

CHAPTER 14

THE INDUSTRIAL REVOLUTION

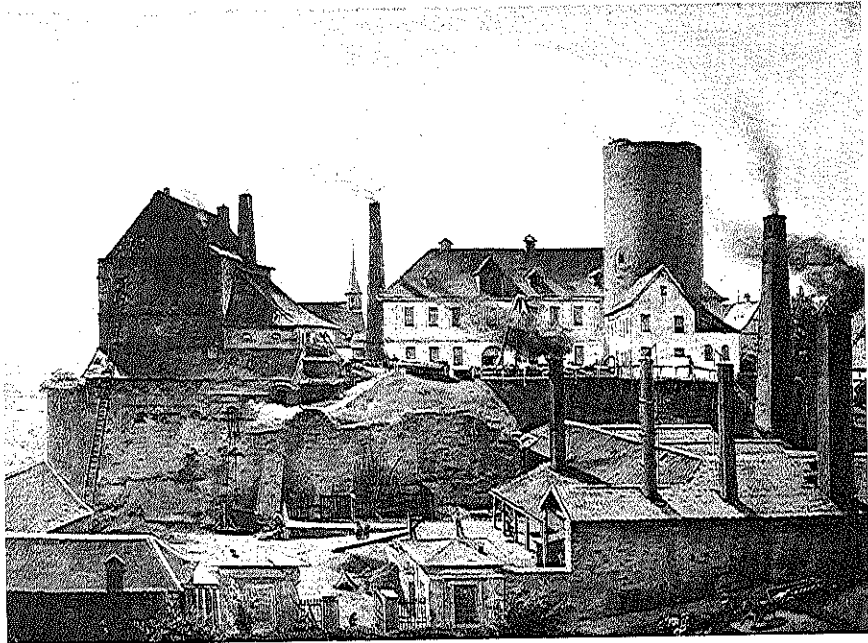


Manufacturing on a small scale had been part of the European experience for centuries. The economy of every region had depended to some extent on the production of clothes, tools, pots, and pans. Most production was carried out by men and women working in small workshops, hammering and shaping household goods, or by country women weaving or knitting clothes.

During the first half of the nineteenth century, the Industrial Revolution slowly but surely transformed the way many Europeans lived. In Western Europe, it became easier for entrepreneurs to raise money for investment as banking and credit institutions became more sophisticated. Dramatic improvements in transportation, notably the development of the railroad and steamship but also the construction of more and better roads, expanded markets. Rising agricultural productivity, increasingly commercialized in Western Europe, fed a larger population. Western Europe underwent a period of rapid urbanization: the number of people living in cities and towns grew more rapidly than did the percentage of people residing in the countryside, although the latter still predominated.

As the population expanded, demand increased for manufactured goods. The number of people working in industry rose. Mechanized production slowly revolutionized the textile and metallurgical industries, increasingly bringing together workers, including women and children, in large workshops and factories. Rural industry declined and, in some regions, disappeared. Rural producers in much of France, the uplands of Zurich in Switzerland, and Ireland, among others, lost out to more efficient urban, factory-based competitors. Slowly but surely factory production transformed the way Europeans worked and lived.

While many contemporaries were amazed and impressed by factory production of goods and watched and rode trains in wonderment and appreciation, others were shocked at what seemed to be the human costs of such a transformation. Poor migrants flooded into towns and cities,



A factory town in Germany in the 1830s.

which burgeoned as never before. Conditions of life in gritty industrial towns were appalling. At the same time, large-scale industrialization undercut many artisans, who lost protection when guilds were abolished under the influence of the French Revolution. Mechanization undercut their livelihood. At the same time, lurid but not inaccurate accounts of the awful conditions of workers (men, women, and children) in factories and mines began to reach the public. Calls for state-sponsored reform from state officials and middle-class moralists echoed far and wide. Moreover, many skilled workers in Western Europe not only protested harsh conditions of work and life but began to see themselves as a class with interests defined by shared work experience. During the 1830s and 1840s, workers began to demand social and political reform. Proclaiming the equality of all people, the dignity of labor, and the perniciousness of unrestrained capitalism, the first socialists challenged the existing economic, social, and political order.

PRECONDITIONS FOR TRANSFORMATION

We have come to call the transformation of the European economy the "Industrial Revolution." It began in England and parts of northwestern Europe during the eighteenth century (see Chapter 10). Early histories of

the Industrial Revolution tended to emphasize the suddenness of the changes it brought; historians sought to identify the exact period of industrial "take-off" in each country, underlining the role of inventions, mechanization, and factories in the process. This led to an emphasis on "victors" and "laggards," "winners" and "losers" in the quest for large-scale industrialization, a preoccupation that blinded historians to the complexity of the manufacturing revolution.

Recent work, however, has de-emphasized the suddenness of these changes. Despite the importance of inventions such as those that gradually transformed textile manufacturing, the first Industrial Revolution was largely the intensification of forms of production that already existed. Most industrial work still was organized traditionally, using non-mechanized production. Rural industry and female labor remained essential components of manufacturing. Not until the mid-nineteenth century, when steam power came to be used in many different industries in Western Europe, did industrial manufacturing leave behind traditional forms of production. Handicraft production remained fundamental to manufacturing, as did domestic industry (tasks such as spinning, weaving, and product finishing done for the most part, but not exclusively, by women in the countryside). For example, the growth of the linen industry in Porto, Portugal, stemmed not from factories, but from the work of villagers in the countryside who were paid for spinning and weaving per piece. Even in England, the cradle of large-scale industrialization, craft production and rural "outwork"—work farmed out to cheap labor—remained important until the second half of the nineteenth century. Even in Britain at mid-century, the majority of British industrial workers were not employed in factories. In Germany there were twice as many "home workers" as workers employed in factories. In the Paris region in 1870, the average manufacturer still employed only seven people.

The Industrial Revolution could not have occurred without increased agricultural productivity, which sustained a dramatically larger population. In turn, an increase in population generated greater consumer demand for manufactured goods, now transported in many places by trains and steamships.

Demographic Explosion

The rise in population in Europe that began in the eighteenth century accelerated during the first half of the nineteenth century. Europe's population grew from an estimated 187 million in 1800 to about 266 million in 1850, an increase of 43 percent. Europe was then the most densely populated of the world's continents, with about 18.7 people per square kilometer in 1800 (compared to approximately 14 people in Asia and fewer than 5 in Africa and the United States), rising to about 26.6 fifty years later.

Industrializing northwestern Europe—Britain, Belgium, and northern France—had the greatest population increases (see Table 14.1). Britain's

TABLE 14.1. ESTIMATED POPULATIONS OF VARIOUS EUROPEAN COUNTRIES FROM 1800 TO 1850 (IN MILLIONS)

Country	1800	1850
Denmark	0.9	1.6
Norway	0.9	1.5 (1855)
Finland	1.0	1.6
Switzerland	1.8	2.4
Holland	2.2	3.1
Sweden	2.3	3.5
Belgium	3.0	4.3 (1845)
Portugal	3.1	4.2 (1867)
Ireland	5.0	6.6
Great Britain	10.9	20.9
Spain	11.5	15.5 (1857)
Italy	18.1	23.9
Austria-Hungary	23.3	31.3
The German states	24.5	31.7
France	26.9	36.5

Source: Carlo M. Cipolla, *The Fontana Economic History of Europe: Vol. 3, The Industrial Revolution* (London, 1973), p. 29.

population tripled during the nineteenth century. The population of predominantly agricultural societies rose as well. Sweden's population more than doubled over the course of the nineteenth century. Russia's population also grew substantially, from about 36 million in 1796 to about 45 million in 1815 to at least 67 million in 1851. The population of the Balkans rose from about 10 million in 1830 to four times that ninety years later.

Nonetheless, disease and hunger continued to interrupt cycles of growth well into the twentieth century. Cholera tore a deadly path through much of Europe in the early 1830s and reappeared several times until the 1890s. During the Irish potato famine in the late 1840s, between 1 and 2 million people died of hunger in Ireland. Tuberculosis (known to contemporaries as "consumption") still killed off many people, especially workers and particularly miners.

Overall, however, the mortality rate fell rapidly in the first half of the century. Vaccination made smallpox, among other diseases, somewhat rarer. Municipal authorities in some places paid more attention to cleanliness, sewage disposal, and the purity of the water supply, although the most significant improvements did not come until later in the century. Sand filters and iron pipes helped make water more pure. Improvements in reservoirs, the first of which was built in 1806, increased the availability of clean water.

Life expectancy increased in all classes. Individuals surviving their first years could anticipate living longer than their predecessors. Fewer women died young, thus prolonging the period during which they could bear children. Furthermore, wives were less likely to suffer the loss of their partner during this same period, and therefore were more likely to become pregnant. Yet poor people—above all, in cities—remained far more vulnerable than people of means to fatal illness. In Liverpool, half of all children born to the poorest families died before the age of five. In eastern and southern Europe, mortality and birthrates continued to be quite high until late in the century.

Despite the fact that infant mortality rates remained high until the 1880s, the chances of a baby surviving his or her first year of life rose because of rudimentary improvements in sanitation, such as a safer water supply and better waste disposal. "Wet-nursing," a common practice in which urban families sent babies to women in the countryside to be nursed, traditionally had taken a heavy toll on infants because of illness and accidents. Mothers, particularly poor ones, would not have sent their babies to wet nurses if keeping them at home did not also pose a risk. Many mothers needed to work to help keep the family economy afloat, and not all were, in any case, healthy enough to breast-feed or able to supply enough milk. Substituting cow's or goat's milk could be lethal, and also had been a cause of high mortality rates during the warm summer months. Now the practice of wet-nursing slowly declined. Fresh milk became more readily available, and by the end of the century people were aware that it must be sterilized.

The decline in mortality, particularly among infants, preceded and encouraged a fall in the birthrate in Western Europe. With more adults surviving childhood, the subsequent decline in birthrates had much to do with choice. The French birthrate, in particular, gradually fell, and then plunged dramatically beginning with the agricultural crisis of 1846–1847. Many farming families in France had fewer children so that inheritance would not be spread too thin.

Europe also enjoyed nearly a century of relative peace, broken only by brief and limited wars. A Swedish bishop, then, was not wrong to describe the causes of his overwhelmingly rural country's rise in population during the first half of the century as "peace, vaccine, and potatoes."

The Expanding Agricultural Base

Agricultural production sustained the rise in population (although more easily in western than in eastern or southern Europe). It also permitted the accumulation of capital, which could be reinvested in commercialized farming or in manufacturing. Capital-intensive production (larger-scale and market-oriented farming) underlay the agricultural revolution. More land gradually came under cultivation as marshes, brambles, bogs, and heaths

gave way to the plow. Between 1750 and 1850 in Britain, 6 million acres—or one-fourth of the country's cultivatable land—were incorporated into larger farms.

Farm yields increased in most of Europe. England produced almost three times more grain in the 1830s than in the previous century. The elimination of more fallow land (land left untilled for a growing season so that the soil could replenish itself) helped. Some farmers raised cattle or specialized in vegetables and fruits for the burgeoning urban market. Farmers increased yield by using more intensive agricultural techniques and fertilizers, which, in turn, accentuated demand for sturdier manufactured agricultural tools.

During the first half of the century, continental visitors to England were surprised to find that, in contrast to the world they knew, relatively few small family farms remained. With the ongoing consolidation of plots, the number of rural people dependent on wage labor for survival rose. Farm work in 1831 remained the largest single source of adult male employment in Britain, employing almost a million men. Thus, the English countryside was peopled by a relatively small number of "gentlemen"—including British nobles—of great wealth who owned most of the country, landed gentry of considerable means, many yeomen (independent landowners and tenant farmers of some means), and landless laborers, who moved from place to place in the search for any kind of farm work. The tough lives of the latter reflected a too-often forgotten human dimension of the agricultural revolution, which increased the vulnerability of the rural poor.

On the continent, there was not as much consolidation of land as in England, but there, too, productivity rose as more land was brought into cultivation and fertilizers became more widely used. French agricultural production rose rapidly after 1815, as northern farmers with fairly large plots began to rotate their crops three times a year. In the south, where the soil was of a generally poorer quality, the land more subdivided, and much of it rocky, peasants planted vineyards, although the wine they produced hardly caused the owners of the great vineyards of Burgundy or the Bordeaux region to lie awake at night worrying. Farmers terracing hillsides, goats climbing up steep slopes, and the sounds of silkworms munching mulberry leaves as peasants anticipated the harvest of raw silk characterized some Mediterranean regions.

In Central Europe and parts of Eastern Europe, too, a modest increase in agricultural production occurred. In the German states, agricultural productivity rose more than twice as fast as the population between 1816 and 1865. Prussian agricultural productivity jumped by 60 percent during the first half of the century, partly because of improved metal plows and other farm implements, as well as because of information disseminated by new agricultural societies. As in Britain and France, root crops, such as turnips and the potato, added nutrition to the diet of the poor. Even in the

impoverished Balkans, some peasants began to grow corn, potatoes, and tomatoes.

Yet in much of Europe, including Portugal, where two-thirds of the land was not cultivated, and the Balkans and Greece, subsistence agriculture continued as it had for centuries. In Russia, the rich Black Earth region, covering the middle Volga River area and much of Ukraine, still was undeveloped. During the first half of the nineteenth century, some of the larger estates, benefiting from fertilizer and even some farm machinery, began to produce and export more wheat and rye. The yield of potatoes and sugar beets increased dramatically during the 1830s and 1840s. Yet Russian farms could barely feed the empire's huge population in good times, and their output was grossly inadequate in bad times. Serfdom still shackled Russian farm productivity.

Trains and Steamboats

Besides the growth in population and the expansion of the agricultural base, remarkable improvements in transportation also contributed to the transformations of the Industrial Revolution. The first railroad train began hauling coal in northern England in 1820, and passenger train service began between Liverpool and Manchester in 1830. (It was macabre testimony to the novelty of the train that the British minister of commerce was run down and killed by a train after stepping out of a carriage.) Britain had about 100 miles of rail in 1830 and 6,600 in 1852. Railway construction employed 200,000 men by mid-century. Some observers compared the building of rail lines to the construction of the pyramids of ancient Egypt, as embankments, tunnels, and bridges transformed the countryside. The wonders of modern science were now clearly applied to daily life. In England railroad terminology was swiftly incorporated into the teaching of the alphabet, and board games and puzzles quickly embraced the train. Paintings, lithographs, drawings, and engravings took the magic of the railroad and the wonders of travel as themes. Giant railway stations became centers of urban activity, attracting hotels and commerce (see Map 14.1).

The railroad's development served as a significant catalyst for investment, catching the imagination of the middle classes, which identified the railway with progress that could be seen, heard, and experienced. Private investment completely financed British railways during this period. Whereas earlier investments in businesses had been largely the preserve of patricians, smaller companies undertaking railroad construction attracted middle-class investors. Railway booms accustomed more middle-class people to the benefits (up to 10 percent annually in 1846), as well as the risks, of investment. The value of the stock-in-trade of the London and North Western Railway had outstripped that of the East India Company by the mid-nineteenth century.



MAP 14.1 PRINCIPAL BRITISH RAILWAY LINES, 1851

The construction and operation of railroads also brought other benefits to the expanding British economy. Railroad construction spurred the metallurgical industry. Rail transport reduced shipping costs by about two-thirds, dramatically increasing consumption and, in turn, production. Trains carried “railway milk” from the countryside and frozen meat from the port of

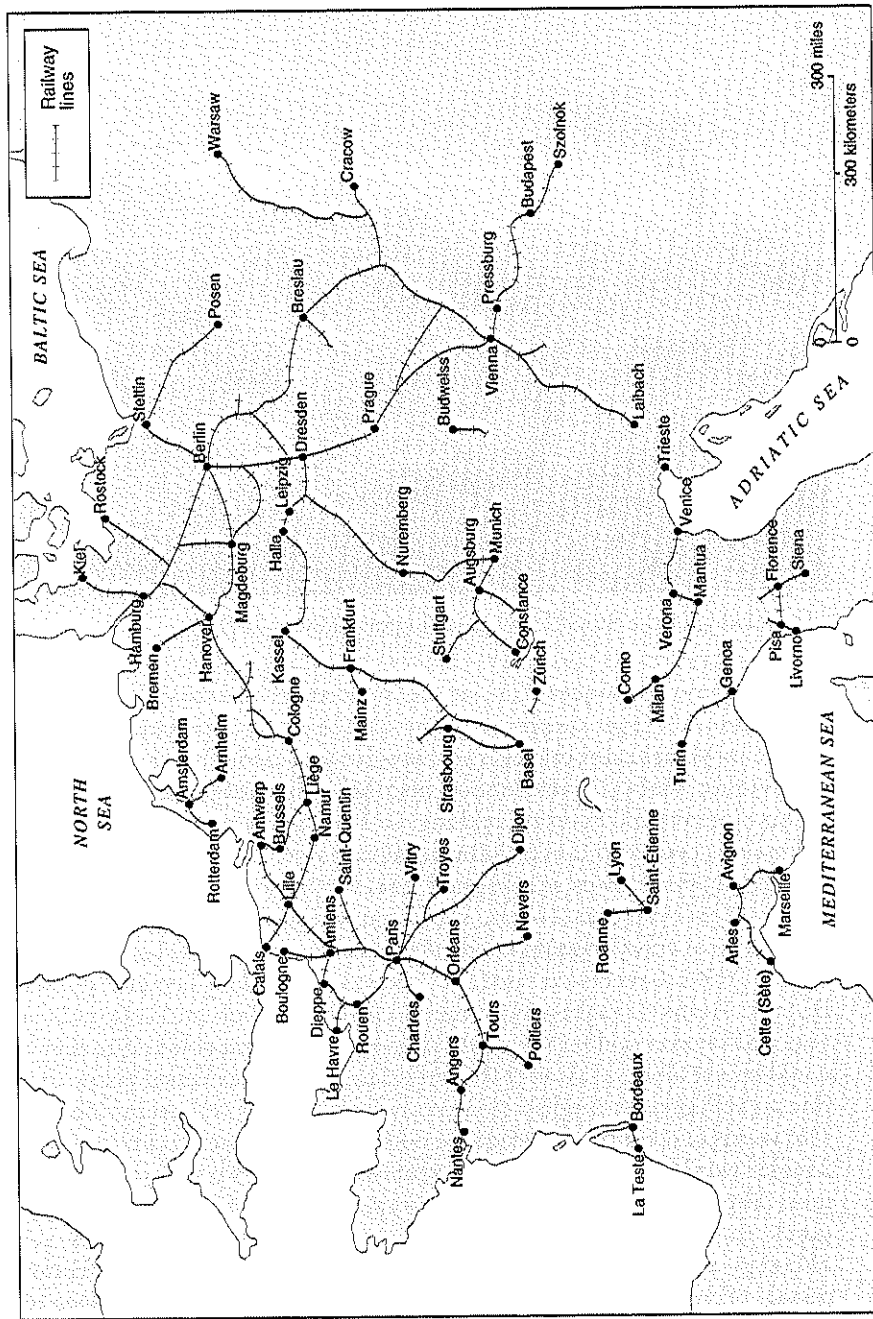


The opening of the Stockton and Darlington Railway in 1825.

Southampton to London. Yet, at the same time, railways also entailed the destruction of large swaths of major city centers, displacing about 50,000 people in Manchester during a seventy-five year period, and many times that in London. Railway construction also brought continental states into the realm of economic decision making; in France, the government and private companies cooperated in building a railway system. In Belgium and Austria, the railway system was state owned from the beginning (see Map 14.2).

Railways became part of the social and cultural landscape. The relatively rapid pace of travel arguably helped spread the sense of being “on time,” and in the 1850s Greenwich time, or “railway time,” had become standard in Britain. Trains brought places much closer together, carrying newspapers and mail more rapidly than could ever have been imagined. The first trains could speed along at twenty-five miles an hour, three times faster than the finest carriages. An English clergyman described his first train ride in 1830: “No words can convey an adequate notion of the magnificence (cannot use a smaller word) of our progress . . . soon we felt that we were GOING. . . . The most intense curiosity and excitement prevailed.” Railroad companies were quick to divide their cars into first-, second-, and third-class service, although at first the luxuries were limited to foot-warmers in winter. For people of more modest means, second- or even third-class carriages (called “penny a mile” travel in Britain, with train wagons not even sheltered from the elements until the mid-1840s) had to suffice. English seaside resorts lured middle-class visitors and some craftsmen and their families. Trains ran

MAP 14.2 PRINCIPAL CONTINENTAL RAILWAY LINES, 1851 More railway lines existed in the north than in the south of Europe, as industrialization proceeded more quickly in northern France, Belgium, the German states, and the northern Italian states than in southern France or southern Italy.



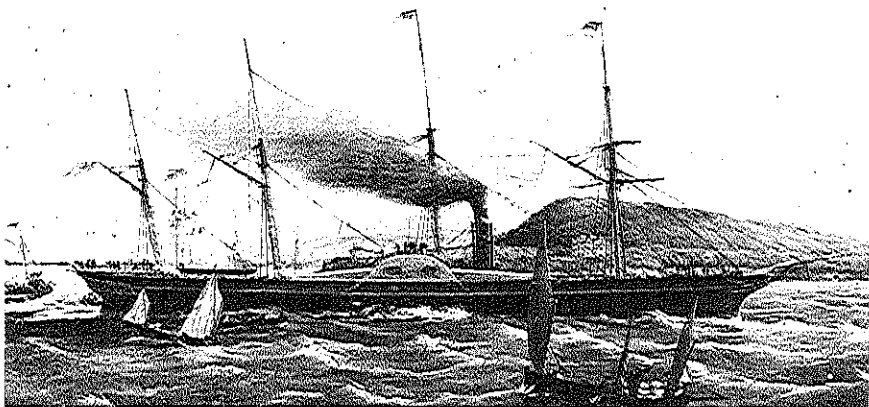
to German health spas and casinos, whose clientele a century earlier had been limited to princes and noblemen.

Yet some contemporaries already feared the environmental costs of the iron tracks and black soot pouring from locomotives. Fearing for nature, the British poet William Wordsworth (1770–1850) denounced the plan to build a line into the Lakes District: “Is then no nook of English ground secure / From rash assault?” In the 1870s the English writer John Ruskin (1819–1900) lamented railways that “slashed like a knife through the delicate tissues of a settled rural civilization. . . . Your railroad mounds, vaster than the walls of Babylon, they brutally amputated every hill on their way.” Yet after mid-century the use of steel rails, more powerful locomotives, and innovations in engineering eliminated enormous excavations and earthworks, meaning less damage to the landscape.

Speed—at least relatively speaking—was also brought to rivers and oceans. In 1816, a steamship, combining steam and sail power, sailed from Liverpool to Boston in seventeen days, halving the previous best time for the journey. Steamboats, which began to operate on Europe’s rivers in the 1820s and 1830s, revolutionized travel and transport. By 1840, the transport of Irish cattle and dairy products to England alone fully engaged eighty steamships. A constant procession of steamships traveled the Rhine River from Basel, Switzerland, to the Dutch seaport of Rotterdam.

At the same time, the contribution of improved, paved roads to the Industrial Revolution should not be forgotten. Here, too, the story of European economic development involved continuity as much as innovation, reminding us that in some significant ways the Industrial Revolution was based upon an innovative expansion of technologies and ways of doing things that were already in place.

The Great Western leaving Bristol in 1838 for its maiden voyage to New York. Steam power reduced the trip to nineteen days.



During the first half of the nineteenth century, the Industrial Revolution affected Western Europe more than the countries in southern or eastern Europe. Furthermore, within states some regions underwent significant shifts toward a manufacturing economy: Catalonia, but not Castile in Spain; the Ruhr and Rhineland in the German states, but not East Prussia; Piedmont and Lombardy in northern Italy, but not southern Italy and Sicily (see Map 14.3).

Some regions that developed modern industries had the advantage of building on long-standing economic bases (see Table 14.2). This was true in Belgium, newly independent since 1831, which emerged with continental Europe's greatest concentration of mechanized production and factories. While Belgium's northern neighbor, the once-great trading power of the Netherlands, continued its relative economic decline, Belgium seemed to offer a blueprint for rapid industrial development. Like the Netherlands, it was densely populated and urbanized, which provided demand for manufactured goods and labor. Flanders had for centuries been a center of trade and the production of fine textiles. Belgian manufacturing boomed. Blessed with rich coal deposits, Belgium's railroad construction advanced rapidly, facilitating the transport of goods from Belgian ports to Central Europe.

TABLE 14.2. MANUFACTURING CAPACITY THROUGHOUT EUROPE (THOUSANDS OF HORSEPOWER OF STEAM POWER)

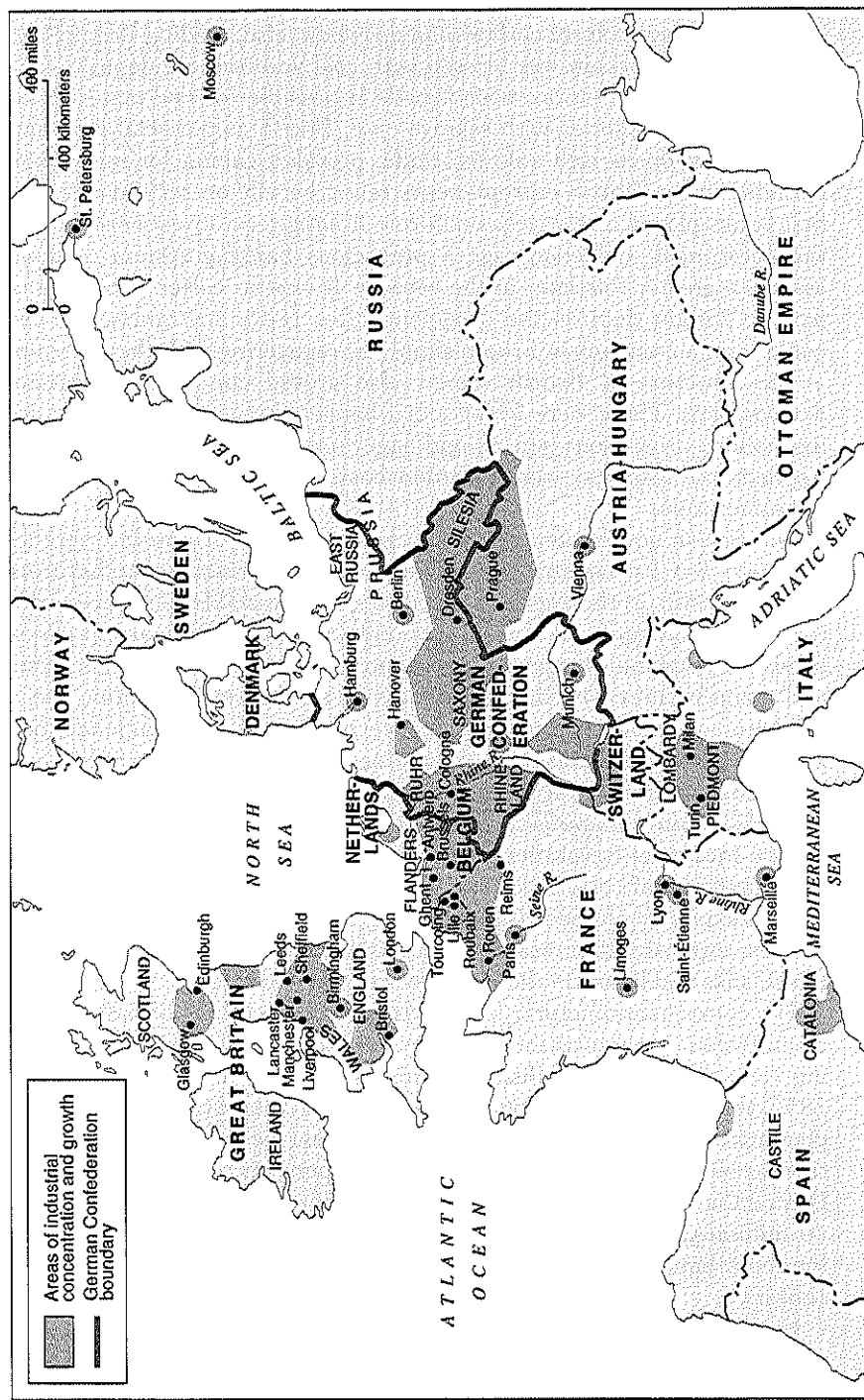
Country	1800	1850
Great Britain	620	1,290
The German states	40	260
France	90	270
Austria	20	100
Belgium	40	70
Russia	20	70
Italy	10	20
Spain	10	20
The Netherlands	—	10
Europe	860	2,240

Source: Carlo M. Cipolla, ed. *The Fontana Economic History of Europe: Vol. 4(1), The Emergence of Industrial Societies* (London, 1973), p. 165.

In the Vanguard: Britain's Era of Mechanization

Why did the Industrial Revolution begin in England? Britain was well on the way to becoming the "workshop of the world" in the second half of the eighteenth century. Capital-intensive commercialized farming began to trans-

MAP 14.3 THE INDUSTRIAL REVOLUTION IN EUROPE, 1815–1860 Areas of industrial concentration and growth in Britain and on the continent.



form English agriculture earlier than anywhere else, feeding Britain's growing population. Britain was blessed with coal and iron ore deposits located near water transportation, which made it possible for raw materials to be transported to factories with relative ease. British commercial domination, built in part on its rich colonial trade, provided capital for investment in manufacturing. British entrepreneurs relied heavily on self-finance, and at first banks played a relatively small role in long-term investment. However, the government did encourage a precocious banking system that would assume a greater role later in the century. It was far easier to begin a company in Britain than on the continent; after 1840, any number of people could form a company in Britain simply by registering with the government.

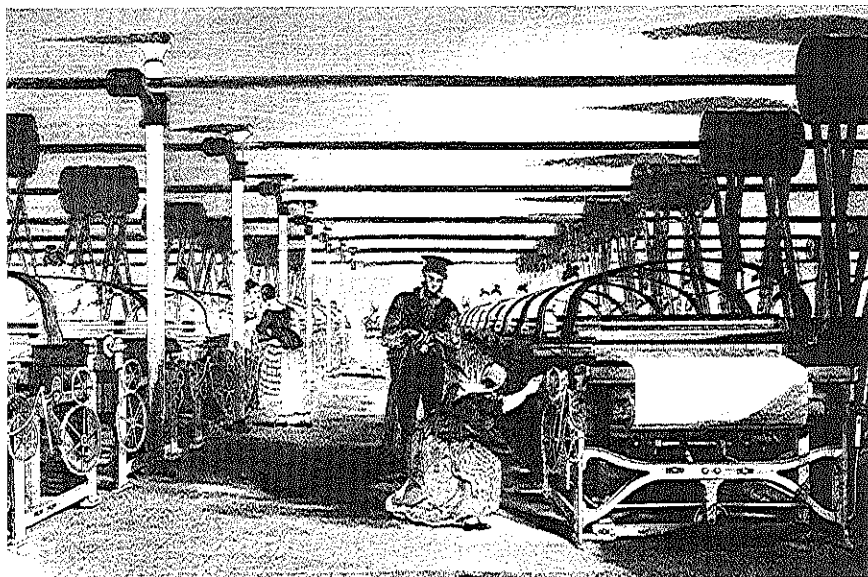
The structure of British society also proved conducive to economic development. There were fewer social barriers between wealthy landowning nobles, prosperous gentry, and eager entrepreneurs. Dissenters (non-Anglican Protestants) were afforded basic toleration, and some became manufacturers.

The British government adopted a general policy of non-interference in business. But Parliament, which had protected British manufacturers by enacting tariffs in the eighteenth century, now was able to reduce tariffs in the 1820s, shrugging off foreign economic challenges. Parliament allocated funds for England's burgeoning transportation network, aiding merchants and manufacturers. Parliamentary acts of enclosure (facilitating the consolidation of arable strips of land and the division of common lands) helped wealthy landowners add to their holdings, augmenting the productivity of their land and permitting the accumulation of investment capital.

English cotton manufacturing, gradually transformed by mechanization, led the Industrial Revolution and carried along other industries in its wake. The popularity of cotton clothing spread rapidly, allowing poor people to be more adequately clothed. Cotton fabric could be more easily cleaned and was less expensive than wool, worsted, and other materials. Cotton clothing joined silks and linens in the wardrobes of the wealthy.

The cotton manufacturer became the uncrowned king of industrial society in Britain, revered as the epitome of the successful entrepreneur, enriching himself while embellishing Britain's reputation. Between 1789 and 1850, the amount of raw cotton imported into Britain (much of it picked by plantation slaves in the southern United States) increased by more than fifty times, rising from about 11 million pounds per year to 588 million pounds. During the same period, British production of cotton textiles increased from 40 million yards per year to 2,025 million yards. Cotton goods accounted for about half of all British exports through the first half of the nineteenth century.

In the British textile industry, spinning (the operation by which fibrous materials such as cotton, wool, linen, and silk are turned into thread or yarn) gradually had become mechanized during the last decades of the eighteenth century (see Chapter 10). The advent of power looms and power weaving



Power looms in a British cotton factory, 1830.

(the process by which threads are interlaced to make cloth or fabric) removed the last bottleneck to fully mechanized production. The number of power looms in England multiplied rapidly, from 2,400 in 1813 to 85,000 in 1833 to 224,000 in 1850.

Industrialization in France

France was the world's second leading economy, although the wars during the revolutionary and Napoleonic periods had interrupted economic development. The revolutionary government had eliminated some hurdles for French businessmen by ending the tangle of regional customs barriers and tax differences. But France's coal deposits were less rich and more dispersed and were far from iron ore deposits and canals. Thus, transportation costs kept up the prices of raw materials. Demand was also less in France than in Britain because the French population rose by only 30 percent during the first half of the nineteenth century; in Britain the population had doubled during the same period. French agricultural production developed more slowly than that of Britain; small family farms remained characteristic. High agricultural tariffs did not encourage agricultural efficiency.

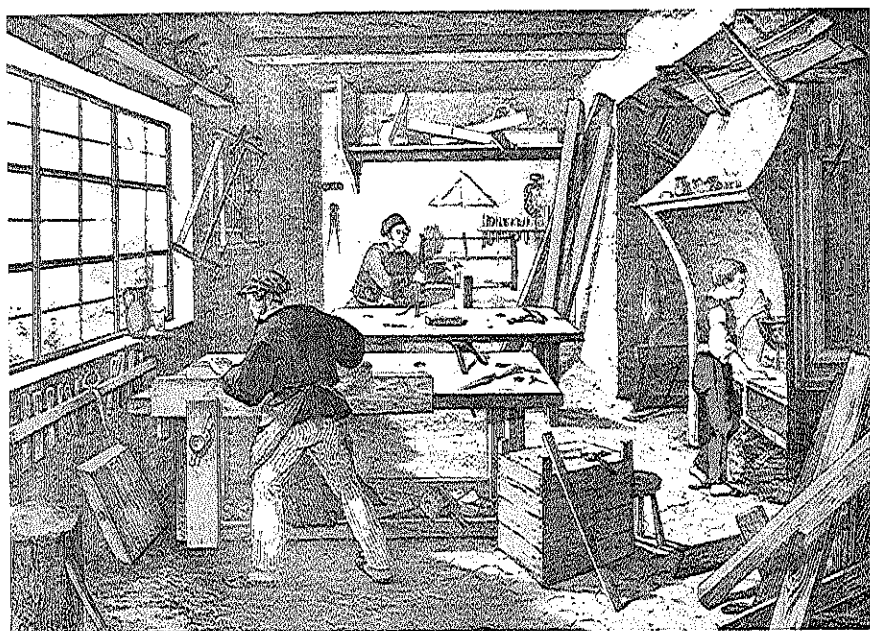
French banking facilities remained relatively rudimentary compared to those in Britain and the Netherlands. The primary function of the Bank of France, created by Napoleon in 1800, was to loan money to the state. The handful of private banks, which were run out of the deep pockets of wealthy families, preferred to make what appeared to be safer loans to governments.

Furthermore, banks—like investors—faced unlimited liability in the event of bankruptcy. Deposit banks were specifically denied the right to invest in private industry, except for investment in companies enjoying state concessions, such as those building the railways. Even normal business transactions were complicated by the fact that more than 90 percent of payments had to be made in specie (gold or silver). Until the late 1850s, the smallest banknote was worth 500 francs (the equivalent of almost a year's earnings for an unskilled worker). Banks thus had considerable difficulty attracting ordinary depositors.

The French state shared investors' suspicions of companies of any size, limiting the number of investment "joint-stock companies" that could be created. Furthermore, many companies were cautious family firms that invested profits in land rather than in the expansion of their businesses. With many peasant families still hiding their money in their houses or gardens, it was difficult to raise investment capital.

In France, too, textile production provided the catalyst for industrial development. At the same time, between the end of the Napoleonic Wars in 1815 and the beginning of the economic crisis of 1846–1847, the production of coal tripled, and that of pig iron doubled. But the reputation of French industry proudly rested on the production of luxury products, "articles of Paris" such as gloves, umbrellas, and boots, as well as fine furniture. Workshop production—for example of barrels, pipes, and watches—expanded into

A rural joiner's workshop in France.



many rural areas in response to increased demand, spurred by a modest level of urban growth. Rural industry, characterized by low capital investment, remained essential to French economic growth.

French manufacturers benefited from increased state assistance. The July Monarchy (1830–1848), the constitutional Monarchy brought by the July Revolution of 1830 (see Chapter 15), encouraged business interests, sometimes maintaining high tariffs that protected special interests—for example, those of textile manufacturers, who feared outside competition from British imports. Taxes on commerce and industry remained extraordinarily low. The government provided a decisive push in the launching of railways in France, purchasing the land and bridges along which the tracks were to pass and guaranteeing a minimum return on investments in railway development. Bankruptcy laws became less onerous, eliminating the humiliation of incarceration as a penalty. New legislation made it easy for investors to join together to form new companies with people to whom they were not related or, in some cases, did not even know—hence their name, “anonymous societies” (*sociétés anonymes*). The government also pleased businessmen by crushing insurrections by republicans and by silkworkers in Lyon in the early 1830s. Furthermore, strikes, legalized in Britain with the repeal of the Combination Acts (1799–1800) in 1824, remained illegal in France until 1864.

Industrialization in the German States

In the German states, industrialization lagged behind that of Britain and France. Three main factors undercut manufacturing in the German states: the multiplicity of independent states; the labyrinth of tolls and customs barriers, a veritable financial gauntlet through which any wagon or boat carrying merchandise had to pass; and virtual monopolies held by guilds over the production and distribution of certain products. The German states remained as a whole overwhelmingly rural, their percentage of rural population barely declining at all between 1816 and 1872. Furthermore, the harvest failure and subsequent agricultural depression of 1846, compounded by the Revolutions of 1848 (see Chapter 16), temporarily halted German economic development, like that of France, in its tracks.

Yet beginning in the mid-1830s, textile manufacturing developed in the three most demographically dynamic regions—the Rhineland, Saxony, and Silesia (see Map 14.3). Berlin emerged as a center of machine production. Coal mining and iron production developed in the Ruhr Basin, which had half of the coal riches of the entire continent. The Prussian state appointed directors to serve on the boards of private companies, brought technical experts from Britain to help develop industries, encouraged technical education, and founded associations for the encouragement of industrialization. In the 1840s, the Bank of Prussia began operating as a joint-stock credit bank to provide investment capital, the lack of which limited industrial development in the other German states.



MAP 14.4 THE ZOLLVEREIN (GERMAN CUSTOMS UNION), 1834 States and cities within the German Customs Union. Led by Prussia, it was the first attempt by the German states to reduce customs duties and to coordinate economic activity.

The German states took a major step toward an expansion of commerce and manufacturing when they formed the Zollverein, a customs union, in 1834 (see Map 14.4). The Zollverein was the brainchild of economist Friedrich List (1789–1846), a tanner’s son who became an outspoken proponent of railway building. Calling a customs union within the German states and railway construction the “Siamese twins” of economic expansion, List proposed in 1819 the abolition of all tariffs within the German states, although, unlike many other liberal economists, he insisted that protective tariffs be raised to shield German industries from British imports. List, a fiery advocate for the political unification of the German states, believed that only through tariff reform could Germans save themselves from being “debased to be carriers of water and hewers of wood for the Britons . . . treated even worse than the downtrodden Hindu.” The Zollverein included four-fifths of the territory of the German states. It contributed modestly to German economic and industrial growth, expanding markets for manufactured goods.

In the Ruhr Basin, young Alfred Krupp (1812–1887) began to manage his late father's small steel manufacturing firm in Essen at the age of fourteen. He served, in his words, as "clerk, letter-writer, cashier, smith, smelter, coke-pounder, [and] night watchman at the converting furnace." In 1832, his firm nearly closed for lack of business. In 1848 he melted down the family silver in order to pay his workers. Finally, an order from Russia arrived for machinery to produce knives and forks, followed by another for steel springs and axles for a German railway. In 1851 at the Crystal Palace in London, he exhibited axles for train coaches and cannon with a gleaming cast-steel barrel (his newest and ultimately most successful product). Thereafter, Krupp's steelworks became enormously successful, turning out guns of increasing size and quality. Krupp employed 72 workers in 1848, 12,000 in 1873.

Sparse Industrialization in Southern and Eastern Europe

Eastern and southern Europe remained sparsely industrialized, hampered by inadequately developed natural resources and insufficient government attention. Entrepreneurs faced the difficulty of raising investment capital in poor agricultural societies. There were regional exceptions, to be sure, such as the increasingly mechanized textile production of Piedmont and Lombardy in northern Italy and Catalonia in Spain, and pockets of industrialization in Bohemia and near Vienna.

Industrialization in Spain was slowed by inadequate transportation and laws that discouraged investment. Lacking navigable rivers, Spain also suffered the absence of a railway system until after the middle of the nineteenth century. A commercial code in 1829 established the right of the state to veto any proposed association of investors. Following the continent-wide economic crisis in 1846–1847, the state placed banking under the control of the Cortes (assembly) and forbade the creation of new companies unless investors could demonstrate that they would serve "public utility."

Russia had a relatively tiny middle class—with only about 160,000 merchants out of a population of about 57 million people at mid-century. However, the majority of the population were serfs (see Chapter 18) bound for life to land owned by lords. Their bondage made it difficult for entrepreneurs to recruit a stable labor force; industrial workers were among the hundreds of thousands of serfs who fled toward the distant eastern reaches of the empire.

Transportation in the Russian Empire remained rudimentary. The minister of finance from 1823 to 1844 opposed the building of railway lines, believing that they would encourage needless travel. Moscow and Saint Petersburg were joined by rail only in 1851. Serviceable roads—only about 3,000 miles of them—had been built with military, not commercial or industrial, considerations in mind. Rivers provided arteries of transportation, but the boats were not steam-driven and travel was slow. Three hundred thousand boatmen pulled barges up the Volga River, a trip of seventy-five days.

Early in the nineteenth century several major canals were constructed, including one joining Saint Petersburg to the Volga River. Internal and foreign trade expanded markedly in the first half of the nineteenth century, including grain and timber, much of it through Black Sea ports. However, coal and iron ore deposits lay thousands of miles from Saint Petersburg, Moscow, and Kiev and could be transported to manufacturing centers only with great difficulty and at daunting cost.

Some hostility toward industrialization—and toward the West in general—remained entrenched in Russia, in part orchestrated by the Orthodox Church. In the 1860s, there still was no generally accepted word in Russian for “factory” or even “worker.” Industrial workers remained closely tied to village life. The state undertook only feeble efforts to encourage industrial development. The Council of Manufacturers was created in 1828, trade councils organized in the largest towns, and several technical schools were established.

Overall, despite these factors, the growth of Russian industry was significant during the first half of the nineteenth century, if only in and around Saint Petersburg, Moscow, and the Ural Mountains. The cotton industry developed rapidly, as did a number of traditional manufacturing sectors in response to population growth. The number of Russian industrial workers—a fifth were serfs who had to pay some of what they earned to their lords—increased from 201,000 in 1824 to 565,000 in 1860 out of a population of about 60 million. At the same time, Russia began to import and construct more machinery. However, spinning and weaving remained overwhelmingly cottage industries.

THE MIDDLE CLASSES

One should not exaggerate the cohesiveness of the European middle class. The size and influence of the middle class was far greater in Britain, France, Belgium, the German states, and the northern Italian states, whose economies and politics were slowly being transformed by the Industrial Revolution, than in Spain, the Habsburg monarchy, or Russia, which still were dominated by nobles.

In liberalism, the middle class found an economic and political theory that echoed the way they viewed the world, with the family as the basis of social order. Within the family, men and women occupied, at least in theory, separate spheres. Religion and education played privileged roles in middle-class families. At the same time, for all the frugality sometimes ascribed to the nineteenth-century middle class, bourgeois prosperity found expression in the development of a culture of comfort.



The family concert.

Diversity of the Middle Classes

The middle class expanded in size and diversity amid the ongoing economic transformation of Europe. It included all people who neither held noble title nor were workers or peasants depending on manual labor for economic survival. The terms “bourgeois” and “burghers” had first emerged in the Middle Ages to refer to residents of towns like Lübeck, Bremen, and Hamburg that enjoyed specific rights (such as immunity from some kinds of taxation) or even independence granted by territorial rulers. By the nineteenth century, the middle class made up roughly 15 to 25 percent of the total population in Western Europe but a far smaller percentage in Sweden, Eastern Europe, and the Balkans. The Russian middle class at the beginning of the century accounted for no more than about 2 percent of the population, including some intellectuals and Orthodox priests.

The nineteenth-century middle class encompassed a great range of economic situations, occupations, education levels, and expectations. It can be imagined as a social pyramid, topped by a small group of well-connected banking families, industrial magnates, and the wealthiest wholesale merchants, as well as a few top government ministers and ambassadors. Below this extremely wealthy group came lawyers and notaries (both part of what became known as “the liberal professions”) and families drawing more modest incomes from businesses, rental properties, and lucrative government posts. In general it required some resources, connections, and access to credit to make money. Four out of five Berlin entrepreneurs were the sons



A middle-class couple out on a walk in Vienna.

of bankers, manufacturers, or merchants; their fathers brought them into the business or loaned them enough money to get started on their own. At the bottom of the pyramid stood the “petty bourgeoisie,” at whose expense nobles and wealthy bourgeois made cruel jokes. This stratum included shopkeepers of modest means and expectations, wine merchants, minor officials, schoolteachers, café owners, and some craftsmen—especially those in luxury trades, such as goldsmiths and silversmiths—who proudly considered themselves middle class.

Many wealthy merchants and industrialists hungered for social prestige, which was still

closely tied to owning land. The proportion of land owned by the middle class increased rapidly during the first half of the nineteenth century in Britain, France, and the German and Italian states. Since ownership of land (specifically the taxes paid on it) remained the basis of electoral enfranchisement in much of Western Europe, this further increased the political influence of the middle classes.

The landed elite—noble and non-noble—remained at the pinnacle of social status in Britain, although its share of the nation’s wealth fell from about 20 percent to about 10 percent between 1800 and 1850. Some English “country gentlemen” still looked down their noses at those they scorned as mere “calico printers” and “shopkeepers,” even if some peers now owed their titles to family fortunes made in commerce or industry a century earlier. Likewise, because in Britain the eldest son still inherited the entire family fortune, some second and third sons left country life to become businessmen, without feeling the sense of humiliation that their counterparts might have felt in Prussia. Many noble families were delighted to have their offspring marry the sons and daughters of wealthy businessmen.

The Entrepreneurial Ideal and Social Mobility

The entrepreneur emerged as a man to be revered and emulated. The Scottish philosopher and economist James Mill (1773–1836) became the political champion of the middle class, which he called “both the most

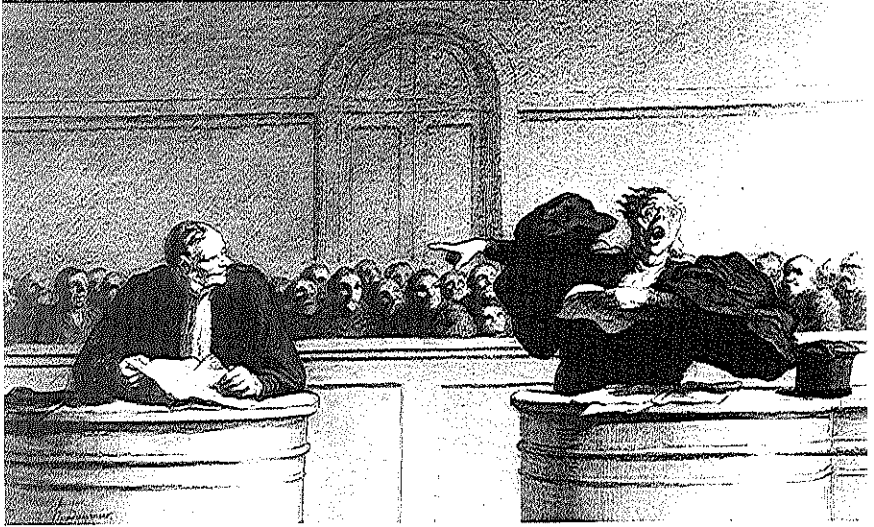
wise and the most virtuous part of the community." Mill's 1820 *Essay on Government* denounced nobles for selfish attention to their landed interests: "They grow richer as it were in their sleep, without working, risking, or economizing. What claim have they, on the general principle of social justice, to this accession of riches?" In Spain, the middle class—bankers, manufacturers, and merchants in the prosperous port of Barcelona, and lawyers and civil servants in Madrid—considered themselves "the useful classes," in contrast to noble "idleness." Many middle-class families in England, the Netherlands, and some of the German states were influenced by evangelical Protestantism, which stressed the redeeming nature of hard work. In 1847, a Parisian newspaper defined what it meant to be bourgeois: "The bourgeoisie is not a class, it is a position; one acquires that position and one loses it. Work, thrift, and ability confer it; vice, dissipation, and idleness mean it is lost."

The notion of "respectability" gradually changed in Europe. Even in Prussia, schoolbooks that had early in the nineteenth century emphasized immutable social hierarchy and the necessity of obedience gradually shifted to discussions of the virtues of hard work, self-discipline, and thrift. Middle-class families viewed the expansion of their fortunes as the best assurance of respectability. Bankruptcy seemed a fate worse than death.

The ideal of the self-made man was born. Yet rapid social ascension remained difficult and fairly rare. There were, to be sure, spectacular success stories. The son of an ironmonger and saddler, the Welshman Robert Owen (1771–1858) began his career as a clerk and then sold cloth. Borrowing money to start up his own textile business, he became part owner of the large and prosperous New Lanark Mills in Scotland. Robert Peel (1788–1850), a British prime minister, is another case in point. His family had owned some land, his grandfather sold goods door to door, and his father became one of the most successful entrepreneurs in Lancashire. By 1790, Peel sat in Parliament as Sir Robert Peel, one of England's wealthiest men. To be sure, some degree of social mobility was also possible from the ranks of relatively prosperous master artisans. Yet hard times could cause petty bourgeois to tumble into the working class. The possibility of being afflicted by economic crises or personal disasters haunted such families.

Rising Professions

Urban growth swelled the ranks of lawyers, doctors, and notaries. For the most part, however, the aspirations of those in these professions remained higher than their incomes and prestige. In the novels of Honoré de Balzac (1799–1850), young middle-class men "kill each other, like spiders in a jar." Lawyers had less than sterling reputations even as their numbers increased. In the 1830s and 1840s, the French caricaturist Honoré Daumier (1808–1879) depicted lawyers as arrogant, self-satisfied, insensitive men far more interested in extracting fees than serving justice. However, in Britain—and



Daumier depicts a lawyer pleading his case.

elsewhere—the “pettifogging attorney” of the eighteenth century gradually was replaced by the “respectable lawyer” of the nineteenth. Notaries, too, gained in wealth and status with the growth of cities. They earned—though some of their clients would not choose that particular verb—fees that sometimes amounted to more than 10 percent of the value of property by registering and storing deeds of title. They prepared marriage documents, dowries, and wills. Notaries thus remained in most countries the financial equivalent of father-confessors, knowing—or at least guessing—most of the deepest secrets concerning their clients’ fortunes.

The number of doctors rose rapidly in nineteenth-century Western Europe, although they still struggled to be recognized as professionals rather than members of a trade. While some brilliant researchers labored in obscurity, some notorious hacks received public plaudits. Among the latter was the decorated French doctor who claimed that he had proved that syphilis was not communicable—thus reassuring clients who paid for his soothing words. Doctors were limited in the treatments at their disposal, which also contributed to their profession’s minimal prestige. Popular belief in age-old cures rooted in superstition persisted. The vast majority of the hospitals that existed in London at mid-century had been founded since 1800.

In Western Europe, doctors began to form professional associations. The British Medical Society began in 1832 with the goal of encouraging standardized training and professional identity. For the first time, in some countries surgeons now needed to have studied medicine in order to take up a scalpel, at least legally. The British Medical Act of 1858 standardized credentials for doctors, but did not require them.

Other professions also gradually commanded respect. In 1820, the Scottish writer Sir Walter Scott, assessing the future of a nephew, said that if the young man seemed fit for the army, he might well make his way there, but, if not, "he cannot follow a better line than that of an accountant. It is highly respectable." Newer professions in such fields as veterinary science and pharmacology were open to sons of artisans and peasants. Clergymen and schoolteachers were increasingly drawn from the middle classes. The growing reach of the state also required more officials and bureaucrats, providing attractive careers for middle-class sons.

MIDDLE-CLASS CULTURE

The middle classes believed that the family offered the best guarantee of social order. Most bourgeois held fast to the idea of separate spheres for men and women. Education and religious practice (however varied) provided a common culture for the middle classes. A wave of evangelical fervor swept over Britain in the late eighteenth and early nineteenth centuries, and a revival of religious enthusiasm was apparent in some places on the continent as well.

Marriage and Family

An astute choice of a marriage partner could preserve and even enhance a family's wealth and position through the acquisition of handsome dowries and wealthy daughters- and sons-in-law. There were fewer noblemen to go around. The disasters of what were considered ill-advised or inappropriate marriages ("misalliances")—that is, a union between two people far apart on the social ladder—continued to be a popular theme in novels and the theater.

Love could—and increasingly did—happily play a role in the choice of a mate. Prospective partners were more likely to insist that their views be taken into consideration in the arrangement of marriages. A Parisian woman told her father that she could not marry "someone that I do not love . . . in order to give myself a lot in life. . . . How could I hold onto him, if I do not love him and desire him?"

With an eye toward assuring the future of their progeny, some middle-class families began to practice contraception after about 1820, limiting their children to two. The economist Jean-Baptiste Say (1767–1832) encouraged family planning, warning that "one must increase savings accounts more than increase the number of children." Coitus interruptus certainly became more common, as well as other rudimentary forms of birth control.

The concepts of childhood and adolescence developed within middle-class families. The "children's room" and the "children's hour," when the young came forward to see their parents or meet guests, were middle-class concepts. In working-class and peasant households, there was no space for

a separate room or quarters for children. Most working-class and peasant children had to begin work as soon as it was physically possible for them to do so. Many children who were apprentices did not live with their families, but with the masters of their chosen trade.

Because children, too, were an investment—and much more, of course—parents had to prepare them to take over family responsibilities, passing on self-discipline and self-reliance to their offspring. Germans called it *Bildung*, the training of cultivation and character, the subject of many nineteenth-century novels.

Separate Spheres and the Cult of Domesticity

To the nineteenth-century middle class, the family was the basis of order, what the English called the “nursery of virtue.” Many men considered women “virtuous” when they remained in their domestic sphere, “angels” whose obligation was to provide comfort, happiness, and material order to their families. However, although many bourgeois insisted that women should work only when dire necessity left them with no alternative, many middle-class women worked in commerce, as unpaid clerks in their husbands’ shops or as receptionists and secretaries in their spouses’ law, medical, or notarial offices.

At the same time, the cult of domesticity also became increasingly fundamental to concepts of masculinity: men were to provide for and assure the future of the family. Yet during the middle decades of the nineteenth century the concept of British “manliness” came to emphasize physical strength. Men increasingly joined sports clubs. Oxford and Cambridge Universities evolved into defiantly masculine spaces that privileged athletic prowess. This trend perhaps reflected a response to the perceived threat of gradually increasing possibilities for women in British society, as well as a homosexual subculture at universities and in Britain’s burgeoning urban world.

A woman’s status remained closely tied to that of her father and her husband. In France, the Napoleonic Code made all men legally equal but left each woman subordinate to her husband’s (or father’s) will. On his accession to the throne in 1820, King George IV of Britain (ruled 1820–1830) tried to prevent his wife, Caroline, from becoming queen by blocking her return from Italy under threat of prosecuting her for adultery. But the king was forced to abandon his plan and accept his queen when women—particularly middle-class women—petitioned on her behalf, denouncing the king for promoting a double standard, since his own liaisons were notorious. A ballad urged women to rally behind Caroline:

Attend ye virtuous British wives
Support your injured Queen,
Assert her rights; they are your own,
As plainly may be seen.



A woman's separate sphere was inside the household and included supervising children and servants.

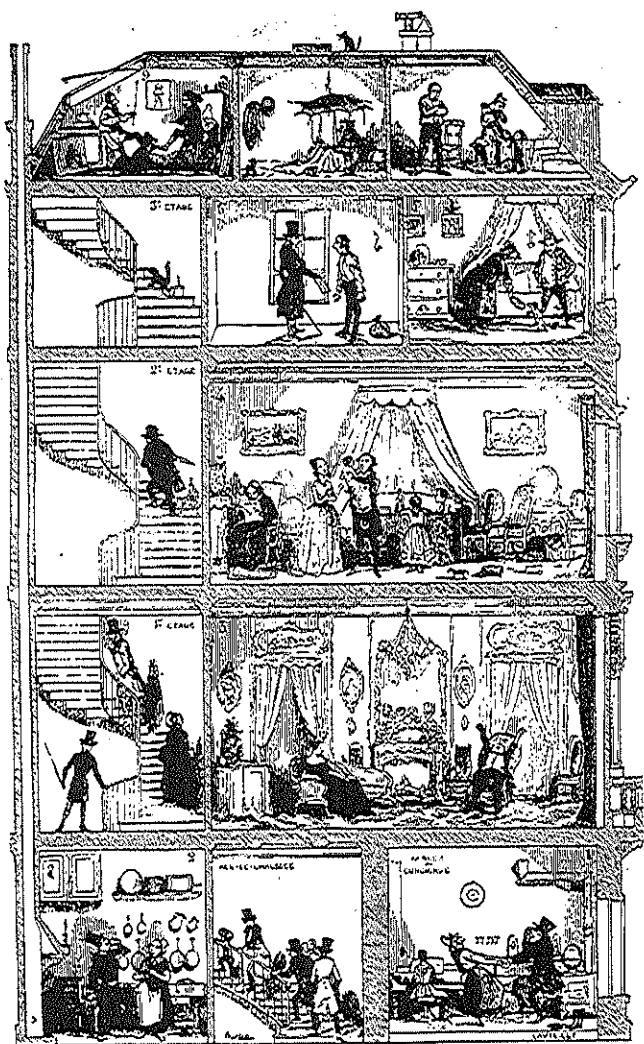
Middle-class women cared for their children, planned and oversaw the preparation of meals, supervised the servants, and attended to family social responsibilities. They exercised great influence over the education of their children, supplementing formal school instruction and taking responsibility for providing some religious instruction.

Middle-class British feminists began to challenge female legal and political subordination, debating the issue of "separate spheres" for women and men. Some women now demanded the right to vote. In *The Enfranchisement of Women* (published anonymously in 1851), Harriet Taylor Mill (1807–1858) stressed the injustice of considering anyone inferior, and therefore not deserving of the right to vote, by virtue of gender. Eighteen years later, her long-time companion and future husband John Stuart Mill (1806–1873) published *The Subjection of Women* (1869). Mill argued that women, like men, should be able to compete as equals in a society defined by market relations. Feminists demanded that married women be allowed to continue to have control over property they had brought with them into marriage. However, opponents of women's rights identified feminist movements with the violence of the French Revolution, or with surges of working-class militancy. Many upper-class Britons continued to view feminism as "unrespectable."

A Culture of Comfort

The European middle classes gradually shaped a culture based on comfort and privacy. Most bourgeois families were able to employ one or more servants and had apartments of several rooms. The wealthiest usually occupied the first floors of apartment buildings—but rarely the ground floor, where the *concièrge* lived—while less well-off neighbors had to hike further up the stairs.

A cross section of a Parisian apartment building, about 1850. Note that with the exception of the *concièrge's* apartment on the ground floor, the farther you had to walk up the stairs, the less well off you were.



Kitchens and even dining rooms became separate rooms, as did attached offices for notaries, lawyers, and doctors. A distinct middle-class style of interior design slowly emerged, with national and regional variations. The accoutrements of the salon were likely to include an armoire or two, a chest of drawers, an elegant table and chairs, Limoges porcelain in France, Wedgwood china in England, crystal glasses, a clock, candelabras, a painting or print or two on the walls, all passed down from one generation to the next. The German decorative style offered wallpaper and sparse, austere furnishings and ornamentation. Pianos and other musical instruments became more common in the home and accompanied family singing. Flush toilets with running water began to replace outdoor privies and the chamber pots that had caused many unfortunate mishaps when emptied unceremoniously out windows.

Victorian Britons in particular embraced household possessions with a passion that verged on obsession. Leaving the simplicity of decoration behind, they began to fill up their residences with china, carpets, mantel-pieces, statues, and garishly decorated fire-screens and teapots. They ascribed to furniture and items of interior decoration a kind of moral quality they believed suggested that their owners were living good lives. The Victorians' identification with their homes also arguably reflected the threat to class distinctions that was indeed very real in a century of enormous social change. Some of these novelties—such as antiques of fairly dubious origin or copies of colonial items purchased in curiosity shops—may seem to us in hindsight to be remarkable for their bad taste. But they enabled their owners to defy the trend of mass manufactured items, and try to reflect their status in Victorian society.

The old Roman saying that “clothes make the man” rang true of the nineteenth-century bourgeoisie. Middle-class men wore black suits, perhaps enlivened by a cashmere scarf. Their wives dressed only somewhat less simply; it was left to jewelry to suggest family wealth.

Expanding readership during the first half of the century encouraged a proliferation of novels, histories, poetry, literary reviews, newspapers, and political pamphlets, reflecting the diversity of middle-class interests. Reading clubs and bookshops flourished. Balzac's novels were first published in France as installments of lengthy serials—authors were often paid by the word—that appeared at the bottom of the front page of newspapers. Charles Dickens (1812–1870), too, first reached his public in monthly installments. *The Pickwick Papers* (1836–1837) attracted 40,000 regular readers in Great Britain.

Travel for pleasure became more common among the middle class. It also became a business. In 1835 in the German Rhineland, a young publisher named Karl Baedeker (1801–1859) published a guide to sites along the Rhine River. He soon published similar guides to Paris, German states, Austria, Belgium, and the Netherlands. In Britain, Thomas Cook (1808–1892) organized his first collective excursion in 1841 when he chartered a special

train to transport a group of workers to a temperance meeting. Four years later, he began the first travel agency, building on demand for his services at the time of the Great Exposition of 1851 in London. Soon Cook was transporting groups as far as classical ruins in Italy and Greece. Middle-class families began to view travel as a means of self-improvement. They took in museums and other sights. In London, the National Gallery first opened its doors in 1824, about the same time as Berlin's Old Museum.

Education

Secondary education increasingly provided a common cultural background for the middle classes. Prussia's secondary schools (*Gymnasien*, or high schools) were arguably Europe's finest, offering a varied curriculum that included considerable religious instruction. In Britain, the victory of the entrepreneurial ideal was reflected in a gradually changing secondary-school curriculum. The English elite had long been exposed to a classical curriculum, as well as to Spartan discipline featuring corporal punishment. Reforms undertaken by Thomas Arnold (1795–1842), headmaster at Rugby School, were intended to spur students on to better performances by stimulating academic competition through examinations and prizes. Arnold's reforms reinvigorated the existing English "public"—in the United States they would be considered private—secondary schools, and new ones were established.

Many businessmen, however, still believed that experience was the best preparation to carry the family torch. Prosperous French shopkeepers sometimes pulled their children out of school at age eleven or twelve, viewing what they learned there as irrelevant to the tasks that lay ahead. Some entrepreneurs of family firms preferred to send sons to other companies, sometimes even in other countries, to obtain practical experience.

Secularized education, sponsored by states, only slowly undermined the role of religion in public life. In France, the Chamber of Deputies approved a law in 1833 (the Guizot Law, named after the French politician who sponsored it) specifying that each village was to have a primary



The Reading Lesson, by Jean-François Millet.

school. Private schools operated by the clergy continued to exist, and in many places provided the only schooling. In Catholic countries, middle-class families sent girls to convent schools to learn about drawing, music, and dance. However, state educational systems, staffed by lay teachers, gradually eroded ecclesiastical control of education. In France, liberals and republicans opposed a pronounced role for the Church in public life, demanding public schools that would teach secular, nationalistic values. In the German states, ecclesiastical and secular authorities battled it out, but the established churches retained greater influence over public education. The clergy still controlled schools in Spain and the Italian states. Yet in 1847 Piedmont became the first European state to establish a ministry of public education.

The educational systems of early nineteenth-century Europe did provide many more people than ever before with basic reading and writing skills. The literacy rate in Western Europe moved well above 50 percent. But social barriers remained daunting. Relatively few families could afford to send their children to secondary schools, which could provide them with more advanced skills needed for better-paying employment. In France in the early 1840s, only two of every thousand people attended a secondary school. Some working-class families still resisted even sending their children to primary school, not only because they could ill afford the modest costs involved, but because they needed their children's wage contributions, however small, to the family income. For women, very few formal opportunities existed for secondary schooling.

More young men went to university in order to prepare for careers in law, medicine, the church, or the civil service. Even in Russia, the number of university students tripled, from 1,700 in 1825 to 4,600 in 1848—still precious few in a population of more than 50 million.

Religion

Religious ideals still played an important part in the middle-class view of the world. Although disenchantment with organized religion permeated novels in Britain, France, and the German states, contemporary writing rarely challenged common assumptions that closely linked Christianity and morality. Biblical references abounded even in the treatment of secular subjects, because they were understood by all literate people. In the German states, as in the Scandinavian countries, the middle classes were more likely to go to church than other social groups. Throughout Europe, women manifested a much higher rate of religious observance than did men.

Many middle-class men and women deplored the materialism that seemed to have lured some of their own away from church. The novels of Jane Austen (1775–1817), the daughter of a clergyman, were highly successful at least partially because she affirmed that character, moral rectitude, and proper conduct, including control of the passions (in short, “respectability”), were not the preserve of wealthy landowners and titled nobles, many of



Evening prayer in a Viennese middle-class household.

whom were concerned only with wealth and status. Virtue could also be found among the men and women of the middle class.

The English middle class also viewed religion as a way of “moralizing” workers by teaching them self-respect. By the mid-nineteenth century, more than 2.6 million children attended Sunday schools, many created by the working-class communities they served. They provided the children of workers with educational, social, and recreational opportunities not otherwise available. Indeed the middle class did not have a monopoly on “respectability” and the virtues of hard work and discipline.

THE AMBIGUITIES OF LIBERALISM: VOLUNTARISM VERSUS STATE INTERVENTION

Clubs, societies, and other voluntary associations became part of middle-class life. Some, organized exclusively for leisure activities, manifested an upper-class sense of social distinction, such as the exclusive clubs of west London and the Anglophile Jockey Club of Paris. French bourgeois increasingly joined sociable “circles,” and German university students formed dueling fraternities (*Burschenschaften*). Middle-class women formed their own clubs, among the few public opportunities open to them.

Charitable activities emerged as an important facet of middle-class life in nineteenth-century Europe, in many places remaining closely tied to organized religion. Growing public awareness of the appalling conditions in which many workers and their families lived engendered impressive charitable efforts among the more privileged. Such associations joined manufacturers, merchants, and members of the professions in northern English industrial towns in seeking to “moralize” the lower classes by shaping their conduct (for example, by encouraging them to attend church and to drink less). In 1860, there were at least 640 charitable organizations in London alone, more than two-thirds of which had been established since the beginning of the century.

Despite the growing tradition of voluntarism and liberal rejection of state interference, fear of popular insurgency could temper liberalism. Anxious bourgeois were reassured by the greater professionalization of police forces both in France and in Britain, where Home Secretary Robert Peel (a future prime minister) organized an unarmed municipal police force in London. They became known as “bobbies” in his honor. At mid-century Berlin had only 200 policemen to watch over a population of 400,000, which they did with military precision and occasional brutality. In British, German, French, and Italian cities, and in the United States, as well, civilian national guards were established, with membership limited to property owners. Such forces on occasion supplemented the police, national police, and regular

A charity providing halfpenny dinners to children in London.



HALF PENNY DINNERS FOR POOR CHILDREN IN EAST LONDON.

army units, and could be called upon to quell local disturbances and protect property.

By about 1830, some Western European liberals became aware of some of the social consequences of laissez-faire economic policies. They did not object to the wealthy becoming even wealthier, but worried that the poor were becoming too poor. Some of Jeremy Bentham's followers, among others, began to espouse government-sponsored social reform. Liberals crusaded against slavery, portraying the institution as incompatible with morality and British freedom. Such campaigns also reflected evangelical Christianity.

Differing views circulated on education for the poor. The British writer Hannah More (1745–1833) believed that poor children should learn how to read so that they could study the Bible, but not to write, because such a skill might make them reject their social subordination. Thomas Malthus (1766–1834), the English clergyman who predicted that the rise of population would rapidly outdistance the ability of farmers to provide enough food, believed that education would make ordinary people “bear with patience the evils that they suffer,” while realizing the “folly and inefficacy of turbulence.” Middle-class liberal reformers, however, shared far more optimistic views of education. The National Society campaigned for universal education in Britain. Henry Lord Brougham (1778–1868) believed that progress would be served if working men were educated. In 1826, he founded the Society for the Diffusion of Useful Knowledge, which made available to ordinary people cheap pamphlets and other publications of “improvement literature.” Brougham and his followers founded a number of schools called Mechanics Institutes, most of them short-lived, which hammered home the entrepreneurial ideal to artisans and skilled workers. But educational reform in Britain proceeded slowly, at least partially because the state provided little direction.

Many poor children in Britain attended Sunday schools, charity schools, or “dame” schools (essentially day-care centers that charged a fee). The state did no more than provide inspectors for schools built by towns or parishes that could afford to do so or that had received random government grants. On the continent, compulsory primary education existed only in Switzerland, beginning in the 1830s.

The English philosopher John Stuart Mill became a forceful proponent of greater government intervention on behalf of social reform. He was appalled that relatively few people of means seemed concerned about the awful conditions of working-class life. In his *Principles of Political Economy* (1848), Mill rejected Adam Smith's cheery optimism about the “invisible hand,” and called on the state to assist workers by encouraging their cooperative associations. Mill's *On Liberty* (1859) argued that the individual is the best judge of his or her own interests, but he encouraged a retreat from pure economic liberalism even in his spirited defense of individual freedom. Moreover, John Stuart Mill's espousal of causes such as women's rights and his participation

in union campaigns for economic justice reflected this evolution of liberalism away from laissez-faire principles to a political theory concerned with economic, social, and political justice.

IMPACT OF THE INDUSTRIAL REVOLUTION

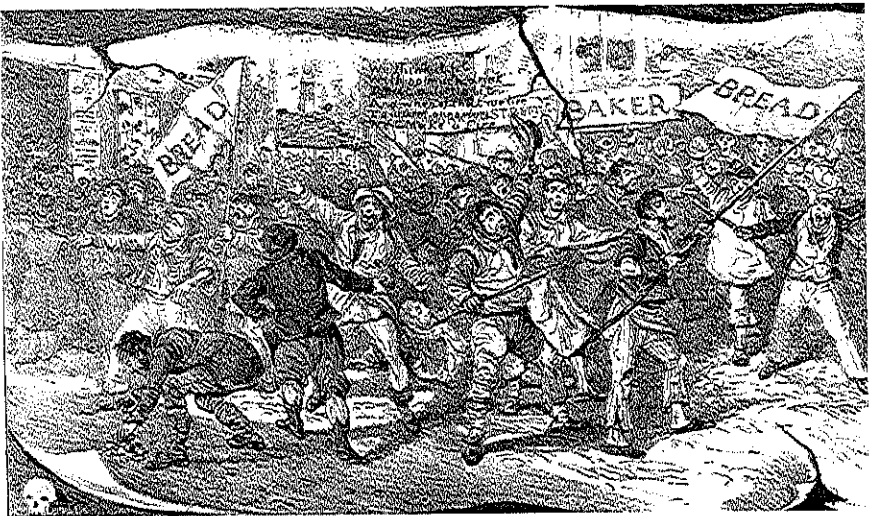
The Industrial Revolution, to be sure, changed the way people lived. Yet one should not overestimate either the speed or the extent to which these fundamental changes occurred in the nineteenth century. Even in Britain, France, and Prussia, the three most industrialized European powers, factory workers comprised between only 2 and 5 percent of the population in 1850. In many places, industrial workers—particularly miners—returned home to work in the fields part of the year, or even part of the day.

Continuities on the Land

Most rural people in Europe were not landowners. Landless laborers outnumbered any other category of the rural population, and their numbers increased dramatically in nineteenth-century Europe. Agricultural wages fell, and rural under- and unemployment became chronic. Landlords hired workers on a disadvantageous short-term basis. The abolition of serfdom in 1807 on the Prussian great estates east of the Elbe River increased the number of rural laborers scrambling to find farm work there. The increase in population put more pressure on the rural poor. Yet, even when peasants owned land, they were by no means guaranteed a decent life, because many plots were too small to be profitable, or the land was of poor quality. In Prussia and southern Spain, the number of landless laborers soared as owners of small farms were unable to survive and sold off their land.

Rural protest increased in the first two decades of the nineteenth century. In 1830, a hard year, travelers found people who had died of hunger on the roads, nothing in their stomachs but dandelions. In southern and eastern England, wealthy landowners had begun to use threshing machines, which left many hired hands without work. Grain passed through the rollers of these portable machines and then into a revolving drum. Threshing machines could be set up in any barn or field and operated by one or two horses. Farm workers, whose labor as threshers or “flailers” was no longer needed, began to smash threshing machines. The protesters were sometimes supported by local artisans, whose own livelihoods were threatened by mechanization, or by small landowners who could not afford the machines and were being driven out of business by their wealthier colleagues who could.

Some of the scrawled threats landowners received were signed “Captain Swing” (for example, “Revenge for thee is on the wing, from thy determined Captain Swing!”). Swing emerged as a mythical figure symbolizing popular



Bread riots in England, 1830.

justice, created to give the impression that the laborers were numerous and organized enough to force the landowners to renounce—as a few did—use of the machines. Authorities weighed in to make arrests, exiling some people to Australia, and executed nineteen men. Other similar attacks occurred between 1839 and 1842 in Wales when poor people attacked tollgates and tollhouses in the “Rebecca riots,” which were also named after an imaginary redresser of social wrongs. In Portugal, women played a major role in an uprising in 1846 that followed a government attempt to enclose land and force peasants to register land they owned.

Rural poverty weighed heavily, especially on the continent. The Prussian political theorist Karl von Clausewitz, traveling in the Rhineland during the brutal winter of 1817, came upon “ruined figures, scarcely resembling men, [prowling] around the fields searching for food among the unharvested and already half rotten potatoes that never grew to maturity.” Conditions of rural life in Eastern Europe may even have worsened since the eighteenth century. Russian serfs and Balkan peasants still lived in wooden huts. In Sweden, the small red cottages of farming families were notoriously cramped; many people depended on their parishes to provide assistance in hard times. Rural people drew warmth from fireplaces during the day and from animals with which many shared quarters at night. There were few windows because they let in wind and rain (in Sweden, some windows were still covered with animal membrane), or because farmhouses had been built that way to reduce the tax on doors and windows, as in parts of France. A traveler described the hovels in which Romanian peasants lived: “holes dug in the earth, over which a propped roof is thrown—covered rarely with straw, generally with turf.”

The farther east one went in Europe, the more peasants remained fettered by obligations to lord and state. Russian serfs needed permission to leave their villages. In Silesia, peasant families still owed lords more than a hundred days of labor a year, for which they were to provide a team of animals; they were obligated to repair roads and to make various payments in kind. Peasants also paid the equivalent of a third of their produce to the lord or to the state in taxes. Such obligations, particularly to lords, were often deeply resented. More than a hundred Russian landlords or their stewards were murdered by their peasants and serfs between 1835 and 1855. In 1846, peasants in Austrian Galicia rose up and slaughtered their lords. Even when entrepreneurial landlords began commuting such payments in labor and in kind into cash, this did not end subsistence agriculture in parts of Central Europe and most of Eastern Europe and the Balkans.

The rural poor ate rye bread, porridge, and vegetables such as potatoes in northern Europe, cabbage in Central and Eastern Europe and in Russia, and onions and garlic in France. For many people, meat was little more than a distant memory of a wedding feast. When they could afford to eat meat, poor people were most likely to eat tripe, pigs' ears, or blood sausage. Most peasants who owned animals could not afford to slaughter them. Fish was relatively rare on peasant plates, except near the sea or a lake or pond in which they were allowed to fish or could get away with it (although even the English and Scandinavian poor could afford herring, fished in enormous quantities in the Baltic Sea). Water, however contaminated, remained the drink of necessity for the poor; in southern Europe they drank poor-quality wine, and in northern Europe they drank beer when they could, or cider, although both were relatively expensive.

Urbanization

The first half of the nineteenth century brought about a marked urbanization of the European population, as the percentage of people living in towns and cities rose rapidly (see Table 14.3). In 1750, two British cities had more than 50,000 inhabitants (London and Edinburgh); in 1801 there were eight, and by mid-century, twenty-nine. London's population rose from about 900,000 in 1800 to 2,363,000 in 1850. At mid-century, half of the population of Britain resided in towns. French and German urbanization proceeded at a significantly slower pace than that of Britain and Belgium. In 1851, only a quarter of the French population lived in urban areas, which were then defined as settlements of at least 2,000 people.

Yet Paris grew from about 550,000 in 1801 to a million inhabitants in 1846. Stockholm's population multiplied by four, from 75,000 in 1800 to 350,000 at the end of the century. Smaller towns grew rapidly, as well, such as Porto in Portugal, which doubled in size in sixty years. Industrial towns grew most rapidly, but commercial and administrative centers, too, gained population.

TABLE 14.3. Population of Major European Cities

City	1800	1850
London	900,000–1,000,000	2,363,000
Paris	547,000 (1801)	1,053,000 (1851)
Vienna	247,000	444,000
Naples	350,000	415,000 (1871)
Saint Petersburg	200,000	485,000
Moscow	200,000	365,000
Berlin	172,000	419,000
Liverpool	77,000	400,000
Birmingham	73,000	250,000
Leeds	53,162	172,023
Manchester	25,000 (1772)	367,000

In general, the farther north and particularly east one went in Europe, the fewer and smaller the towns. In Austria, more than four of every five people lived in the countryside, and in Sweden, nine of ten. In Russia, serfdom tied peasants to the land. Furthermore, there was in general less manufacturing in Eastern Europe, and therefore fewer manufacturing towns and trading ports. The Russian Empire had only three cities of any size—Saint Petersburg, Moscow, and Kiev; parts of Moscow were still indistinguishable from the rural world, dotted with wood or mud huts inhabited by peasant workers. Yet even in the Russian Empire, the percentage of people living in towns and cities almost doubled during the first half of the century.

As cities grew, streets may have been better illuminated than ever before, thanks to gas lighting, but poorer districts became much more crowded. Only a fifth of the buildings in Paris were connected to the city's water supply, and in these only the first floor or two (carriers hauled tubs of water up and down staircases). Crimes against property increased rapidly with urban growth, especially during periods of hardship. Between 1805 and 1848, indictable offenses in England and Wales multiplied by six, although part of this dramatic jump may reflect the result of better policing, and thus reporting. To the upper classes, rapid urban growth itself seemed threatening.

As urban centers became ever more densely packed, industrial suburbs developed. The urban periphery offered more available land; proximity to railways, canals, and rivers; and a ready labor supply perched on the edge of the city, where the cost of living was cheaper. After the Revolution of 1830, one of French King Louis-Philippe's ministers warned that the factories and industrial workers of the periphery "will be the cord that wrings our neck one day." Within cities, the European middle classes withdrew into privileged elite quarters, leaving workers and other poor people in separate, disadvantaged neighborhoods.

Social segregation intensified within cities. Industrial pollution, including smoke and other smells, altered residential patterns, driving some middle-class families to new quarters. At the same time, some people of means in industrial cities moved to newly developing middle-class suburbs. Country-side secondary residences, retreats from the bustle of urban life, became more common. Although most European suburbs were plebeian, in England some middle-class people of means moved to exclusive suburbs, such as the villa neighborhoods on the edge of London and Manchester. A poem in 1851 described a suburb of Birmingham, England: "See Edgbaston, the bed of prosperous trade, Where they recline who have their fortunes made; Strong in their wealth, no matter how possessed, There fashion calls, and there at ease they rest." The wealthy in London enjoyed vast public gardens, comfortable theaters, and elegant shopping arcades, a jolting contrast to the misery of the East End. Public gardens like Copenhagen's Tivoli and Berlin's Tiergarten, as well as Paris's Champs-Élysées, developed so middle-class denizens could observe and be seen. Cafés catered to people of means—coffee was expensive—while cabarets, selling cheap drink, attracted more ordinary people.

On the Move

As more people died than were born in most large cities, immigration of peasants and unskilled workers accounted in almost every case for urban growth. Thus, only about half of the residents of London and Paris and only about a quarter of those in the even more rapidly growing northern English industrial towns had been born there. The majority of immigrants were poor.

Most migrants moved to town because they knew someone there, usually relatives or friends from home who might be able to help them find a job, and perhaps put them up until they found a job and their own place to live. People tended to live in the same neighborhood as others from their regions, such as the sooty "Little Ireland" in the midst of the largest factories of Manchester in which many of the 35,000 Irish of the city lived in cellars, or the infamous Irish "rookery" of St. Giles in central London. The discrimination faced by the Irish in London was reflected in Elizabeth Gaskell's *North and South* (1855), in which the villains are Irish. Among the English of all social classes, "Paddy" became a racist stereotype of the Irish character, depicted as ignorant, superstitious, lazy, drunken, and potentially violent. Anti-Irish feeling in Victorian England was linked to anti-Catholicism, which, after generating violence and riots in the 1850s and 1860s, only slowly declined in the last part of the century.

Between 1816 and 1850, at least 5 million Europeans booked passage across the seas, particularly during the "hungry forties," which struck Central and Eastern Europe and Ireland particularly hard. One and a half million people of Ireland's population of approximately 8 million left their

homeland between 1835 and 1850 (and somewhere between 1 and 2 million people died of hunger on the Emerald Isle), particularly during the potato famine in the 1840s. An Irish migrant to London remembered:

I had a bit o' land, yer honor, in County Limerick. . . . It was about an acre, and the taties was well known to be good. But the sore times came, and the taties was afflicted, and the wife and me—I have no children—hadn't a bit nor a sup, but wather to live on, and an igg or two. I filt the famine a-comin'. I saw people a-feedin' on the wild green things. . . . The wife and me walked to Dublin . . . and we got to Liverpool. Then sorrow's the taste of worruk could I git, beyant oncete 3 [shillings] for two days of harrud porthering, that broke my back half in two. I was tould, I'd do betther in London, and so Glory be to God! I have—perhaps I have.

Following the Irish, Germans were the next largest group of emigrants. After 1820, Norway sent more emigrants to the United States than the number of people living in the country in that year. At the same time, hundreds of thousands of Russian migrants pushed toward the eastern reaches of the empire in the quest for land.

Improvements in transportation expanded the distance people could travel to find work. Seasonal migration took men greater distances to work in towns

This British cartoon from 1850 depicts the expectations of migrants.



HERE AND THERE;
Or, Emigration a Remedy.

and cities during the warmer months of the year, while their wives cared for the children and whatever land they might have at home. Before the middle of the nineteenth century, seasonal workers still may have accounted for as much as a third of the workforce.

INDUSTRIAL WORK AND WORKERS

The English novelist Charles Dickens dubbed the grim, sooty industrial cities of England "Coketown." After completing his novel *Hard Times* (1854), an account of working-class life, Dickens wrote that "one of Fiction's highest uses" is to "interest and affect the general mind in behalf of anything that is clearly wrong—to stimulate and rouse the public soul to a compassionate or indignant feeling that *it must not be*."

Middle-class socialists and workers themselves also began to criticize passionately some of the consequences of large-scale industrialization. The growing awareness among some workers that they formed a class apart followed directly from their growing sense that they were vulnerable to the vicissitudes of capitalism.

Gender and Family in the Industrial Age

In Western European nations, domestic service remained the largest category of female employment at the middle of the century, employing in Britain 1.3 million women, nearly 40 percent of women workers. Working up to eighteen hours a day, servants slept under staircases and in attics, but ate relatively well. They had a higher rate of literacy than did working-class women in general and better prospects of marrying above their social class.

Country women spun and wove wool, linen, and cotton; sewed, embroidered, and knitted stockings by hand; and worked in fields or gardens, while looking after children. Such cottage work on the continent allowed country people to maintain the traditional rural family economy well into the nineteenth century. Urban women worked as laundresses, seamstresses, or street merchants and peddlers, and some kept boardinghouses.

Female labor remained central to large-scale industrialization. Women were employed in many of the industries, both rural (where their labor had long been predominant in cottage industry) and urban, that expanded during the industrial age. Although only a relatively small percentage of women worked in factories, a gradual shift to larger textile and clothing workshops and factories occurred in England, above all, as well as in parts of France, Belgium, and the Prussian Rhineland. In France, women accounted for 35 percent of the industrial workforce. With the expansion in power-loom weaving, women with experience as cottage laborers found employment in textile mills. While there were a number of important predominantly male industries, such as iron production, the leather trades, building, and mining,

women did work in these industries as well. The textile industry was the second largest employer of women (hiring 22 percent of all female workers). In general, women everywhere worked for about half of what their male counterparts earned. As in the pre-industrial period, many, if not most, female factory workers were young and single.

Many male workers bitterly resented the arrival of women in the workplace. This challenged traditional gender roles, including that of patriarchy, in that women's work had long been assumed to be at home. What came to be called the "struggle for the breeches" began in Britain. One of the significant developments brought about by the Industrial Revolution may have been the slow change from the conception of gender as hierarchical to one as representing different but complementary spheres.

Thus, despite significant continuities, wage labor altered family life and the structure of communities. Wage labor made young women and men less dependent on their parents, enabling many to marry earlier. But marriage still remained to some extent an economic relationship; moreover, some couples delayed wedlock until both partners could accumulate the skills or assets to maintain an independent household. A sharp rise in illegitimate births (in Paris, about 33 percent of all births, 45 percent in Stockholm) seems to have been another effect of the rise in employment opportunities and wages for unmarried couples in "free unions," or common-law marriages, although many women who gave birth were unattached.

Working-class families were presented with a dilemma: with the growth of factories and the consequent separation of home and work, women had to balance the need for the additional income factory work could provide with caring for young children. Many mothers left the workforce to care for children for at least a time. But since the family economy also depended on their wages, they generally returned to work as quickly as possible.

Hundreds of thousands of European women worked full- or part-time as prostitutes. Prostitution presented a hierarchy of conditions of life and wages, ranging from confident high-class courtesans to poor girls beckoning clients from dark doorways. Some women, including many who were married, were able to earn much more money selling sexual favors than they could earn in textile mills or in domestic service.

To middle-class moralists, prostitutes symbolized moral failure and the dangers of modern life. Yet it was the increase in middle-class male demand for prostitution that increased the number of prostitutes in Europe's burgeoning cities. Governments therefore accepted prostitution as a "necessary evil." They sought to police brothels and the comportment of prostitutes in order to keep the profession hidden as much as possible from public view, while trying to limit the ravages of venereal disease by ordering prostitutes to have regular medical checkups. The number of prostitutes in London was so difficult to determine that estimates for the 1840s vary from 7,000 to 80,000. In Saint Petersburg, there were over 4,000 registered prostitutes in 1870.

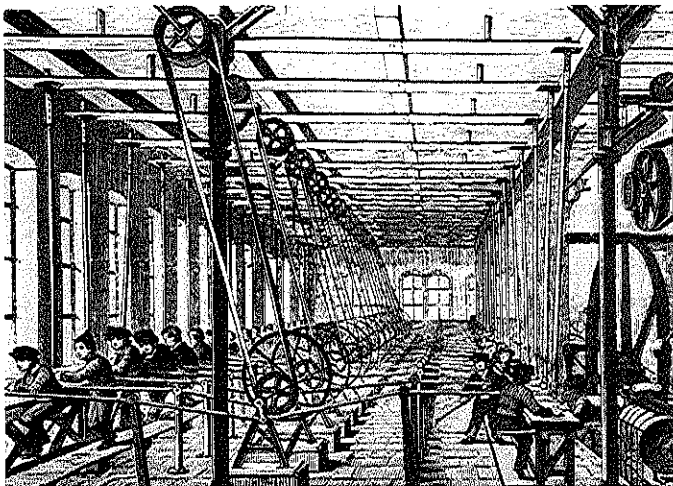
Child Labor

Children had always worked in agriculture, given such tasks as caring for farm animals, scaring birds away from crops, and gleaning at harvest time. At a very young age, many had also learned to assist in domestic textile production, preparing wool for spinning and raising silkworms. Now in factories, their smaller size made children useful for certain tasks, such as mending broken threads or climbing on machinery to extract something impeding its operation. Teenage girls were particularly adept at calico printing. In Britain during the early 1830s, youths less than twenty-one years of age made up almost a third of the workforce.

As in cottage industry, factory work often employed entire families, with adult males supervising other family members. Children's low wages—about a quarter of what their fathers earned—nonetheless represented a significant contribution to the family economy. One man recalled "being placed, when seven years of age, upon a stool to spread cotton upon a breaker preparatory to spinning," an elder brother turning the wheel to put the machine in motion.

Factory work was often dangerous. An English factory inspector reported that the children working at a punching machine risked losing their fingers: "They seldom lose the hand," said one of the proprietors to me, in explanation, 'it only takes off a finger at the first or second joint. Sheer carelessness . . . sheer carelessness!" An eight-year-old girl who worked as a "trapper" in the mine pits, opening ventilation doors to let coal wagons pass, related, "I have to trap without a light, and I'm scared. I go at four and sometimes half-past three. . . . Sometimes I sing when I've light but not in the dark. I dare not sing then."

Young children working in a factory.



Some contemporaries believed that long days of labor instilled discipline, whereas idleness would turn children into sinners and criminals. But Methodists, among other British evangelical Protestants, wanted to save children from exhausting and sometimes dangerous work. A British law passed by Parliament in 1833 forced employers to start part-time schools in factories employing children, although in some cases the owners simply designated a worker to be “teacher,” whether or not he could read or write very well. The 1833 Factory Act in Britain banned work by children less than nine years of age and limited labor by older children to eight hours (subsequent legislation in 1847 limited older children and women to a ten-hour day). In 1841, France’s first child labor law banned factory work for children under eight years of age and limited the workday to eight hours for those eight to thirteen years old and to twelve hours for those thirteen to sixteen years old, banning child labor at night and on Sundays and holidays. The law, however, was extremely difficult to enforce, and was routinely circumvented by employers and ignored by parents who needed the additional family income, however small.

The Laboring Poor

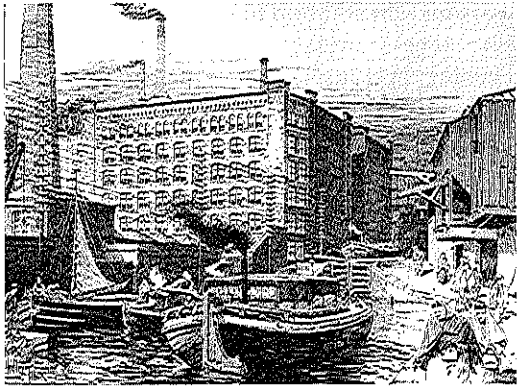
In 1838, a British member of Parliament described a cotton mill:

[It was] a sight that froze my blood. The place was full of women, young, all of them, some large with child, and obliged to stand twelve hours a day. Their hours are from five in the morning to seven in the evening, two hours of that being for rest, so that they stand twelve hours a day. The heat was excessive in some of the rooms, the stink pestiferous, and in all an atmosphere of cotton flue. I nearly fainted. The young women were all pale, sallow, thin, yet generally fairly grown, all with bare feet—a strange sight to English eyes.

The northern industrial cities of England in particular attracted the attention of horrified observers. There were, to be sure, people of means in Manchester, but Friedrich Engels (1820–1895), a German Rhinelander, sought and found the grim face of unrestrained capitalism there:

At the bottom flows, or rather stagnates, the Irwell, a narrow, coal-black, foul-smelling stream, full of debris and refuse. . . . Above the bridge are tanneries, bonemills, and gasworks, from which all drains and refuse find their way to the Irk, which receives further the contents of all the neighboring sewers and privies . . . here each house is packed close behind its neighbor and a bit of each is visible, all black, smoky, crumbling, ancient, with broken panes and window-frames. The background is furnished by old barrack-like factory buildings. . . . [Beyond] the background embraces the pauper burial ground, the station of the Liverpool and Leeds railway, and, in the rear of this, the Workhouse . . .

of Manchester, which, like a citadel, looks threateningly down from behind its high walls and parapets on the hilltop, upon the working people's quarter below.



The satanic mills of Manchester.

The “cheerful” school of historiography has argued that the Industrial Revolution, at least during the first half of the century, by increasing employment and lowering the price of some goods, almost immediately improved the way ordinary people lived. By contrast, other historians have embraced the view that industrial capitalism was making conditions of life even worse for workers and their families as the number of people depending on wage labor increased faster than did job possibilities and pay.

During the first half of the century, the incomes of many artisans, as well as women workers, fell as trades were flooded with the end of guild restrictions and increasing mechanized production. Women workers such as spinners were often the first to experience unemployment because of the new technology. Wages in many industries were extremely volatile; boom periods could come and go with numbing suddenness. Even good years were broken in many industries by “dead seasons” when there was no work. The gap between the rich and the poor increased. In England, many middle-class heads of household earned three or four times as much as even a skilled worker. In the late 1820s in Paris, more than three-quarters of people who died left virtually nothing to heirs, because they had next to nothing and, in any case, they could not afford to have a will drawn up by a lawyer.

On the continent, the poorer a family was, the greater the percentage of its income that was spent on food, primarily bread. Clothing accounted for the second largest category of expense, followed by lodging. All other expenses, including heat, light, tools, supplies, and recreation, had to come out of less than 10 percent of the family income. Most migrants to cities no longer benefited from the kind of community support they had received during hard times in their villages. Recourse to the neighborhood pawn shop was part of the experience of the majority of urban working-class families.

English workers tended to be better off than most of their continental counterparts. Paternalism, the tradition by which employers took some responsibility for helping their workers by providing some supplementary

assistance in addition to their salaries, seemed rare in the new factory towns. But some manufacturers did pay slightly higher wages, provided decent housing, and insisted that their workers' children attend school. However, such laudable efforts affected the lives of relatively few workers.

The nineteenth-century urban poor probably lived in more miserable housing than their counterparts in the previous century. Buildings in industrial cities, built hurriedly and as cheaply as possible, quickly became dilapidated tenements. Many workers lived amid terrible smells from raw sewage, garbage, industrial pollution such as sulfurous smoke, and putrid rivers and streams. Warm summers brought outbreaks of serious diseases like typhus and dysentery. Between 1848 and 1872 in Britain, a third of all people died of contagious diseases. Despite attempts to improve water supplies and construct sewer systems in several large English cities, the decline in mortality was barely felt in the heart of industrial cities, where tuberculosis remained a great killer.

Many children either died or were abandoned at an early age. At mid-century, about 26,000 infants were abandoned each year in both Moscow and Saint Petersburg, and about a fifth of all babies in Warsaw. The most fortunate of the abandoned were left at the doors of charitable organizations created by states, municipalities, and churches. Some babies were left with notes such as this one found in Rouen in 1831: "It is with the greatest pain that I separate myself from my son, after the great suffering I have gone through to keep him in his present state. . . . I hope to see him again as soon as I can take him back for good." Sadly, this would usually not be the case.

A poor family blocks their landlord from invading their cellar apartment, which they share with a donkey and some rats.



Foundling homes were overcrowded and notoriously unhealthy. In four towns in one Russian province, more than 90 percent of all of the children taken in by orphanages died within a few years.

Great Britain was the first state to have a national policy of poor relief. Against the background of the French Revolution, the Speenhamland system established in 1795 supplemented the wages of laborers with funds generated from property taxes ("poor rates"). Doles were based on the price of bread and the number of dependents for whom each head of a poor family had to provide. But this arrangement had the drawback of encouraging landowners to pay lower wages, while assuring them of an inexhaustible supply of cheap field hands. It also may have encouraged poor families to have more children, as payments were adjusted to family size.

The Poor Law Amendment Act of 1834 ended the Speenhamland system. It established workhouses in which poor people without jobs would be incarcerated. Workhouses were organized like prisons, their occupants exposed to harsh discipline in the hope that they would find any kind of possible work in order to avoid being sent back. Towns enforced laws against begging in order to force the unemployed poor into workhouses. When families were taken in, husbands were separated from their wives, children from their parents, and all were herded into dormitories. Inmates were forced to work at simple tasks and were given used clothes and dreadful food. The stigma of being poor was such that one influential official even tried to stop the ringing of church bells at pauper funerals. In 1841, despite organized opposition and although application of the law varied greatly, more than 200,000 people were workhouse inmates in Britain.

Class Consciousness

During the first half of the nineteenth century, many workers began to consider themselves members of the working class, with interests that were different from those of their employers and the middle class. They began to have a sense of community based on a belief in the dignity of labor. This class consciousness did not spring up overnight, and it is difficult to fix a certain point in time when it did develop. Moreover, certainly not all workers became conscious of themselves as a class apart. Great differences in skills and work experience remained among workers in different countries and even among workers in the same region, or city, and between male and female workers. Other identities continued to be important to workers, such as those of family and motherhood, cultural identity (Flemish, Venetian, Welsh, etc.), religious adherence, and village and neighborhood solidarity.

Urban artisans were the first workers to begin to express class consciousness, sharing the frustrations and goals of other workers. This process began early in the nineteenth century in England, although it was not until the early 1830s that one can speak of a cohesive class identity; it began in the

1840s in France and in some areas of the German states, and later in other countries.

Large-scale industrialization had deleterious consequences for many trades, threatening the control craftsmen had maintained for centuries over their work. Changes in artisanal production were a Europe-wide phenomenon. Artisans had traditionally organized themselves by trades into guilds, which enabled them to control entry into their trades, the training of apprentices, and production, even if guild controls had not been able to protect all workers from market forces (for example, from rural cottage production). Shoemakers, masons, and tailors, among those in other trades, retained their own craft organizations. Rival associations within the same trade sometimes engaged in bitter, violent battles. Furthermore, even within trades, hierarchies of skill and remuneration remained.

As a number of states followed France's lead in 1791 by banning guilds in the name of economic liberalism, the number of artisans expanded rapidly because there were no legal restrictions to entering a given craft. Journeymen, having completed their apprenticeships, were more uncertain than ever before about whether they would become masters and would employ their own journeymen and take on apprentices. In Prussia, the number of masters increased by only about half between 1816 and 1849; the number of journeymen and apprentices aspiring to a mastership more than doubled during the same period. Artisans' confraternities and trade associations (some of which governments tolerated, even if they were technically illegal) facilitated the emergence of working-class consciousness (although in places where they helped to maintain trade exclusiveness, they may have delayed its emergence).

"De-skilling" reduced the income and status of workers like tailors and skilled seamstresses by taking away opportunities for them to work for piece rates and wages they had once earned. For example, competition buffeted tailors as never before. Merchant-manufacturers, some of them former tailors who had been able to save some money, put work out to master and journeymen tailors, but asked them to perform a single task, such as making sleeves, in return for less money than if they had tailored an entire suit. Tailors' incomes plunged during the 1830s and 1840s. Many master tailors were driven out of business or forced by necessity to become subcontractors in their own trade. Mechanization also gradually began to undercut tailors by producing ready-made clothes.

The gradual mechanization of some trades brought protest. Already in 1811 and 1812, glove makers in Nottingham, England, smashed a thousand stocking-frames that deprived them of work. One of their leaders—perhaps fictitious—was a man called Ned Ludd. Machine-breaking "Luddites" yearned for a return to the old economic and social order, before mechanization, as had the "Captain Swing" rebels in 1829–1830.

In 1836, a mob burned down a textile factory in Barcelona, Spain, denouncing machinery as "the devil's invention." Mechanical looms reduced Silesian hand-loom weavers to desperate poverty. Movements of social

protest and gradual political involvement infused communities of workers with a sense of moral struggle against economic and political forces they could not control.

Workers' views of themselves drew upon a corporate language of the Old Regime that gave primacy to the idea of work as a value in itself and of the community of workers as a moral entity. Many workers concluded that they, not entrepreneurs with capital, were the source of wealth and were being exploited. Other workers also began to feel a sense of class consciousness because they collectively suffered unemployment or reduced wages. Residential patterns and leisure haunts (pubs, cabarets, music halls) contributed to solidarities among such workers.

Workers' Associations and Social Protest

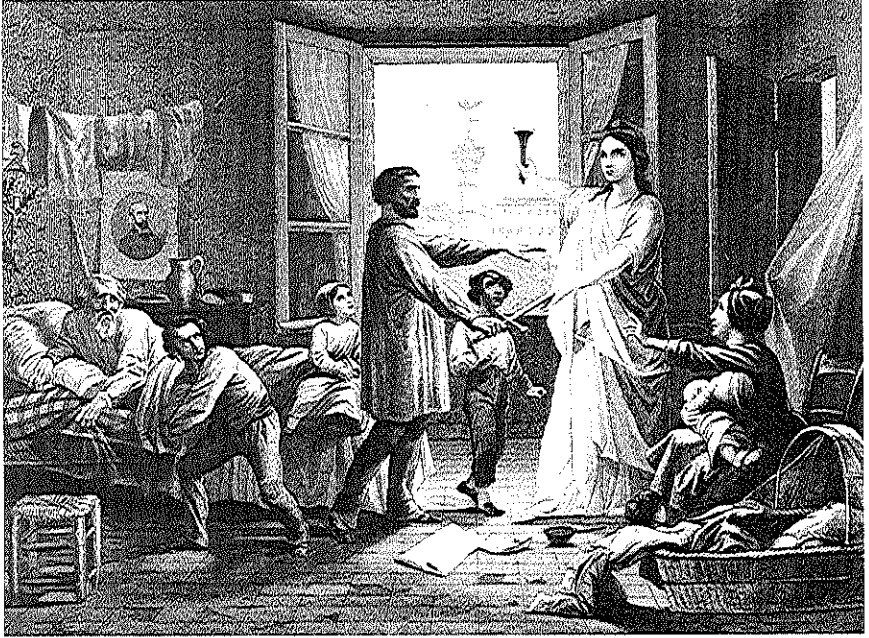
Workers' associations helped shape working-class consciousness and militancy. In Britain, craft-based "friendly societies" had more than a million members in 1815. More than 32,000 such organizations existed in 1872. Their counterparts were journeymen's associations and "mutual aid societies" in France and in the German states.

Fledgling trade unions developed in Britain, particularly after 1824 when Parliament repealed the Combination Acts (1799–1800), which had banned unions. Members sought to protect wage rates and conditions within their trades. Yet, even in prosperous periods when workers could afford dues, less than a fifth of workers belonged to such associations during the first half of the century, and the vast majority of these were more skilled craftsmen. Many of these men believed they had little in common with unskilled workers, who, in any case, could not afford union dues and who lacked job stability.

Some trade associations, including a minority organized by and for women, provided assistance when a member fell sick (paid out of membership dues) and assured members that they would be spared the indignity of a pauper's grave. They also provided funds to assist workers who refused to agree to conditions imposed by employers or masters. These payments had to be made covertly because strikes remained illegal in most places.

Artisans led movements of social protest. They had a much higher level of literacy than did unskilled workers—printers were an obvious example, but tailors and shoemakers were often literate, as well as many seamstresses, who were often self-educated. Literate workers read newspapers and brochures and related the news to those who could not read. The emergence of political movements seeking universal male suffrage (or even universal suffrage) and significant social reforms aided the development of a sense of class by emphasizing the language of "liberty, fraternity, and equality," a heritage of the French Revolution.

Francis Place (1771–1854), a tailor who had been a member of one of the workers' associations sympathetic to the French Revolution, became a



Socialism as a symbol of hope for the working poor, about 1848.

leader of the English workers' movement. Some workers began cooperative stores, hoping to put aside funds to finance cooperative villages. Trade unionism made considerable headway between 1829 and 1836. In the latter year, the first national union, made up of spinners, was founded. Some trade union members undertook producers' cooperatives within their trades, but most of these were short-lived.

The period from 1815 to 1850 was arguably the most socially turbulent period in modern British history. Skilled workers joined with middle-class radicals to demand political reform. William Cobbett (1763–1835) helped galvanize radical opinion with his journal, the *Political Register*. Artisans and skilled workers led massive demonstrations in 1831 and 1832, which pressured Commons and the House of Lords to pass the Reform Bill of 1832 (see Chapter 15). By expanding the number of those eligible to vote, the Reform Bill temporarily diffused middle-class dissatisfaction. The continued exclusion of working men from voting contributed to working-class consciousness in Britain, because in this way Parliament had legally defined workers as a separate, inferior class. At about the same time, middle-class and working-class support for factory reform, marked by public meetings, petitions, and demonstrations, led to the acts of Parliament in the 1830s limiting work hours for children and then women. Amid hardship, more workers took to the streets in protest to demand political reform.

Yet, even in Britain, the most industrial nation, major impediments limited working-class militancy. Methodism (see Chapter 9), which won thousands of converts among workers, preached discipline and the acceptance of one's fate on earth. More important, solidarities within specific trades remained stronger than those that cut across trades. Furthermore, unskilled workers lacked the organization and resources of craftsmen, some of whom continued to do very well, the English "aristocracy of labor." Gradually, too, the utopian vision of rebuilding British political life while bringing social justice faded. Many if not most workers came to accept capitalism as inevitable, while demanding a fairer share of its benefits.

French and German artisans were more militant than their British counterparts, who accepted the tradition of the politics of reform. German craftsmen desperately struggled to try to protect their trades from being flooded by newcomers. Many French workers, now seeing themselves as members of a "confraternity of proletarians," struck against employers in the 1830s and 1840s. They also supported bourgeois republicans in their push for electoral reform, in the hope that a republic would enact reforms on their behalf.

THE ORIGINS OF EUROPEAN SOCIALISM

As large-scale industrialization gradually transformed economy and society in Western Europe, the 1830s and 1840s brought lively discussion, heated debate, and startling transformations in thought. The rapid increase in wage labor influenced the emergence of new political forces that, proclaiming the equality of all people, sought dramatic social and political change. One of the most salient results of the growing preoccupation with the condition of workers was the birth of the movement known as socialism.

Utopian Socialists

Utopian socialists, most of whom were French, provided an original critique of the changes brought by the Industrial Revolution. Their ideas were in part shaped by their reaction against the social consequences of economic liberalism. The name "utopian" reflects their dreams of creating a perfectly harmonious way of life. But their importance comes not from their sometimes quirky theories, however intriguing they may be, but from the fact that many workers found an explanatory power in the critical reaction of the utopians to liberalism and capitalism. This accentuated their determination to put forward demands for social and political reform.

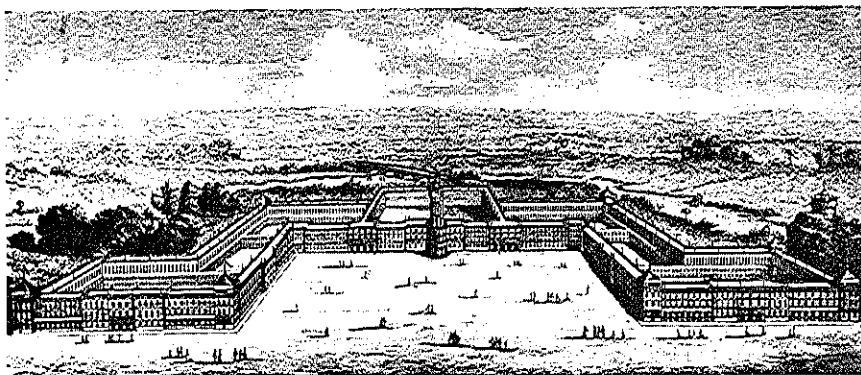
Utopian socialists agonized over the living conditions of the laboring poor. The "social question" was the miserable living conditions of many if not most workers. Rejecting the "egotistic" individualism of the spirit of acquisition, utopian socialists envisioned a gentle world of cooperation. In some ways children of the Enlightenment, utopian socialists were also optimistic

champions of the power of science and technology to construct new social and political institutions.

Count Claude-Henri de Saint-Simon (1760–1825) posited a “religion of humanity,” arguing that religion should “direct society toward the great end of the most rapid amelioration possible of the lot of the poorest class.” In 1820, Saint-Simon published a provocative parable. Speaking hypothetically, he asked what the consequences for France would be if all of its dukes and duchesses, princes and princesses, bishops and priests, and other luminaries of altar, throne, and château sank in a terrible shipwreck. As tragic as that event would be, he had to admit that the loss to society would be inconsiderable. However, if France, in a similar tragedy, were to lose all of its most learned men, talented bankers, artisans, and productive farmers, the result would be disastrous. The timing of his parable was most unfortunate, because soon after its publication in 1820 the heir to the throne of France, the duke of Berry, fell to an assassin’s knife (see Chapter 15). Saint-Simon was charged with offending the royal family, but he was acquitted by a jury.

Saint-Simon postulated a hierarchy, or order of status, based not on blood, but on productivity. Believing that history moves through discernible stages, he asserted that mankind could anticipate a future in which science would solve the material problems of humanity in harmony with an era of moral improvement. For this to happen, people of talent must be freed from the fetters of restraint imposed by uncaring, unproductive monarchs, nobles, and priests.

Contemporary and historical appraisals of Charles Fourier (1772–1837), Saint-Simon’s mystical rival, have ranged from sanctifying him as a genius of great insight to ridiculing him as a paranoid crackpot. Fourier claimed that at a very early age he discovered that the art of selling was the practice of lying and deception. At his father’s insistence, he went off to Lyon as a young man to start a business that quickly failed. Fourier spent the rest of his life preparing a grand scheme for improving the condition of humanity. His cosmology rested upon his conclusion that history moved in great cycles toward a more perfect future. This planet’s next stage would be based upon mankind’s discovery that the principles of cooperation and harmony would free everyone from the repression of bourgeois individualism. Having determined that there were 810 distinct personality types, Fourier proposed that they be organized into “phalanx” communities made up of 1,620 people, one man and one woman of each personality type. The phalanx would channel the “passions” of each person in socially productive ways, while individuals would benefit from the opportunity to express their deepest proclivities. In the “phalanstery,” the place where the utopians would live, crime would become a distant memory, because criminals’ supposed penchant for blood would be safely fulfilled in certain occupations, such as by becoming butchers. With everyone so satisfied, it would not matter that differences in wealth would remain. Fourier sat in his apartment everyday at noon, await-



A drawing of a phalanstery contemplated by Charles Fourier.

ing the wealthy man who would come, he hoped, to finance the first phalanstery. No one ever showed up.

While Fourier dreamed and waited, the wealthy British industrialist and philanthropist Robert Owen acted. Believing that education and environment could shape a spirit of cooperation, Owen built a mill in New Lanark, Scotland. He provided decent housing for his workers and established schools for their children. Like Fourier, for whom human progress demanded the emancipation of women, Owen espoused the equality of women, although he emphasized not political rights but rather the special qualities of motherhood. Likewise, an Englishman named William Thompson penned in 1825 the *Appeal of One Half of the Human Race, Women, Against the Pretensions of the Other, Men*.

No utopian socialist had a greater popular following than Étienne Cabet (1788–1856) in France. Cabet, too, sought to apply the principles of Christianity to the extreme social problems of the day. His novel *Voyage to Icaria* (1840) described an imaginary city of wide streets, clean urinals, and social harmony, a vision of organized economic and social life so attractive that even the bourgeoisie would be converted peacefully to the principles of cooperation and association. Cabet's "communist" newspaper had 4,500 subscribers in the early 1840s, and almost certainly reached twenty times that number. Artisans, their livelihoods threatened by the abolition of the guilds and mechanization, were particularly intrigued by Cabet's ideas. A few of them set sail with Cabet for the New World, founding several utopian colonies in Texas and Iowa.

Another group of utopian socialists represented the scientific, or technocratic and even authoritarian tendencies inherent in Saint-Simon's overwhelming respect for science and insistence that the state lead the way toward material progress. Prosper Enfantin (1796–1864)—called "Father" by his followers—left Paris for Egypt with a small group in search of the Female Messiah; one of the traveling party, Michel Chevalier, came back

with the idea of building a canal through the Isthmus of Suez, thus joining the Red Sea and the Mediterranean, a project later achieved in 1869 by Ferdinand de Lesseps, another Saint-Simonian.

Practical Socialists

Some utopian socialists carried Saint-Simon's analysis a crucial step further. They relegated the bourgeoisie into the category of non-producers, because they possessed capital, while workers seemed to them to be the real producers by virtue of their labor. In France, a group of Saint-Simonian women in 1832 founded a newspaper, *La Tribune des Femmes*, that vowed only to publish articles by women, proclaiming that the emancipation of women would come with the emancipation of the worker.

Gender discrimination led Flora Tristan (1801–1844) to socialism. When the French government confiscated her Peruvian father's fortune upon his death and declared Flora to be illegitimate because it refused to recognize her parents' marriage in Spain, she had to take a series of makeshift jobs. When she separated from her abusive husband, French law decreed that he receive custody of their children, although she later won custody when he started to abuse them, too. Tristan campaigned against women's inequality within marriage and before the law. Linking feminism and socialism, she campaigned for female emancipation with impassioned speeches and forceful prose.

Louis Blanc (1811–1882) looked to governments to give scientists a free hand in applying their talents to the betterment of the human condition. The state should also guarantee workers the "right to work," that is, employment in times of distress and a decent wage in the face of unchecked competition. The state should provide credit to workers so that they could form producers' associations within their trades, thereby eliminating the middleman who skimmed off profits that he had not earned. Blanc believed that these workshops would serve as the basis for the reorganization of society along cooperative lines. Blanc's socialism was predicated on increasing workers' influence on government through the establishment of universal suffrage.

In sharp contrast to Blanc, Pierre-Joseph Proudhon (1809–1865) looked not to the strengthening of the state but to its abolition to create a better world. Proudhon, a typesetter, had grown up among landowning peasants in eastern France. He believed that the very existence of the state itself was a principal reason why capitalism exploited workers. In 1840, he published a fiery pamphlet that answered the question "What Is Property?" with the resounding reply "Theft." Not surprisingly, this frightened property owners in France, even though Proudhon defined property as unearned profit that came to employers from the labor of their workers, and not property per se. Proudhon wanted workers to organize themselves into small, autonomous groups of producers that would govern themselves. By preaching the aboli-

tion of the state, Proudhon was arguably the first anarchist.

Karl Marx and the Origins of "Scientific Socialism"

The economic and political theorist Karl Marx (1818–1883) also read the utopian socialists, but although admiring their critique of capitalist society he found them naïve and "unscientific." Born in 1818 in the Rhineland, Marx studied philosophy at the University of Berlin. When in 1843 his career as a journalist came to an abrupt halt after his radical newspaper ran afoul of the Prussian government, he went to Paris. There he read the histories of the French Revolution and the utopian socialists.



Proudhon destroying property as seen by a hostile caricaturist.

After Marx lambasted the French monarchy in a series of articles, the French police expelled him. He befriended Friedrich Engels, the Rhineland German whose prosperous, conservative family owned a cotton mill in Manchester, England. Marx visited industrial Lancashire, then the greatest concentration of industry in the world. His observation of evolving capitalist society led him to conclude that capitalism was but a stage in world history.

Marx applied the concept of dialectical stages of the development of ideas and institutions, developed by the German philosopher Georg Wilhelm Friedrich Hegel (1770–1831), to the progression of world history. The French Revolution had marked the definitive overthrow of feudal society, represented by the power of the aristocracy and the Church; for Marx, this was a bourgeois revolution. Just as the nobility and the bourgeoisie had battled in the eighteenth century, so the victorious bourgeoisie, who controlled the means of production (capital, raw materials, and equipment needed to produce goods), and the proletariat were in the process of fighting it out in the middle decades of the nineteenth century. English commercial capitalism had brought the bourgeoisie to power, which in turn had facilitated the growth of industrial capitalism. By creating a proletariat, however, capitalists had sown the seeds of their demise. Inevitably, socialism would replace capitalism when the proletariat seized power. The end of private property and pure communism would follow.

But that moment, Marx thought, lay in the future, awaiting the further concentration of capitalism and the development of a larger, class-conscious

proletariat aware of its historical role. Marx called his socialism “scientific socialism” (in contrast to utopian socialism), because he thought that it was inevitable, based on what he considered the scientific certainty of class struggle.

Marx believed that a revolution by workers would be prepared by the organizational efforts of a group of committed revolutionaries, so he formed the Communist League. In 1848, he published the *Communist Manifesto*, which resounds with the provocative exclamation, “The proletarians have nothing to lose but their chains. They have a world to win. Working men of all countries, unite!”

CONCLUSION

Europeans could not help but be impressed with the rapid pace of economic change during the first half of the nineteenth century. Trains truly revolutionized commerce and travel, bringing distant places closer together. Cities grew rapidly, their railway stations bringing in more agricultural goods produced with capital-intensive farming. More people worked in industry than ever before. Factories now dotted the landscape, although traditional workshop and cottage production remained essential.

Yet many upper-class contemporaries were worried by what seemed to be teeming, increasingly disorderly cities. The Industrial Revolution, to be sure, had generated material progress—indeed, opulence for some people—but it also seemed to have increased wrenching poverty and dissatisfaction among workers.

In the meantime, having defeated Napoleon at Waterloo, the European powers—Britain, Prussia, Austria, and Russia—set about trying to restore the prerogatives of ruling dynasties, nobles, and the established churches. Liberal and national movements struggled against conservative ideology in Restoration Europe. Liberalism, above all, seemed to reflect the desires of the middle classes, whose numbers and influence expanded so rapidly in the decades following the end of the Napoleonic era.