Industry, Ideology, and their Global Impact, 1700–1914

Cotton Mill Machinery
Industrial machines, such as these power looms used to mass produce cotton textiles, played a crucial role in the Industrial Revolution, which transformed the lives and labor of people all over the world.
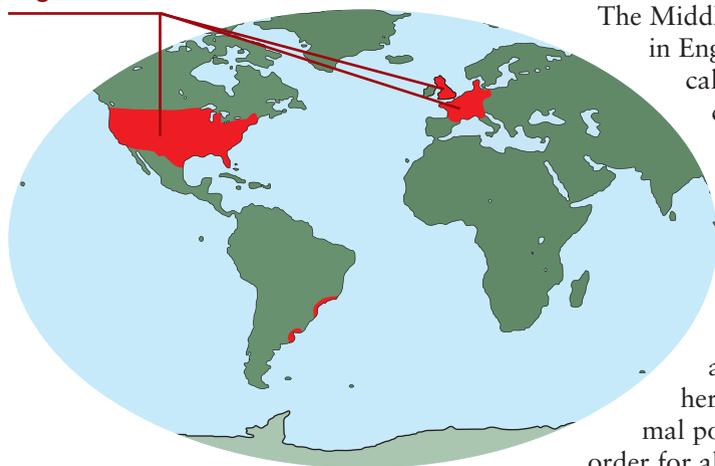
On April 20, 1812, in the English town of Middleton, several thousand angry men assembled at a textile factory that had recently started replacing its workers with steam-powered machines. Determined to destroy the machines that were taking their jobs, the men began throwing rocks through the factory windows. Armed guards, employed by the factory owner, soon appeared and fired into the crowd, killing three men and dispersing the rest. But the next day, enraged by the bloodshed, the angry men reassembled. Carrying a straw dummy they called "General Ludd," a mythical leader who supposedly headed their movement, they attacked and set fire to the factory owner's home. Then guards again dispersed them, killing five more men.

Early Industrial Regions

The Middleton disorder was one of many that occurred in England between 1811 and 1816, as workers called **Luddites** attacked factories and broke machines they blamed for taking their jobs. They were reacting to **industrialization**, a momentous shift from a rural agrarian economy, in which people lived off the land and made goods by hand, to an urban manufacturing economy, in which goods were made in urban factories by machine.

For many millennia, since the advent of agriculture, most people lived by farming or herding. Work was performed by human or animal power, and most people had to raise food in order for all to survive. Goods, such as clothing and tools, were produced by hand in homes or artisans' workshops. Most people lived in villages or towns; only a small minority lived in cities.

By the early 1800s, however, society in England was changing. New farming methods enabled fewer people to produce more food, while new machines and energy sources greatly accelerated the manufacture of goods. People increasingly worked in factories and lived in the cities that grew up around them rather than in farming villages. This process, later called the Industrial Revolution, spread from Britain to Europe and America, transforming their societies, generating radical new political and social ideas, and giving Western nations the power and wealth to dominate the world. Other nations, responding to this domination, eventually embraced the new methods and ideas, altering lives and labor the world over.

The Industrial Revolution in Britain

Industrialization is by no means inevitable. To industrialize, a society needs not only the talent and desire to do so, but also certain key assets. These include a large labor force, ample food to sustain it, abundant raw materials, machines to make them into finished goods, energy to run the machines, receptive markets, reliable transportation, and capital to fund industrial ventures. Before the nineteenth century, various societies, including China, India, and France, had at times acquired many of these assets and developed thriving commercial economies. But their economies remained primarily agrarian. Not until the 1800s did economies develop in which most people worked in industry or commerce rather than raising their own food. The first place to develop such an economy was Britain.

Agricultural Advances and Population Growth

Britain's ample food supply was based on agricultural methods earlier developed in the Netherlands. Rather than leaving part of the land untilled each year to let the soil regenerate, Dutch and British farmers employed crop rotation, alternating grains such as wheat and barley with soil-enriching crops such as turnips and clover, thereby using all the land every year. By feeding the turnips and clover to sheep and cattle, and selectively breeding these animals to produce larger livestock, farmers simultaneously increased the meat and dairy supply. More and better-fed animals also produced more manure, which was used to fertilize the grain crops, enhancing their yield. These techniques, along with draining of swamps to increase farmland, helped Britain quadruple its food production in the eighteenth and nineteenth centuries.

The new techniques helped subvert the age-old system in which peasant families pastured animals and farmed strips of land near their villages in open communal fields, often surplus lands of large landowners who let peasants use them. By the 1700s in Britain, these fields were increasingly closed off to peasants by large landowners who used fences or hedges to enclose the land, initially to pasture their sheep and later to implement the new farming methods on a larger scale. When local peasants objected, the large landowners often got Parliament (which they controlled) to pass laws approving these **enclosures**. Thus denied access to communal lands, many peasants became wage laborers, often working for large landowners engaged in large-scale commercial farming for profit. These workers formed a growing **proletariat**: a large class of landless laborers, many of whom eventually moved to cities to work in urban factories.

Thus enlarged by farmers driven off the land, Britain's urban labor force was also increased by rapid population growth. From 1750 to 1850, despite extensive emigration to America, the British population grew from roughly six million to more than twenty million—a growth attributed largely to declining childhood mortality. New crops and farming methods provided a stable food supply and healthier diet, and public health advances, such as **vaccination** to immunize people against diseases such as smallpox, helped more children survive to become adults and have children of their own.

The new farming methods, meanwhile, decreased the need for farmers and farm workers, since large-scale farms could now produce more food with fewer workers than before. Combined with rising population, the reduced need for farmers added to the numbers of landless poor people willing to work in factories for very low wages. Many such people also came from Ireland, where widespread cultivation of the potato, imported from the Americas in the sixteenth century and capable of feeding more people using less land than grain crops, had also supported a huge population increase. Together these developments supplied a low-cost labor force for Britain's Industrial Revolution.

Population growth and new farming methods enlarge British labor force

Cotton and Its Connections

Britain itself had many raw materials needed for industrialization. Especially significant were rich deposits of iron, used to build industrial machines and later railways and bridges, and coal, used to smelt iron and power steam-driven machines. But one key resource came not from British mines but from India, Egypt, and American slave plantations.

In the 1700s, British production and use of cotton textiles rapidly expanded. This boom arose partly from convenience and taste: cotton clothes were lighter, cooler, easier

to clean, and more comfortable than traditional wool or flax (linen) garments, while dyed and printed calico (cotton cloth from India) was more colorful and attractive. But the boom resulted mainly from mechanization: sturdy cotton fibers worked much better than fragile wool or flax in new machines designed to spin thread. And these machines were central to the Industrial Revolution.

For several centuries, in Western Europe, cloth had been produced through the "putting out" system, often called cottage industry (Chapter 20). Merchant capitalists supplied spinning wheels and weaving looms, along with raw wool or flax, to peasant cottages, where in winter when farm work was light, women spun the fibers into threads that men wove into cloth. This system benefited peasants, who were paid a set price for each piece of cloth produced, and merchant capitalists, who sold it at a profit.

Cotton from India helps to transform British textile production

In the eighteenth century, however, cotton transformed this system. In the 1720s, to protect their business from the growing demand for cotton clothes, Britain's wool producers got Parliament to outlaw calico imports from India. So the British East India Company instead shipped Indian raw cotton, whose fibers—softer yet tougher than raw wool—soon proved ideal for use in machines. In 1733, British machinist John Kay invented the flying shuttle, a hand-powered device that sped up weaving but also created an imbalance, since now it took several spinners (mostly women) to supply enough thread for one weaver (usually a man). In 1767, to correct the imbalance, English weaver James Hargreaves invented another hand-powered device he called the spinning jenny (after his wife), allowing one woman to spin many threads at a time.

A water frame.

Two years later British industrialist Richard Arkwright patented the water frame, a water-powered spinning machine, and in 1779 young inventor Samuel Crompton devised the spinning mule, a cross between the spinning jenny and water frame. Powered by mill wheels turned by river currents, water frames and spinning mules were far more productive than hand-powered spinning wheels and jennies, but they were also large, complex, and expensive. The workers who ran them could no longer work at home: they had to go to mills and factories built along rivers and owned by wealthy people who could afford such machines. This shift from home to factory production marked the onset of the industrial age.

British demand for cotton sustains American slave plantations

Britain's cotton industry took off, undercutting producers in India and elsewhere whose hand-woven cottons could not compete in quantity or price with machine-made cloth. By 1800, output of cotton textiles in Britain increased 800 percent, and by 1830 they accounted for fully half the value of all British exports. This boom sparked a huge demand for raw cotton from America, where the cotton gin, invented in 1793 by Eli Whitney to mechanically separate cotton seeds from fibers, had boosted supplies of raw cotton and cut costs. By increasing the profitability of cotton cultivation, however, the cotton gin also increased the demand for slave labor on American plantations, where slaves from Africa were ruthlessly exploited to furnish the fibers for England's Industrial Revolution.

The Steam Engine and Its Impact

But industry needed more energy than slaves or paid workers could supply, as well as machines more flexible than water-driven ones that had to be placed along rivers. These needs were met by the steam engine, a coal-powered steam-driven machine invented in

1712 by Thomas Newcomen to pump water from mines and improved in the late 1700s by Scottish engineer James Watt.

By 1800 steam engines were used not just in mines but also in factories and foundries, revolutionizing iron production. By using steam-powered bellows to produce a hotter burn, iron-makers could smelt with coke (made from coal, which was plentiful in England) rather than charcoal (made from wood, which was growing scarce), thereby enhancing both quality and fuel supply. By using steam-driven hammers and rollers, manufacturers could now shape iron for countless uses, including improved steam engines and other machinery. Factories using these engines were built in towns and cities, which grew rapidly as more people moved there from rural areas to find work (Map 27.1).

Steam engines transform iron production and transportation

Steam engines also provided a new means of transport. As an island nation with a large ocean fleet, navigable rivers, and numerous canals built mainly in the 1700s, Britain was already well equipped to ship goods and resources by water. But land transportation was still very slow and costly. In 1801, however, a mechanical engineer named Richard Trevithick invented a steam-powered carriage, and by the 1820s George Stephenson, another English engineer, developed a locomotive that ran on sturdy rails forged in the new iron foundries. In 1825, when a rail line linked Stockton coalfield to the town of Darlington, the railway era was born. Within decades, Britain was crisscrossed with railroads on which trains carried freight efficiently—and passengers at exhilarating speeds approaching a mile a minute. The blend of speed and power captured the public fancy, and railways became the sinews and symbols of the industrial age.

The new engines even transformed water transport. By the 1840s, British steamships with metal hulls were replacing sailing ships on the seas, while steamboats were traveling up and down inland rivers. No longer dependent on winds and currents, vessels now ran on fixed schedules, greatly reducing the duration and uncertainty of water travel.

Industrial Britain: Workshop of the World

As a prosperous country with a global empire extending from Canada to India and Australia, Britain already had large markets for its goods at home and abroad. But industry, by producing abundant low-cost goods, opened new mass markets. Historically, for example, unless they were wealthy, families made their own clothes, and underwear was a luxury reserved for the rich. Now, as textile mills produced more and more

FOUNDATION MAP 27.1 Industrial Development in England by 1840

England took advantage of many assets to become the first industrialized nation. Notice that its compact railway network linked coalfields with industrial areas encompassing factory towns. Why did these factory towns grow dramatically as industrialization progressed?
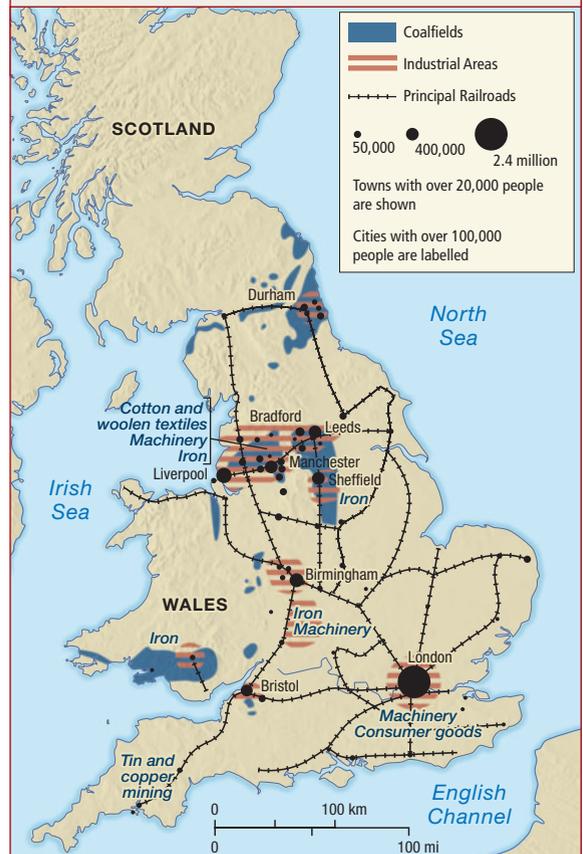
Low-cost cotton textiles
generate mass markets

cheap cotton, more and more people could afford more and more clothes, vastly increasing both market size and industrial profits.

These profits in turn expanded capital for industrial investment, supported by England's strong banking and credit institutions. Unlike Chinese scholar-gentry and French aristocrats, who often scorned commerce as beneath them, many British nobles invested in industry, using profits from their agricultural estates. Merchants and bankers seeking greater wealth and power also invested in industry. Their resources, along with vast fortunes made in textile mills, helped finance the huge start-up costs of iron and railway industries. Industrialization thus produced not only unprecedented wealth but also a powerful new class of industrial capitalists.

In 1851 an Exhibition of the Works of Industry of All Nations opened in London, with hundreds of machines and gadgets displayed in a huge Crystal Palace built of iron and glass. Millions came to marvel at Britain's industrial accomplishments. By this time Britain had the strongest economy on earth, producing over half the world's iron and cotton goods and two-thirds of its coal. Once scorned by Napoleon as a "nation of shopkeepers," industrial Britain had become the "workshop of the world."

The Crystal Palace.

Industry's Early Spread and Social Impact

Britain's industrial superiority, so evident in 1851, did not last long. Eager to duplicate British success, industries elsewhere imported British capital and machinery, copied British ideas, and hired British engineers. Envious of Britain's wealth and power, governments in other lands created and assisted industries, built railways to enhance commerce, and imposed tariffs (surcharges on foreign imports) to protect their new industries from foreign competition. By the second half of the nineteenth century, industry was expanding in Western Europe and North America and altering economies in much of the rest of the world.

Industrialization in Europe and North America

First to industrialize after Britain was the southern Netherlands, which in 1831 became the kingdom of Belgium. Longtime leaders of craftsmanship and banking, Belgians benefited from early agricultural advances, large coal and iron deposits, and ready access to workers and technology from nearby Britain. Starting in the 1830s, Belgium's government built railways, while Belgian banks provided credit to finance industrial ventures. Despite its small size, for most of the nineteenth century Belgium ranked second to Britain in industry.

Industrialization spreads
to Belgium and France

France, long Europe's wealthiest nation, initially lagged behind. In the late 1700s and early 1800s, France lacked both the political stability and the large iron and coal supplies needed to industrialize. But in the mid-1800s government subsidies for railways and industries, iron and coal discoveries in Alsace-Lorraine in northeast France, and an influx of workers from Britain fueled French industrial expansion. By 1900, France was one of Europe's industrial leaders.

German customs union
fosters industry and
national unity

German industry at first was hampered by disunity: the dozens of independent German states each had their own tariffs and economic policies, hindering trade and preventing the development of a national German economy. A customs union, or *Zollverein* (*TSAWL-fuh-rīn*), initiated by Prussia in 1818 and expanded across Germany in 1834, reduced this problem by eliminating tariffs among many German states. Later, after political

unification in 1871, Germany industrialized rapidly. Government support for railways (built partly to aid troop movements), a compulsory education system that provided a literate workforce, and laws enabling corporations to collaborate in setting prices and production quotas boosted Germany's industrial output. By the early 1900s, it surpassed even that of Britain.

By that time many other nations, including Italy, Austria, Russia, and Japan, were starting to industrialize (Map 27.2). But world industrial leadership was shifting to North America, where a new industrial giant was surpassing all the others. The United States of America, a huge nation that by 1850 had expanded across the continent, had enormous assets and boundless industrial potential. In the early 1800s, as the North began to industrialize, the South remained largely agrarian, prospering on slave-grown cotton for British textile mills and blocking federal government support for northern industries (Chapter 28). The ensuing civil war (1861–1865), won by the North, opened the way for stunning industrial growth. Aided by vast natural resources, a government that now fully supported industry, and a huge labor force expanded by massive immigration from Europe, U.S. manufacturing soared. So great was its growth that by 1914 the United States was far and away the world's industrial leader.

Industry spreads to Italy, Austria, Russia, Japan, and North America

Map 27.2 The Global Spread of Industry by 1914

Having begun to industrialize in the eighteenth century, Britain attained enormous wealth and power in the nineteenth century. Note, however, that other regions, anxious to emulate this wealth and power, also began to industrialize, and that by 1914 many other regions were industrialized or undergoing industrial development. How and why did the growth of industry help to expand global commerce?
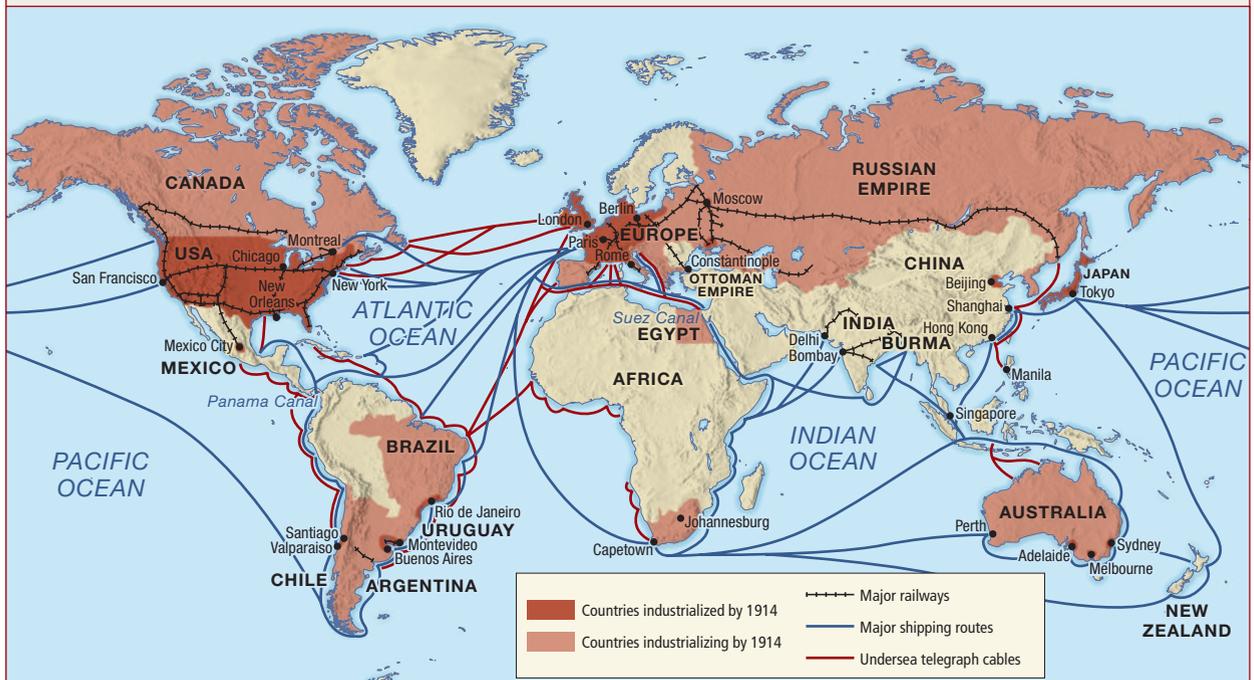
Mechanization and Urbanization

Industry transformed society everywhere it took hold. The lives of common people, centered for centuries on farms and families, came to be dominated by machines, located largely in urban factories. As more and more people moved to cities to take factory jobs, age-old working and living patterns were disrupted and displaced.

One key aspect of industry was mechanization. Machines increasingly replaced people and steam replaced muscle power in manufacturing goods. The machines were marvelous mechanisms, multiplying the number of goods produced while reducing their cost. But machines were also large and expensive, too big for the average home, and far beyond the average family's means. Machines were thus built and installed in factories, rather than homes and workshops, so workers had to go to factories to do their jobs.

For ten thousand years, since the origins of agriculture, most people's life and labor had been governed by the rhythm of the seasons and the rising and setting of the sun. Farmers and artisans could work at their own speed and to some extent set their own schedules. Work, home, and family were intertwined, with little separation or compartmentalization.

But the factory system subjected workers to a burdensome new discipline. They had to be at work by a set time each morning, often before daybreak, when the work whistle sounded. They worked long hours at repetitive tasks, with machinery dictating their pace, and coal-fired steam engines fouling the air they breathed. Work was hazardous, injuries were common, and breaks were few until the evening whistle blew. Machines seemed to run the workers' lives.

Workers also lost connection with the things they made. Traditional artisans and villagers could take pride in what they produced with their hands, but factory workers running machines were alienated from the results of their work. They might make just one part—such as soles for a shoe—and never see the whole finished product. Often they felt like servants to machines.

The machines, of course, furnished employment, as the new factory system provided jobs for millions. Work was long, pay was low, and conditions were often dangerous. But in an age of rapid population growth and declining need for farm labor, workers had little alternative.

Nor did they have job security. Machinery created many jobs, but it also took some away. In the 1780s, for example, as early British spinning machines produced abundant thread, handloom weavers who made thread into cloth were in great demand. As their pay and status grew, thousands rushed to join this profitable trade. But a new power loom, invented by Edmund Cartwright in 1785 and improved a few decades later, eventually displaced the handloom weavers. As wages fell and jobs vanished, numerous proud, once-prosperous men were destitute.

Weavers were not the only casualties of the industrial age. In trade after trade, machines replaced skilled artisans, who found they could no longer earn a living from their traditional crafts. Blaming machines for their situation, some displaced workers, such as the Luddites described at the start of this chapter, attacked factories and machines in England and elsewhere.

Industry also brought mass dislocation and urbanization. As millions of people moved from farming villages to live near the factories that employed them, small towns grew into cities around these factories. In the 1770s, Britain had four cities with over

Pre-industrial work.

Machines come to dominate factory workers' lives

Machines create new jobs but displace skilled artisans

Towns and cities grow as masses move there for factory jobs

50 thousand people; by the 1850s it had more than thirty. Manchester, a booming new factory town, grew in these years from 25 thousand to 500 thousand people. By 1900, over half the English people lived in cities and towns, compared to one in six a century earlier. As industry spread to Europe and North America, and later to Asia, Latin America, and Africa, other countries, too, experienced mass urbanization.

Conditions in early factory towns were appalling. Families were crammed into tenements or shacks, often in one room, with dozens sharing an outhouse. Narrow, muddy streets and tiny courtyards teemed with garbage and sewage, which attracted rats and bred disease. Water from street-side pipes was often impure, and air was polluted with soot and steam from the factories.

Family and Society in the Industrial Age

Industry's impact on family and society was immense. As millions of people raised in rural villages were uprooted and relocated in crowded and alien cities, age-old social and family structures started to break down.

Long accustomed to working as a unit in their cottages and fields, family members now labored separately in factories or mines—often on different shifts, 12–14 hours a day, six days a week. Men, traditionally expected to support their families, typically took the better-paying jobs such as weaving and metalwork. But many early industries hired women and children, since they would work for much less than men. Women, as traditional spinners of thread, were employed in large numbers in early textile mills, usually at very low wages. Children, whose small size made them useful in narrow mineshafts and cramped factory settings, were paid even less.

Industry thus disrupted the functioning of families. Unlike rural mothers who mostly worked at home, mothers employed in factories could not take breaks to rest during pregnancy, nurse babies, tend children, or care for household needs. Fathers working long hours in factories were often unable or unwilling to help with the young ones. Many working-class parents, rather than leaving their children untended, sent them to work in mines or mills, sometimes at ages as young as seven or eight. Eventually, however, the social dynamics of industrial cities, where poverty and affluence existed side by side, inspired efforts to curtail such abuses.

Poverty and squalor had long existed in the countryside, and many historians hold that urban workers were initially no worse off—and eventually much better off—than their rural cousins. But country folk, scattered in small villages, had little contact with others in their situation, and were largely invisible to urban elites. Now industrial cities highlighted the gulf between rich and poor, creating a new class-consciousness among both "haves" and "have-nots." Crowded in squalid cities with thousands in the same predicament, workers and their families identified as an exploited class—the urban proletariat. Increasingly aware of their vast numbers, they banded together in country after country to improve their lives, forming labor unions, organizing strikes, and staging demonstrations to enforce their demands.

Though residing in the same cities, the workers and the urban middle classes—often called the bourgeoisie—seemed to live in different worlds. In working-class areas, drunkenness, gambling, and promiscuity were common among the poorly fed and poorly educated people. In middle-class neighborhoods well-fed people lived in tidy, well-furnished homes,

Industry disrupts and divides families

Women workers in a British cotton mill.

Crowded in cities, workers identify as an exploited class

Young boy at work in a textile mill.

Urban squalor prompts bourgeoisie to support urban improvements

husbands went to work in suits, wives stayed home to manage the household, and children attended fine schools.

Since they shared the same towns, however, rich and poor could not ignore each other. Envious of middle-class comforts and politicized by emerging labor movements, workers pushed for urban reforms. Appalled by the squalor surrounding them and fearful of urban crime and diseases, many members of the bourgeoisie eventually supported such reforms.

Over time, as a result, urban conditions improved. Underground sewers, water sanitizing systems, indoor plumbing, and garbage collections helped curb filth and disease. Electric generators, developed in the 1830s by England's Michael Faraday, eventually provided clean, efficient power for trams and trolleys to transport urban dwellers and—after the invention of the incandescent lamp by America's Thomas Edison in 1879—electric streetlights to light their way at night. Police forces protected people from crime, school systems educated their children, and urban parks and playgrounds met their recreational needs. Although slums, crime, and pollution continued to plague industrial cities, by the early 1900s many were becoming quite livable.

Urban street scene.

Factory conditions also improved. Governments passed laws to limit work hours, improve safety, ensure regular pay, and correct abuses. Wages steadily increased, while mass production of low-cost goods made them increasingly affordable to working-class families, helping millions to lead more comfortable lives.

Urban advances and factory reforms improve working class lives

Women, however, gained little. Indeed, as women's employment in factories came to be seen as exploitative and threatening to the family, women's work outside the home became increasingly unfashionable. Especially in urban middle classes, but even among working classes as men's salaries improved, husbands came to consider themselves failures if their wives worked for wages. Labor thus divided along gender lines, with husbands going to work by day while wives stayed home to tend the children and household. This arrangement freed women from the need to get jobs, but also deprived them of the chance to do so, leaving wives financially dependent on their husbands.

Industry exploits and marginalizes women

New Ideas and Ideologies

Faced with the transforming effects of the Atlantic and Industrial Revolutions, Europeans sought new ideas to explain the new realities. Supporters of the old order, determined to retain past structures and ways, were called **conservatives**—also called the *right* because of where their delegates sat in France's National Assembly. Advocates of change—also called the *left* for the same reason—developed new **ideologies**, systems of thought intended to explain and transform society in accordance with certain political, social, and cultural ideals. Dominant among them, in Europe and later elsewhere, were liberalism, socialism, nationalism, and romanticism.

Liberalism and Socialism

Liberalism, as its name implies, was based on the concept of liberty. Its political values, arising out of the Enlightenment and Atlantic Revolutions, called for constitutional governments (limited monarchies or republics) with restricted powers, elected legislatures, and safeguards protecting people's rights. It stressed individualism and individual rights,

championed career advancement based on talent rather than birth, and generally reflected the values of the bourgeoisie. Early liberals typically did not favor full democracy: they advocated voting rights for middle-class men who had some wealth or property and education, but not necessarily for women or for working-class men.

In economics, liberals were disciples of Scottish economist Adam Smith (Chapter 24) and promoters of free-market capitalism. To them competition was the key to prosperity, encouraging manufacturers to produce high-quality goods at low prices to outsell competitors in an open market. Liberals thus urged governments to take a hands-off, *laissez-faire* approach to the economy, letting the forces of supply and demand regulate production and prices. Some liberal economists even saw poverty as inevitable: Thomas Malthus claimed population always grew to the point where there was not enough food for everyone, while David Ricardo's "iron law of wages" said population growth always drove down workers' pay to bare survival levels. Liberals' support for limited government, elected assemblies, individual rights, and free market economies placed them in opposition to authoritarian governments everywhere.
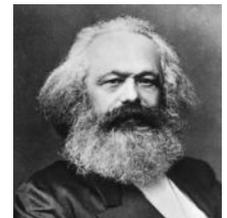
Socialism was in many ways the antithesis of liberalism. While liberals favored liberty, socialists stressed equality, asserting that freedom meant little to those who had no means to enjoy it, and advocating more equitable allocation of society's wealth. Repulsed by the gulf between rich and poor, socialists sought to redistribute income, improve workers' wages, enrich their lives, and enhance their political power. While liberals prized individualism, socialists valued community, with people sharing resources and duties. While liberals praised competition, socialists extolled cooperation, encouraging collective work for the common good and rejecting capitalism as promoting selfishness and greed. While liberals advocated *laissez-faire* governance, socialists demanded public welfare policies to support the poor.

Some early socialists tried forming model communities based on these ideals. Robert Owen, a wealthy British industrialist who had worked as a child in a textile mill, created a model factory town at New Lanarck in Scotland, paying good wages and providing workers with decent housing, schools, and stores that sold low-cost goods. Later he founded a short-lived cooperative community at New Harmony in Indiana. Charles Fourier (*foor-YĀ*), an eccentric French idealist, promoted "phalansteries," communities of 1,620 people, with each member doing a job he or she enjoyed. Although such communities rarely lasted long, they reflected a widespread reaction against the worst aspects of industrialization.

Other socialists, called **Communists**, promoted violent overthrow of the existing order. In 1844 Friedrich Engels, son of a wealthy German industrialist, published *The Condition of the Working Class in England*, a fierce critique accusing capitalists of mass exploitation and murder. Four years later he joined with Karl Marx, son of a German lawyer, to write the *Communist Manifesto*, a ringing, radical pamphlet urging "workingmen of all countries" to unite in a "communist revolution" (see "Excerpts from the *Communist Manifesto*").

According to Marx and Engels, societies pitted rich against poor in ongoing class struggles. The basis of any society was its economy, so the class controlling the economic resources also controlled the political, legal, religious, and military institutions. In pre-industrial Europe, for example, the economy was based on agriculture, so the main resource was land. Those who controlled it—the nobles—were the government officials, judges,

Liberals promote political and economic freedom

Socialists promote political, social, and economic equality

Karl Marx.

Document 27.1 Excerpts from the *Communist Manifesto*

According to the Communist Manifesto, first published in 1848, the industrial revolution divided society into two hostile classes: the bourgeoisie, a small group of very wealthy people who controlled the means of production, and the proletariat, a huge and growing group of very poor people who worked in urban industry and were exploited by the bourgeoisie. The Communists' goal was to help organize the proletariat into a revolutionary class that would overthrow the bourgeoisie and create a new political and social order.

A spectre is haunting Europe—the spectre of communism . . .

It is high time that Communists should openly . . . publish their views, their aims, their tendencies, and meet this nursery tale of the spectre of communism with a manifesto of the party itself . . .

The history of all hitherto existing society is the history of class struggles. Freeman and slave, patrician and plebian, lord and serf, guild-master and journeyman, in a word, oppressor and oppressed, stood in constant opposition to one another . . .

The modern bourgeois society . . . has not done away with class antagonisms. It has but established new classes, new conditions of oppression, new forms of struggle . . . Our epoch, the epoch of the bourgeoisie, possesses, however, this distinct feature: it has simplified class antagonisms. Society as a whole is more and more splitting up into two great hostile camps . . . — bourgeoisie and proletariat . . .

The bourgeoisie . . . has played a most revolutionary part . . .

The bourgeoisie has subjected the country to the rule of the towns. It has created enormous cities, has greatly increased the urban population . . . , and has thus rescued a considerable part of the population from the idiocy of rural life . . .

The bourgeoisie keeps more and more doing away with the scattered state of the population, of the means of production, and of property. It has agglomerated population, centralized the means of production, and has concentrated property in a few hands . . .

The bourgeoisie . . . has created more . . . colossal productive forces than have all preceding generations together. Subjection of nature's forces to man, machinery, application of chemistry to industry and agriculture, steam navigation, railways, electric telegraphs, clearing of whole continents for cultivation . . .

Modern bourgeois society, . . . a society that has conjured up such gigantic means of production and of exchange, is like the sorcerer who is no longer able to control the powers . . . he has called up by his spells . . . [N]ot only has the bourgeoisie forged the weapons that bring death to itself; it has also called into existence the men who are to wield those weapons—the modern working class—the proletarians . . .

At this stage, the laborers still form an incoherent mass scattered over the whole country . . .

But with the development of industry, the proletariat not only increases in number; it becomes concentrated in greater masses, its strength grows, and it feels that strength more . . .

The advance of industry . . . replaces the isolation of the laborers . . . by the revolutionary combination . . . What the bourgeoisie therefore produces, above all, are its own grave-diggers. Its fall and the victory of the proletariat are equally inevitable . . .

. . .

The immediate aim of the Communists is . . . : Formation of the proletariat into a class, overthrow of the bourgeois supremacy, conquest of political power by the proletariat . . .

In short, the Communists everywhere support every revolutionary movement against the existing social and political order . . .

The Communists disdain to conceal their views and aims. They openly declare that their ends can be attained only by the forcible overthrow of all existing social conditions. Let the ruling classes tremble at a communist revolution. The proletarians have nothing to lose but their chains. They have a world to win.

Proletarians of all countries, unite!

SOURCE: Karl Marx and Frederick Engels, *Manifesto of the Communist Party* (1848), http://www.anu.edu.au/polsci/marx/classics/manifesto.html

church leaders, and military officers. But in industrial economies, the main resources were factories, and economic life was centered in cities. So the bourgeoisie became the dominant class, taking charge of politics, law, and religion. But the bourgeoisie inadvertently promoted its own demise: by bringing the workers together in factories and cities to exploit them, it united them as an exploited class. Eventually this huge new class, the urban proletariat, would overthrow the bourgeoisie, establish a proletarian dictatorship, and create a classless socialist society.

Communists promote working class revolution

Communism, also called Marxism, provided a compelling explanation for industrial Europe's economic, social, and political turmoil, and a vision of a brighter future for the exploited masses. It gained many followers, attracting idealists, radicals, and workers. The *Manifesto* claimed, in 1848, that Europe was haunted by the specter of Communism. That specter eventually haunted the whole world.

Nationalism and Romanticism

Far more pervasive than communism was **nationalism,** an intense devotion to one's own cultural-linguistic group, and to its embodiment in a unified, independent state. In the 1780s, a German Protestant pastor named Johann Herder, reacting against widespread emulation of the French Enlightenment, asserted that Germans must develop their own national identity. Each nationality, he declared, had its own unique *Volksgeist* (*FŌLKS-gīst*), or "people's spirit," rooted in its language, literature, customs, and culture. Although Herder did not regard one nation's spirit as better than others, later German thinkers viewed the German *Volksgeist* as nobler than the rest.

Meanwhile, the French Revolution, in undermining monarchy, helped to transfer people's allegiance from the person of the ruler to the abstract concept of the nation. *La Marseillaise* (*mahr-sā-YEHZ*), a stirring new French anthem composed in 1792, appealed to the people not as subjects of the king but as "children of the fatherland," urging them to unite in shedding the "impure blood" of "savage" foreign invaders. Although Napoleon, a Corsican by birth, banned this anthem when he became French emperor, he fostered France's national pride by conquering most of Europe. Then, to his dismay, other Europeans rallied national pride to fight against him. Russian resistance to his 1812 invasion was called the Great Fatherland War, and his 1813 defeat at Leipzig was known as the Battle of the Nations.

The Industrial Revolution, by moving rural people to cities and towns, promoted not only working-class consciousness but also national awareness. People increasingly identified with their nation, rather than their clan or village, as public education, newspapers, and popular elections expanded their knowledge of national issues. Politicians soon found they could win mass support with forceful foreign policies and patriotic rhetoric.

Nationalists promote unified, independent national states

Nationalists idealized the nation-state, a political domain embracing all who shared a common language, heritage, culture, and ethnicity. Thus, among Germans and Italians, whose lands were divided into numerous small states, nationalism manifested itself as a crusade for unification. Among subject nationalities, such as Irish, Hungarians, and Poles, it took the form of a quest for liberation. The goal, however, was the same: self-rule for each national group in a unified, strong, and independent homeland.

Romanticism, like nationalism a reaction against the Enlightenment, was a cultural movement pervading Western art, literature, poetry, and music in the late 1700s and

A sonata by Beethoven.

Liberty Leading the People, by Delacroix

early 1800s. Rejecting the Enlightenment's intense rationalism, romantics stressed emotion, passion, exuberance, heroism, and the beauty of nature. French novelist Victor Hugo wrote works such as *Les Miserables* (*lā mē-zeh-RAH-bl'*) and *The Hunchback of Notre Dame*, full of sweeping drama and pathos. German painter Caspar Friedrich captured on canvas the wonder and power of nature, while French artist Eugène Delacroix (*oo-ZHEN deh-lah-KWAH*) dramatized the passion and heroism of the masses in paintings such as *Liberty Leading the People*. In music, the age's dominant figure was German composer Ludwig von Beethoven (*BĀ-tō-ven*), whose work deeply stirred the romantic soul. His Third Symphony, the *Eroica* (*ā-RŌ-ē-kah*), written for Napoleon, glorified heroism, while his Sixth celebrated nature. And the stunning climax of his splendid Ninth Symphony was a rousing choral rendition of the *Ode to Joy*, an exuberant romantic verse by German poet Friedrich Schiller.

Although primarily cultural, romanticism was sometimes linked with nationalism and revolution. The brothers Jacob and Wilhelm Grimm, to promote German national heritage, collected and published German folk stories as *Grimms' Fairy Tales*. Walter Scott, in novels and narrative poems, celebrated heroes and events of Scotland's past, thereby evoking Scottish national pride. William Wordsworth, England's exuberant poet of nature, spent a year in revolutionary France and later wrote: "Bliss was it in that dawn to be alive, But to be young was very heaven!" And his countryman Lord Byron, a talented poet and satirist, died in Greece while striving to help it gain national independence.

English novelist Mary Wollstonecraft Shelley blended ideology and industry. Her mother, Mary Wollstonecraft, author of *Vindication of the Rights of Women*, was a forerunner of modern feminism (Chapter 24). Her husband, Percy Bysshe Shelley, was a romantic poet whose works included "Ode to the West Wind," which exalted the power of both nature and revolution (see "Excerpts from 'Ode to the West Wind' "). And Mary Shelley herself wrote *Frankenstein*, the tale of a scientist who creates from lifeless matter an uncontrollable monster, symbolizing both the promise and peril of industry and technology.

The European Impact of Industry and Ideology

The Atlantic and Industrial Revolutions, and the ideologies they spawned, created in Europe a cataclysmic clash between past and future. Despite conservative efforts to preserve the past, the forces of change, relentless as the wild West Wind in Percy Shelley's poem and frightful as Frankenstein's monster in Mary Shelley's novel, could not be completely contained.

Reform and Revolution in Europe, 1832–1849

In Britain, where industrialization caused mass dislocation and upheaval, Parliament sought to prevent rebellion by enacting reforms. The Reform Act of 1832, passed under pressure from the king, who was frightened by urban riots, shifted seats in the House of Commons from depopulated rural areas to new industrial towns and extended voting

Document 27.2 Excerpts from "Ode to the West Wind"

Like many romantic poems, Percy Bysshe Shelley's "Ode to the West Wind" glorified the forces of nature. Shelley, however, also used this imagery to glorify the forces of revolution, which, like the wild west wind, bring both destruction and renewal, destroying the old order to make way for the new.

I

O wild West Wind, thou breath of Autumn's being,
Thou, from whose unseen presence the leaves dead
Are driven, like ghosts from an enchanter fleeing,
Yellow, and black, and pale, and hectic red,
Pestilence-stricken multitudes: O thou,
Who chariotest to their dark wintry bed
The wingèd seeds, where they lie cold and low,
Each like a corpse within its grave, until
Thine azure sister of the Spring shall blow
Her clarion o'er the dreaming earth, and fill
(Driving sweet buds like flocks to feed in air)
With living hues and odours plain and hill:
Wild Spirit, which art moving everywhere;
Destroyer and Preserver; hear, O hear! . . .
IV
. . . Oh! lift me as a wave, a leaf, a cloud!
I fall upon the thorns of life! I bleed!

A heavy weight of hours has chained and bowed
One too like thee: tameless, and swift, and proud.
V
Make me thy lyre, even as the forest is:
What if my leaves are falling like its own!
The tumult of thy mighty harmonies
Will take from both a deep, autumnal tone,
Sweet though in sadness. Be thou, Spirit fierce,
My spirit! Be thou me, impetuous one!
Drive my dead thoughts over the universe
Like withered leaves to quicken a new birth!
And, by the incantation of this verse,
Scatter, as from an unextinguished hearth
Ashes and sparks, my words among mankind!
Be through my lips to unawakened Earth
The trumpet of a prophecy! O Wind,
If Winter comes, can Spring be far behind?

SOURCE: Roger Ingpen and Walter E. Peck, *The Complete Works of Percy Bysshe Shelley* (New York: Gordian Press, 1965), II: 294–297.

rights to urban middle classes. The Factory Acts of 1833 and 1847 restricted child labor and corrected other abuses, relieving some of the workers' distress.

Tensions nonetheless remained. In 1838, a coalition of liberals and industrialists began to press for repeal of the Corn Laws, which protected landed nobles from foreign competition by restricting grain imports from abroad. By keeping food prices high, however, these laws compelled industrialists to pay higher wages so workers could feed their families, leading to a clash of interests between the old agrarian and new urban economies.

Parliament's landed nobles at first resisted reform, but their efforts were undermined by disaster in Ireland, where the potato crop had become the primary source of sustenance. In 1845 and 1846 a blight that devastated this crop led to mass starvation. At least a million Irish people perished, while two million others fled to America or to Britain's factory towns. Faced with this human catastrophe, and fearful that it could raise prices and cause starvation in England, in 1846 Prime Minister Robert Peel got Parliament to revoke the Corn Laws, thus allowing both England and Ireland to import cheap foreign grain. Since bad Irish roads hindered grain distribution, this liberal victory did not at once end the famine, but it did advance free trade, henceforth a central principle of Britain's liberal economy.

Irish famine brings mass starvation and prompts migration to America

Chartists promote full
political democracy

Meanwhile the working class was pushing for electoral power. In 1838 a "People's Charter," drafted by reformers later called Chartists, promoted **universal male suffrage** (voting rights for all men), secret ballots, annual elections, equal electoral districts, an end to property qualifications for membership in Parliament, and pay for its members so workers could afford to serve. But Britain's bourgeoisie, having recently won some power, were not prepared to share it with proletarians. Three times in the next ten years the Charter was sent to Parliament, with petitions bearing from one million to five million signatures. Each time it was rejected, and in 1848 it was discredited when Parliament declared most of the signatures invalid. The spirit of Chartism nonetheless endured: over the next six decades, most of its demands were enacted into law.

France, meanwhile, with its own parliamentary monarchy, was also becoming an industrial society. King Louis Philippe (1830–1848), backed by the bourgeoisie, acted like one of them. Wearing a business suit and black coat, he walked to work from his apartment and backed policies supporting French industry. Aware that industry needed literate workers, his government enacted an Education Law in 1833, requiring each community to have a school. A Child Labor Law of 1841 banned factory work by children under 8 and obliged working children between 8 and 12 to also attend school. Such reforms, however, failed to prevent revolution.

French reforms advance
education and curb child
labor

In 1848, liberal and nationalist revolutions rocked France and Central Europe (Map 27.3). Governments toppled like buildings in an earthquake, while riots raged in the streets of major cities. For a while it seemed that liberalism and nationalism would triumph, but in time most revolts were crushed by conservatives who controlled the armies, while the middle classes were stunned into submission by the brutal spectacle in the streets.

The first revolt came in France, where economic depression and high unemployment fueled discontent among workers. In February 1848, facing mass protests, Louis Philippe summoned the National Guard to keep order. But the guards, drawn mostly from the working classes, rioted against the regime that excluded them from power. Intimidated by the rioters, the king abdicated and the legislature declared a republic based on universal male suffrage.

1848 French Revolution
produces Second
Republic

The Second French Republic, like the first one in the 1790s, was turbulent. Prompted by socialist minister Louis Blanc, it started state-funded National Workshops to employ the jobless and held elections for an assembly to draft a new constitution. But conservatives, who won these elections because voters resented new taxes imposed by the new government, soon ended the workshops, leading to renewed worker riots in Paris. After the bloody repression of these riots, the assembly approved a constitution creating a powerful presidency. In December 1848, voters elected to this office Napoleon's nephew, Louis-Napoleon Bonaparte, whose name reminded them of France's glory days.

Nationalist revolts in
Central Europe are
defeated

France's uprising sent shock waves throughout Central Europe, where nationalism more than liberalism triggered upheavals. Inspired by events in Paris, Hungarians, Italians, and Czechs in the Austrian Empire rebelled for independence, while students and workers fought soldiers in Vienna, the imperial capital. But Austria was not yet industrialized, so its working class was too small to sustain the revolt. The army soon crushed all rebels except the Hungarians, who fiercely resisted until Austria's rulers finally asked Russia for help. Fearful that revolution might spread to his country, the Russian tsar sent 100 thousand troops, repressing the Hungarian rebels in 1849.

Map 27.3 Europe and the Revolutions of 1848

1848 was a revolutionary year in Europe. Observe that, after a revolution in Paris replaced the French monarchy with a republic, other revolts broke out all over the continent—especially in Central Europe, where Italians and Germans sought unification, while Czechs, Hungarians, and northern Italians sought independence from Austrian rule. Why were conservative forces able to quell most of these revolts? To what extent were the goals of these revolts eventually achieved, despite their short-term failure?

In the German states, rebels fought for a united Germany under a liberal constitution. After riots in Berlin forced the frightened King of Prussia to promise a constitution, the German states sent delegates to an assembly in Frankfurt to discuss unification. The Frankfurt Assembly drafted a liberal constitution for a unified German Empire, offering the post of emperor to the Prussian king. But the conservative king, disdaining the liberal delegates, pointedly declined "to pick up a crown from the gutter," and later sent Prussia's army to disperse the assembly.

Liberalism, Nationalism, and Industrial Growth, 1850–1914

Such setbacks, however, destroyed neither liberalism nor nationalism. From 1850 to 1914, as industry and ideology spread westward, they would make inroads all across Europe.

PROSPERITY AND REFORM IN BRITAIN. In the mid-1800s Britain was the world's main industrial power. It also stood as an example of successful governance, as Parliament prudently enacted reforms to avoid the sort of uprisings that shook much of Europe. But in the early 1900s Britain's stability was shaken by unrest among its workers, its women, and its Irish subjects.

British dominate global trade and enhance global connections

Between 1850 and 1880, Britain was an industrial giant, producing 50 percent of the world's iron, steel, and cotton textiles, 66 percent of its coal, and 40 percent of its machinery. English entrepreneurs and contractors built railways, tunnels, and bridges, not only in the British Isles but also in South Asia, Latin America, and Africa. Until the century's last decades, when Germany and the United States emerged as formidable competitors, Britain dominated global markets in chemicals, machine tools, and electrical goods.

Britain's great industrial age coincided with the reign of Queen Victoria (1837–1901), who gave her name to the "Victorian Era" and to values then prevalent in British society. Victorian morality focused on family and formation of individual character. Bible reading, prayer, Sunday worship, and strict parental discipline taught Britons to believe that God was on their side and that they must serve him by leading righteous lives. These values were typically fostered by mothers, who dominated home and family life, while men dominated the world of work outside the home.

Victorian values combat poverty and immorality

Victorians praised, and often practiced, sobriety, diligence, and hard work. The upper and middle classes, perceiving the poor as drunken and dissolute, attributed these conditions to poverty itself and sought to alleviate them with charity and philanthropy. Organizations such as the Salvation Army and Methodist Church tried to turn the poor to God by providing social assistance. Victorians taught their children to play fair, serve others, control their sexual desires, and always behave in a morally upright manner.

Victorian morality thus helped reduce poverty and unrest in England's industrial cities. Private charity and government reforms helped improve working class conditions, while growing prosperity raised living standards for all but the very poor. As workers grew increasingly assertive in demanding democratic rights, Parliament passed the Reform Act of 1867, tripling the size of the electorate by extending voting rights to urban working-class males. Then, aware that electoral success now depended on working-class votes, Parliament legalized labor unions in 1871 and four years later permitted workers to picket during strikes. The subsequent growth of labor unions helped improve wages and working conditions dramatically. British workers now had an alternative to Marxist revolution: peaceful reform through parliamentary action, collective bargaining, and strikes. And Parliament had learned it could maintain stability by meeting working-class demands.

Labor unions improve workers' lot, but unrest rises after 1900

As the century waned, however, signs of instability resurfaced. Britain's economic growth slowed, as Germans and Americans overcame its lead and took over some of its trade. After rising 35 percent between 1870 and 1900, real wages in Britain fell by 8 percent from 1900 to 1914, triggering unrest among industrial workers. From 1911 to 1914, led by radical labor leaders, workers staged a series of massive strikes, bringing modest gains in wages and working conditions but seriously disrupting Britain's troubled economy.

Meanwhile supporters of **women's suffrage**, a movement that had been working for years to gain women the right to vote, were losing patience with the legislative process. Dismayed that Parliament extended the vote to most adult males while persistently refusing it to females, some women turned to violence. Beginning in 1910, activists known as suffragists, led by Emmeline Pankhurst and her daughters Sylvia and Christabel, planted bombs, vandalized museums, set fires, and staged hunger strikes when arrested. In 1913, to dramatize her crusade, a suffragist threw herself under the racing horses' hoofs at England's famous Epsom Derby. These methods called attention to the suffragist cause, but British women did not get the vote until after the Great War.

Even more unsettling was the **Irish Home Rule** movement. Angered by centuries of British rule, Irish Nationalists, mostly Catholic, demanded domestic self-governance. Britain's Liberal Party eventually took their side, and finally got an Irish Home Rule Bill through Parliament in 1914. But the Protestant majority in northern Ireland rebelled against the prospect of being ruled by Ireland's Catholic majority, and by summer 1914 Ireland was verging on civil war. The outbreak of the Great War that August (Chapter 31) delayed resolution of the issue. But in 1921 most of Ireland became an independent Irish Free State, while Northern Ireland remained part of Britain's United Kingdom.

EMPIRE AND REPUBLIC IN FRANCE. The years 1850 to 1914 were difficult for France. Its government alternated between republic and empire, while its industrial growth, although impressive, lagged behind that of Britain, Germany, and the United States. And a series of diplomatic and military setbacks cost France the dominant position it had enjoyed in continental Europe since 1648.

The unwitting agent of France's undoing was Louis-Napoleon Bonaparte, nephew of the great Napoleon. As president of the Second French Republic (1848–1852), he consolidated control by pleasing business leaders and Catholics, while also showing sympathy for workers. He presented himself as a compassionate idealist with moderately socialistic views, devoted to stability and peace. But the constitution did not permit re-election, so in December 1851, after a skillful propaganda campaign depicting him as the only alternative to radicalism and chaos, he overthrew the Second Republic. The next year he formed a Second Empire with himself as Emperor Napoleon III (not Napoleon II, since the heir to that title, Napoleon I's son, had died in exile in 1832).

Napoleon III then enacted a comprehensive modernization program, based on state support for business and industry. His government subsidized telegraph lines and canals, regulated railways, limited Sunday labor, cleared slums, beautified Paris, and enacted Europe's first pure food and drug laws. His efforts fueled a decade-long economic boom, in which French productivity grew more rapidly than that of any other nation.

Like his uncle Napoleon I, Napoleon III was repressive. He curbed freedom of the press, banned public political debate, and manipulated legislators by adjusting their pay. His regime was a dictatorship, led by a man who suppressed dissent and enacted popular reforms. As long as prosperity lasted, however, he enjoyed broad support.

But prosperity did not last. By 1862 the American Civil War was depriving French textile mills of cotton from southern states and restricting the rich U.S. market for French exports, hurting both France's economy and its emperor's popularity. His reputation was also hurt by the Maximilian Affair, a rash attempt to create a French satellite empire in Mexico under Austrian archduke Maximilian. Fought by Mexican patriots

Suffragists press forcefully for women's voting rights

Suffragist parade.

Irish Home Rule Movement divides Britain and Ireland

Napoleon III ends France's Republic and forms its Second Empire

Napoleon III combines popular reforms and repression

and weakened by French problems supporting an army overseas, the Mexican empire fell in 1867 after the United States, no longer distracted by its civil war, pressured Napoleon III to withdraw his forces.

Franco-Prussian War ends Second Empire and brings in Third Republic

A far more fatal blunder was Napoleon's failure to block Prussia's move to create a unified Germany. Assuming that Austria would defeat Prussia in an 1866 war, he failed to support Austria and then watched victorious Prussia unite all northern Germany. Belatedly realizing his mistake, Napoleon led his army against Prussia in the Franco-Prussian War (1870–1871). But he was captured in combat, ending the Second French Empire. Paris demonstrations soon led to creation of a Third French Republic, but it surrendered in 1871. Prussia established a unified German Empire, which annexed France's rich Alsace-Lorraine region and replaced France as Europe's dominant power.

France's Third Republic survives despite serious crises

Defeat left France in turmoil. Radical socialists in Paris created a revolutionary government, the Paris Commune, which governed the city from March until May of 1871, when the forces of the Third Republic crushed it, killing more than 25 thousand revolutionaries. Over the next twenty years, monarchists intrigued against the Third Republic, which excluded them from important government positions. In the 1890s, a prolonged crisis over the conviction of Alfred Dreyfus, a French military officer accused of spying for Germany, deepened the divide between his defenders, mostly liberals, and the military, supported by conservatives and the French Catholic Church. The fact that Dreyfus was Jewish fueled prejudices and passions, and it took 12 years to clear this innocent man.

Inflamed by the Dreyfus Affair, a series of anti-military ministries governed France from 1898 to 1906, persecuting officers and enacting anti-Catholic legislation. But by 1910, a "nationalist revival" renewed support for the military, as France faced the growing power of unified Germany.

NATIONAL UNIFICATION IN ITALY AND GERMANY. In the 1800s both Italy and Germany, for centuries divided into numerous rival states, emerged as unified nations. Italian and German liberals and nationalists fought to form strong united stable nations. They were joined by industrialists, who hoped unified governments would aid commerce by ending internal trade restrictions and building roads and railways, and by strong leaders in prominent states who wanted to rule the whole nations.

Italy's unification was led by Count Camillo di Cavour, who served from 1852 to 1861 as prime minister to Victor Emmanuel II, king of Piedmont-Sardinia (northwest Italy's Piedmont region plus the island of Sardinia). Cavour's main obstacle was Austria, which controlled the north Italian states of Lombardy and Venetia. Knowing that Piedmont-Sardinia could not by itself defeat Austria, Cavour secretly courted France's Emperor Napoleon III, promising him lands (Savoy and Nice) in return for French help. Together they fought Austria and liberated Lombardy in 1859. But when Prussia threatened to intervene against France, Napoleon III pulled out of the war. Although Austria thus for the time being kept Venetia, the next year several small duchies joined Piedmont-Sardinia and Lombardy in a northern Italian federation (Map 27.4).

Cavour and Garibaldi combine to unify Italy

The initiative then passed to Giuseppe Garibaldi, a flamboyant Italian nationalist who had fought for Uruguayan independence in the 1840s, for an abortive Roman Republic in 1848–1849, and for Piedmont-Sardinia in the war against Austria. He recruited a thousand Italian volunteers, mostly under age 20, to sail to Sicily and fight for Italy's unification from the South.

Map 27.4 Italian and German Unification, 1815–1871

Following the failed revolutions of 1848, inspired in part by Italian and German nationalism, the Kingdom of Piedmont-Sardinia took the lead in unifying Italy, and the Kingdom of Prussia played a parallel role in uniting Germany. Notice that both unification efforts took place in stages, and that by 1871 both Italy and Germany were unified. Which countries were the big losers in these efforts, and why?

Italian Unification

- Kingdom of Piedmont-Sardinia, 1815
- Ceded by Austria, 1859
- Ceded to France, 1860
- United with Piedmont, 1860
- Ceded by Austria, 1866
- Occupied by Italy, 1870
- Garibaldi's route, 1860

German Unification

- Prussia in 1815
- Territory added to Prussia, 1815-1866
- Territory added to Prussia/German Empire, 1871
- Major battles
- Attack on Austria, 1866
- Attack on France, 1870-1871
- Border of German Empire, 1871

Garibaldi's invasion captured the imagination of Italian nationalists, who flocked to join his forces, known as Redshirts for their colorful dress, after they had won several battles. By September 1860 they had taken Sicily and southern Italy. Garibaldi then planned to march on Rome, where the pope ruled the Papal States that dominated central Italy. But since a French garrison protected Rome, Cavour intervened to prevent war with France. He sent Piedmontese forces into the Papal States, moving south to head off Garibaldi while carefully avoiding Rome. Blocked by Cavour's maneuver, Garibaldi gracefully gave the lands he had conquered to Victor Emmanuel II, who became King of Italy in 1861 when an all-Italian parliament proclaimed a unified Italian kingdom under Sardinia-Piedmont's constitution. Venetia was added in 1866, when Italy joined Prussia in defeating Austria, and Rome in 1870, when France withdrew its garrison during the Franco-Prussian War. The pope was left with less than a square mile on Rome's Vatican Hill.

As a constitutional monarchy with an elected parliament, Italy moved toward democracy and prosperity. By 1914 electoral reforms had extended the vote to most adult males, while expanding industry brought growing wealth to northern Italian cities. But worker unrest, as elsewhere, accompanied industrial growth, while poverty plagued the rural South. And, as self-described "prisoners in the Vatican," the popes refused to recognize the new nation until 1929, when Italy agreed to pay the papacy for the lands it had lost.

Germany's unification was led by Otto von Bismarck, a six-foot-five-inch man of towering talent and gargantuan appetite, who became Prussia's prime minister in 1852. An ultra-conservative who hated parliaments, he quickly clashed with Prussia's, which had rejected a bill to strengthen and reform the Prussian army. Backed by the king and army, he enacted the army reform anyway, igniting a constitutional crisis that outraged liberals and nationalists. But he knew they would forgive him if he could, in his words, use "blood and iron" to achieve what parliamentary speeches and votes could not: the unification of Germany.

In 1866 he used the Prussian army against Austria, defeating this other major German power in the Seven Weeks War. He then united all northern German states in a North German Confederation led by Prussia. South German states remained outside the union, so Bismarck in 1870 provoked a conflict with France, foreseeing that the South would join with the North in a war against France. In the Franco-Prussian War of 1870–1871, the south German states and North German Confederation, led by Prussia's modernized army, joined forces to defeat France. In January 1871, Bismarck proclaimed a united German Empire.

As chancellor to Prussia's king, who was also now the German Kaiser (emperor), Bismarck governed Germany for the next two decades. In foreign affairs, having unified Germany through war, he now pursued peace, forming alliances to isolate France, which by itself was not strong enough to defeat Germany. In domestic affairs he first sought to weaken German Catholics and socialists, neither of whom he trusted. Then he made peace with the Catholics and tried to outflank the socialists by enacting the world's first comprehensive social security program. Yet Germany's Social Democratic Party, supported by an expanding working class, continued to grow, becoming the country's largest party—and the world's largest socialist party—by 1912.

Meanwhile, Germany's economic growth made it the envy of Europe. By 1914, Germany led the world in production of chemicals, electrical goods, and machine tools, and it ranked second in global economic output only to the United States. Workers' wages and buying power doubled between 1871 and 1914. But they still worked an average of

Otto von Bismarck.

Bismarck uses Prussian army to unify Germany

Bismarck runs unified Germany, which becomes industrial power

57 hours a week, lived in dark and cramped slum housing, and suffered from high levels of illness, alcoholism, and family violence.

NATIONALISM AND COMPROMISE IN THE AUSTRIAN EMPIRE. Europe's other German power, the Austrian or Habsburg Empire, embraced a dozen major nationalities with four fundamental faiths (Map 27.5). For centuries it had thrived by adapting to changing circumstances, but in the 1800s nationalism eroded the aging empire, inspiring its subject nationalities to glorify their own cultures and eventually seek independence. Notable was the Slavic

Map 27.5 Ethnic Composition of the Austrian Empire, 1850

Although it was ruled by Austrians, who were Germans, the Austrian Empire was a truly multinational realm. Notice that most Germans lived in the hereditary Habsburg lands west of Vienna, while the rest of the empire was composed of many different nationalities with their own languages and customs. After Austria's defeat by Prussia in 1866, the Austrians were forced to share power with the Hungarians, who were given control of the eastern part of the realm, creating the Dual Monarchy of Austria-Hungary. Why did this arrangement irritate other nationalities and help bolster nationalist movements among them?

Revival, a movement among Slavic peoples in Eastern Europe (including Poles, Czechs, Slovaks, Slovenes, Serbs, Croats, and Ruthenians) to revive their cultural heritage, long submerged by Europe's dominant French and German cultures.

After Austria survived the revolutions of 1848–1849, including nationalist revolts by Czechs, Hungarians, and northern Italians, Emperor Francis Joseph (1848–1916) sought to reassert control by suppressing liberalism and nationalism while trying to transform his diverse domains into one solid centralized state. His regime promoted modernization, subsidizing industries and railways, fostering free trade within the empire, reforming the judicial system, and ending serfdom wherever it still existed.

<p style="color:#8B0000; float:left; width:25%;">Austrian Empire's efforts to modernize fail to halt its erosion</p>

But these efforts were undone by external events, especially Italian and German unification. In 1859, as noted above, Austria lost Lombardy in northern Italy to Piedmont-Sardinia, which was aided by France. Then, defeated by Prussia in the Seven Weeks War of 1866, Austria was shut out of German unification and lost Venetia as well. This defeat also compelled Austria to accept the **Compromise of 1867**, granting Hungarians their long-sought autonomy by dividing the Habsburg realm into coequal self-governing Austrian and Hungarian sections. Each had its own constitution, parliament, ministries, and domestic policy, but they were linked by joint ministries of finance and foreign affairs, a combined military, and a common monarch, Francis Joseph. The Austrian Empire thus became the Dual Monarchy of Austria-Hungary.

Compromise with Hungary preserves empire amid growing nationalist unrest

The Compromise of 1867 fully satisfied no one. The Habsburg regime survived, but only through power sharing. Hungary gained autonomy, but fell short of full independence. The empire's other nationalities, emboldened by nationalist triumphs elsewhere in Europe, became ever more determined to gain autonomy. And, as Hungarians imposed their language and rule on national minorities in their part of the empire, these minorities came to despise Hungarians even more than Austrians. The Habsburgs held the empire together by promoting judicious reforms and economic progress—until it disintegrated at the end of World War I.

REFORM AND REACTION IN THE RUSSIAN EMPIRE. Russia in 1850 was Europe's most conservative power, reacting strongly against liberalism and nationalism inside and outside its borders. During his long reign (1825–1855), Tsar Nicholas I had used force to repress rebellion, crushing a Polish revolt in 1830–1831, helping the Ottomans defeat an Egyptian rebellion in 1832–1833, and crushing the Hungarian revolt against Austria in 1849. By 1850 Nicholas, widely considered Europe's handsomest and harshest monarch, had earned his reputation as the "Gendarme of Europe."

The tsar's brutality in stifling dissent, however, unsettled other European powers, which came to see Russia as more dangerous than the declining Ottoman Empire. In 1853, when the Ottomans rejected a Russian attempt to dictate their internal policies, Nicholas provoked war. The next year France and Britain, fearing Russia might win, take Constantinople, and then dominate the eastern Mediterranean, entered the contest on the side of the Ottomans.

Since fighting occurred mainly in the Crimea, a peninsula jutting from southern Russia into the Black Sea, the conflict, pitting Russians against the British, French, and Ottomans, was called the Crimean War (Map 27.6). Even Austria, recently rescued by Russia's crushing of the Hungarian revolt, sided against Russia, leading Nicholas to call the conflict the "War of Austrian Betrayal."

Russian serf women at harvest time.

The Crimean War (1853–1856), eventually lost by Russia, left a complex legacy. It inspired Britain's Florence Nightingale and other English women, appalled by high death rates resulting from disease and inadequate care, to modernize and professionalize the practice of nursing, which later provided career opportunities for women. It introduced new rifles that loaded at the breech rather than the muzzle to permit quicker re-firing. It reinforced changes in the Ottoman Empire, discussed in Chapter 30. And it prompted the next Russian tsar to institute momentous reforms.

Tsar Alexander II, who succeeded Nicholas in 1855 and ended the war the next year, soon decided to abolish serfdom in Russia, where 25 million peasants still lived in bondage to landlords. He was prompted by Russia's defeat, showing that an army of serf soldiers was unfit for modern war, and by concern that an economy based on serf labor could not compete with the industrial West. The global antislavery movement (Chapter 30) and persistent serf revolts in Russia also helped persuade him to end serfdom "from above" to avoid its abolition by rebellion "from below."

The terms of the Emancipation Edict, signed by Alexander in 1861, were complex. To ensure that freed peasants could support themselves, the edict provided them with land. To maintain the support of noble landlords, the state compensated them with long-term bonds for the lands they ceded to peasants. And to reimburse the state for these bonds, peasants were required for 49 years to pay annual taxes known as redemption dues.

Defeat, revolts, and economic weakness prompt Alexander II to end serfdom

Other reforms followed, as the Russian regime sought to deal with its newly freed subjects. In 1864 it created in each county and province a ***zemstvo*** (*z'YEMST-vuh*), an assembly elected to manage such needs as roads, schools, medicine, and emergency food supplies. Later that year a new judicial system was established, with independent judges and trials by jury—concepts borrowed from the West. And an 1874 military reform, modernizing Russia's armed forces, reduced terms of service from 25 years to 6 and mandated basic education for soldiers.

Russia's Great Reforms peacefully provided 25 million serfs with freedom, land, legal rights, and local governance, while it took a bloody civil war to free four million American slaves. But the reforms raised expectations that could not be met. As living standards failed to improve and population growth left many families without enough land to feed themselves, discontent and poverty plagued the rural masses, while in the cities radical youths formed revolutionary groups.

Great Reforms transform Russia but fail to end unrest

Map 27.6 The Crimean War, 1853–1856

In 1853, portraying itself as protector of Orthodox Christians under Ottoman rule (including Romanians and Bulgarians), Russia went to war against the Ottoman Empire. Fearing Russia would win control of the straits (Bosporus and Dardanelles) that connected the Black Sea with the Aegean and Mediterranean Seas—and thus threaten key routes linking Europe with Asia—Britain and France joined the Ottoman side in 1854. Note that the war was fought mainly in the Crimea, a large Black Sea peninsula under Russian rule, and that Piedmont-Sardinia, hoping to win French support in Italy, also joined the anti-Russian coalition. How did Russia's defeat in this war help to inspire major reforms in the Russian Empire?

In 1879, a group of young rebels called the "People's Will" sought to spark a revolution by killing the tsar. Initially they failed: explosives they placed under a bridge did not detonate when the tsar's carriage crossed, and a bid to kill him as he traveled by railway exploded the wrong train. In 1880, a rebel employed at the tsar's Winter Palace blew up its dining room with dynamite at dinner time, but that day the tsar was not there. In 1881 rebels threw a bomb at his carriage, but it bounced off and exploded in the road behind him. When he got out to survey the damage, however, they threw another bomb at his feet, and this one finally took the life of the acclaimed Tsar Liberator.

Rather than sparking a revolt, however, Alexander II's murder brought a forceful reaction from his son, Tsar Alexander III (1881–1894). The new tsar crushed the revolutionaries and rolled back his father's reforms, asserting state control over *zemstvos* and judges. He oppressed Jews and other non-Russians in his realm, hoping to suppress their nationalist aspirations. He also promoted industrialization by appointing the talented Sergei Witte (*VIT-tuh*) as Minister of Finance in 1892. Over the next decade, using huge sums borrowed from abroad, Witte subsidized industries and built railways to help Russia exploit its vast resources.

By the early 1900s, then, Russia had a growing industrial proletariat, a free but destitute and discontented peasant class, and large numbers of oppressed non-Russians. This volatile mix soon resulted in revolutions (Chapter 31).

The Global Impact of Industry and Ideology

Although mechanized industries and secular ideologies arose first in Europe, eventually they affected the whole world. Armed with new technologies, inspired by new ideologies, and eager to find resources and markets for their new industries, Western nations in Europe and North America came to dominate the globe. The rest of this chapter discusses the foundations of Western domination and the main ways non-Western nations responded. Succeeding chapters examine in depth the impact of industry and ideology on the Americas, Asia, and Africa.

Industry, Technology, and Global Trade

Industrialization provided both the impetus and means for Western global domination. Industry's demand for resources and markets spurred European economic and political expansion, while advances in technology helped Westerners impose their will on the rest of the world.

As European nations industrialized and competed economically, they increasingly looked beyond Europe for resources, markets, and investment opportunities. Eager to secure their own supplies of cotton, coal, and iron, and eventually other industrial resources such as rubber, chromium, nitrates, and petroleum, Western industrialists sought to secure access to the resources of Asia, Africa, and the Americas. And as competition saturated domestic markets, European investors used their surplus wealth to seek potential profits overseas.

These efforts were aided by new steel and transportation technologies. The Bessemer steel-making process and Siemens-Martin "open-hearth" method, developed in the 1850s and 1860s, made steel more flexible and durable and less expensive. World steel

production increased by 5,600 percent between 1870 and 1900, with 75 percent of it produced in the United States, Germany, and Britain. The steel boom in turn revolutionized transport and trade, as cheap, high-quality steel was used to make rails, railway cars, ships, bridges, and eventually automobiles.

Railway construction benefited immediately. In the second half of the nineteenth century railways were built extensively in the United States, Canada, France, Germany, Russia, Japan, Mexico, Argentina, and elsewhere. New lines connected previously isolated regions, helping to unite nations. They also aided commerce by linking producers with markets, providing farmers and manufacturers with speedy, efficient, low-cost transport for their products.

Shipping also profited immensely. Steel-hulled ships using steel propellers powered by increasingly efficient engines grew in size and range of service. Soon freight, mail, and passengers were being transported to far-flung areas of the world in voyages lasting days instead of weeks. In 1869 the Suez Canal opened, linking the Mediterranean Sea with the Red Sea and Indian Ocean; 45 years later the Panama Canal connected the Atlantic and Pacific Oceans across Central America. By 1900, a network of steel telegraph cables laid under the seas enabled trading companies and governments to exchange information rapidly with distant lands.

Such developments transformed the terms and nature of global trade. Railways moved goods and produce quickly and cheaply to ports, from which steamships moved them almost as quickly around the world. Quicker transport lowered prices dramatically, making many goods affordable to global consumers for the first time. Europeans, for example, developed a liking for Argentine beef and wool from Uruguay and New Zealand, while exports of European manufactured goods enhanced industrial profits. Britain's huge shipping companies moved goods for nations that lacked maritime resources, and British bankers financed railways and harbors around the world. Never before had remote regions been so closely connected.

Railways, steamships, canals, and cables enhance global connections

The Great Global Migrations

Connections forged by industry, railways, and steamships also facilitated history's largest mass migration of peoples (Map 27.7). In the 1800s Europe's population increased from roughly 188 to 432 million, continuing an expansion begun in the previous century. But actual growth was even greater, since more than 60 million people left Europe between 1815 and 1930. Most of the migrants went to North and South America, Australia, and New Zealand. North America's population grew more than tenfold in these years.

Most migrants were young, ambitious men and women eager to improve their lot through hard work in spacious lands offering seemingly unlimited opportunities. By contrast, Europe was overcrowded, its industrial growth having created not only jobs but also teeming, sooty slums that bred disease and crime. Urban steel mills spewed smoke that darkened the sky and caused respiratory diseases, while chemical plants making textile dyes, fertilizers, and explosives poisoned rivers and lakes, exposing people to toxic materials that increased cancer rates. It was little wonder that many people chose to leave.

Some migrants, such as Russian Jews, fled persecution and oppression; others, like Irish Catholics, left to escape poverty and hunger. Some, like southern Italians and German Catholics, departed because they disliked the results of national unification. Others,
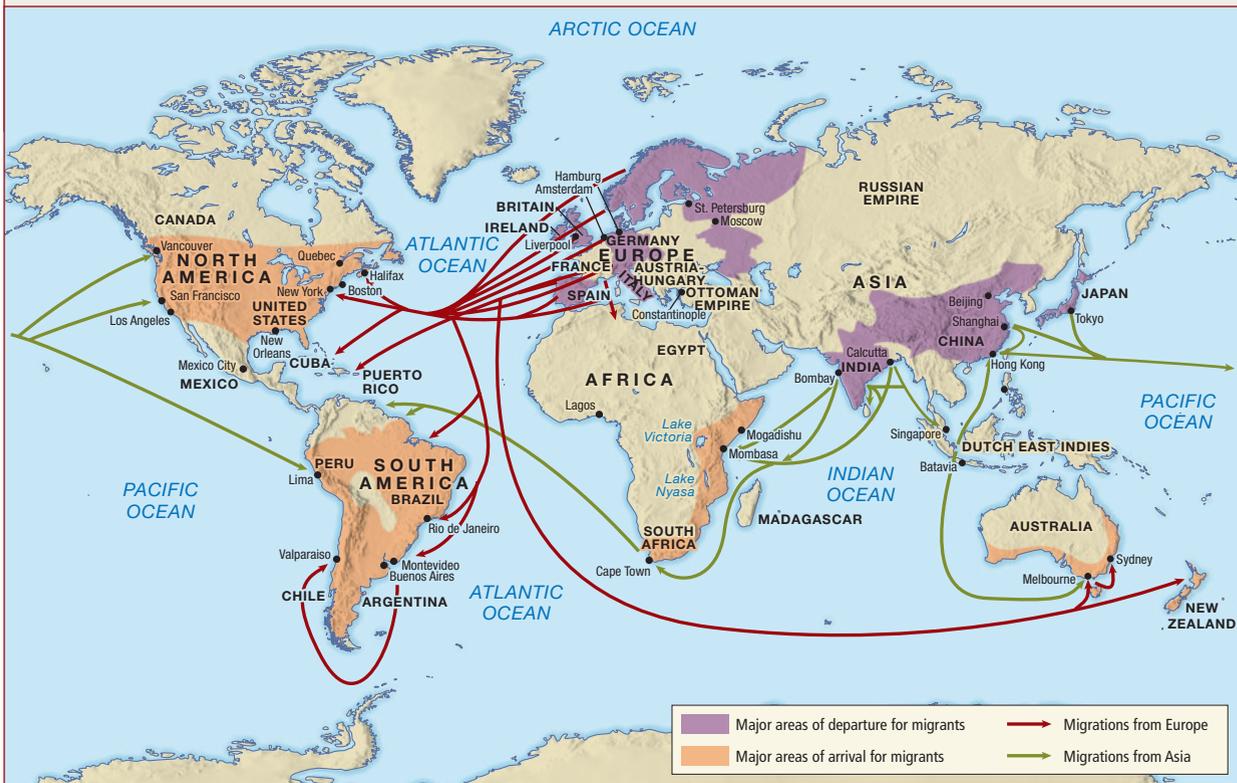

Italian immigrants at Ellis Island, New York.

Growing population and industry spark mass global migrations

Map 27.7 Global Migrations, 1815–1930

During the nineteenth and early twentieth centuries, in history's greatest global mass migrations, tens of millions left their homelands to settle in distant places. Notice that most of the migrants left Europe to settle in the Americas, but that some also went to Australia and New Zealand, while several million Asians also migrated, often to work on railways, in mines, or on plantations. What factors and circumstances inspired so many people to migrate?

|	
Major areas of departure for migrants	Migrations from Europe
Major areas of arrival for migrants	Migrations from Asia

like Italian and Spanish peasants, commuted between South American and European harvests, which came in opposite seasons. Some migrants returned after months or years abroad, but most never went back.

Migrants left Asia as well, but in far smaller numbers than from Europe—about 3 million between 1815 and 1920. Asians became laborers on South American plantations, at North American railway construction sites, and in South African gold mines. In all such places they encountered racial discrimination and settlement policies that favored whites. Opportunities for Asians were better in Southeast Asia's British, French, and Dutch colonies, where "overseas Chinese" often began as petty retailers and worked their way into profitable business careers.

European and Asian migrations enhance global cultural connections

The great migrations established new cultural connections. South America became much more European in culture and ethnicity, while the United States became less exclusively English and Protestant with the arrival of Irish, Italian, German, and Slavic Catholics, as well as Russian Jews. Millions of migrants brought "old country" concepts

Map 27.8 European Imperial Expansion by 1914

In the nineteenth and early twentieth centuries, Europeans came to dominate the globe. Observe that, by 1914, European powers ruled most of Africa and southern Asia, while people of European heritage dominated the Americas, Australia, and New Zealand. Even China was penetrated by Western economic interests, while Japan copied and adapted many Western ways. In what ways did industrial growth and mass migrations also contribute to Europe's global domination?
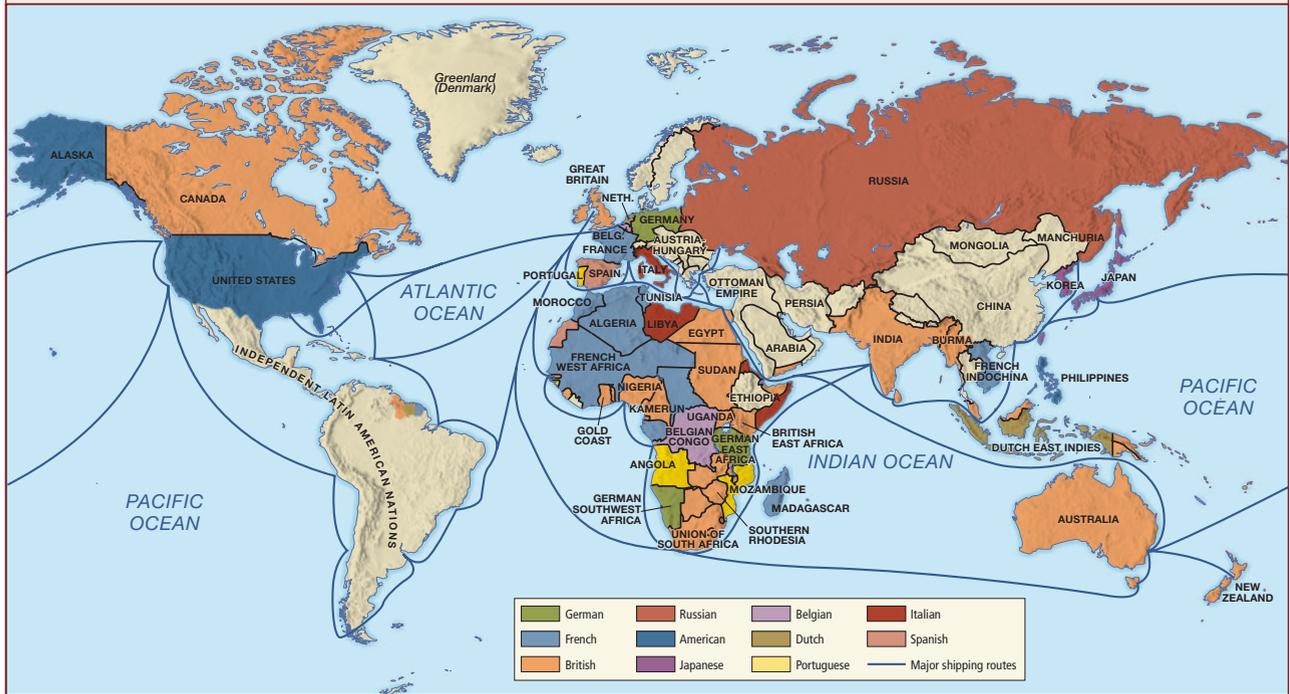
and customs to their new homes, while their letters and occasional return visits to Europe acquainted curious relatives there with new social and political ideas from the Americas. This cross-fertilization would continue long after the great migrations subsided.

Industry, Technology, and Imperialism

As global commerce and competition grew, European nations, eager to enhance their wealth and power, sought ever more forcefully to expand their economies and secure their raw material sources. In the process they practiced **imperialism**, using military force, or the threat of force, to establish colonies in Africa, India, and Southeast Asia and to open up countries such as China to Western commercial exploitation (Map 27.8).

Imperialism was aided by new technologies giving Europeans the means for economic exploitation and political control. Steamships enabled them to transport goods and people all over the globe, independent of seasonal winds that hitherto governed sea travel. Steam-driven vessels also took Westerners up rivers into the interiors of Asia and Africa, helping them access resources and assert military control. Development of dynamite in the 1860s by Swedish scientist Alfred Nobel (who later endowed the Nobel

Prizes) helped Westerners exploit natural resources by blasting mines and cutting roads and railways across harsh terrain. Telegraph lines and undersea cables aided their administration of distant colonies.

Industry, technology, and weaponry advance imperialism

New weapons, however, were the main aids to Western imperial aggression. The breech-loaded rifle, developed in 1843, was far more accurate and quicker to reload than the muzzle-loaded musket, giving Westerners a powerful edge over Asian and African armies. And the new Maxim machine guns, remarkable rapid-fire weapons developed in the 1880s, let small groups of Europeans, shooting from safe distance, kill Asians and Africans with appalling efficiency.

Nationalism, Liberalism, and Racism

Belligerent popular nationalism fuels imperialism

European ideologies also inspired and rationalized global domination. Europeans came to see imperial expansion as a matter of national pride and a means of spreading Western ideals.

In the 1800s growing nationalism reinforced European rivalries, as Western nations competed to show the superiority of their institutions and armies. Liberal reforms heightened the competition: as more Europeans gained voting rights and education, and as newspapers increased public awareness of international affairs, many people took warlike pride in their countries' colonial conquests. This belligerent popular nationalism was called **jingoism**, after a song sung in English pubs asserting "We don't want to fight, but *by jingo* if we do, we've got the men, we've got the ships, we've got the money too!" Jingoism was especially evident in Britain, where people wanted to "paint the map red" (the color usually assigned to British possessions), but it was also present in France and other European nations.

"The White Man's Burden"
Pears' Soap

Racist ad for soap to teach cleanliness to non-white peoples.

Liberalism and nationalism, moreover, joined with Christian compassion to help Europeans idealize imperial activity. Western missionaries, doctors, and teachers went to Asia and Africa seeking to spread Christianity, administer Western medicine, suppress slavery, and "uplift" Asians and Africans by teaching them Western ways. "The White Man's Burden," an 1899 poem addressed to Americans by Britain's Rudyard Kipling, illustrates this combination of idealism and arrogance, depicting imperialism as a blend of compassion, duty, and service (see "Excerpts from 'The White Man's Burden'").

Science, too, supplied some support to European imperialism. In 1859 British biologist Charles Darwin published *The Origin of Species*, promoting his theory that evolution occurs through a process of natural selection, in which organisms best adapted to their environment are most likely to survive and reproduce. Soon thinkers called Social Darwinists applied this notion of "survival of the fittest" to human societies, portraying human progress as a product of struggle between the strong and weak. Europeans then used these ideas to rationalize their expansion as part of a global struggle for survival and progress.

Social Darwinism and racism rationalize imperialism

Such rationales were reinforced by racism, developed by some Europeans into a pseudo-science. In the 1850s a French aristocrat, Joseph-Arthur, comte de Gobineau (*gaw-bē-NŌ*), published a four-volume *Essay on the Inequality of Human Races* that classified humans into distinct races, claimed races should never be mixed, and ranked white Europeans as a superior "Aryan" race. Others would later use his ideas to explain and justify Europe's global domination.

Document 27.3 Excerpts from "The White Man's Burden"

In his 1899 poem, "The White Man's Burden," addressed to the Americans who had recently taken the Philippine Islands from Spain, Rudyard Kipling idealized imperialism by portraying it as a form of service to colonized peoples. His poem, however, betrays a Western attitude of superiority and condescension, depicting colonized peoples as sullen, childlike, slothful, unappreciative heathens.

Take up the White Man's burden—
Send forth the best ye breed—
Go bind your sons to exile
To serve your captives' need;
To wait in heavy harness,
On fluttered folk and wild—
Your new-caught, sullen peoples,
Half-devil and half-child.

Take up the White Man's burden—
In patience to abide,
To veil the threat of terror
And check the show of pride;
By open speech and simple,
An hundred times made plain
To seek another's profit,
And work another's gain.

Take up the White Man's burden—
The savage wars of peace—
Fill full the mouth of Famine
And bid the sickness cease;
And when your goal is nearest
The end for others sought,
Watch sloth and heathen Folly
Bring all your hopes to nought . . .

Take up the White Man's burden—
Ye dare not stoop to less—
Nor call too loud on Freedom
To cloke [cloak] your weariness;
By all ye cry or whisper,
By all ye leave or do,
The silent, sullen peoples
Shall weigh your gods and you . . .

SOURCE: Rudyard Kipling, *The White Man's Burden* (1899), http://www.wsu.edu:8080/~wldciv/world_civ_reader/world_civ_reader_2/kipling.html

Responses to Western Domination

Non-Western responses to Western domination ranged from resistance to cooperation to wholesale imitation. Each response involved painful choices and consequences.

One response, resistance to Western influence, was most evident in regions with long-established complex societies, such as China, India, and many Muslim lands. Such societies, where Westerners were often seen as "barbarians" or "infidels," initially opposed European intrusion, fighting to maintain traditional institutions and economies.

Asian and Muslim societies initially resist Western impact

These societies soon found, however, that Western weaponry and technology, combined with the West's insatiable quest for raw materials and markets, made resistance futile. During the Opium Wars of 1839–1842 and 1856–1860, for example, China's armies and institutions, long dominant in East Asia, proved unable to defeat Western forces and prevent the infusion of Western goods and ideas (Chapter 29). It became apparent that nations failing to industrialize would fall far behind the West in power and wealth, leaving them increasingly vulnerable to Western economic penetration and imperial control.

A second alternative, attractive to countries rich in raw materials required by Western industry, was to seek wealth by selling their resources to industrial nations. This response was evident first in regions that produced raw cotton, such as Egypt, India, and the southern United States, and later in areas with other useful raw materials. Nitrates, for example, used in making fertilizers and explosives, brought prosperity to Chile in the late 1800s. Rubber, used in vehicle tires and drive belts for machines, brought substantial income to

Asian, African, and American regions supply industrial resources

A busy port in Chile in the early 1900s.

Non-Western nations adapt industry and ideologies to resist Western rule

Brazil and later to exploiters of Central Africa and Southeast Asia. Chromium, used in making stainless steel, an alloy whose resistance to heat and corrosion eventually made it a key component of most machines and weapons, did the same for Turkey, southern Africa, and India. And the export of petroleum, used initially to lubricate machines and later to fuel them, eventually brought wealth to the Persian Gulf and other oil-rich regions, especially after petroleum surpassed coal as the world's main energy source in the twentieth century.

This alternative, however, also had major drawbacks. Frequently the fields and mines producing these resources were owned and exploited by Europeans, who paid local workers minimal wages, used the profits to benefit European industry, and flooded local markets with cheap goods that undermined local artisans and traditional commerce. Unless and until these countries gained control of profits from the sale of their resources and used these profits to build their own industries, they remained economic subordinates of the West, serving mainly as suppliers of raw materials for Western industrial nations.

A third alternative was **Westernization,** the adoption by non-Western nations of Western-style industries, technologies, institutions, and ideologies. In time this would prove the only choice that gave these nations sufficient wealth and power to maintain or regain freedom from Western control. But Westernization created a painful predicament, since it involved transforming and even undermining the society's own traditional ideas and institutions.

Some societies adopted only ideas and institutions they found useful in opposing Western domination. In the early 1800s, for example, Latin Americans used liberalism and nationalism to support and validate their fight for freedom from Spanish and Portuguese rule (Chapter 28). Decades later in India, British-educated Indian professionals began a movement, also based on Western-style liberal and nationalist ideals, to press for Indian independence from British colonial control (Chapter 29). Latin America and India, however, were slow to adopt Western industries and technologies, and thus could not compete with Western wealth and power.

Other countries, eager to compete with Western power and wealth, opted for wholesale Westernization. First to do so was Egypt, led from 1805 to 1848 by a rebellious Ottoman viceroy named Muhammad Ali, who used profits from Egypt's cotton exports to build Western-style industries and armies, while also using liberal and nationalist ideals to push for freedom from the Ottoman Turks (Chapter 30). But the British, determined to retain their supremacy in the textile industry, supported the Ottomans against him and forced him to remove tariffs protecting Egypt's industries from competition with low-cost British goods. Egypt thus remained, like India, a supplier of raw cotton for England's textile mills.

More successful in imitating the West was Japan. Forced in the 1850s by Americans and Europeans to open ports to Western trade, Japan responded by adapting Western industries and ways to meet its needs. It also adopted nationalist ideals, a liberal constitution, and Western-style imperialist expansion, emerging as a key regional power by the early 1900s (Chapter 29).

Chapter Review

Putting It in Perspective

Industrialization promised abundant wealth, inexpensive goods, and marvelous machines, while accompanying ideologies offered bright visions of liberty, equality, and national self-rule. But the transition proved terribly traumatic, as early industry also fostered dislocation, destitution, and violence.

These impacts came first to Europe, where the industrial age was born. Conservatives fought to retain control, haunted by fears of revolutionary instability. But the engines of innovation, as loud and relentless as machines in the great mills, pushed the West ever forward into the unknown. Buoyed and buffeted by liberalism, nationalism, and industrial change, societies across the continent were transformed. In Western Europe, long led by Britain and France, the forces of change brought industrial growth, social stress, and political liberalization. In Central Europe, long divided into many small states, these forces promoted Italian and German unification and Germany's emergence as Europe's leading economic and military power. In Eastern Europe, long ruled by large multicultural empires, the forces of change proved divisive: as subject nationalities pushed for greater rights and self-rule, Austrian Habsburgs compromised to keep their realm from crumbling and Russian rulers tried repression and reform in hopes of avoiding upheaval.

Meanwhile, the forces that transformed Europe were affecting the rest of the world. Industry spread to North America and eventually to other regions. Rapid and efficient global trade expanded worldwide connections. The great migrations forged new links among world cultures and continents. And imperialism extended Western rule over much of Asia and Africa. Envious of Europe's affluence, alarmed by its power, intrigued by its technology, and inspired by its ideals, other world cultures increasingly had to endure Western domination or adopt Western methods and machines.

Reviewing Key Material

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ASK YOURSELF

1. What assets are needed for industrialization? How did Britain possess each of these assets in the late eighteenth century? How and why did industrialization spread to Europe and America?
2. How did industrialization affect the lives and work of ordinary people? What were the main impacts of industrialization and urbanization on family and society?
3. Describe and explain the new ideologies that arose in Europe during early industrialization. What were the short-term impacts of these ideologies in Europe?
4. How and why did Britain avoid revolutions in the nineteenth century, while France experienced several such upheavals?
5. Why did nationalism promote unification in Central Europe but disunity in Eastern Europe? How and why did liberalism and nationalism threaten both the Austrian and Russian Empires?

6. How did industry and technology facilitate global migrations and Western imperialism? What other factors fostered imperialism, and how did they do so? What choices and consequences did non-Western nations face in dealing with the Western challenge?

GOING FURTHER

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Key Dates and Developments

1600s	Onset of Dutch and English agricultural advances
1733	John Kay's flying shuttle
1767	James Hargreaves' spinning jenny
1769	Arkwright's water frame and Watt's steam engine
1785	Edmund Cartwright's power loom
1801	Richard Trevithick's steam-powered carriage
1811–1816	Luddite unrest in England
1825	George Stephenson's steam locomotive; Darlington-Stockton railway
1832	Parliamentary Reform Act in Britain
1834	Customs Union (*Zollverein*) among German states
1838–1848	Chartist movement in Britain
1840–1930	European imperialism and global migration
1845–1846	Irish potato famine; British Corn Laws repealed
1848	Communist Manifesto
1848	Revolutions in France, Austria, Hungary, Italy, Germany
1851	Crystal Palace exhibition in London
1852	Creation of the Second French Empire
1853–1856	Crimean War
1859	Austro-Sardinian War
1860–1861	Formation of the Kingdom of Italy
1861–1874	Emancipation and Great Reforms in Russia
1862–1867	French intervention in Mexico
1865–1914	Post–Civil War American industrial boom
1866	Austro-Prussian Seven Weeks War
1867	Compromise: Dual Monarchy of Austria-Hungary
1867–1884	Reform Bills in Britain
1870–1871	Franco-Prussian War, onset of France's Third Republic
1871	Formation of German Empire
1871–1890	Bismarck governs Germany as chancellor
1894–1906	Dreyfus Affair in France
1911–1914	Suffragist protests in Britain
1912–1914	Irish Home Rule Crisis in Britain