Determining the Facts
The Industrial Development of Lowell

In 1814 on the Charles River in Waltham, Massachusetts, a group of Boston investors introduced the first integrated cotton textile mill. Here each step in the production of cloth from bale to bolt took place under one roof with machinery powered by water. Management also turned to an innovative source of labor, the daughters of New England Yankee farmers. The success of the "Waltham Experiment" encouraged investors to explore other sites on which to expand and print calico cloth. In 1821, they chose an area around the Pawtucket Falls on the Merrimack River at East Chelmsford, Massachusetts. This site became Lowell, the first large, planned, industrial city in America. The system of factories and power canals created here surpassed previous engineering schemes in both scale and level of sophistication.

At the Pawtucket Falls, the Merrimack River fell 32 feet over a series of drops and rapids in the space of one-half mile. In 1796, a company called the Proprietors of Locks and Canals on Merrimack River built the Pawtucket Canal, as a transportation canal, to bypass these falls. The Boston investors purchased the Proprietors of Locks and Canals and some 250 acres of adjacent farmland for development in 1821. Between 1822 and 1848, they rebuilt Pawtucket Canal into a feeder canal. They planned and constructed a dam at the head of the falls, seven power canals, and 10 large companies consisting of more than 50 mill buildings, including two print works, a bleachery, and a machine shop. They also provided schools, churches, libraries, and housing for their workers. During this period, Lowell's population grew from about 2,500 to 33,000.

Lowell became America's model industrial city during the first half of the 19th century. Lowell offered the hope that the country would profit socially as well as economically by adopting industrialism as a way of life. The early Lowell system was distinguished by its state-of-the-art technology, the engineers and inventors who worked on its canal system, its mill architecture, enormous production capabilities, rational city planning, and most of all, by its much-heralded workforce of Yankee "mill girls."

Throughout the 19th century wave after wave of immigrants--Irish, French-Canadian, Greeks, Polish, and Portuguese--arrived in Lowell looking for job opportunities in the expanding textile industry. During this period Massachusetts implemented reform legislation affecting child labor, education, and working conditions, which cut investors profit margins. In the 1920s rather than reinvesting in aging Northern textile factories with high taxes, union labor, and expensive transportation costs, investors turned to new textile plants in the South. As a result many of the textile companies in Lowell closed or moved south. A few companies diversified or produced specialized products. After the 1920s, except for occasional economic boons such as World War II, Lowell experienced some of the highest unemployment rates in the country until the 1970s.

Lowell is not, as is sometimes claimed, the birthplace of the Industrial Revolution
in America. Most of the developments associated with this phenomenon in the nation's history had their origins elsewhere. But it was at Lowell that these developments converged in a way that made them revolutionary. New forms of technology, power generation, finance, labor, and industrial organization were combined on a scale that foreshadowed today's industrialized and urbanized society.

Questions for Reading 1

1. What conditions at the Merrimack River did Lowell's early industrialists use to their advantage?

2. Besides mills, what were other important elements of the industrial planning at Lowell?

3. What were some of the reasons for the decline of the Lowell textile mills?