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

Chapter Review

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

In the 1820s and 1830s, young farm women from all over New England went to Lowell, Massachusetts to work at one of the first textile factories in America. The investors of the factory 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, which is why the Lowell factory employed 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 pre-industrial work habits. Lowell is a useful example of how the North industrialized and how a largely independent farming population became a largely dependent wage-earning one. The market revolution changed how people worked, lived, and thought.

1. 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 far away 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. Although a difficult process, the canal was built in less than ten years. The Erie Canal successfully re-routed 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.

c. Railroads

Railroads were new 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.

1. 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.

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.

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 pay represented a new source of income they could use to purchase newly available mass-produced goods.

1. 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% 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 that increased productivity, it was not long before the Old Northwest became America’s agricultural heartland.

c. Transportation Changes Affect the 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.

1. INDUSTRIALIZATION BEGINS

Industrialization radically changed the way people worked.

a. British Technology and American Industrialization

Industrialization was the result of 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.

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.

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 which further contributed to the lack of community sentiment between mill communities and their rural neighbors.

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 at 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 were able to.

1. 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. Pre-industrial Ways of Working

When the Lowell mill 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.

b. Mechanization and Gender

Prior to the Market Revolution, skilled artisans controlled the apprenticeship process. The increased production that resulted from the implementation of 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.

c. Time, Work, Pay, and Leisure

Pre-industrial 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. 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 pre-industrial 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.

1. 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.

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.

d. Family Limitation

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.

e. 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.

f. Sentimentalism and Transcendentalism

Sentimentalism came from a sense of nostalgia for the imagined trust and security of the familiar and personal life of the pre-industrial 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.

***Answer the following questions from Chapter 12:***

1. **The Accumulation of Capital:** How was capital raised in the early period of the Industrial Revolution? What was the nature of the business community in the 1790s in the North? How did the difficulties leading up to the War of 1812 encourage some merchants to change tactics and what did they do? What were the statistics of trade from 1790–1807? What is the significance of cotton to capital?

2. **The Putting-Out System:** What was the putting-out system and how was it a departure from preindustrial manufacturing? How did the Lynn, Massachusetts shoe trade illustrate this? To what other crafts was this applied? In what ways did this affect the family? What were the longer-term consequences of industrial capitalism? What did this putting-out system share with the older master apprentice system?

3. **The Lowell Mills:** Who was Francis Lowell and what was his significance to early American industrialization?

4. **Family Mills:** What was the nature of the family mill system? What percentage distribution was found in the work force? How was the family mill similar to farming? What problems were there between family mills and the surrounding community? What new social distinctions developed? How mobile were early workers?

5. **“The American System of Manufactures”:** What was the American system of manufactures and what was the result? What was the role of Eli Whitney, Simeon North, and John Hall? What products were the system extended to? What connection did this have to changes in values and attitudes?

***Define or Describe the Importance of the following terms from Chapter 12:***

1. Lowell, Massachusetts

2. Barter System

3. John Hall

4. Francis Cabot Lowell

5. Micajah Pratt

6. Henry David Thoreau

7. Margaret Fuller

8. Duncan Phyfe

9. Stephen Allen

10. “Just Price”

11. interchangeable parts

12. Putting-out system

13. “wage slaves”

14. Market Revolution

15. Cash Economy