Chapter 12: Industry and the North, 1790s–1840s

Chapter Review

I. AMERICAN COMMUNITIES Women Factory Workers Form a Community in Lowell, Massachusetts

In the 1820s and 1830s, young New England farm women went to Lowell, Massachusetts to work at one of the first textile factories in America. The investors wanted to keep Lowell free from dirt, poverty, and social disorders that were common in English factory towns. Westward expansion resulted in a chronic shortage of labor: hence, Lowell turned to young farm women, a previously underutilized labor force. Life working in a textile mill required a precise work schedule. This represented perhaps the biggest change from preindustrial work habits. By the 1850s, Lowell shifted to cheaper Irish immigrant workers, ending the philanthropic experiment in a quest for profits. Lowell exemplifies Northern industrialization, as a largely independent farming population became a largely dependent wage-earning one. The market revolution changed how people worked, lived, and thought and increased contrasts between North and South.

MHL document: A Week at the Mill (1845) at www.myhistorylab.com

II. THE TRANSPORTATION REVOLUTION

Between 1800 and 1840, the United States underwent revolutionary improvements in transportation. This improved transportation had important effects on both individual movement and on the economy. People now had easy access to cities and towns where they could buy goods made in faraway places. As people became more mobile, their experiences grew, as did their horizons. People in 1840 had much different experiences and expectations than people in 1800.

a. Roads

In 1800, local roads were poor. By 1808 the federal government demonstrated its dedication to improving the nation’s roads by funding the National Road, which would, by 1839, tie the East and West together.

b. Canals and Steamboats

While the National Road was an improvement in transportation, it was still inadequate in terms of commerce. Waterborne transportation was cheaper and was still the major commercial link between the Atlantic seaboard states and the Mississippi-Ohio River system. A more efficient east-west link was needed. Canals turned out to be the solution. Building the Erie Canal, the idea of New York governor DeWitt Clinton, was a vast engineering and construction challenge, but built in less than ten years. The Erie Canal successfully rerouted European-American commerce inward to America’s heartland. This
built both interstate commerce and feelings of community. Improvements in water transportation were equally important to the nation’s economic development. Steamboats greatly stimulated trade in the nation’s interior through the use of the nation’s river system. These improvements stimulated not only commerce but also urban growth: Between 1790 and the 1830s, Cincinnati transformed from a frontier outpost to a market and manufacturing center.

**MHL audio: The Erie Canal at [www.myhistorylab.com](http://www.myhistorylab.com)**

**MHL document: Extract from Albany Daily Advertiser (1819) at [www.myhistorylab.com](http://www.myhistorylab.com)**

c. Railroads

From the first lines in 1830, by 1860 there were 31,000 miles of railroad track. The spread of railroads encouraged the modernization of the American iron industry to keep up with demand for iron rails. The first railroads were short and local, which resulted in problems of standardization. It was not until the 1860s that local railroads began the process of consolidation into larger, more regional, systems.

d. The Effects of the Transportation Revolution

Improvements in transportation increased economic growth by making distant markets accessible. The transportation revolution also encouraged an optimism and risk-taking mentality among Americans that stimulated further invention and innovation.

**III. THE MARKET REVOLUTION**

The market revolution was the result of three interrelated developments: the rapid improvements in transportation, commercialization, and industrialization. Commercialization involved the use of the cash economy rather than self-sufficiency and barter. Industrialization was characterized by the use of machinery used to produce goods that at one time had been made by hand.

**MHL video: Nineteenth-Century Industrialization at [www.myhistorylab.com](http://www.myhistorylab.com)**

a. The Accumulation of Capital

In the early nineteenth century, international trade was difficult for many wealthy Americans. They turned their investment money toward local investments rather than investments abroad. Southern cotton provided the capital for continuing Northern development. The surprising wealth that cotton brought to southern planters, and to northern merchants, brought about the market revolution, fueled by national pride as well as faith in the future of an expanding nation.

b. The Putting-Out System
Originally the American business community utilized a system known as “putting out,” where people produced goods at home under the direction of a merchant who gave them the raw materials and paid them for each finished piece. This system allowed the capitalist to employ much more labor at a similar investment than the artisan workshop system. This system put control of production in the hands of merchants, not individual artisans. It also resulted in the specialization of the national market. Although originally applied to the shoe industry, “putting out” was soon used to organize the production of flax spinning, straw braiding, glove making, among others.

c. The Spread of Commercial Markets

The putting-out system meant a loss of independence for many artisans. However, many New England farm families liked the new system because the work could be divided among several family members and the cash pay provided income to purchase newly available mass-produced goods, a more efficient exchange system than barter. Western farmers were commercialized from the start and played a major role in expanding markets.

IV. THE YANKEE WEST

Advances in transportation also made it easier for farmers to get their crops to market. Improvements in agricultural machinery increased the acreage a farmer could put under cultivation. When combined with the availability of fertile and available land in the heartland, farmers moved away from subsistence agriculture and embraced the production of crops for cash.

a. New Routes West

The opening of the Erie Canal in the 1830s encouraged people to migrate from New England to Ohio, Illinois, Indiana, Wisconsin, and Michigan. By 1850, migrants from New England made up 40 percent of the population of the Old Northwest. They brought with them a distinctive culture of community building. They immediately established schools, churches, and local governments in their new locations.

b. Commercial Agriculture in the Old Northwest

Subsistence farming had characterized colonial New England. Government policy, which encouraged western settlement, also inadvertently encouraged the adoption of commercial agriculture so that families could earn the money needed to purchase western lands. This new commercial agriculture in turn encouraged regional specialization in specific crops. With the constant availability of new farmland and the availability of new farm tools such as John Deere’s steel plow and Cyrus McCormick’s reaper that increased productivity, by the 1850s the Old Northwest became America’s agricultural heartland.

c. Transportation Changes Affect Western Cities
The opening of the Erie Canal and canals in Ohio and Illinois in the 1830s made St. Louis the distribution point for goods sent westward via the canal system. In the 1840s the region’s distribution system changed again. This time railroads routed goods to Chicago, the region’s new distribution hub. New Orleans, which had previously served this role, lost out to the new transportation links that tied New York and New England to the Old Northwest.

V. INDUSTRIALIZATION BEGINS

Industrialization radically changed the way people worked.

a. British Technology and American Industrialization

Industrialization began with technological changes in the textile industry. The fastest and easiest way for America to industrialize was to copy the British. Samuel Slater built copies of the newest British machinery for Moses Brown and William Avery. Following British practice, the workforce at Slater’s mill was predominantly made up of children and women.

MHL biography: Samuel Slater at www.myhistorylab.com

b. The Lowell Mills

At the Lowell Mill, Lowell and Moody improved on British models by making the machinery for spinning cotton more efficient and by inventing a power loom. These innovations meant that the entire textile manufacture process could be housed in one factory. In 1814, the world’s first integrated cotton mill opened in Waltham, Massachusetts. A new mill town, Lowell, grew to 17,000 people by 1836 as the large mills proved more profitable than small village mills.

c. Family Mills

More common in the early days of industrialization were small mills using water power. The owners of these small mills often hired entire families, thus the name family mills. Relations between these small mill communities and surrounding farm communities were often strained. Industrial work led to new social distinctions that further contributed to the lack of community sentiment between mill communities and their rural neighbors.

MHL document: Employers Advertise for Help Wanted in the 1820s at www.myhistorylab.com

d. “The American System of Manufactures”

The most important invention of the Industrial Revolution was the development of standardized parts. The use of interchangeable parts was so unique and unusual that the
British referred to it as the American system. The concept of standardized parts came from Eli Whitney. Originally intended to simplify the manufacture of rifles, the idea was soon being applied to countless other manufacturing processes. The widespread adoption of interchangeable parts in America enabled American businesses to provide mass-produced, high quality goods to ordinary people earlier than European countries.

VI. FROM ARTISAN TO WORKER

The changes brought about by the market revolution had a major and lasting impact on ordinary Americans. In 1800 approximately 12 percent of Americans labored for wages. By 1860, nearly 40 percent of Americans engaged in wage labor.

a. Preindustrial Ways of Working

When Lowell began operating, 97 percent of Americans still lived on farms. Most peoples’ lives were family and community-based. Networks of barter and mutual obligation helped people meet their daily needs. Work, which was task-oriented, was slow and unscheduled. Most importantly, “home” and “work” were not separate places. Men were both heads of families and bosses of the shop.

b. Mechanization and Gender

The market system’s increased production with specialization and division of labor destroyed the apprenticeship system, which was replaced by child labor. Industrialization posed an eminent threat to the independence of skilled male workers. Previously, working families had been organized in a patriarchal hierarchy. Industrialization brought about the breakdown of this system and with it the loss of respect and control by the family patriarch. In the 1820s, the garment industry further undermined the patriarchal system by employing mostly women to provide intensive labor for low wages.

MHL document: Female Industrial Association (1825) at www.myhistorylab.com

MHL document: A New England Factory Issues Regulations for Workers in 1825 at www.myhistorylab.com

c. Time, Work, and Leisure

Preindustrial work had a certain flexibility that factory work did not have. It took time for factory workers to adjust to this new pace of constant work. Another adjustment required by industrialization was the separation of work and leisure into two distinct activities. These changes in turn made working-class leisure activities and amusements more visible and distinct than they had previously been.

d. Free Labor
The market revolution also triggered a switch in the economy from a barter-based to a cash-based system. At the center of the industrializing economy was the idea of free labor. Free referred to individual economic choice but soon came to encompass a range of attitudes including hard work, independence, and self-discipline. The spread of the factory system and free labor in the North soon became an issue in the growing political animosity between the North and the South over slavery.

e. Early Strikes

Rural women workers led some of the first strikes in American labor history, including a strike at Lowell in 1834. Regardless of gender, most turnouts or strikes of factory workers in the 1830s were unsuccessful. Owners were able to find new labor, frequently immigrants, who would work for lower wages. The preindustrial notion of a community of interest that included both the owner and the workers had broken down. Workers began to band together to act in their own best interests winning state ten-hour laws in New Hampshire, Maine and Pennsylvania by 1849.

VII.  THE NEW MIDDLE CLASS

The market revolution fundamentally changed the social order by creating a new middle class with distinctive habits and beliefs.

a. Wealth and Rank

There had always been social divisions in America. Prior to the market revolution, this social hierarchy had been fairly stable. The market revolution brought with it a new social mobility previously unknown in American social divisions. The emerging middle class, white-collar workers owed both their jobs and their lifestyles to the new organization of industry.

b. Religion and Personal Life

The Second Great Awakening helped spread a new evangelical religious spirit that was more democratic and enthusiastic than earlier faith had been. This new religious feeling promoted individualism and self-discipline. By the 1820s, evangelical religion was reaching the people whose lives were being changed most by the market revolution. This new faith helped people adjust to the demands made by the new economic system. Middle-class women especially responded to Finney’s message while businessmen could reject paternalism in favor of a regulated workplace.

MHL document: Charles Finney, What a Revival of Religion Is (1835) at www.myhistorylab.com

c. The New Middle-Class Family
The market revolution also helped reshape family roles. As men concentrated their energies on careers outside of the home, women concentrated on the responsibilities of raising children and caring for the home. As the work roles of middle-class men and women moved further apart, so, too, did social attitudes about the appropriate behavior for men and women. The achievement and maintenance of a middle-class lifestyle required the joint efforts of both husband and wife. Middle-class couples had fewer children than their predecessors and practiced a variety of consensual birth-control methods to ensure that this would be the case.

MHL document: Catharine Beecher, from *A Treatise on Domestic Economy* (1841) at www.myhistorylab.com

d. Middle-Class Children

The children of the new middle class needed a new kind of upbringing that included long periods of nurturing in the habits and beliefs needed to ensure success in the industrialized world. Middle-class families often sacrificed in order to keep their sons in school or professional training. Thus, middle-class success was not a matter of individual achievement. It was based on a family strategy where the father provided income and the mother guidance.

MHL document: *Mother’s Magazine* (1934) at www.myhistorylab.com


a. Sentimentalism and Transcendentalism

Sentimentalism came from a sense of nostalgia for the imagined trust and security of the familiar and personal life of the preindustrial village. As part of their new roles within the family, middle-class women were expected to counteract the impersonal and cold reality of the business world through their own sincerity and morality. Transformed into a set of rules about proper manners, sentimentalism soon became a mark of middle-class status. Ralph Waldo Emerson popularized the romantic philosophical theory of transcendentalism. The theory claimed that there was an ideal and intuitive reality transcending ordinary life. The best place to achieve that individual intuition was alone in the natural world. Transcendentalism, or self-reliance, was at the center of the personal transformation required by the market revolution. Henry David Thoreau and Margaret Fuller were other successful Transcendentalist authors who combined intellectual ambition with romantic sentimentalism.

MHL document: *Henry David Thoreau, Walden* (1854) at www.myhistorylab.com

VIII. CONCLUSION
The market revolution was based on improved transportation, commercialization and industrialization. Although the changes wrought by the market revolution were gradual, they were still profound, touching the working class as well as a new middle class which came to exemplify the values of the era.

Learning Objectives:

Students should be able to answer the following questions after studying Chapter 12:

1. What were the effects of the transportation revolution?
2. What was the market revolution?
3. How did industrialization affect workers in early factories?
4. How did the market revolution change the lives of ordinary people?
5. What were the values of the new middle class?

Discussion Suggestions and Possible Answers

1. How did the market revolution change preindustrial life and work?

Answer: The market revolution resulted from dramatic changes in transportation, commercialization and industrialization. The use of cash instead of barter and trade and the use of machines to perform the labor that had previously been done by unskilled workers represented significant change. Additionally, transportation improvements allowed goods to reach markets that were much more distant, creating specialization in an increasingly national market.

2. In what ways did the new forms of industrial labor change workers’ beliefs and attitudes?

Answer: Industrialization disrupted the old system of skilled artisans who completed work based on the “putting-out” system. Now the patriarchal system, where home and work occupied the same space, was destroyed as work moved to the factory site. The strict order of the industrial system created new distinctions between work and leisure. Industrial labor required new notions of time, as order and regularity replaced the more flexible work schedule of the family farm. The industrial North was soon defined by “free labor” which meant hard work, independence, and self-discipline.

3. In what ways was mass production an important democratizing force in American politics?

Answer: Mass production was a democratizing force because it made a wide variety of consumer goods more readily available. The use of interchangeable parts meant that high quality goods could be produced cheaply and efficiently in American factories.
4. How did American family life change with the social, economic, and political changes?

**Answer:** The changes in American life created new family structures. There was a decline in patriarchal authority, as entire families were working in the mills. As child labor replaced apprentices, families became more enveloped by industrialization. For middle-class families, birth control was used to keep down family size and allow the family to remain prosperous. These families also made frequent personal and financial sacrifices to keep their children in school and to teach them the moral and religious habits believed to be necessary to success in industrial America.

**Lecture Outline**

American Communities: Women Factory Workers at Lowell

The Transportation Revolution
- Roads
- Canals and Steamboats
- Railroads
- The Effects of the Transportation Revolution

The Market Revolution
- The Accumulation of Capital
- The Putting-Out System
- The Spread of Commercial Markets

The Yankee West
- New Routes West
- Commercial Agriculture in the Old Northwest
- Transportation and Western Cities

Industrialization Begins
- British Technology and American Industrialization
- The Lowell Mills
- Family Mills
- “The American System of Manufactures”

From Artisan to Worker
- Preindustrial Work
- Mechanization and Gender
- Time, Work and Leisure
- Free Labor
- Early Strikes

The New Middle Class
- Wealth and Rank
- Religion and Family Life
The Middle Class Family

Middle Class Children
   Sentimentalism and Transcendentalism
   Emerson, Thoreau and Fuller

Resources (Web, Films/Video)

Web
Lowell NPS: http://www.nps.gov/lowe/

Films/Video
The Erie Canal (50 minutes). History Channel, Modern Marvels series. History of the 363-mile canal that opened up the American interior to trade and commercialization.

My History Lab Connections

Reinforce what you learned in this chapter by studying the many documents, images, maps, review tools, and videos available at www.myhistorylab.com.

Read and Review

Read the Documents
A Week at the Mill (1845)
Extract from Albany Daily Advertiser (1819)
Employers Advertise for Help Wanted in the 1820s
Hodgdon Family Letters Regarding Life in the Mills (1840)
A New England Factory Issues Regulations for Workers in 1825
Female Industrial Association (1825)
Charles Finney, What a Revival of Religion Is (1835)
A New England Woman Describes the Responsibilities of American Women in 1847
Catharine Beecher, from A Treatise on Domestic Economy (1841)
Mother’s Magazine (1934)
Henry David Thoreau, Walden (1854)

See the Maps
Expanding America and Internal Improvements
Commercial Links: Rivers, Canals, Roads, 1830 and Rail Lines, 1850

Research and Explore

Read the Documents
Exploring America: Machinery
Charles and Lydia Finney
Samuel Slater
Critical Thinking Exercises

Students who have worked in factories could be encouraged to discuss their experiences. Those who have not could be encouraged to interview factory workers. They should try to focus on the issues of discipline, control over time, and the separation between work and leisure characteristic of an industrial economy. They could present their findings to the class as part of a look at the changing character of work, a theme that runs throughout the chapter.