



View of Lowell mills from across the Merrimack River, 1839

Lowell and the Industrial Revolution



As seen in Alvan Fisher's 1833 painting, the Pawtucket Dam dramatically altered the Merrimack River's flow over the falls.

Lowell was born as a grand experiment that changed how Americans lived and worked. Capitalists tapped the energy of Merrimack River falls to turn thousands of textile machines. Young New England women and immigrant families came here to turn out millions of yards of cloth. From their labors grew America's first industrial city.

As the Industrial Revolution in the United States intensified in the first half of the 19th century, the young nation's social and economic fabric changed dramatically. Though still primarily agricultural, America was transforming itself into a nation of urban manufacturing centers. Enterprising merchants and capitalists organized corporations to develop and control the productive forces of emerging industries, while growing numbers of working people found employment as wage laborers in factories. Cotton textiles, the foundation of America's Industrial Revolution, fostered not only working-class wage labor in the mills, but also supported slave labor on the cotton plantations in the South.

No city offers as dramatic a view of the American Industrial Revolution as Lowell, Massachusetts. Founded by Boston merchants in 1821–22, Lowell was built as a factory city along the Merrimack River to take advantage of the waterpower potential of the Pawtucket Falls; within one mile, the river plunged 32 feet. Francis Cabot Lowell, for whom the city was named, had observed British techniques for weaving textiles, and with the aid of mechanic Paul Moody produced a successful power loom.

In 1814, Lowell and other investors erected a water-powered mill in Waltham, Massachusetts, which carried out all the steps of textile production—carding, spinning, and weaving. Despite Lowell's death in 1817, the venture proved hugely profitable, and plans for a larger enterprise led to the establishment of Lowell. The rapid development of power canals, factories, and corporate-owned boarding houses paralleled the growth of the city's commercial, religious, and civic institutions.

While visitors to Lowell commented on the city's extraordinary growth, many were also interested in the moral and physical well-being of the carefully supervised, mostly female work force. Could Lowell avoid the horrific social effects of industrial capitalism afflicting Britain's manufacturing cities? Lowell's industrialists reassured them, maintaining moreover that the enterprise advanced the needs and aspirations of republican society. By 1850, Lowell had grown beyond all expectations. The city had a population of 33,000—the second largest in Massachusetts—and its ten mill complexes employed over 10,000 women and men.



We will soon show these driving cotton lords . . . who so arrogantly aspire to lord it over God's heritage, that our rights cannot be trampled upon with impunity.

—Amelia Sargent
Factory Tract No. 1
October 1845

ILLUSTRATION—NPS / RICHARD SCHLECHT

Working in the Mills

The "Mill Girls"
Most of Lowell's textile workers in the early to mid-1800s were young, single women from New England. Many hailed from farms or small rural villages, where economic opportunity was often limited to domestic service, family farm work, or poorly paid teaching jobs. Lowell's mills promised much more: monthly cash wages and comfortable room and board in corporation boarding houses. In addition to economic independence, the growing city offered young women an array of commercial and cultural activities few had ever experienced.

The corporations, however, sought to regulate the lives of their workers, exercising paternal control over the social behavior of the women. Boardinghouse keepers enforced curfews and strict codes of conduct,

and the corporations required church attendance. Factory overseers maintained discipline on the work floor. The clanging factory bell summoned workers to and from 12- to 14-hour days.

Although the mills paid relatively high wages, the work was arduous and conditions unhealthy. Despite threats of firing or blacklisting, female workers struck twice in the 1830s to protest wage cuts and working conditions and again in the 1840s to demand a 10-hour day. Few strikes succeeded, and Lowell's work force remained largely unorganized. Although Irish immigrants and a wide range of other groups settled in Lowell in the decades after the Civil War, women remained a large part of Lowell's textile work force.



Eliza Adams (1815–1881) left her New Hampshire farm home at 26 to work in the Lawrence Manufacturing Co. in Lowell. Within a year of her arrival she was writing poetry calling for worker solidarity during a strike. After she had settled into her job, Adams wrote her mother a reassuring letter: "I . . . have a good place and find the girls to be a very likely set. . . . My work is drawing in through the harness and reed, the room is very warm, I shall scarcely feel the cold weather at all this winter which you know I dread so much."

Eliza Adams



Men made up a quarter of the work force by 1860, working as mule spinners, machinists, and laborers. After the Civil War, both men and women were instrumental in labor actions. The 1912 strikers (left), aided by the Industrial Workers of the World, won raises for textile workers.

Security tags (below) identified mill workers by number only. This badge was issued by the Atlantic Parachute Corporation, a producer of rayon parachutes during World War II.



Immigrant Lowell



A French-Canadian family in "Little Canada," around 1910.

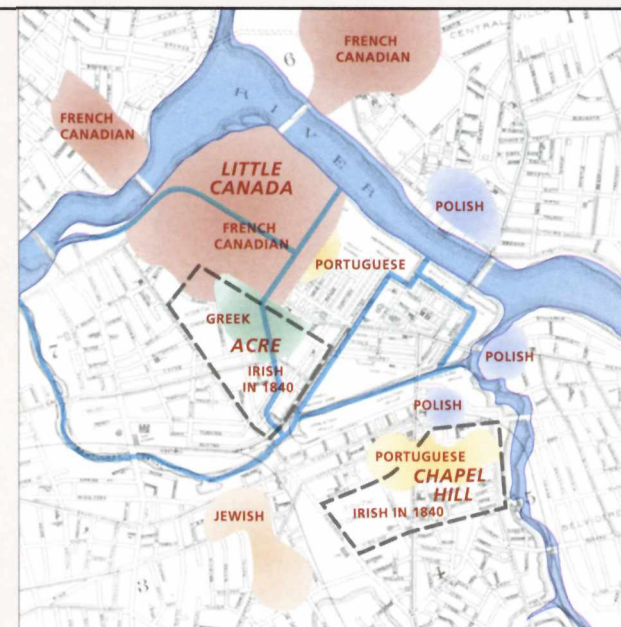
Immigrants were part of Lowell's story from the beginning. Before the New England female mill workers arrived, Irish laborers built the canals, mills, and boarding houses. A large number of Irish settled in a section of the city that became known as "New Dublin" and later the "Acre." Many lived in poverty in ramshackle wooden cabins or primitive tents.

Beginning in the mid-1840s, Irish immigrants who were escaping poverty and famine in the homeland streamed into Lowell. They found work in the textile mills, where they toiled in unhealthy

conditions in low-paying jobs. The establishment of Catholic churches and schools and the retention of traditional customs helped many Irish adjust to life in a predominantly Protestant, increasingly industrial society. Though conflicts between New England Protestants and Irish Catholics occasionally flared into violence, Lowell's Irish were eventually integrated into the city's population.

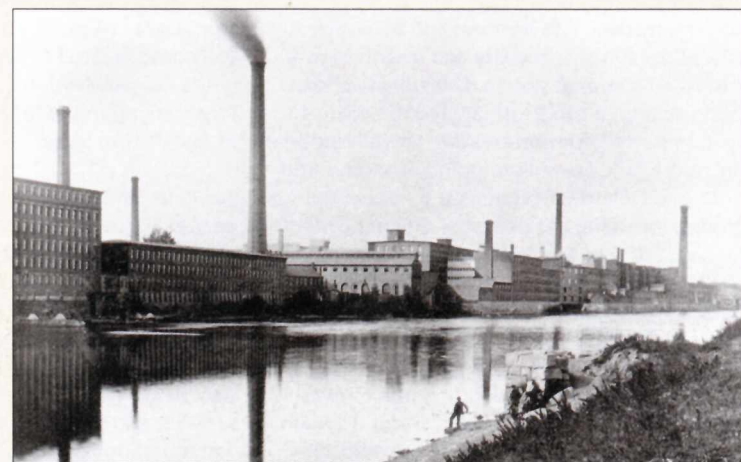
After the Civil War, Lowell's textile companies began hiring immigrants in greater numbers, starting with French-Canadians. They were followed by Greeks, Poles, Portu-

guese, Russian Jews, Armenians, and many other ethnic groups. Newer immigrants, like the Irish before them, faced long hours in low-paying, unskilled occupations. Many of these immigrants lived away from the mills in tightly knit neighborhoods where Old World cultures came to terms with the demands of American urban industrial life. Working-class immigrants had to cope with poor housing and unsanitary living conditions. By 1900, Lowell was a microcosm of urban American society—an uneasy blend of many ethnic groups living in distinct neighborhoods.



Ethnic Enclaves, 1912
Densely populated ethnic neighborhoods like the Acre and Chapel Hill were homes to successive immigrant groups. Unhealthy living conditions—poor sanitation and crowded tenements—confronted Lowell's immigrants. But schools and churches, native-language newspapers, and social clubs offered comfort and support to the newly arrived immigrants.

Prosperity and Decline



Part of Lowell's Mile of Mills in 1893.

Henry David Thoreau called Lowell the "Manchester of America, which sends its cotton cloth around the globe." (Manchester, England was the British center of the textile revolution.) Lowell was also prospering beyond even the imagining of its founders. Ten mill complexes, with over 300,000 spindles and almost 10,000 looms, transformed cotton from the South into almost a million yards of cloth a week.

Lowell was in the forefront of mill technology, replacing waterwheels with more efficient turbines and supplementing waterpower with steam. Yet by the late 1800s, the city's industrial prominence was fading. Lowell faced growing competition from other northern textile producers who operated newer, state-of-the-art cotton mills. Working conditions in the aging factories declined as the corporations failed to reinvest in the mills.

Although the mills remained mostly profitable until the early 1920s, corporations invested in other enterprises or in the emerging southern textile industry. A number of Lowell's mills closed in the 1920s and 1930s, casting thousands of residents out of work. A brief resurgence during World War II led to renewed hiring and production. By the mid-1950s, however, the last of the original mills shut down and only a few, smaller textile producers remained.



By the time of this photograph, around 1915, workers were responsible for more machines than ever, and conditions in the mills had deteriorated.



Once alive with workers and clattering machines, a stripped and silent mill floor presents a haunting perspective on the past.

Visiting Lowell National Historical Park

Visitors to Lowell in the 1800s were overwhelmed by the scale of the canal system and mills, and impressed by the female work force. One foreign traveler said: "Niagara and Lowell are the two objects I will longest remember in my American journey, the one the glory of American scenery, the other of American industry." Poet John Greenleaf Whittier wrote: "[The observer] feels himself thrust forward into a new century." Experiencing the park's sites today will help you understand the awe felt by these early visitors to Lowell.

The Growing Canal System



Massachusetts mills, in the foreground, and Boott Mills, beyond the bridge over the Merrimack.



Suffolk Mill Turbine Exhibit



Canal boat in the lock at Francis Gate



Weave Room in Boott Cotton Mills Museum



Lower Locks

Visitors to Lowell National Historical Park can choose from a number of tours that combine canal boat and trolley rides with walking. This allows you to plan your stay according to how much time you have and the park areas you want to visit. All tours leave from the visitor center. Groups should make advance reservations. Contact the park or check the park website for details.

Exhibits in the Park Visitor Center at Market Mills highlight the workers, entrepreneurs, power canal system, and machines that together made Lowell a successful industrial city. Lowell's history is depicted in the introductory film, *Lowell: The Continuing Revolution*.

The **Boott Cotton Mills Museum**, located in a mill built in 1836, has a 1910s weave room with operating looms. There are also interactive exhibits and oral history videos about the Industrial Revolution and Lowell's working people.

The **Mill Girls and Immigrants Exhibit**, part of the Patrick J. Mogan Cultural Center in a reconstructed Boott Mills boarding house, opens with rooms furnished as they were when "mill girls" lived there. Other exhibits examine the diverse cultures of Lowell's immigrant mill workers.

In the **River Transformed Exhibit**, visitors follow the transmission of power from a turbine driven by a 13-foot drop of water in the Northern Canal, through great belts and pulleys, to a working loom representing the hundreds of machines operated by the Suffolk Manufacturing Company.

Boarding House Park, a terraced green space near the Boott Cotton Mills Museum and the Mogan Cultural Center, is a popular gathering place. Its stage is the setting for concerts, plays, and festivals.

The **Francis Gate/Guard Locks complex**, the main entryway to the canal system, demonstrates 19th-century canal technology applied to water-level control, transportation, and flood prevention. The great 21-ton drop gate designed by Lowell engineer James B. Francis saved the city from flooding in 1852 and again in 1936. Parking is limited; this site is best seen by tour.

The **Pawtucket Gatehouse**, built between 1846 and 1848, is the largest gatehouse in the canal system. Its 10 turbine-and-belt-driven sluice gates controlled the flow of water into the Northern Canal, and still perform that function for a modern hydroelectric plant. By tour only.

Lower Locks was part of the 1796 Pawtucket Transportation Canal, which allowed boats to skirt Pawtucket Falls. At that time, boats descended the entire 32 feet from the Merrimack to the Concord River in four lock complexes. When the Pawtucket Canal was rebuilt in 1823 as part of the power canal system, the drop at Lower Locks remained at 17 feet. The complex includes a dam, gatehouse, and lock chambers.

At **Swamp Locks**, a dam, gatehouse, and two locks lowered the water in the Pawtucket Canal by 13 feet. Just above the locks the Merrimack Canal branched off to Merrimack Mills, the only mills to use the full 32-foot drop of the falls.

The **Jack Kerouac Commemorative** honors the Lowell native who became a well-known writer of the Beat Generation. His novels, the most famous of which is *On the Road*, are characterized by spontaneity and a restless spiritual quest. A number of Kerouac's books draw on his early years in Lowell's working-class French-Canadian neighborhoods. Excerpts from his writings are inscribed on eight granite columns.

Revival of a City Lowell's restored industrial and labor history sites are here today because of a group of citizens determined to help a city fallen on hard times. Beginning in the 1960s they began to envision a new kind of historical park, a living museum based on the city's distinctive industrial, ethnic, and architectural heritage. In the early 1970s educator Patrick J. Mogan and others brought together community organizations, urban planners, historians, political leaders, and business and banking groups to revitalize the city and breathe new life into its educational system. Lowell native Paul Tsongas, then a congressman, led the effort in 1978 to pass legislation creating Lowell National Historical Park. Lowell's ongoing economic and cultural development is guided by a coalition of groups, including the park, the City of Lowell, the University of Massachusetts Lowell, and Lowell Heritage State Park. Together they are preserving the past and nurturing a vigorous heritage that will continue to define the city.

Lowell National Historical Park is one of over 400 parks in the National Park System. To learn more about national parks, visit www.nps.gov.

National Park Foundation.
Join the park community.
www.nationalparks.org

More Information
Lowell National Historical Park
67 Kirk Street
Lowell, MA 01852
978-970-5000 (TDD: 978-970-5002)
www.nps.gov/lowe

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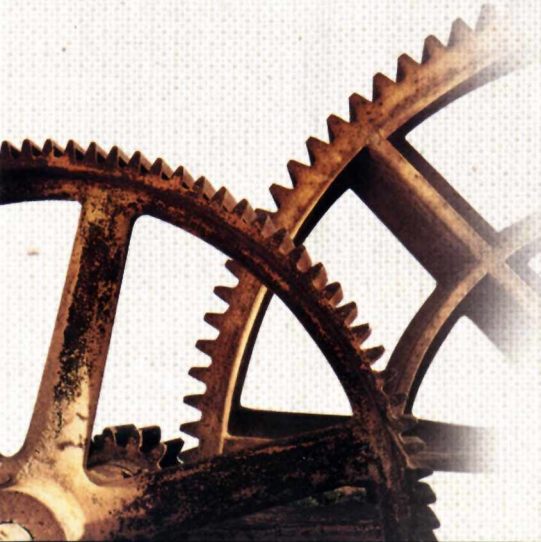
Getting to the park Take the Lowell Connector from either I-495 (Exit 35C) or Route 3 (Exit 30A) to Thorndike Street (Exit 5B). Follow brown and white "Lowell National and State Park" signs. Free parking in the lot next to the visitor center at 304 Dutton Street.

For Your Safety and Comfort A number of the park exhibits are located in historic buildings and sites; watch for uneven walking surfaces and pay attention to your surroundings at all times. Tours are conducted regardless of weather, so dress appropriately for the season.

Accessibility We strive to make our facilities, services, and programs accessible to all. For information go to the visitor center, ask a ranger, call, or check the park website.

Firearms Check the park website for regulations.

Emergencies call 911



NPS / JAMES HIGGINS

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