

Explore Amesbury: Textile Manufacturing

Hello kids, families, and friends,

This activity guide is the fourth, in a series of five, focusing on the people and places of Amesbury, and centering on our historic Millyard, once home to busy textile mills. You may know that textile manufacturing became the dominant industry in Massachusetts during the Industrial Revolution. Amesbury was one of about 45 mill towns that were established across the state.

Print this brief guide and visit the Amesbury Upper Millyard. Your visit won't take long -- maybe 15 minutes, tops! We also hope that you'll follow up with some at-home activities and further readings we suggest.

Table of Contents

VISIT	2
Investigate the Upper Millyard by going there with this Guide.	
BY THE NUMBERS	3
A brief introduction to Amesbury's textile history.	
AT-HOME ACTIVITY	9
Try some weaving projects at home..	
GLOSSARY	11
Learn word meanings that may be new to you.	
SOURCES	13
From research and writing that Amesbury historians have published at amesburycarriagemuseum.org .	

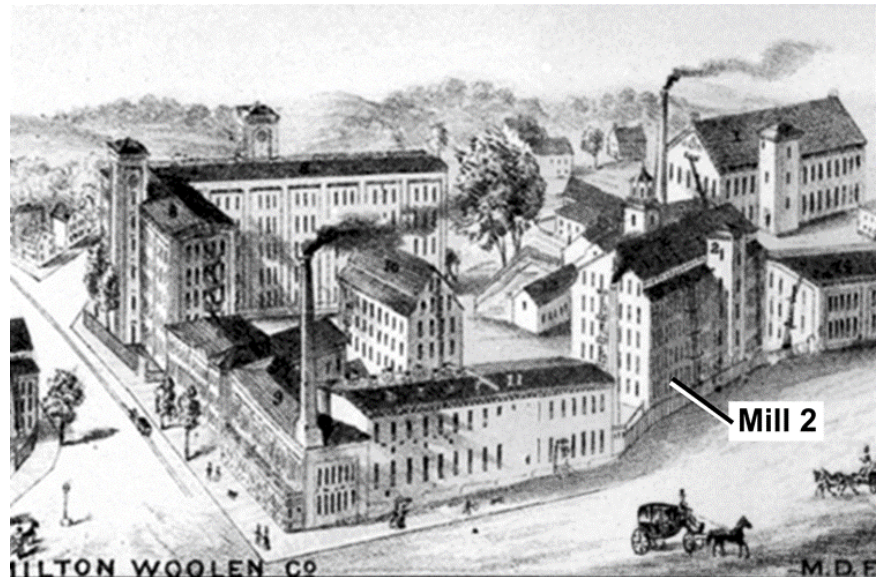
Explore Amesbury: Textile Manufacturing

VISIT

Around 150 years ago Amesbury's Millyard once housed huge mill buildings up and down both sides of the Powow River and across Market Street.

This picture gives you a glimpse of what this area looked like!

For today's walking tour, we invite you to enter the Upper Millyard by the Counting House. Walk along the brick pathway, up past Mill 2.



Try to visualize 17 mills of equal size to Mill 2, surrounding you and towering over the landscape in both the Upper and Lower Millyard.

Take a left at the Gristmill Stone and cross the bridge at the falls. Are there ducks in the pond today? Travel back down the other side of the river into the amphitheater.

As you walk, imagine this Millyard as it once was during the 19th century. Massive buildings spew dust, lint, and smoke into the air. The loud noise of industry makes it hard to hear people speaking with you. Workers hurry from building to building, transporting materials to the next step in the manufacturing process. It's true. Many building are gone. But the history remains.

For this edition of *Explore Amesbury*, instead of preparing a **sequential** tour guide for you, we offer a brief introduction to Amesbury's textile history. We call it *Textile Manufacturing: By the Numbers*.

Explore Amesbury: Textile Manufacturing

BY THE NUMBERS

1

Textile manufacturing was the # 1 industry in Amesbury for around 100 years (1810-1912). Textile, cloth, or fabrics are similar names for these manufactured materials.

Everything that you are wearing today (jeans, shirt, socks, etc.) was made in a textile factory. It'd be fun later to look at the labels to see where your clothes were made. Then, see if you can find the country on a world map.

2

New England's textile mills were the "birthplace" of the American **Industrial Revolution**, and Amesbury's Mill 2 was part of that history. Mill 2 began as a textile mill that manufactured everyday fabrics: woolen cloth and cotton.

The Industrial Revolution was a dynamic period in American history with changes in technology, work, and daily life. One example of change was that women, men, boys, and girls who had worked on the family farm and **homestead** took up work in factories. (See picture of "*The Bobbin Girl*" by Winslow Homer, 1871).

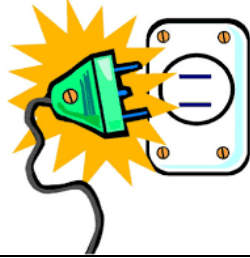


We know that some factory workers started work at age ten and then went to school for just a few weeks in the summer. What do you think of that schedule?

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3

Three types of energy powered huge looms in Amesbury's factories over the years: water power from the Powow River, then **steam power**, and later electric power.



Think about the energy that your family uses. How do you heat your home? What fuels your car? What powers your TV, computer, lights, and appliances?

4

Four groups of people made Amesbury's mills a success: business owners, inventors, **mechanics**, and workers. Each person brought their talents to work at the mills.

Unfortunately, the textile companies had ups and downs. The workers were paid when products sold. On the other hand, the workers suffered pay cuts, layoffs, or longer work hours when companies were struggling. This caused conflicts between owners and workers.

5

Five dams were built before 1825 to capture the flow of the Powow River. These dams powered the many mills that flanked both sides of the river from Pond Street down to tidewater.

Most of these mills are gone today, but the sound of the waterfalls when the river flows reminds us of the power of water.

You probably recognize the location of the dam in this picture. The photographer stood near the bridge in the Upper Millyard.



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6

Six companies ran textile mills in Amesbury's Upper and Lower Millyard: Amesbury Wool & Cotton Mfg. Co.; Salisbury Woolen Mfg. Co.; Amesbury Flannel Mfg. Co.; Salisbury Mills Mfg. Co.; Essex Mills Textiles W. & S.; and Hamilton Woolen Mfg. Co.

These companies attracted local workers as well as immigrants from Ireland, French Canada, England, and other countries to Amesbury. Can you imagine leaving your home country and going to a foreign land where you knew no one and perhaps could not speak the language?

All of the factory workers shared a common goal: to earn money to help support their families. All of the factory workers faced the difficulties of a long workday, loud machines, repetitive tasks, and excessive heat or cold.

7

To help you imagine how textiles were manufactured, here are the **seven** steps in the process:

1. Workers opened **bales** of **raw** wool or cotton that had been delivered.
2. Workers cleaned the fibers with machinery that **carded** and spun the fibers into yarn.
3. Huge **looms** wove the yarn into cloth.
4. Cloth was dyed and printed.
5. Cloth was **fulled** (cleaned).
6. Workers inspected and packed the textiles.
7. Textiles were shipped via **stage travel**, water travel, and later train.



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Weave room in Mill 2, Amesbury

10

Textile manufacturing in Amesbury hit a **10**-year peak from 1870-1880. About 1300 people were employed in the textile mills then, which was 1 out of every 5 people who lived here.



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12

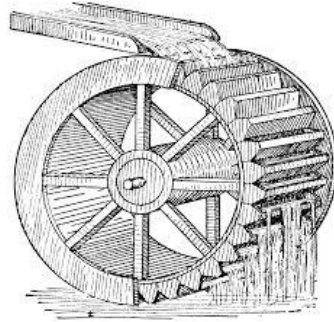
There's a brick building directly at the top of the Amphitheater steps. This is Mill 12, which once served as a dye house. Yarn and woven cloth were brought here and placed in huge tubs. Using heat, dyes, chemicals, and water from the Powow River, workers colored the textiles.

Unfortunately, before humans began to protect the environment, the river also served as a sewer. Dyes and chemicals were flushed into the Powow and eventually washed away into the Merrimack River.

20

It is hard to imagine this today, but the water from the Powow actually flowed through Mill 2.

A gate outside the building controlled the flow of water into the



building. When the gate was open, the water flowed against a 20 foot diameter water wheel. As the wheel turned, this rotating motion powered a series of belts and pulleys that drove machines on each floor. The water then was channeled through a tailrace and back to the river.

1852

In 1852 Amesbury native George McNeill led the textile factory workers on a **strike**: a work stoppage. McNeill had worked in various Amesbury textile mills since he was 10 years old. He and others protested for better pay and working conditions.

It took courage for George, who was only 16 years old at the time, to speak up for justice. He continued to speak out for workers' rights all of his adult life. Amesbury is proud of George McNeill, and we have a plaque dedicated to him next to the police station.

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1898

In **1898** Harriet Robinson wrote a famous book *Loom and Spindle*. Harriet explained that before textile manufacturing began “material for clothing was grown on the home farm, and spun and woven by women...”



Before becoming an author, Harriet had worked in Lowell Mills. Like so many of New England’s factory workers Harriet saw work in the mills as a way to better the financial life of her family. She also described factory work as a school of sorts, in which young people learned the **discipline** of hard work.

Today, children learn discipline through their dedication to schoolwork, a sport, music, coding, etc.

1912

The year **1912** marks the end of the 100-year textile industry in Amesbury. Hamilton Woolen Company closed its doors.

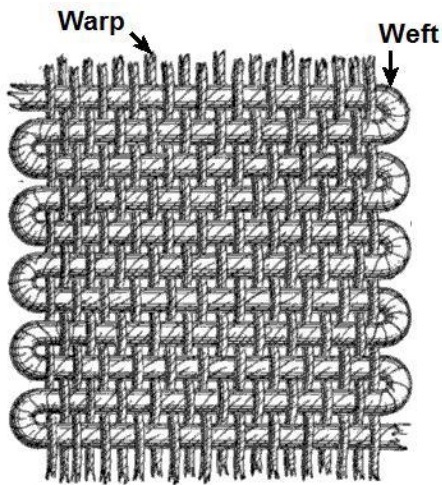
Learning a bit about Amesbury’s textile history, you can better understand a few things:

- We can learn about the past from looking at the **built environment** of a city.
- As humans interact with the natural environment, it causes change.
- Cities change. Nothing stays the same.
- Human beings have creative potential.
- People often move to find work.

Explore Amesbury: Textile Manufacturing

AT-HOME ACTIVITY

For thousands of years people have been weaving. People have connected branches and twigs to create baskets, fences, and shelters. People have also used fibers from plants and animals to weave textiles that were made into clothing, rugs, blankets, and other items for the home.



Even though the weaving process has gone from hand-woven objects to machine-woven textiles, the basic technique hasn't changed much over the years. If you'd like to try some weaving, you and an adult can decide which weaving project(s) would be good for you!

Here are a few suggestions to get you started. There are countless other ideas in books and on the Internet; we just gathered a few for you!

WEAVING PROJECTS

For kids of various ages and dexterity levels:

1. Paper Weaving: <https://www.madewithhappy.com/paper-weaving/>
2. Circle Loom Weaving: <https://cassiestephens.blogspot.com/2014/04/in-art-room-circle-loom-weaving-with.html>
3. Paper Plate Woven Bowls: <https://happyhooligans.ca/paper-plate-woven-bowls/>
4. Straw Weaving: <https://www.designdazzle.com/straw-weaving-bracelet-ideas-tutorial/>
5. Weaving with Plastic Lid Looms: <https://babbedabledo.com/art-kids-basic-weaving-plastic-loom/>
6. Plastic Bag Weaving: <https://www.persil.com/uk/dirt-is-good/arts-crafts/plastic-bag-weaving.html>

Explore Amesbury: Textile Manufacturing

7. 30 More Weaving Crafts for Kids: <https://www.merakilane.com/30-simple-weaving-crafts-for-kids-youll-wish-you-tried-sooner/>

For older children:

1. Willow Weave a Fish: <https://www.youtube.com/watch?v=qVIFrBLICrA>
2. How to Make a Loom: https://www.education.com/activity/article/Weave_it_by_hand/

Explore Amesbury: Textile Manufacturing

GLOSSARY

bale	n. a large bundle of hay or raw material, tightly bound to keep its shape during shipping or storage
built environment	n. the human-made environment that provides the setting for human activity, ranging in scale from buildings to cities and beyond.
carded	v. to comb out and clean wool, cotton, and other fibers before spinning
channel	v. guided
discipline	n. training for something; calm, controlled behavior
dye	n. a substance that can be used to color something
homespun	adj. made of fabric spun or woven by hand at home
homestead	n. a farmhouse with its support buildings and land
Industrial Revolution	n. the social and economic changes that began in the late 18 th century and involved widespread factory methods of production
loom	n. a hand-operated or machine-operated device for weaving thread and yarn into cloth
manufacturing	v. to make something into a finished product using raw materials, especially on a large industrial scale
mechanic	n. a skilled worker who repairs or operate machines or engines
raw	adj. not processed
sequential	adj. in order

Explore Amesbury: Textile Manufacturing

stage travel	n. travel by stagecoach, which is a type of horse-drawn coach for passengers and goods.
steam power	n. The most important new invention of the Industrial Revolution was the steam engine, used to power the factories and railway engines. The heat from burning coal became the main source of the power.
strike	n. to stop working as a group form of protest against an employer
textile	n. cloth or fabric that is woven, knitted, or otherwise manufactured. People use textiles to make clothing, towels, sheets, table linens, carpets, boat sails, flags, and many other things.
tailrace	n. a channel that carries away water that has passed through a mill wheel
waterwheel	n. a hydropower system; a machine for extracting power from the flow of water.

Adapted from *Encarta Dictionary* and *Kiddle*

Explore Amesbury: Textile Manufacturing

SOURCES

We relied heavily on the Amesbury Carriage Museum website for information about textile production in Amesbury, in particular:

- *Amesbury Industrial Database – up to 1930* by Mike Harrold
- *A Mill 2 Scrapbook* by John Mayer
- *Graphing History: The Rise and Fall of Amesbury Textile Making* by Mike Harrold
- *The Docks of Amesbury and Salisbury Mills* by Tom Murphy
- *The Rise of Textile Mills along Amesbury’s Powow River* by Mike Harrold

Other sources of Amesbury history were:

- *Amesbury Reconnaissance Report*, by Massachusetts Department of Conservation Recreation. Essex National Heritage Commission
- Role of the Massachusetts Textile Mills in the Industrial Revolution.
<https://historyofmassachusetts.org/massachusetts-textile-mills/>
- *The Lower Merrimack River Valley: An Inventory of Historic Engineering and Industrial Sites*. Sponsored by Merrimack Valley Textile Museum and Historic American Engineering Record

Books available at Amesbury’s Library that might be of interest to you:

- *Kids Weaving* by Sarah Sweet
- *Loom and Spindle* by Harriet Robinson
- *Lowell Mill Girls: Life in the Factory* by Discovery Enterprises
- *Mill Girls of Lowell* by Jeff Levinson
- *Textile Crafts* by Annalees Lim
- *The Mill Girls* by Cobblestone
- *Unraveling Fibers* by Patricia A. Keeler and Francis X. McCall, Jr.
- *You Can Weave! Projects for Young Weavers* by Kathleen Monaghan and Hermon Joyner