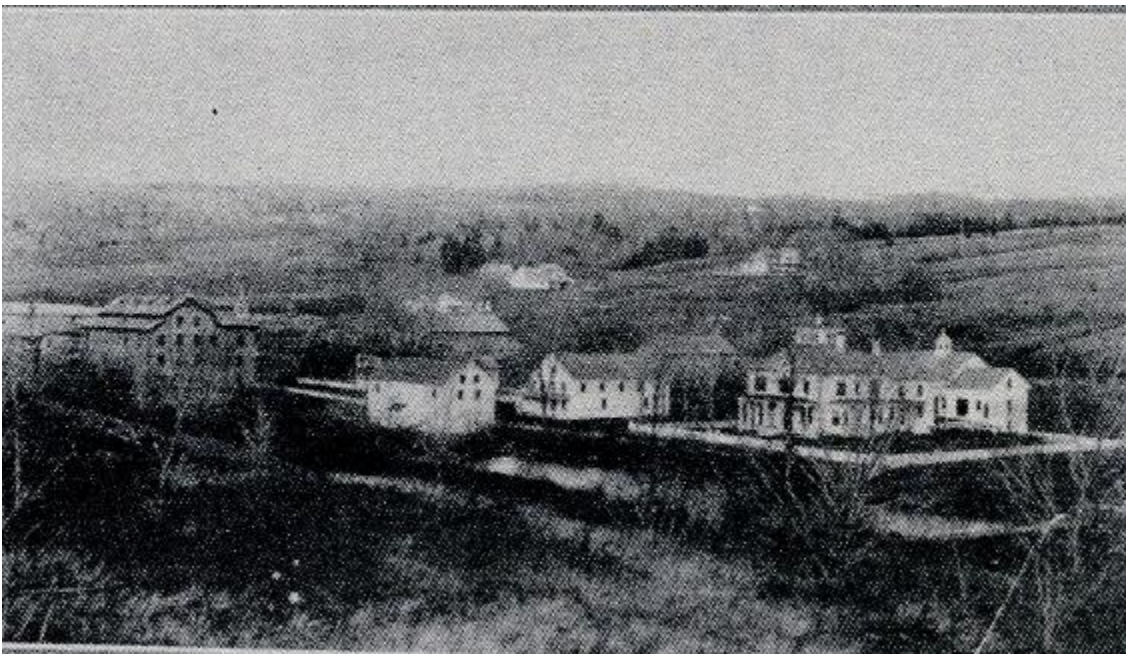


Figure 18. Factory Village, 1840's

A photograph of Factory Village at its height, the Upper Mill is clearly visible as is one of the Church houses.⁶⁴

What I view to be the greatest tragedy is how this rich and intriguing history has been forgotten. The woolen industry had a swift decline in the 1880's to 90's but it was the flood of 1901 which swept away the physical remains and since then the wear of time has swept away many of the memories. Not a single mill of any kind is left in Middlefield; there were already a dozen mills in Middlefield by 1800. In the hundred years which followed there must have been many more built, yet none remain. Many were destroyed by the very streams which gave them life, others by fire, and others by the

⁷⁸ Edward Church Smith p. 213

simple wear of time. This happened across New England and the mills which were the lifeblood of many communities were lost to distant memories. Perhaps this is one of the reasons why these mills have been so neglected by historians; they have no physical presence to remind us of their existence. And yet the vital role which these mills played in supporting the economy and culture in towns like Middlefield should not be underestimated. Without the woolen mills there would be no Middlefield as I now know it, and to ignore the mills is to skip an important chapter in our history as a town, as a state and as a country.

Appendix A

This poem was written by Arthur Haskell of Peru about the 1874 flood and Deacon Harry Meacham's ride to warn Factory Village. It was printed in a Southbridge newspaper.

The Middlefield Flood

Good Deacon Meacham, aged and gray,
 Sat in his house on a Sabbath day
 Reading about Father Noah and his flood,
 And his great big ark of gopher wood.
 And he suddenly closed the sacred book
 And went to the window to take a look
 At the green old Middlefield hills and plains,
 He said to his wife, "I declare, how it rains,"
 And his good old wife also declared that she had
 Never seen such a shower in all her born days,
 Except when Noah went into the ark with all his worldly gains.

So the deacon took down his old umbrel'
 And went out in the rain which in torrents fell,
 Soberly thinking of floods and disasters,
 Fearing the cows might get drowned in their pastures.
 For he knew that the reservoir down at the brook
 Was full to the brim, and had a serious look.
 So he hurried along, this venerable man,
 And stood at the top of the reservoir dam,
 And to his astonishment he saw that goose-pond
 Had broken loose and that the dammed waters were
 Rushing through the dam like a wild ram.

So he hurried back in fearful alarm,
 Mounted old Dobbin that stood in the barn,
 Not stopping for saddle, for spur or for goad
 He shouted "Get up here" and dashed down the road,
 Down, down to Blush Hollow he fled like the wind
 His hair and his coat-tails both streaming behind,
 And his neighbors were shocked on that wet Sabbath day,
 To see the good deacon rushing that way,
 For they concluded that he must be mad or crazy, or at
 Least something dreadful was to pay.

But on flew the deacon, not stopping to hear
 The roar of the waters most dreadfully near,
 And the clatter of hooves and the pant of his horse
 Like a cavalry charge shook the earth in its course,

Till the folks of Blush Hollow stood breathless and pale
As the deacon and Dobbin rushed into their vale,
For he warned them to “get up and git” instantly
Both young and old, male and female.

Like the roar of a hurricane on came the flood
With the crash of an avalanche through the tall wood,
It came roaring and sweeping with terrible might,
For mill, bridge and dwelling, unable to stand,
Were swept down the stream with flood-wood and sand,
But the warning of good Deacon Meacham that day
Saved the folks of Blush Hollow from swimming away.
And when he saw not a life was lost not even a pig’s,
He went home like a man, gave Dobbin some oats,
Took down his Bible and read some more about Noah and his flood,
And said to his wife, “I declare, this is dreadful, let us pray.”

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