

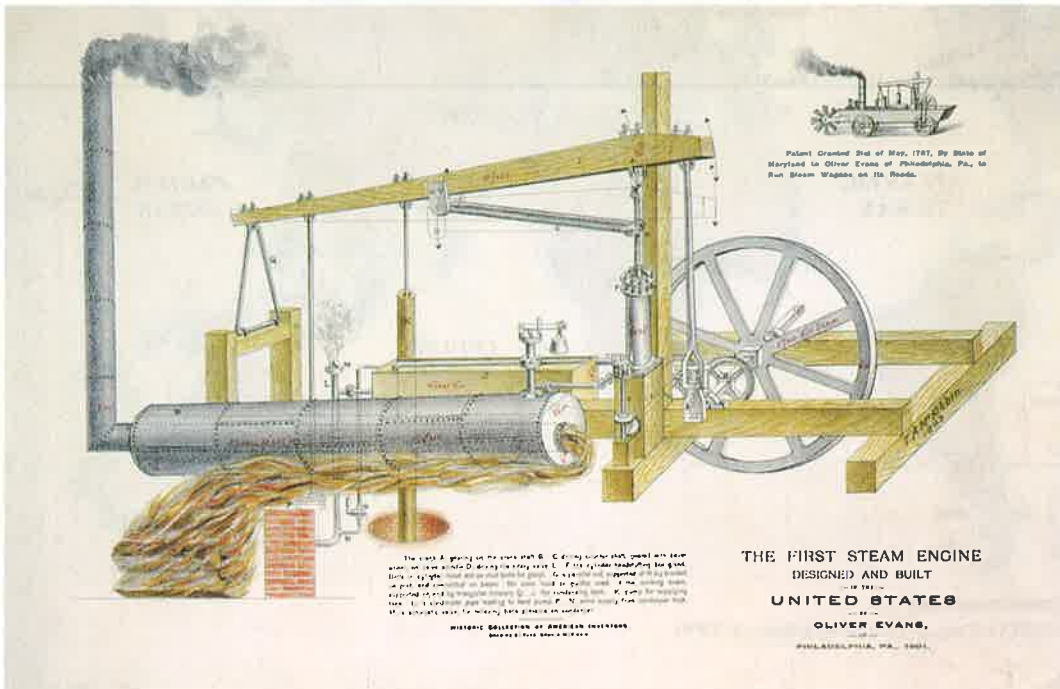
THE OVERVIEW

Maps tell a crucial story for the “long” 19th century—a period whose characteristics ran from the late 18th century to 1900. A radically new kind of technology and economy arose in a few parts of the world in what began to be called the Industrial Revolution. The Industrial Revolution greatly increased industrial production as well as the speed and volume of transportation. Areas that industrialized early gained a huge economic lead over other parts of the world, and massive regional inequalities resulted.

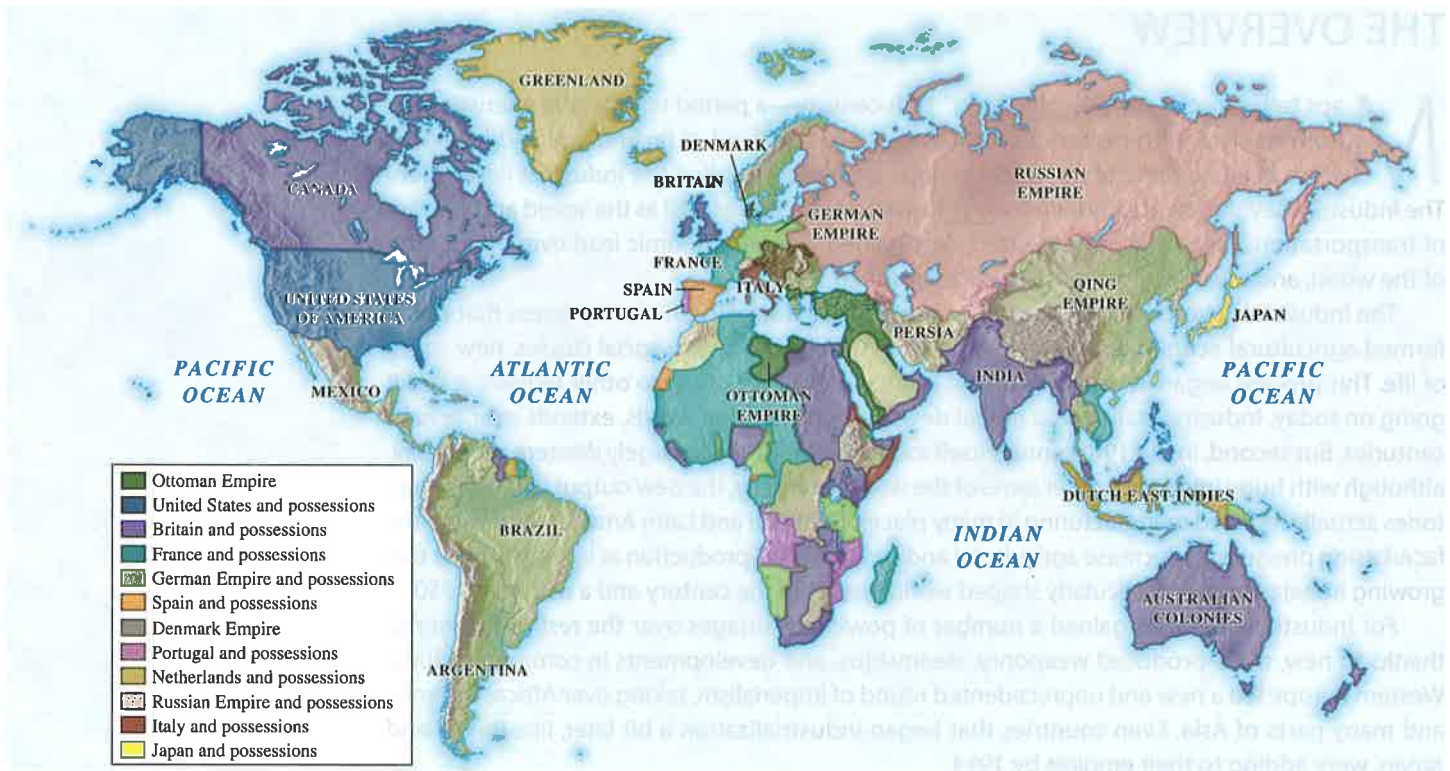
The Industrial Revolution must be understood in two ways. First, it was a process that transformed agricultural economies, leading to growing urbanization, new social classes, new styles of life. This process began in western Europe, but it would later spread to other regions; it is still going on today. Industrialization as a global development, in other words, extends over several centuries. But second, in the 19th century itself industrialization was a largely Western monopoly, although with huge impact on other parts of the world. Ironically, the new output of Western factories actually reduced manufacturing in many places, like India and Latin America. Many regions faced rising pressures to increase agricultural and raw materials production at low cost. It was this growing imbalance that particularly shaped world history in the century and a half after 1750.

For Industrial countries gained a number of power advantages over the rest of the world, thanks to new, mass-produced weaponry, steamships, and developments in communications. Western Europe led a new and unprecedented round of imperialism, taking over Africa, Oceania, and many parts of Asia. Even countries that began industrialization a bit later, like Russia and Japan, were adding to their empires by 1914.

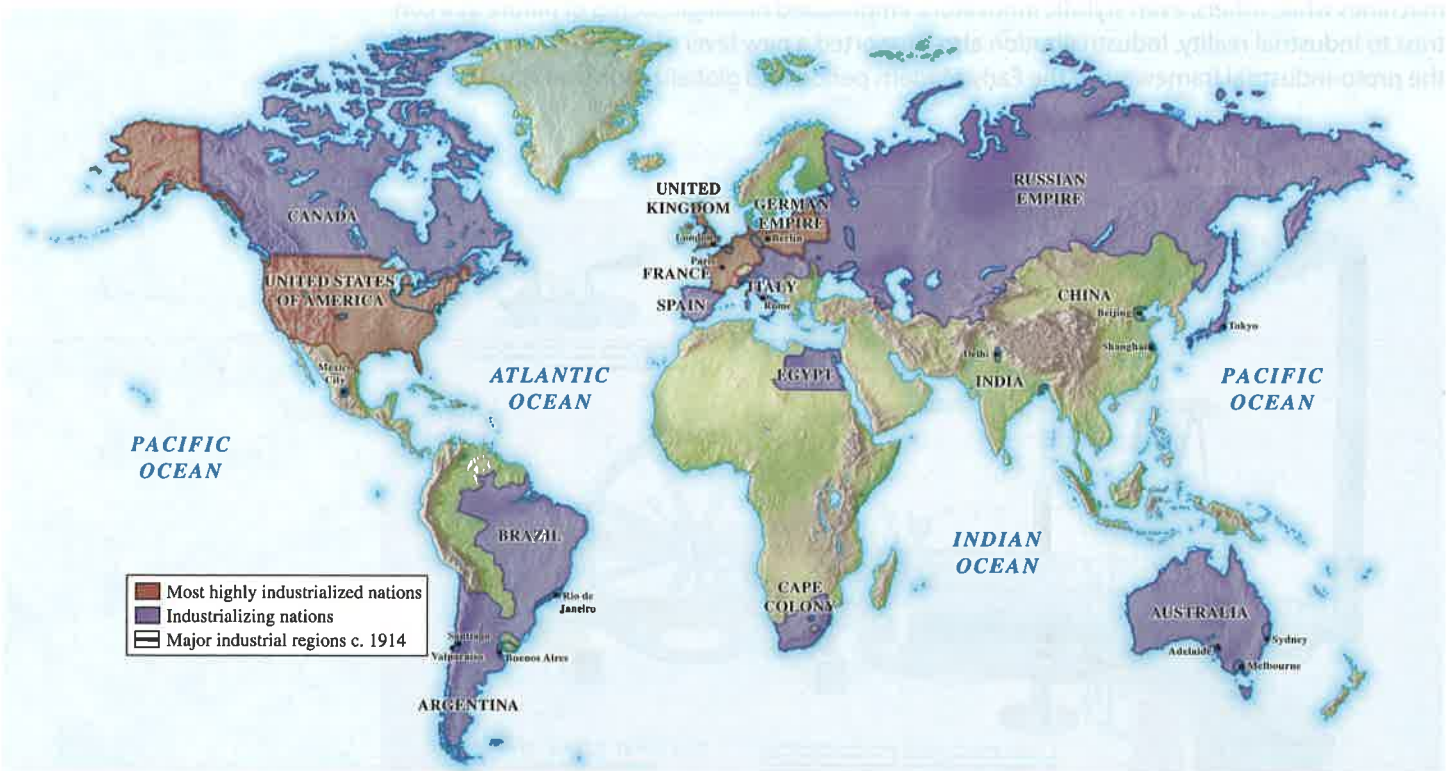
Industrialization was not the only fundamental current in the long 19th century. Dramatic political changes in the Atlantic world competed for attention, although imperialism overshadowed liberal reform ideals in other parts of the world. Industrialization, however, was the dominant force. Its impact spread to art, as some artists sought to capture the energies of the new machines while others, even stylistic innovators, emphasized nostalgic scenes of nature as a contrast to industrial reality. Industrialization also supported a new level of global contacts, turning the proto-industrial framework of the Early Modern period into globalization outright.



A sketch of the first successful steam-powered locomotive.



Major World Empires, c. 1910



World Centers of Industrialization, c. 1914

Big Concepts

Industrialization was the dominant force in the long 19th century, but it helped spawn several more specific changes that in turn organized a series of Big Concepts. Western companies used their industrial manufacturing power, plus new systems of transportation and communication, to spread their form of capitalism on a global basis. On a global basis also, capitalists helped organize a growing segment of human labor. This was encouraged also by new patterns of global migration, reflecting population growth, new disruptions to established economies, and the changes in available global transportation. Western industrial dominance also fueled the new forms of imperialism and territorial expansion. Finally, new ideologies and political revolutions promoted reform currents of various sorts, some of them directed against the impacts of industrialization or imperialism. Industrialization and the growing globalization of capital and labor, imperialism, and the mix of new ideologies and reform currents—here were the Big Concepts that help organize a period of fundamental change.

TRIGGERS FOR CHANGE

By 1750 Europe's trading advantage over much of the rest of the world was increasing. Other gunpowder empires that had flourished during the Early Modern period were encountering difficulties; for example, the Ottoman empire began to lose territory in wars with Russia. In this context, Great Britain began to introduce revolutionary new technologies, most notably the steam engine. This core innovation soon led to further inventions that increased western Europe's economic advantage over most other parts of the world.

An impressive series of inventions emerged from Britain, France, the United States, and a few other countries at this time in world history, because Europeans knew they could make money in the world economy by selling manufactured goods to other societies in return for cheap foods and raw materials (including silver and gold). Therefore, businesses worked to accelerate the manufacturing process in order to increase their profits. European governments also began to create conditions designed to encourage industrial growth by improving roads and canals, developing new central banks, holding technology expositions, and limiting the rights of labor. In addition, about 1730, the population of western Europe began to grow very rapidly. This created new markets for goods and new workers who had no choice but to accept factory jobs. Finally, cultural changes encouraged invention and entrepreneurship. The rise of science and the European Enlightenment created an environment in which new discoveries seemed both possible and desirable. A rising appreciation of secular achievement encouraged businesspeople to undertake new ventures, and a growing number of western Europeans were interested in and could afford new goods.

Debate: The Causes of the Industrial Revolution

Historians continue to argue about what caused Europe's industrialization, including why Europe was first off the blocks in what ultimately became a global process. Industrialization caused such huge changes that explanation is clearly important, but also clearly challenging.

One explanation seeks simplicity. Great Britain in the 18th century was running short of wood for fuel. But it had abundant supplies of coal, conveniently located for transportation near rivers or the coast. Cheap, alternative fuel made it easy for manufacturers to decide to innovate. But using coal for power automatically encouraged new attention to machines to help pump water from mines as well as devices that could use coal more directly in the manufacturing process: hence the invention of the steam engine. Thanks to its success in world trade, and particularly its exploitation of American colonies, Britain also had capital to invest. Finally, once Britain got started, other Western countries could fairly quickly imitate.

Another explanation, more traditional, looks to a wider array of changes in the West. During the 18th century many Western countries worked to improve their banking systems. New economic ideas, stemming from the Enlightenment, produced new laws to promote competition. Governments began to sponsor road and canal building. All of these developments may be relevant, but several world historians have pointed out that western Europe was not measurably more advanced than China in terms of levels of wealth or new business formation. They caution against too much emphasis on a broad array of Western gains.

Recent interpretations suggest two emphases. First, while agreeing that the West was not particularly advanced across the board, historians do emphasize the importance of science and especially the Enlightenment in creating a culture open to technological and economic change. This culture helped motivate inventors and business leaders alike, and it could also encourage governments to take a supporting role. It helps explain why various countries in the West were ready quickly to follow British example.

Second, the global context may help. Europe's trading advantages and its exploitation of the Americas not only created capital for investment. They also taught Europeans the importance of manufacturing for export, as a key source of profit, and businessmen had been working for decades to discover new technologies that would allow Europe to outstrip India and China in the production of goods like printed cloth or porcelain.

Testing the various explanations for Europe's industrial revolution remains important, an ongoing challenge to careful analysis. One thing is clear: Whatever the combination of factors, once Western industrialization got going, it would have a number of further consequences, literally around the world.

THE BIG CHANGES

The Industrial Revolution had two broad results in the 19th century. First, in the industrial countries, the rise of the factory system changed many aspects of life. Work became more specialized and more closely supervised. The changes in work brought about by industrialization deeply affected families. Work moved out of the home, challenging traditional family life, in which all family members had participated in production. Although child labor was used early in the process of industrialization, increasingly childhood was redefined in industrial societies, away from work and toward schooling. Industrialization spurred the growth of cities. While new opportunities were involved, there was also great tension and, for a time, pockets of dreadful misery amid urban slums and machine-driven labor conditions.

Industrialization changed politics. New middle-class groups, expanding on the basis of industrial growth, sought a political voice. As urban workers grew restive, governments had to strengthen police forces and also, gradually, expand the right to vote among the lower classes. New nationalist loyalties involved ideological change away from primarily local and religious attachments, but they also provided identities for people whose traditional values were disrupted by industrial life and movement to the cities.

Outside the West, industrialization brought new economic imperatives. A few societies sought to industrialize early on. Egypt tried and largely failed, in the first half of the 19th century; a bit later, Japan and Russia launched industrial revolutions of their own. For most societies during the 19th century, the main effect of industrialization was to increase pressures to turn out food supplies and cheap raw materials for the industrial world, even though these societies were largely nonindustrial. Western dominance in the world economy increased, and involvement in this economy became more widespread. For Latin America this

meant even more low-cost export production, with newly introduced products like coffee and increased output of resources like copper. Parts of Asia that had previously profited from the world economy were now pressed into more low-cost production. All over the world, cheap manufactured goods from Western factories put hundreds of thousands of traditional manufacturing workers, many of them women, out of a job.

While industrial transformations of the world economy exerted the greatest pressure for change, they also provided the context for European imperial expansion into many new areas. When they took over in places like Africa, Europeans moved quickly to intensify low-cost production of foods, minerals, and (sometimes) simple manufactured goods. Through outright imperialism or simply the threat of intervention, European military pressure forced literally every part of the world—including previous isolationists like Japan and Korea—into massive interaction with global trade.

Two other key changes accompanied this process of global economic change. First, the institution of slavery increasingly came under attack, a truly historic change in an old human institution. The Atlantic slave trade was legally abolished early in the 19th century. Then slave and serf systems were progressively eliminated in the Americas, Europe, Russia, and Africa. New ideas about human rights and new confidence in “free wage labor” facilitated the change. Significant population growth provided new sources of labor to replace slaves. Immigrants poured out of Europe to the Americas and Australia. Indenture systems brought massive numbers of Asians to Oceania, the Americas, and Africa. As slavery ended, harsh, low-paid “free” labor intensified in many places.

Second, the massive economic changes brought about by the Industrial Revolution impacted the environment. In industrial societies, smoke and the steady increase of chemical and urban wastes worsened regional air and water quality. The expansion of export production in other parts of the world also affected

1700 C.E.	1800 C.E.	1825 C.E.
<p>1730–1850 Population boom in western Europe</p> <p>1770 James Watt’s steam engine; beginning of Industrial Revolution</p> <p>1776–1783 American Revolution</p> <p>1786–1790 First British reforms in India</p> <p>1788 Australian colonization begins</p> <p>1789–1815 French Revolution and Napoleon</p> <p>1789 Napoleon’s invasion of Egypt</p>	<p>1805–1849 Muhammad Ali rules Egypt</p> <p>1808–1825 Latin American wars of independence</p> <p>1815 Vienna settlement</p> <p>1815 British annexation of Cape Town and region of southern Africa</p> <p>1822 Brazil declares independence</p> <p>1823 Monroe Doctrine</p>	<p>1825–1855 Repression in Russia</p> <p>1826 New Zealand colonization begins</p> <p>1830, 1848 Revolutions in Europe</p> <p>1835 English education in India</p> <p>1838 Ottoman trade treaty with Britain</p> <p>1839–1841 Opium War between England and China</p> <p>1839–1876 Reforms in Ottoman empire</p> <p>1840 Semiautonomous government in Canada</p> <p>1846–1848 Mexican-American War</p> <p>1848 ff. Beginnings of Marxism</p>

the environment in negative ways. The introduction of crops like coffee and cotton, for example, to new parts of Africa and Latin America often caused significant soil erosion.

GLOBALIZATION

Western industrial and military power, when joined with new technologies in transportation and communication, helped generate the first full emergence of globalization after the 1850s. The telegraph, railroads, and, above all, steam shipping greatly speeded the movement of goods and news around the world. Construction of the Suez Canal and then, early in the 20th century, the Panama Canal, cut massive amounts of time off oceanic shipping. Exchanges of bulk goods—wheat and meats from the Americas, metal ores, as well as expensive manufactured products—soared beyond any previous precedent.

Modern globalization differed from earlier proto-globalization not only because of the volume of goods exchanged and the impact of exports and imports on local economies from Hawaii to Mozambique to Honduras. Economic contacts were now enhanced by transnational political agreements. Some agreements related closely to economic relationships: A universal Postal Union in 1874 established international recognition of each nation's stamps, so that letters could be mailed across borders for the first time. Other efforts, however, like the new Geneva Conventions on the treatment of military prisoners, began to globalize some ideas about human rights. Additional international conventions began to implement quarantines to prevent the spread of epidemics like cholera. New levels of cultural globalization showed particularly in the clear emergence of transnational sports interests, particularly around soccer, football, and American baseball. Finally, global economic exchange began to have significant regional environmental impacts. Development of a

rubber industry in Brazil, to meet needs in industrial countries, led to important levels of deforestation. The advent of globalization thus involved changes on various fronts.

Different societies participated variously in globalization, which raises important issues of comparison and continuity. New debates arose in Egypt about whether the veiling of women represented Islamic identity or an offense to global standards for women. Many countries, even though they could not resist global involvements, deplored Western dominance, and disproportionate Western benefit, from the process. Some societies, like Japan, managed to encounter globalization while preserving a sense of separate identity. The variations, and the widespread sense of resentment against too much foreign control and influence, were significant in their own right.

Political Revolutions

The long 19th century was ushered in not only by initial industrialization, but also by a series of major revolutions. The American Revolution cast off British colonial controls, while the great French Revolution had even more sweeping implications for political and social change. The revolutionary era would continue in western Europe through 1848, and it would also spur independence struggles in Latin America. A host of new ideas were nourished in the revolutionary era. Many of them, however, did not have much immediate echo outside the Atlantic world. European imperialists did not emphasize new ideas about political freedom or voting rights. The global impact of revolution was both gradual and complex, outside of the Atlantic world itself.

Revolutionary ideals did, however, play some role in the growing movement against slavery. It was from the revolutionary period also that nationalism gained new visibility. The long 19th century would see a steady spread of nationalism from its initial base in Europe and the Americas to every other major region. Indian nationalism, for example, was clearly taking shape by the

1850 C.E.

1850–1864 Taiping Rebellion in China
1853 Perry expedition to Edo Bay in Japan
1854–1856 Crimean War
1858 British assume control over India
1860–1868 Civil strife in Japan
1861 Emancipation of serfs in Russia
1861–1865 American Civil War
1863 Emancipation of slaves in United States
1864–1871 German unification
1868–1912 Meiji (reform) era in Japan
1870–1910 Acceleration of “demographic transition” in western Europe and the United States
1870–1910 Expansion of commercial export economy in Latin America
1871–1912 High point of European imperialism

1875 C.E.

1877–1878 Ottomans out of most of Balkans; Treaty of San Stefano
1879–1890s Partition of west Africa
1882 British takeover of Egypt
1885 Formation of National Congress Party in India
1886–1888 Slavery abolished in Cuba and Brazil
1890 Japanese constitution
1890s Partition of east Africa
1894–1895 Sino Japanese War
1895 Cuban revolt against Spain
1898 Formation of Marxist Social Democratic Party in Russia
1898 Spanish-American War; United States acquires the Philippines, Puerto Rico, and Hawaii; United States intervenes in Cuba
1898–1901 Boxer Rebellion in China

1900 C.E.

1901 Commonwealth of Australia
1903 Construction of Panama Canal begins
1904–1905 Russo-Japanese War
1905–1906 Revolution in Russia; limited reforms
1908 Young Turk rising
1910 Japan annexes Korea
1911–1912 Revolution in China; end of empire
1914–1918 World War I

1880s, Turkish nationalism in the following decade. Dealing with the nature and impact of this new political force is an important analytical assignment.

CONTINUITY

Industrialization's global impact and new forces of revolution did not destroy continuities from the past. In the first place, although industrialization and early globalization were indeed revolutionary, their consequences were spread out over many decades. Dramatic innovations such as department stores and ocean-going steamships should not conceal the fact that such stores controlled only about 5 percent of all retail commerce in major Western cities—the rest centered on more traditional shops, peddling, and outdoor markets.

Continuity also shows in the different ways specific groups and regions reacted to change. The need to respond to Western economic and, often, military pressure was quite real around the world. But reactions varied in part with local conditions. Japanese society adapted considerably to facilitate industrialization. The feudal system was abolished outright, but its legacy helped to shape Japanese business organizations. The absence of a comparable organizational legacy may have reduced Chinese flexibility for some time. The spread of literacy in Russia in the later 19th century—part of Russia's efforts to reform—created new opportunities for popular literature, as had occurred earlier in the West. But in contrast to Western literature, which often celebrated outlaws, Russian adventure stories always included the triumph of the state over disorder. The cultural differences illustrated by these comparisons did not necessarily persist without alteration, but they continued to influence regional patterns.

Response to change also included the "invention" of traditions. Many societies sought to compensate for disruption by appealing to apparent sources of stability that drew on traditional themes. Many Western leaders emphasized the sanctity of the family and domestic roles for women, hoping that the home would provide a "haven" amid rapid economic change. The ideas of the family as a haven and of the special domestic virtues of women were partly myths, even as both took on the status of tradition. In the 1860s the U.S. government instituted Thanksgiving as a national holiday, and many Americans assumed that this was simply an official recognition of a long-standing celebration; in fact, Thanksgiving had been only rarely and fitfully observed before this new holiday, designed to promote family and national unity, was newly established. Japanese leaders by the 1880s invented new traditions about the importance of the emperor as a divinely appointed ruler, again as a means of counterbalancing rapid change.

Even more widely, nationalism, as it spread, helped leaders in many societies talk about the importance of tradition, even as they worked for some changes that might boost national strength or establish political independence. A key appeal of nationalism was its claim to define and defend a particular identity, and traditional claims played a key part in this process. Many

nationalists played up artistic traditions, or folklore, or religious values as a buffer against too much external influence.

IMPACT ON DAILY LIFE: LEISURE

The Industrial Revolution transformed leisure. Leaders in industrial centers wanted to discourage traditional festivals, because they took too much time away from work and sometimes led to rowdiness on the part of workers. Factory rules also limited napping, chatting, wandering around, and drinking on the job. In the early decades of industrialization, leisure declined at first—replaced by long and exhausting work days—just as it had when agriculture replaced hunting and gathering.

With time, however, industrial societies introduced new kinds of leisure. Professional sports began to take shape around the middle of the 19th century. A bit later, new forms of popular theater attracted many people in the cities. The idea of vacations also spread: Workers took same-day train excursions to beaches, and travel companies formed to assist the middle classes in more ambitious trips. Much of the new leisure depended on professional entertainers, with the bulk of the population turning into spectators.

While the most dramatic innovations in leisure occurred in industrial societies, here too there was quick connection to the wider world—another sign of early globalization. Many mine and plantation owners sought to curb traditional forms of leisure activity in the interests of more efficient production. Although they had less success than factory owners did, they did have some impact. New forms of leisure pioneered in western Europe or the United States also caught on elsewhere. Soccer began to win interest in Latin America by the 1860s. Baseball began to spread from the United States to the rest of the Americas and Japan by the 1890s. By the 1920s, movies had won global attention as well. While most societies retained traditional, regional leisure forms, something of a global leisure culture was beginning to emerge.

SOCIETIES AND TRENDS

Chapters in this section begin with developments in the West, where industrialization and new political ideas first emerged. The West also spawned new settler societies in the United States, Canada, Australia, and New Zealand. These developments are described in Chapter 24. Chapter 25 focuses on the world economy and imperialism, tracing the effects of Western industrialization on the nonindustrial world. Chapter 26 describes the balance between new forces within Latin America. Chapter 27 describes developments in key parts of Asia as they responded to the challenges of Western power and economic change. Chapter 28 deals with two non-Western societies, Russia and Japan, that launched ambitious plans for industrialization in the late 19th century; the comparative study of the processes of industrialization in Russia, Japan, and the West sheds new light on the varied forms this process could take. ■

The Emergence of Industrial Society in the West, 1750–1900

24

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LEARNING OBJECTIVES

What changes helped prepare revolutionary upheaval in western Europe and North America? p. 562 24.1

What ideas did the French and American revolutions share? p. 564 24.2

What were the most important features of early industrialization? p. 569 24.3

What were the main changes in the nature and functions of government in the later 19th century? p. 571 24.4

What was the relationship between scientific and artistic change in the later 19th century? p. 576 24.5

Were the settler societies part of a common Western civilization, or did they differ fundamentally from western Europe? p. 579 24.6

What were the basic causes of growing diplomatic tension in Europe by 1900? p. 583 24.7

Why did an anti-Chinese riot break out in Milwaukee in 1889 when only 16 Chinese immigrants were living in the whole state of Wisconsin? The riot occurred in March. It followed press reports that Chinese laundrymen were seducing European American girls (Figure 24.1). One paper claimed there was a sinister ring transporting girls to Chicago where they would be forced to marry Chinese men. The headlines were inflammatory: “Chinese Horrors. Twenty-two Children Are Lured into the Dens.” Following accusations, police did arrest two Chinese. But court procedures were too slow for the public. Large crowds gathered, calling for lynchings, abusing



FIGURE 24.1 A Chinese laundry shop, 1855. Chinese workers began to reach the United States in the mid-19th century, part of a larger stream of Asian labor migrations to many areas in the world. The mostly uneducated and unskilled Chinese workers first came to America in response to advertising by railroad companies, who wanted cheap labor to build the Western railroads. Although the new immigrants faced resentment from American workers, both because of job competition and because of real or imagined differences in values, the Chinese managed to establish themselves in some additional types of work, especially laundries. These enterprises were attractive to the Chinese because they required little specialized skill or capital, and American men did not object to Chinese laundries, as they considered laundry to be “women’s work.”

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Chinese effigies, and burning and looting Chinese stores. After a tense few days, most of the Chinese immigrants left town.

From a world history standpoint, this incident is not significant, but it is suggestive. First, it occurred after several decades of Chinese immigration into the United States, where initially many worked on western railways. This in turn was part of a larger movement of people from Asia to the Americas and elsewhere—a key migration theme for the period—as population growth in Asian nations combined with a deteriorating position in the world economy fuelled mass Asian emigration. Large Japanese populations, for example, emerged in places like Brazil and Hawaii. More than a million Chinese emigrated to various parts of the Americas in the decades before and after 1900, and there was massive movement from India, Japan, and the Philippines as well. This new migration from Asia to the Americas was a major departure in world history, and it would continue into the 21st century.

Second, of course, the Milwaukee incident illustrates the anxieties that contact with Asians caused among many Americans. The 1880s saw massive anti-Chinese rioting in the western United States, with more than 140 Chinese murdered and more than 10,000 forced to leave their homes and stores. In 1882 the first of several measures was passed to limit Chinese immigration, an exclusionary policy that would last until 1943. Anxiety focused both on Chinese competition with American labor and on accusations of predatory sexual behavior. It proved difficult, for several decades, for Chinese Americans to assimilate more fully into national life. And of course, as with many immigrants, some did not want to. For example, many Chinese spent considerable sums to send the bodies of their deceased relatives back to China, the only place, in their view, where ancestors could be properly accommodated. ■

Western history in the 19th century operates amid accelerating international contacts—of the sort that brought new Asian migration to the United States. Developments in the West, even more obviously, altered the global context in turn, through the effects of industrialization, political upheaval, and new social and cultural reforms.

For change was the name of the game in the 19th-century West—including the addition of important new settler societies in the United States and elsewhere substantially shaped by Western influences. In 1750 western Europe consisted almost entirely of monarchies. By 1914 many monarchies had been overthrown, and everywhere powerful legislatures, based on extensive voting systems, defined much of the political apparatus. Twice, in the first 15 years of the 19th century and again in the 1860s, western Europe was rocked by significant warfare, but much of the period was relatively peaceful, but by 1914 a new alliance system had emerged that was about to plunge not only Europe but other parts of the world into massive bloodshed. The rise of a new middle class, novel issues for women, substantial changes in science and popular culture—these were other areas in which tradition seemed to erode under the impact of industrialization and urban growth.

CONTEXT FOR REVOLUTION

24.1 What changes helped prepare revolutionary upheaval in western Europe and North America?

Against the backdrop of intellectual challenge, commercial growth, and population pressure, the placid politics of the 18th century were shattered by the series of revolutions that took shape in the 1770s and 1780s. This was the eve of the **age of revolution**, a period of political upheaval beginning

New ideas helped stimulate a wave of revolutions in the whole Atlantic world from the 1770s to 1848. Revolutionary patterns would gain international influence; they also interacted with the early effects of Western industrialization.

1700 C.E.	1820 C.E.	1840 C.E.	1860 C.E.	1880 C.E.	1900 C.E.
<p>1730 ff. Massive population rise</p> <p>c. 1770 James Watt's steam engine; beginning of Industrial Revolution</p> <p>1788 First convict settlement in Australia</p> <p>1789 George Washington first president of the United States</p> <p>1789–1799 French Revolution</p> <p>1790 ff. Beginning of per capita birth rate decline (United States)</p> <p>1793 First free European settlers in Australia</p> <p>1793–1794 Radical phase of French Revolution</p> <p>1799–1815 Reign of Napoleon</p> <p>1800–1850 Romanticism in literature and art</p> <p>1803 Louisiana Purchase (United States)</p> <p>1810–1826 Rise of democratic suffrage in United States</p> <p>1815 Congress of Vienna ushers in a more conservative period in Europe</p>	<p>1820 Revolutions in Greece and Spain; rise of liberalism and nationalism</p> <p>1820s ff. Industrialization in United States</p> <p>1823 First legislative council in Australia</p> <p>1826–1837 Active European colonization begins in New Zealand</p> <p>1829 Andrew Jackson seventh president of United States</p> <p>1830 Revolutions in several European countries</p> <p>1832 Reform Bill of 1832 (England)</p> <p>1837 Rebellion in Canada</p> <p>1837–1842 U.S.–Canada border clashes</p> <p>1839 New British colonial policy allows legislature and more autonomy</p>	<p>1840 Union act reorganizes Canada, provides elected legislature</p> <p>1843–1848 First Maori War, New Zealand</p> <p>1846–1848 Mexican-American War</p> <p>1848 ff. Writings of Karl Marx; rise of socialism</p> <p>1848–1849 Revolutions in several European countries</p> <p>1850 Australia's Colonies Government Act allows legislature and more autonomy</p> <p>1852 New constitution in New Zealand; elected councils</p> <p>1859 Darwin's <i>Origin of Species</i></p> <p>1859–1870 Unification of Italy</p>	<p>1860–1870 Second Maori War</p> <p>1861–1865 American Civil War</p> <p>1863 Emancipation Proclamation, United States</p> <p>1864–1871 German unification</p> <p>1867 British North America Act unites eastern and central Canada</p> <p>1870–1879 Institution of Third Republic, France</p> <p>1870s ff. Rapid birth rate decline</p> <p>1870s ff. Spread of compulsory education laws</p> <p>1871–1914 High point of European imperialism</p> <p>1879–1907 Alliance system: Germany-Austria (1879); Germany-Austria-Russia (1881); Germany-Italy-Austria (1882); France-Russia (1891); Britain-France (1904); Britain-Russia (1907)</p>	<p>1880s ff. High point of impressionism in art</p> <p>1881–1914 Canadian Pacific Railway</p> <p>1881–1889 German social insurance laws enacted</p> <p>1882 United States excludes Chinese immigrants</p> <p>1891–1898 Australia and New Zealand restrict Asian immigration</p> <p>1893 Women's suffrage in New Zealand</p> <p>1898 Spanish-American War; United States acquires Puerto Rico, Guam, Philippines</p> <p>1898 United States annexes Hawaii</p> <p>1899 United States acquires part of Samoa</p>	<p>1901 Commonwealth of Australia creates national federation</p> <p>1907 New Zealand gains dominion status in British Empire</p> <p>1912–1913 Balkan Wars</p> <p>1914 Beginning of World War I</p>

roughly with the American Revolution in 1775 and continuing through the French Revolution of 1789 and other movements for change up to 1848. The wave of revolutions caught up many social groups with diverse motives, some eager to use revolution to promote further change and some hoping to turn back the clock and recover older values.

The same changes that rocked politics also helped establish a context for the first stages of industrialization. Early industrialization, important in its own right, would ultimately interact with political revolution, generating a final set of upheavals in 1848 that ended this revolutionary era.

Forces of Change

Three forces were working to shatter Europe's calm by the mid-18th century. The first of the forces was cultural, for intellectual ferment was running high. Enlightenment thinkers challenged regimes that did not grant full religious freedom or that insisted on aristocratic privilege, and a few called for

age of revolution Period of political upheaval beginning roughly with the American Revolution in 1775 and continuing through the French Revolution of 1789 and other movements for change up to 1848.

widespread popular voice in government. Jean-Jacques Rousseau argued for government based on a general will, and this could be interpreted as a plea for democratic voting. Voltaire attacked the Church for repressing human liberty. Enlightenment thinkers collectively stood for freedoms of religion and the press and changes in government structure that would limit the powers of kings and aristocrats. They promoted their views vigorously to a growing public audience. Unquestionably, intellectual challenges played a major role in triggering eventual revolutionary outbreaks. Enlightenment thinkers also encouraged economic and technological change and policies that would promote industry; manufacturers and political reformers alike could take inspiration from these ideas.

Along with cultural change, ongoing commercialization continued to stir the economy. Businesspeople, gaining new wealth, might well challenge the idea that aristocrats alone should hold the highest political offices. They certainly were growing interested in new techniques that might spur production. Commercial practices might also draw attack, from artisans or peasant villagers who preferred older economic values. This could feed revolution as well.

A final source of disruption was occurring more quietly at all social levels. Western Europe experienced its huge population jump after about 1730. Within half a century, the population of France rose by 50 percent; that of Britain and Prussia rose 100 percent. This **population revolution** was partly the result of better border policing by the efficient nation-state governments, which reduced the movement of disease-bearing animals. More important was improved nutrition resulting from the growing use of the potato. These factors reduced the death rate, particularly for children; instead of more than 40 percent of all children dying by age 2, the figure by the 1780s was closer to 33 percent. More children surviving also meant more people living to have children of their own, so the birth rate increased as well.

Population pressure at this level always has dramatic impact. Upper-class families, faced with more surviving children, tried to tighten their grip on existing offices. In the late 18th century, it became harder for anyone who was not an aristocrat to gain a high post in the church or state. This reaction helped feed demands for change by other groups. Above all, population pressure drove many people into the working class as they lost any real chance of inheriting property, creating new motives for protest.

The population growth of the 18th century prompted a rapid expansion of domestic manufacturing in western Europe and, by 1800, in the United States. Hundreds of thousands of people became full- or part-time producers of textile and metal products, working at home but in a capitalist system in which materials, work orders, and sales depended on urban merchants. This development has been called **proto-industrialization**, and it ultimately encouraged new technologies to expand production further because of the importance of new market relationships and manufacturing volume.

Population upheaval and the spread of a propertyless class that worked for money wages had a sweeping impact on a variety of behaviors in Western society, including North America. Many villagers began to change their dress to more urban styles; this suggests an early form of new consumer interest. Among groups with little or no property, parental authority began to decline because the traditional threat of denying inheritance had no meaning. Youthful independence became more marked, and although this was particularly evident in economic behavior as many young people looked for jobs on their own, the new defiance of authority might have had political implications as well.

population revolution Huge growth in population in western Europe beginning about 1730; prelude to Industrial Revolution; population of France increased 50 percent, England and Prussia 100 percent.



Read the Document on MyHistoryLab: Thomas Malthus's *An Essay on the Principle of Population*, 1798

proto-industrialization Preliminary shift away from agricultural economy in Europe; workers become full- or part-time producers of textile and metal products, working at home but in a capitalist system in which materials, work orders, and ultimate sales depended on urban merchants; prelude to Industrial Revolution.

The unification of Italy and Germany created new rivalries in western Europe. European countries developed new functions for governments, responding to industrial pressures, including socialism.

THE AGE OF REVOLUTION

24.2 What ideas did the French and American revolutions share?

Overall, the spread of social tensions but also the attraction of new political ideas helped generate revolutionary political movements on both sides of the Atlantic. These Atlantic revolutions embraced independence efforts in North and later South America, a major revolution in France, and then a series of risings in various parts of western and central Europe that ran through the first half of the 19th century.

The American Revolution

When Britain's Atlantic colonies rebelled in 1775, it was primarily a war for independence rather than a full-fledged revolution. A large minority of American colonists resisted Britain's attempt to impose new taxes and trade controls on the colonies after 1763. Many settlers also resented restrictions on movement into the frontier areas. The colonists also invoked British political theory to argue that they should not be taxed without representation. The Stamp Act of 1765, imposing taxes on documents and pamphlets, particularly roused protest against British tyranny. Other grievances were involved. Crowding along the eastern seaboard led some younger men to seek new opportunities, including political office, that turned them against the older colonial leadership. Growing commerce antagonized some farmers and artisans, who looked for ways to defend the older values of greater social equality and community spirit.

With the start of the **American Revolution**, colonial rebels set up a new government, which issued the Declaration of Independence in 1776 and authorized a formal army to pursue its war. The persistence of the revolutionaries was combined with British military blunders and significant aid from the French government, designed to embarrass its key enemy. After several years of fighting, the United States won its freedom and, in 1789, set up a new constitutional structure based on Enlightenment principles, with checks and balances between the legislature and the executive branches of government, and formal guarantees of individual liberties. Voting rights, although limited, were widespread, and the new regime was for a time the most advanced in the world. Socially, the revolution accomplished less; slavery was untouched.

Crisis in France in 1789

The next step in the revolutionary spiral occurred in France. It was the **French Revolution** that most clearly set in motion the political restructuring of Western Europe. Several factors combined in the 1780s in what became a classic pattern of revolutionary causation. Ideological insistence on change won increasing attention from the mid-18th century onward, as Enlightenment thinkers urged the need to limit the powers of the Catholic Church, the aristocracy, and the monarchy. Social changes reinforced the ideological challenge. Some middle-class people, proud of their business or professional success, wanted a greater political role. Many peasants, pressed by population growth, wanted fuller freedom from landlords' demands.

The French government and upper classes proved incapable of reform. Aristocrats tightened their grip in response to their own population pressure, and the government proved increasingly ineffective—a key ingredient in any successful revolution. Finally, a sharp economic slump in 1787 and 1788, triggered by bad harvests, set the seal on revolution.


The French king, **Louis XVI**, called a meeting of the traditional parliament to consider tax reform for his financially pinched regime. But middle-class representatives, inspired by Enlightenment ideals, insisted on turning this assembly (which had not met for a century and a half) into a modern parliament, with voting by head (that is, each representative with a vote, rather than a single vote for each estate) and with majority representation for nonnoble property owners. The fearful king caved in after some street riots in Paris in the summer of 1789, and the revolution was under way.

Events that summer were crucial. The new assembly, with its middle-class majority, quickly turned to devising a new political regime. A stirring **Declaration of the Rights of Man and the Citizen** proclaimed freedom of thought. Like the American Declaration of Independence, this document defined natural rights as “liberty, property, security, and resistance to oppression” and specifically guaranteed free expression of ideas. A popular riot stormed a political prison, the Bastille, on July 14, in what became the revolution's symbol; ironically, almost no prisoners were there. Soon after this, peasants seized manorial records and many landed estates. This triggered a general proclamation abolishing manorialism, giving peasants clear title to much land, and establishing equality under the law. Although aristocrats survived for some time, the principles of aristocratic rule were undercut. The privileges of the church were also attacked, and church property was seized. A new constitution proclaimed individual rights, including freedom of religion, press, and property. A strong parliament was set up to limit the king, and about one-half the adult male population—those with property—were eligible to vote.

 **Read the Document on MyHistoryLab:** Franklin and the British Parliament, “Proceedings Regarding The Stamp Act”

American Revolution Rebellion of English American colonies along Atlantic seaboard between 1775 and 1783; resulted in independence for former British colonies and eventual formation of United States of America.

French Revolution Revolution in France between 1789 and 1800; resulted in overthrow of Bourbon monarchy and old regimes; ended with establishment of French empire under Napoleon Bonaparte; source of many liberal movements and constitutions in Europe.

 **Read the Document on MyHistoryLab:** Emmanuel Joseph Sieyès, *What Is the Third Estate?*

Louis XVI (1754–1793) Bourbon monarch of France who was executed during the radical phase of the French Revolution.

Declaration of the Rights of Man and the Citizen Adopted during the liberal phase of the French Revolution (1789); stated the fundamental equality of all French citizens; later became a political source for other liberal movements.

 **Read the Document on MyHistoryLab:** *Declaration of the Rights of Man and the Citizen*, 1789

VISUALIZING THE PAST

The French Revolution in Cartoons

THIS CARTOON, TITLED *The Former Great Dinner of the Modern Gargantua with His Family*, appeared in 1791 or 1792, as the French Revolution was becoming more radical. It pictures the king as a latter-day Gargantua, referring to a French literary figure who was a notoriously great eater.

QUESTIONS

- How does the cartoon characterize the relationship between French society and economy and the monarchy?
- What conclusions might readers of the cartoon draw about what should happen to the monarchy?
- With improvements in printing and literacy, cartoons were becoming more available, and they have continued to be important into the present day. Why were they effective as a means of communicating ideas?



The French Revolution: Radical and Authoritarian Phases

By 1792 the initial push for reform began to turn more radical. Early reforms provoked massive opposition in the name of church and aristocracy, and civil war broke out in several parts of France. Monarchs in Britain, Prussia, and Austria trumpeted their opposition to the revolution, and France soon moved toward European war as well. These pressures led to a takeover by radical leaders, who wanted to press the revolution forward and to set up firmer authority in the revolution's defense. The radicals abolished the monarchy. The king was decapitated on the **guillotine**, a new device introduced, Enlightenment-fashion, to provide more humane executions, but instead it became a symbol of revolutionary bloodthirst. The radicals also executed several thousand opponents in what was named the Reign of Terror, even though by later standards it was mild.

The leader of the radical phase was Maximilien Robespierre (1758–1794), a classic example of a revolutionary ideologue. Born into a family of lawyers, he gained his law degree in 1781 and soon was publishing Enlightenment-style political tracts. The new philosophies inspired passion in Robespierre, particularly the democratic ideas of Rousseau. Elected to all the initial revolutionary assemblies, Robespierre headed the prosecution of the king in 1792 and then took over the leadership of government. He put down many factions, sponsored the Terror, and worked to centralize the government. In 1794 he set up a civic religion, the “cult of the Supreme Being,” to replace Catholicism. Personally incorruptible, Robespierre came to symbolize the single-minded revolutionary. But he shied away from significant social reforms that might have drawn urban support. He was convinced that he knew the people's will. Opposition mounted, and when he called for yet another purge of moderate leaders, he was arrested and guillotined on the same day, abandoned by the popular factions that had once spurred him on.

While in power, Robespierre and his colleagues pushed revolutionary reforms. A new constitution, never fully put into practice, proclaimed universal adult male suffrage. The radicals introduced a metric system of weights and measures, the product of the rationalizing genius of the Enlightenment. Slavery was abolished in the French colonies, although this measure was reversed after the radical regime collapsed. Robespierre and his allies also proclaimed universal military conscription, arguing that men who were free citizens owed loyalty and service to the government. And revolutionary armies began to win major success. Not only were France's enemies driven out, but the regime began to acquire new territory in the Low Countries, Italy, and Germany, spreading revolutionary gains farther in western Europe.

guillotine [gil uh tEEen, gEE uh-, gil uh tEEen, gEE uh-] Introduced as a method of humane execution; utilized to execute thousands during the most radical phase of the French Revolution known as the Reign of Terror.



View the **Closer Look** on **MyHistoryLab**: Execution of Louis XVI

A new spirit of popular **nationalism** surfaced during the revolution's radical phase. Many French people felt an active loyalty to the new regime—to a state they believed they had helped create. A new symbol was a revolutionary national anthem (the world's first), with its rousing first lines, "Come, children of the nation, the day of glory has arrived." Nationalism could replace older loyalties to church or locality.

The fall of the radicals led to four years of moderate policies. Then in 1799 the final phase of the revolution was ushered in with the victory of **Napoleon Bonaparte**, a leading general who soon converted the revolutionary republic to an authoritarian empire. Napoleon reduced the parliament to a rubber stamp, and a powerful police system limited freedom of expression. However, Napoleon confirmed other liberal gains, including religious freedom, while enacting substantial equality—although for men, not women—in a series of new law codes. To train bureaucrats, Napoleon developed a centralized system of secondary schools and universities.

Driven by insatiable ambition, Napoleon devoted most of his attention to expansion abroad (Map 24.1). A series of wars brought France against all of Europe's major powers, including Russia. At its height, about 1812, the French empire directly held or controlled as satellite kingdoms most of western Europe, and its success spurred some reform measures even in Prussia and Russia. The French empire crumbled after this point. An attempt to invade Russia in 1812 failed miserably. French armies perished in the cold Russian winter even as they pushed deep into the empire. An alliance system organized by Britain crushed the emperor definitively in 1814 and 1815. Yet Napoleon's campaigns had done more than dominate European diplomacy for one and a half decades. They had also spread key revolutionary legislation—the idea of equality under

nationalism Political viewpoint with origins in western Europe; urged importance of national unity; valued a collective identity based on culture, race, or ethnic origin.

Bonaparte, Napoleon Rose within the French army during the wars of the French Revolution; eventually became general; led a coup that ended the French Revolution; established French empire under his rule; defeated and deposed in 1815.

 View the **Closer Look** on **MyHistoryLab**: The Coronation of Napoleon



MAP 24.1 Napoleon's Empire in 1812 By 1812, France dominated Europe to the borders of Russia, but Napoleon's decision to invade Russia proved disastrous, as his army was soon mired in the bitter cold and deep snows of a harsh Russian winter. Defeated in 1814, Napoleon was exiled to the island of Elba (shown above) but he escaped and returned to power. After final defeat at the Battle of Waterloo (1815), he was exiled to the remote South Atlantic island of St. Helena.

the law and the attack on privileged institutions such as aristocracy, church, and craft guilds—throughout much of western Europe.

The revolution and Napoleon encouraged popular nationalism outside of France as well as within. French military success continued to draw great excitement at home. Elsewhere, French armies tore down local governments, as in Italy and Germany, which whetted appetites there for greater national unity. And the sheer fact of French invasion made many people more conscious of loyalty to their own nations; popular resistance to Napoleon, in parts of Spain and Germany, played a role in the final French defeat.

A Conservative Settlement and the Revolutionary Legacy

The allies who had brought the proud French emperor down met at Vienna in 1815 to reach a peace settlement that would make further revolution impossible. Diplomats at the **Congress of Vienna** did not try to punish France too sternly, on the grounds that the European balance of power should be restored. Still, a series of stronger powers was established around France, which meant gains for Prussia within Germany and for the hitherto obscure nation of Piedmont in northern Italy. The old map was not restored, and the realignments ultimately facilitated national unifications. Britain gained new colonial territories, confirming its lead in the scramble for empire in the wider world. Russia, newly important in European affairs, maintained its hold over most of Poland.

These territorial adjustments kept Europe fairly stable for almost half a century—a major achievement, given the crisscrossed rivalries that had long characterized Western society. But the Vienna negotiators were much less successful in promoting internal peace. The idea was to promote stability by restoring monarchy in France and linking Europe's major powers in defense of churches and kings. This was a key statement of the growing movement of **conservatives** in Europe, who defined themselves in opposition to revolutionary goals.

But political movements arose to challenge conservatism. They involved concrete political agitation but also an explosion of ideals about protecting individual rights and providing some political representation. Many of the ideals would resonate in many parts of the world during the 19th and 20th centuries. **Liberals** focused primarily on issues of political structure. They looked for ways to limit state interference in individual life and urged voting rights for propertied people. Liberals touted the importance of constitutional rule and protection for freedoms of religion, press, and assembly. Largely representing the growing middle class, many liberals also sought economic reforms, including better education, which would promote industrial growth.

Radicals accepted the importance of most liberal demands, but they also wanted wider voting rights. Some advocated outright democracy. They also urged some social reforms in the interest of the lower classes. A smaller current of socialism urged an attack on private property in the name of equality and an end to capitalist exploitation of workers. Nationalists, often allied with liberalism or radicalism, urged the importance of national unity and glory.

Political protest found support among students and among urban artisans, concerned about economic changes that might displace craft skills. Revolutions broke out in several places in 1820 and again in 1830. The 1820 revolts involved a nationalist **Greek Revolution** against Ottoman rule—a key step in gradually dismantling the Ottoman empire in the Balkans—and a rebellion in Spain. Another French Revolution of 1830 installed a different king and a somewhat more liberal monarchy. Uprisings also occurred in key states in Italy and Germany, although without durable result; the Belgian Revolution of 1830 produced a liberal regime and a newly independent nation.

Britain and the United States also participated in the process of political change, although without revolution. Key states in the United States granted universal adult male suffrage (except for slaves) and other political changes in the 1820s, leading to the election of a popular president, Andrew Jackson, in 1828. In Britain, the **Reform Bill of 1832**, a response to popular agitation, gave the parliamentary vote to most middle-class men. By the 1830s, regimes in France, Britain, Belgium, and several other countries had solid parliaments (the equivalent of Congress in the United States), some guarantees for individual rights against arbitrary state action, religious freedom not only for various Christian sects but also for Jews, and voting systems that ranged from democratic (for men) to the upper-middle class, plus aristocracy alone.

Congress of Vienna Meeting in the aftermath of Napoleonic Wars (1815) to restore political stability in Europe and settle diplomatic disputes.

conservative Political viewpoint with origins in western Europe during the 19th century; opposed revolutionary goals; advocated restoration of monarchy and defense of church.

liberal Political viewpoint with origins in western Europe during the 19th century; stressed limited state interference in individual life, representation of propertied people in government; urged importance of constitutional rule and parliaments.

radical Political viewpoint with origins in western Europe during the 19th century; advocated broader voting rights than liberals; in some cases advocated outright democracy; urged reforms in favor of the lower classes.

Greek Revolution Rebellion in Greece against the Ottoman empire in 1820; key step in gradually dismantling the Ottoman empire in the Balkans.

Reform Bill of 1832 Legislation passed in Great Britain that extended the vote to most members of the middle class; failed to produce democracy in Britain.

THE INDUSTRIAL REVOLUTION: FIRST PHASES

24.3 What were the most important features of early industrialization?

Even as political revolution gained ground, the foundations of industrialization were being laid in Britain. Causes of this change are much debated (see the Part Introduction), but there is no question that Britain had some special ingredients by the later 18th century. Domestic production spread widely, and this could encourage some inventors to think of methods to improve productivity within the system. In 1733 the flying shuttle was introduced, which automatically moved thread horizontally in a loom, almost doubling the productivity of a hand weaver. Other inventions followed for both spinning and weaving. Agricultural improvements, including seed drills but also the use of crops to replenish the soil, began to generate surpluses that could support larger urban populations. Increased attention to coal mining, the result of the need for new fuels, led to the first invention of a steam engine, in 1700, simply to pump water from the mines.

The key step was James Watt's invention of a more sophisticated steam engine, in the 1770s, that could be applied to manufacturing processes. Steam power, using fossil fuel, steadily displaced human and animal power, creating huge increases in manufacturing output in industries like cotton textiles. Additional inventions, like Edmund Cartwright's power loom in 1785, transmitted steam power to the actual manufacturing process. The new machine stimulated growth in metallurgy, alongside textiles. Steam also required factory units, grouping a large number of workers near the engine itself. Factories soon generated advantages of their own: workers could be more directly disciplined, their labor more specialized—additional gains for productivity.

Early British industrialization had wide effects. Rapid production growth fueled exports because domestic demand could not keep pace. By the 1800s Britain exported three-quarters of its textile output, with immediate impact on traditional workers in other regions. Early factories seemed to require cheap labor to compensate for large investments in equipment, so the pace of work went up, wages tended to drop, and child labor played a substantial role. Cities grew, as centers for the expanding factories: By 1850, Britain would be 50% urban, the first such level in human history. By the 1820s, introduction of steam locomotives began to spread the principles of industrialization to internal transportation.

Early industrialization had immediate environmental impact, particularly around the industrial cities themselves. Smoke could choke the air, while industrial chemicals and human sewage spilled into riverways. Early industrial cities operated in a permanent haze, blocking sunlight and promoting diseases like rickets, a bone deformity.

For all its costs, industrialization proved alluring: Businessmen sought new profits and governments saw the military advantages of the new production forms. British industrialization soon found eager imitators in Belgium, France, Germany, and the new United States. Political upheavals delayed the process somewhat, but also created governments that were more friendly to economic growth. The French Revolution, for example, by abolishing guild restrictions, facilitated technological change. Governments and businessmen alike began to copy British methods, creating a more general Western industrialization process from the 1820s onward.

A few British features were modified as industrialization spread. Use of child labor in factories, for example, prompted concern by the 1830s, not only in Britain but in the newer industrializers. Legal limits on labor, plus school requirements, began the historic conversion of childhood from a focus on work to a focus on education.

Overall, however, early industrialization promoted disruption wherever it occurred. New workers faced challenging jobs amid the pressures of crowded cities and slum housing. Older groups, like craftsmen, feared for their futures. This was a point at which, briefly, the course of early industrialization intersected with a final political outburst in western Europe.

Industrialization and the Revolutions of 1848

For by the 1830s and 1840s, industrialization was directly adding pressures to Europe's revolutionary ferment. The 1832 Reform Bill in England, for example, responded in part to growing working-class agitation, although it did not extend the vote to workers and led to further political protest. Key

Dramatic changes in daily life reflected the pressures and opportunities of industrialization. Cultural changes involved steady advances in sciences and increasingly defiant innovation in the arts.



Read the Document on MyHistoryLab: James Watt on Steam Engines (mid to late 1700s)

Chartist movement Attempt by artisans and workers in Britain to gain the vote during the 1840s; demands for reform beyond the Reform Bill of 1832 were incorporated into a series of petitions; movement failed.



Read the Document on MyHistoryLab: The Chartist Movement: British Workers Call for Political Enfranchisement, 1878

lower-class groups turned to political protest as a means of compensating for industrial change. Artisans and workers in Britain generated a new movement to gain the vote in the 1830s and 1840s, developing a charter to spell out their demands. This **Chartist movement** hoped that a democratic government would regulate new technologies and promote popular education.

The extraordinary wave of revolutions of 1848 and 1849 brought protest to a head. Paris was again the center. In the popular uprising that began in February 1848, the French monarchy was once again expelled, this time for good, and a democratic republic was established briefly. Urban artisans pressed for serious social reform—perhaps some version of socialism, and certainly government-supported jobs for the unemployed. Groups of women schoolteachers agitated for the vote and other rights for women. The social demands were far wider than those of the great uprising of 1789.

Revolution quickly spread to other centers. Major revolts occurred in Germany (Figure 24.2), Austria, and Hungary. Revolutionaries in these areas devised liberal constitutions to modify conservative monarchies, artisans pressed for social reforms that would restrain industrialization, and peasants sought a complete end to manorialism. Revolts in central Europe also pressed for nationalist demands: German nationalists worked for the unity of their country, and various nationalities in Austria–Hungary, including Slavic groups, sought greater autonomy. A similar liberal nationalist revolt occurred in various parts of Italy.

The revolutionary fires burned only briefly. The social demands of artisans and some factory workers were put down quickly; not only conservatives but middle-class liberals opposed these efforts. Nationalist agitation also failed for the moment, as the armies of Austria–Hungary and Prussia restored the status quo to central Europe and Italy. Democracy persisted in France, but a nephew of the great Napoleon soon replaced the liberal republic with an authoritarian empire that lasted until 1870. Peasant demands were met, and serfdom was fully abolished throughout western Europe. Many peasants, uninterested in other gains, supported conservative forces.



FIGURE 24.2 The 1848 revolution in Berlin. After months of maneuvering, negotiation, and street clashes, the revolutionaries agreed on a liberal constitution that would have established a constitutional monarchy. When they offered the crown under these terms to King Friedrich Wilhelm IV, who had initially given in to the demands of the crowds, he politely declined, saying in private that he could not accept a crown “from the gutter.” Friedrich Wilhelm believed he ruled by divine right—not by the consent of the governed. The great difference between the king’s and the reformers’ views of constitutional monarchy was indicative of the chasm that existed in mid-19th-century Europe between advocates of aristocratic and democratic government.

The substantial failure of the revolutions of 1848 drew the revolutionary era in western Europe to a close. Failure taught many liberals and working-class leaders that revolution was too risky; more gradual methods should be used instead. Improved transportation reduced the chance of food crises, the traditional trigger for revolution in Western history. Bad harvests in 1846 and 1847 had driven up food prices and helped promote insurgency in the cities, but famines of this sort did not recur in the West. Many governments also installed better riot control police.

By 1850 an industrial class structure had come to predominate. Earlier revolutionary gains had reduced the aristocrats' legal privileges, and the rise of business had eroded their economic dominance. With industrialization, social structure came to rest less on privilege and birth and more on money. Key divisions by 1850 pitted middle-class property owners against workers of various sorts. The old alliances that had produced the revolutions were now dissolved.

THE CONSOLIDATION OF THE INDUSTRIAL ORDER, 1850–1900

24.4

What were the main changes in the nature and functions of government in the later 19th century?

In most respects, the 65 years after 1850 seemed calmer than the frenzied period of political upheaval and initial industrialization. Railroads and canals linked cities across Europe and spurred industrialization and urbanization (Map 24.2). City growth continued in the West; indeed, several countries, starting with Britain, passed the 50 percent mark in urbanization—the first time in human history that more than a minority of a population lived in cities. City governments began to gain ground on the pressing problems growth had created. Sanitation improved, and death rates fell below birth rates for the first time in urban history. Parks, museums, effective regulation of food and housing facilities, and more efficient police forces all added to the safety and the physical and cultural amenities of urban life. Revealingly, crime rates began to stabilize or even drop in several industrial areas, a sign of more effective social control but also of a more disciplined population.

The expansion of settler societies strongly influenced by European institutions and values was a leading development of the 19th century.



MAP 24.2 Industrialization in Europe, c. 1850 By the mid-19th century, industrialization had spread across Europe, aided by the development of railroad links and canals that brought resources to the new factories and transported their finished goods to world markets.

The Second Industrial Revolution

In the decades after 1850, industrialization accelerated in western Europe and the United States in several ways, in a process sometimes called the second industrial revolution. New technologies like the Bessemer process, which automatically mixed alloys with molten iron, greatly increased the production of steel. Electrical and internal combustion engines added new sources of power to steam and began an expansion of oil production. A new chemicals industry took shape, with leadership from Germany and the United States. New machines expanded per worker productivity, ranging from larger mechanical looms to automatic power-drilling equipment that allowed mass production of machine parts. Finally—and here the United States took the lead—new methods of work discipline, often devised by industrial psychologists, led to greater specialization and a faster pace; these changes, soon after 1900, would generate the assembly line system. These changes slowed the growth of factory labor—fewer workers were needed for higher outputs, but these changes spurred the growth of a white-collar class of sales clerks and secretaries.

Adjustments to Industrial Life

The second industrial revolution caused new strains. It provoked higher levels of labor unrest. But in some ways people began adjusting to industrial life even so. Family life responded to industrialization. Birth rates began to drop as Western society began a demographic transition to a new system that promoted fairly stable population levels through a new combination of low birth rates and low death rates. Between 1890 and 1920, infant death rates in the West dropped from 20 to 30 percent to about 5 percent. Children were now seen as a source of emotional satisfaction and parental responsibility, not as workers contributing to a family economy. As the Document feature shows, arguments about women's special family duties gained ground.

Material conditions generally improved after 1850. By 1900 probably two-thirds of the Western population enjoyed conditions above the subsistence level. People could afford a few amenities such as newspapers and family outings, their diet and housing improved, and their health got better. The decades from 1880 to 1920 saw a real revolution in children's health, thanks in part to better hygiene during childbirth and better parental care. Infancy and death diverged for the first time in human history: Instead of one-third or more of all children dying by age 10, child death rates fell to less than 5 percent and continued to plummet. The discovery of germs by **Louis Pasteur** led by the 1880s to more conscientious sanitary regulations and procedures by doctors and other healthcare specialists; this reduced the deaths of women in childbirth. Women began to outlive men by a noticeable margin, but men's health also improved.

In little more than a decade, between 1860 and 1873, the number of corporations in western Europe doubled. The rise of corporations, drawing on stockholder investment funds, with new laws protecting individual investors, was a major change in business and organizational life. Important labor movements took shape among industrial workers by the 1890s, with massive strike movements by miners, metalworkers, and others from the United States to Germany. The new trade union movement stressed the massed power of workers. Hosts of labor leaders sprang up amid detested work conditions and political repression. Many workers learned to bargain for better pay and shorter hours.

In the countryside, peasant protests declined. Many European peasants gained a new ability to use market conditions to their own benefit. Some, as in Holland and Denmark, developed cooperatives to market goods and purchase supplies efficiently. Many peasants specialized in new cash crops, such as dairy products. Still more widely, peasants began to send their children to school to pick up new knowledge that would improve farming operations. The traditional isolation of rural areas began to decline.

Political Trends and the Rise of New Nations

Western politics consolidated after the failed revolutions of 1848. Quite simply, issues that had dominated the Western political agenda for many decades were largely resolved within a generation. The great debates about fundamental constitutions and government structure, which had emerged in the 17th century with the rise of absolutism and new political theory and then raged during the decades of revolution, at last grew quiet.

Pasteur, Louis French scientist who discovered relationship between germs and disease in 19th century, leading to better sanitation.

DOCUMENT

Protesting the Industrial Revolution

AS MACHINES WERE INTRODUCED WITH INDUSTRIALIZATION, attacks mounted. The process was called Luddism, after British protests between 1810 and 1820 in the name of a mythical leader called Ned Ludd. The following documents describing Luddism come from a wool manufacturing area around Vienne, in France, in 1819. The first document is a government source, the second a worker petition.

POLICE REPORT

We, king's attorney in the court of first instance at Vienne, acting on the information which we have just received, that the new cloth-shearing machine belonging to Messrs. Gentin and Odoard had just reached the bank of the Gère river near the building intended to house it when a numerous band of workers hastened toward the spot crying "*Down with the shearing machine*"; that some rifle shots were heard, and in general everything about this meeting of workers announced the will and the intent to pillage by force a piece of property, we immediately went to the place where the mayor and the police commissioner agreed to authorize us to use armed force and to state the nature of any crimes and their perpetrators, and to hear with us the declarations of any persons who had information to give us.

Having arrived near the shop of Messrs. Odoard and Gentin, on the right bank of the river, we saw in the steam, at a distance of about fifteen feet, a carriage without horses, its shafts in the air, loaded with four or five crates, one of which was obviously broken, and at three or four paces off in the water, an instrument of iron or some other metal of the same size as the crate, in terms of its length. Various calvary posts and policemen, on foot and mounted, placed at various distances on the two banks of the Gère and on the hills, regarded all the paths and roads; the windows which gave onto the river were partially closed.

Some minutes before our arrival . . . many individuals in short vests whom he did not know but whom he presumed to be workers, hurled themselves into the water and rushed the carriage, armed with wooden clubs and an iron instrument called a cloth-shearer, that they broke the first crate which fell into their hands and threw into the water one of the instruments which it contained.

Edlon Montal (Jean or Pierre) of Grenoble of Beaurepaire, who did his apprenticeship as cloth-shearer, is the man who provided half the strength to break the crates.

Jacques Ruffe, shearer for his cousin Dufieux, was on the carriage, breaking and throwing crates into the water.

The daughter of Claude Tonnerieux, butcher, threw stones at the dragoons and incited the workers with her shouts: "*Break it, smash it, be bold, etc.*" Another woman, Lacroix, who has only one eye, shouted similar things. Marguerite Dupont, spinner for Mr. Frémy, called the lieutenant-colonel of dragoons a brigand.

Jacques Boullé, a glass worker, was noticed shouting among the first workers who came down the Saint-Martin bridge.

Basset, weaver, said, "*Let's get the machine*" and Rousset, an itinerant, expressed himself thus: "*We'll get Gentin (one of the owners of the machine). It's not the machine we ought to wreck.*"

POSTER

Gentlemen, we are beside ourselves because of the inhumanity and hardness of your hearts, your scorn toward the poor workers who have helped you make your fortune. Seeing that we are abandoned by you, gentlemen, this alone has forced us to do what we don't want to do. We have no intention of attacking your fortunes, but if you don't arrange to give us work we can't avoid attacking you and the machines; so you have eight days to reflect. If at the end of these eight days you don't take your wool out of the machines in order to give work to four or five hundred people who are at your doors and whom you don't deign to look at, don't be surprised if you see a storm descend upon you and the machines—so much do we the poor workers suffer for ourselves and for our poor children.

We hope that you'll wish to spare us this effort which is otherwise inevitable.

QUESTIONS

- What kinds of people supported Luddism, and why?
- How did officials react to Luddism, and why?
- What effects was Luddism likely to have over the course of the Industrial Revolution?

Many Western leaders worked to reduce the need for political revolution after 1850. Liberals decided that revolution was too risky and became more willing to compromise. Key conservatives strove to develop reforms that would save elements of the old regime, including power for the landed aristocracy and the monarchy. A British conservative leader, Benjamin Disraeli, took the initiative of granting the vote to working-class men in 1867. Count Camillo di Cavour, in the Italian state of Piedmont, began even earlier to support industrial development and extend the powers of the parliament to please liberal forces. In Prussia a new prime minister, Otto von Bismarck, similarly began to work with a parliament and to extend the vote to all men (although grouping them in wealth categories



Read the Document on MyHistoryLab: Fustel de Coulanges, Letter to German Historian Theodor Mommsen, 1870



MAP 24.3 The Unification of Italy The map shows the main separate states before unification, and when they added to the new nation.

American Civil War Fought from 1861 to 1865; first application of Industrial Revolution to warfare; resulted in abolition of slavery in the United States and reunification of North and South.

trasformismo Political system in late 19th-century Italy that promoted alliance of conservatives and liberals; parliamentary deputies of all parties supported the status quo.

social question Issues relating to lower classes in western Europe during the Industrial Revolution, particularly workers and women; became more critical than constitutional issues after 1870.

socialism Political movement with origins in western Europe during the 19th century; urged an attack on private property in the name of equality; wanted state control of means of production, end to capitalist exploitation of the working man.

that blocked complete democracy). Other Prussian reforms granted freedom to Jews, extended (without guaranteeing) rights to the press, and promoted mass education. The gap between liberal and conservative regimes narrowed in the West, although it remained significant.

The new conservatives also began to use the force of nationalism to win support for the existing social order. Previously, nationalism had been a radical force, challenging established arrangements in the name of new loyalties. Many liberals continued to defend nationalist causes. However, conservative politicians learned how to wrap themselves in the flag, often promoting an active foreign policy in the interest of promoting domestic calm. Thus, British conservatives became champions of expanding the empire, while in the United States, by the 1890s, the conservatives in the Republican Party became increasingly identified with imperialist causes.

The most important new uses of nationalism in the West occurred in Italy and Germany. After wooing liberal support, Cavour formed an alliance with France that enabled him to attack Austrian control of northern Italian provinces in 1858. The war set in motion a nationalist rebellion in other parts of the peninsula that allowed Cavour to unite most of Italy under the Piedmontese king (Map 24.3). This led to a reduction of the political power of the Catholic pope, already an opponent of liberal and nationalist ideas—an important part of the general reduction of church power in Western politics.

Following Cavour's example, Bismarck in Prussia staged a series of wars in the 1860s that expanded Prussian power in Germany. He was a classic diplomatic military strategist, a key example of an individual agent seizing on larger trends such as nationalism to produce results that were far from inevitable. For example, in 1863 Bismarck used the occasion of Danish incorporation of two heavily German provinces, Schleswig and Holstein, to justify the Prussian and Austrian defeat of Denmark. Then he maneuvered a pretext for a Prussian declaration of war against Austria. In 1866 Prussia emerged as the supreme German power. A final war, against France, led to outright German unity in 1871 (Map 24.4). The new German empire boasted a national parliament with a lower house based on universal male suffrage and an upper house that favored conservative state governments.

This kind of compromise, combined with the dizzying joy of nationalist success, won support for the new regime from most liberals and many conservatives.

Other key political issues were resolved at about the same time. The bloody **American Civil War**—the first war based extensively on industrial weaponry and transport systems, carefully watched by European military observers—was fought between 1861 and 1865. The war resolved by force the simmering dispute over sectional rights between the North and South and also brought an end to slavery in the nation. France, after its defeat by Germany in 1870, overthrew its short-lived echo of the Napoleonic empire and established a conservative republic with votes for all men, a reduction of church power, and expansion of education, but no major social reform. Just as conservative Bismarck could be selectively radical, France proved that liberals could be very cautious.

Almost all Western nations now had parliamentary systems, usually democracies of some sort, in which religious and other freedoms were widely protected. In this system, liberal and conservative ministries could alternate without major changes of internal policy. Indeed, Italy developed a process called **trasformismo**, or transformism, in which parliamentary deputies, no matter what platforms they professed, were transformed once in Rome to a single-minded pursuit of political office and support of the status quo.

The Social Question and New Government Functions

The decline of basic constitutional disputes by the 1870s promoted the fuller development of an industrial-style state in the West. A new set of political movements emerged.

Government functions and personnel expanded rapidly throughout the Western world after 1870. All Western governments introduced civil service examinations to test applicants on the basis of talent rather than on connections or birth alone, thus unwittingly imitating Chinese innovations more than a thousand years before. With a growing bureaucracy and improved recruitment, governments began to extend their regulatory apparatus, inspecting factory safety, the health of prostitutes, hospital conditions, and even (through the introduction of passports and border controls) personal travel.

Schooling expanded, becoming generally compulsory up to age 12. Governments believed that education provided essential work skills and the basis for new levels of political loyalty. Many American states by 1900 began also to require high school education, and most Western nations expanded their public secondary school systems. Here was a huge addition to the ways in which governments and individuals interacted. The new school systems promoted literacy; by 1900, 90 to 95 percent of all adults in western Europe and the United States could read. Schools also encouraged certain social agendas. Girls were carefully taught about the importance of home and women's moral mission in domestic science programs. Schools also carefully propounded nationalism, teaching the superiority of the nation's language and history as well as attacking minority or immigrant cultures.

Governments also began to introduce wider welfare measures, replacing or supplementing traditional groups such as churches and families. Bismarck was a pioneer in this area in the 1880s as he tried to wean German workers from their attraction to socialism. His tactic failed, as socialism steadily advanced, but his measures had lasting importance. German social insurance began to provide assistance in cases of accident, illness, and old age. Some measures to aid the unemployed were soon added, initially in Britain. These early welfare programs were small and their utility limited, but they sketched a major extension of government power.

Overall, constitutional issues were replaced by social issues—what people of the time called the **social question**—as the key criteria for political partisanship. Socialist and feminist movements surged to the political fore, placing liberals and conservatives in a new defensive posture.

The rise of **socialism** depended above all on the power of grievances of the working class, with allies from other groups. It also reflected a redefinition of political theory by German theorist **Karl Marx**. Early socialist doctrine, from the Enlightenment through 1848, had focused on human perfectibility: Set up a few exemplary communities where work and rewards would be shared, and the evils of capitalism would end. Marx's socialism, worked out between 1848 and 1860, was tough-minded, and he blasted earlier theorists as giddy utopians. Marx saw socialism as the final phase of an inexorable march of history, which could be studied dispassionately and scientifically.

History for Marx was shaped by the available means of production and who controlled those means, an obvious reflection of the looming role of technology in the industrial world forming at that time. According to Marx, class struggle always pitted a group out of power with the group controlling the means of production; hence, in the era just passed, the middle class had battled the feudal aristocracy and its hold on the land. Now the middle class had won; it dominated production and, through this, the state and the culture as well. But it had created a new class enemy, the propertyless proletariat, that would grow until revolution became inevitable. Then, after a transitional period in which proletarian dictatorship would clean up the remnants of the bourgeois social order, full freedom would be achieved. People would benefit justly and equally from their work, and the state would wither away; the historic class struggle would at last end because classes would be eliminated.

Marx's vision was a powerful one. It clearly identified capitalist evil. It told workers that their low wages were exploitive and unjust. It urged the need for violent action but also ensured that revolution was part of the inexorable tides of history. The result would be heaven on earth—ultimately, an Enlightenment-like vision of progress.



 Prussia, 1815–1866	 Joined with Prussia to form the German Empire, 1871
 Annexed by Prussia, 1866	 Alsace-Lorraine ceded to German Empire by France, 1871
 Joined Prussia in forming the North German Confederation, 1867	
 German Confederation, 1815–1866	

MAP 24.4 The Unification of Germany, 1815–1871 This map shows the stages of unification, under Prussian impetus, from 1866 to 1871.

Marx, Karl (1818–1883) German socialist who blasted earlier socialist movements as utopian; saw history as defined by class struggle between groups out of power and those controlling the means of production; preached necessity of social revolution to create proletarian dictatorship.

 **Read the Document on MyHistoryLab:** The Communist Manifesto (1848) Karl Marx and Friedrich Engels

revisionism Socialist movements that at least tacitly disavowed Marxist revolutionary doctrine; believed social success could be achieved gradually through political institutions.

feminist movements Sought various legal and economic gains for women, including equal access to professions and higher education; came to concentrate on right to vote; won support particularly from middle-class women; active in western Europe at the end of the 19th century; revived in light of other issues in the 1960s.



FIGURE 24.3 Emmeline Goulden Pankhurst. In her 1914 autobiography, Pankhurst recalled the early stirrings of feminism in her childhood: “The education of the English boy, then as now, was considered a much more serious matter than the education of the English boy’s sister. . . . Of course [I] went to a carefully selected girls’ school, but beyond the facts that the head mistress was a gentlewoman and that all the pupils were girls of my own class, nobody seemed concerned. A girl’s education at that time seemed to have for its prime object the art of ‘making home attractive’—presumably to migratory male relatives. It used to puzzle me to understand why I was under such a particular obligation to make home attractive to my brothers. We were on excellent terms of friendship, but it was never suggested to them as a duty that they make home attractive to me. Why not? Nobody seemed to know.”

By the 1860s, when working-class activity began to revive, Marxist doctrine provided encouragement and structure. Marx himself continued to concentrate on ideological development and purity, but leaders in many countries translated his doctrine into practical political parties. Germany led the way. As Bismarck extended the vote, socialist leaders in the 1860s and 1870s were the first to understand the implications of mass electioneering. Socialist movements provided fiery speakers who courted popular votes. By the 1880s, socialists in Germany were cutting into liberal support, and by 1900, the party was the largest single political force in the nation. Socialist parties in Austria, France, and elsewhere followed a roughly similar course, everywhere emerging as a strong minority force.

The rise of socialism terrified many people in Western society, who took the revolutionary message literally. In combination with major industrial strikes and unionization, it was possible to see social issues portending outright social war. But socialism itself was not unchanging. As socialist parties gained strength, they often allied with other groups to achieve more moderate reforms. A movement called **revisionism** arose, which argued that Marx’s revolutionary vision was wrong and that success could be achieved by peaceful democratic means. Many socialist leaders denounced revisionism but put their energies into building electoral victories rather than plotting violent revolution.

Socialism was not the only challenge to the existing order. By 1900 powerful **feminist movements** had arisen. These movements sought various legal and economic gains for women, such as equal access to professions and higher education as well as the right to vote. Feminism won support particularly from middle-class women, who argued that the very moral superiority granted to women in the home should be translated into political voice. Many middle-class women also chafed against the confines of their domestic roles, particularly as family size declined. In several countries, feminism combined with socialism, but in Britain, the United States, Australia, and Scandinavia, a separate feminist current arose that petitioned widely and even conducted acts of violence in order to win the vote. Several American states and Scandinavian countries extended the vote to women by 1914, in a pattern that would spread to Britain, Germany, and the whole United States beginning in 1918.

The new feminism, like the labor movement, was no mere abstraction but the fruit of active, impassioned leadership, largely from the middle classes. Emmeline Pankhurst (1858–1928; Figure 24.3) was typical of the more radical feminist leadership both in background and tactics. Born to a reform-minded English middle-class family, she was active in women’s rights issues, as was her husband. She collaborated with Richard Pankhurst, whom she had married in 1879, to work for improvements in women’s property rights, and she participated in the Socialist Fabian Society. But then she turned more radical. She formed a suffrage organization in 1903 to seek the vote for women. With her daughter Christabel, she sponsored attention-getting public disturbances, including planting a bomb in St. Paul’s Cathedral. Window-smashing, arson, and hunger strikes rounded out her spectacular tactical arsenal. Often arrested, she engaged in a huge strike in 1912. The suffragists’ support of the war effort in 1914 gained them public sympathy. Pankhurst moved to Canada for a time, leaving the English movement to her daughter, but returned as a respected figure to run for parliament after women had gained the vote in 1928.

CULTURAL TRANSFORMATIONS

24.5 What was the relationship between scientific and artistic change in the later 19th century?

Key developments in popular culture differentiated Western society after 1850 from the decades of initial industrialization. Better wages and the reduction of work hours gave ordinary people new opportunities. Alongside the working class grew a large white-collar labor force of secretaries, clerks,

By the end of the 19th century, diplomatic and military tensions were escalating in Europe. Tensions reflected domestic developments, including social protest and competitive nationalisms.