

Lesson 16 - The Industrial Revolution

Section 1 - Introduction



This historical steam engine-powered train still operates on a preserved railway in Britain.

In the 1700s, metalworkers used large amounts of coal, which burned with the intense heat needed for making iron. Coal suppliers, however, had a problem. Coal mines, dug deep in the ground, tended to fill with water. A British inventor named Thomas Newcomen designed an engine to pump water out of the mines. His engine burned wood or coal to boil water and produce steam. It converted the steam's heat energy into mechanical energy to drive the pump. The Newcomen engine worked, but not very efficiently.

In 1763, James Watt had the job of repairing a Newcomen engine. Watt made scientific instruments for a living, and he had an inventor's mind. He knew he could make an engine that did not waste so much of the potential energy of the fuel. The solution eluded him for months. But then, one day, while strolling through his hometown of Glasgow, Scotland, the answer suddenly came to him. Watt set to work right away building a model, and in 1769 he won a patent for his much more efficient steam engine.

Watt spent the next two decades perfecting his steam engine. By 1790, he had turned his steam engine into a sturdy, practical, powerful machine. It would be put to use not only in coal mines but also in steamboats, locomotives, and factories. The steam engine would power the **Industrial Revolution [Industrial Revolution: beginning in the late 1700s, a period in which mechanical power replaced muscle power for the production of goods]** .

Many scholars are reluctant to call this period of industrialization a "revolution." It took place over too long a period, they say, and affected the whole world. Yet the changes brought on by this shift from muscle power to machine power were enormous, and revolutionary in their scope. This chapter explores the Industrial Revolution, starting where it all began: Great Britain.

Themes

Economic Structures As a result of the Industrial Revolution, economies shifted from a focus on agriculture and manual labor to a focus on industry and mechanization.

Social Structures The pool of low-paid industrial laborers formed the core of a new social group, the working class.

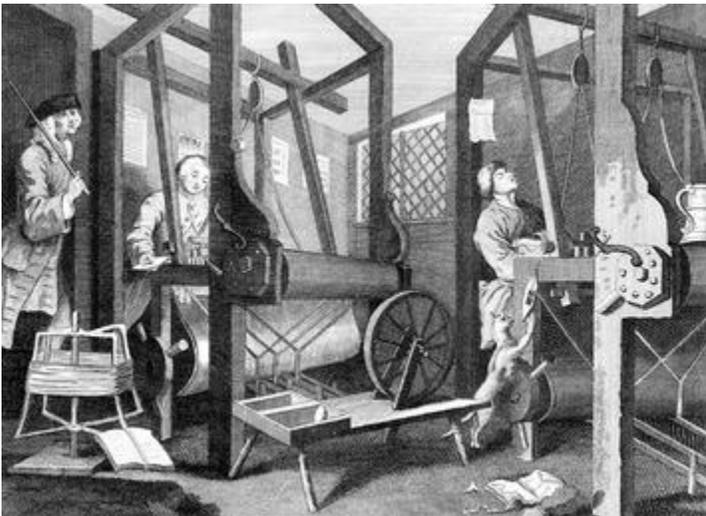
Human-Environment Interaction Industrialization drew migrants from rural areas and from distant lands to cities and newly urbanized factory towns.

Section 2 - Great Britain Leads the Way

The Industrial Revolution, led by Great Britain, completely transformed how work was done. By the mid-1800s, British manufactures far exceeded those of any other country. Industrialization happened so quickly in Great Britain that it earned the nickname “workshop of the world.” Why did the revolution start in this small, European island nation?

Factors of Industrialization Great Britain became the first nation to industrialize because it had all of the necessary factors:

1. **Political Stability** Britain had a stable government that supported individual political freedom, property rights, and equality of opportunity. These traits encouraged entrepreneurs to take risks in pursuit of profit
2. **Labor** Britain had plenty of people available for work. British farmers produced so much food that many of its people were freed to do different kinds of work. Many of those people went to work in industry.
3. **Raw Materials** Britain had plentiful supplies of the raw materials needed in industry, such as coal for fuel or wool for textiles.
4. **Banking System** Britain’s banks provided loans to entrepreneurs to finance large projects, such as factories, railroads, and coal mines.
5. **Transportation System** Britain had a network of navigable rivers and seaside ports. It built a nationwide system of canals. Later, it developed a railroad network, making the transportation of goods and raw materials cheaper and faster than ever before.



As textile making became mechanized, it required larger and more expensive equipment. This eventually shifted the site of fabric production from individual homes to factories.

Innovation in Textiles The first industry to be transformed in Great Britain was textile production. Before industrialization, every step of cloth making had to be done by hand. The raw fiber, like wool and cotton, had to be cleaned and untangled. The fibers had to be twisted into thread. Then the threads had to be woven into cloth. Each step was laborious and time-consuming. Skilled artisans used simple tools and equipment to make cloth in their own homes.

In the mid-1700s, English inventors created machines to speed up the cloth-making process. In 1733, John Kay invented the flying shuttle to automate the weaving process. Now weaving was faster, but spinners could not spin thread fast enough to keep up. James Hargreaves invented the spinning jenny in 1764 to allow one person to spin dozens of threads at the same time.

But threads produced on a spinning jenny often broke. Richard Arkwright solved this problem in 1769 with his water frame, an invention capable of producing stronger thread. The water frame was powered by a waterwheel turned by a fast-flowing river.

These machines were too large and expensive for ordinary workers to use in their own homes. Owners of textile businesses began building factories where they could install multiple machines to make textiles faster than ever before. Now workers would come to the factories to make fabric.

Resources Great Britain had plenty of rivers, and its earliest factories took advantage of the water power they provided. Eventually steam engines replaced water wheels, and they needed coal to fuel them—and Britain had an abundant supply of coal. Now factories could be built away from rivers, in more places than ever before.

Great Britain also had a steady supply of fiber. Britain had a long tradition of raising sheep for wool, and wool production more than doubled between 1700 and 1850. British textile merchants also imported cotton from Great Britain's colonies in India and the Americas, and later, the United States.



By the time Great Britain industrialized, it had already built an extensive network of canals. Canals were a relatively cheap and quick way to transport goods.

Transportation Great Britain also had a good transportation network. Britain had many navigable rivers and seaports that had long made coastal trade possible. By the 1770s it had built a system of well-maintained toll roads. Moving goods by road was slow, however, so Britain created a nationwide network of canals. Goods and raw materials could travel faster and more cheaply along canals.

Eventually, the steam engine was applied to transportation, resulting in the development of the steam locomotive and the development of railroads.

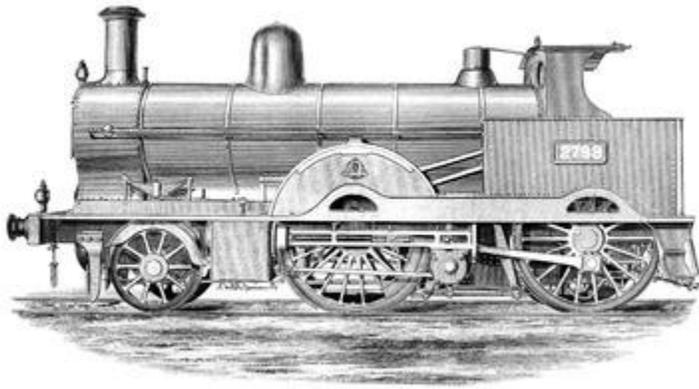
Soon, steam locomotives crisscrossed the country on a complex network of rails. By 1852, Great Britain had built some 7,000 miles of track. Railroads carried heavy loads of food and freight quickly and reliably, helping create a national market for goods. The economy boomed as manufacturers could create a product in one location and sell it anywhere in the nation.

Section 3 - The Revolution Spreads

Industrialization steadily improved Great Britain's economy. It increased the amount of goods produced and greatly raised worker **productivity** [**productivity: the amount of goods or services that result for each unit of required resources used (output per unit of input)**], or the amount of goods each worker, on average, produced. Wealth generated by industrialization enhanced the standard of living for many people. It also made more tax revenue available to the government. Competing nations took notice and sought to develop their own industries. Generally, they adopted the elements of the British model that suited their circumstances.

Belgium Belgium, located across the English Channel from Great Britain, was the second country to take part in the Industrial Revolution. Belgium borrowed techniques and technology from the British, but its industrialization followed a different pattern. The people of Belgium had long been known for their woolen textile industry. By 1820, they had begun to mechanize that industry. But the traditional hand weaving of complex designs persisted into the mid-1800s. Belgium's textile industry grew, but not as fast as Great Britain's.

Belgium's industrialization focused more on its abundant reserves of coal and iron ore. Exports of coal brought in valuable revenue, and the coal itself fueled the iron-making process. Belgium used the iron to produce machinery, locomotives, ships, and weapons. Later, Belgium developed a thriving steel industry.



Belgium was the second country to industrialize. Belgium used its abundant coal reserves to make iron, which was then used to produce machinery, locomotives such as the one seen here, ships, and weapons.

France France, with the help of British equipment, entrepreneurs, and engineers, also began to industrialize in the 1820s. It established numerous textile mills for the production of cotton cloth. Other factories produced machinery, including steam engines. France later had to import coal from Great Britain and from Belgium, because it lacked significant reserves of its own. As a result, France's factories relied more on waterpower than steam power.

The United States As in France, early industry in the United States depended on waterpower, abundant in New England. Cotton textile mills mushroomed in New England in the 1820s. The mills modeled their technology and organization on those of British factories. Like the British, New Englanders' raw cotton came from the American South.

New England factories also made metalwork. They used specialized equipment to produce metal parts for machinery and for guns. They owed their success to the earlier work of Eli Whitney and Simeon North, who established a method of manufacturing **interchangeable parts [interchangeable parts: parts that can be swapped for one another in the assembling of a product, because they have been precisely cut and shaped to be identical]**. These inventors devised machine tools that could cut, plane, and drill part after part to nearly the exact same size and shape. The use of interchangeable parts allowed the rapid assembly of machines or other complex devices in a factory, based on a series of simple operations.

Further innovations sparked the Industrial Revolution in the United States. One was the cotton gin, another accomplishment of Eli Whitney. His machine for cleaning cotton led to a vast Southern expansion of cotton production—and slavery. The **Bessemer process [Bessemer process: a relatively inexpensive method for converting iron to steel by using a blast of air to remove carbon from molten iron]**, an inexpensive way to convert iron into higher quality steel, greatly increased steel production. Cheap steel helped the heavy industries of the American Midwest to expand. They used the region's plentiful iron ore and coal to build steel plants and factories that produced machinery and railroad rails—and the steel girders that, in the 1880s, made possible the first true skyscrapers.

The heart of any factory was its machinery, and machinery has moving parts that interact. Without lubrication, that machinery would overheat and eventually grind to a halt. Through much of the 1800s, workers lubricated their machines with whale oil. In the 1850s, scientists developed a new and less expensive lubricant—coal oil.

Then, in 1859, an entrepreneur in Pennsylvania drilled the world's first commercially successful oil well. Products that can be made from oil include gasoline and kerosene. Kerosene soon became industry's lubricant of choice. Oil, also known as petroleum, slowly began to replace coal as the basic energy source of the Industrial Revolution. Gasoline fueled the automobile, which was powered by a ground-breaking invention, the internal-combustion engine.



This illustration depicts the metal works in Kiel, Germany. Although Germany began slowly, it industrialized rapidly in the second half of the nineteenth century, focusing especially on heavy industry.

Germany Germany began industrializing fairly late, in part because it consisted of a number of independent states for most of the 1800s. In 1834, however, many of those states joined in creating a free-trade zone. Germany soon established itself as a leader in heavy industry, especially metalwork. Using its abundant coal and iron ore, Germany produced the rails needed to establish an efficient railway system.

Railroads and their support industries, including steel-making, remained the leading sectors of the German economy through the 1800s. Late in the century, the chemical, electrical equipment, and weapons industries also prospered. By 1914, Germany was second only to the United States as an industrial power.

Japan Industrialized Western states used their wealth to build up a strong merchant fleet and navy. They sailed across the world in search of trade. Until the mid-1800s, Japan had kept itself isolated from outsiders. Now the increased contact by Westerners helped push the Japanese into a political revolution. The Japanese ousted the shogun, or strongest warlord, from power and restored their emperor to the throne, in what is called the Meiji Restoration.

The new government followed a course of modernization, using the West as a model. This included industrializing. The Japanese mechanized the silk-weaving industry and built railroads and ships. Japan quickly gained a position of economic dominance in East Asia. From its colonies and through concessions forced from China, Japan extracted needed resources, such as coal, and found markets for its industrial products.

Section 4 - Economic Transformation

The industrialization that got its start in Great Britain was a slow revolution. It took decades to blossom. Wherever it spread, the Industrial Revolution transformed the economy. Ways of crafting goods changed. Ways of growing crops changed. New financial and business structures developed.

The Domestic System Long before the Industrial Revolution, some people made their living at craftwork. Skilled artisans, both in towns and in rural areas, produced goods needed locally. These included tools, pots and pans, glassware, furniture, and much more. One sign of a shift toward a new form of production was the growth of cottage industry, also known as the **domestic system [domestic system: a pre-industrial system of manufacturing in which workers crafted products in their homes using raw materials supplied by merchants]** .

In the domestic system, cottage workers produced goods in home workshops. They made goods not for local use but for national and international markets. Typical cottage workers lived in the countryside, farmed for most of the year, and in the off-season made cloth. They provided the cheap labor needed at the time to meet the demands of a competitive textiles market.

The production of wool cloth usually followed a certain process. A textile merchant, based in a town, bought wool from a sheep farmer. He delivered this raw material, along with instructions about what he needed, to a household in the countryside. Family members carded the wool, spun it, and wove it into cloth on a hand loom. The merchant paid them for their work and took the cloth to another workshop, where skilled workers dyed the cloth and otherwise completed the processing. The merchant then retrieved the finished fabric, which was ready for market.



Workers in factories performed a single, specialized task all day long. This picture was taken in a wool-combing factory in Bradford, England, in the late 19th century.

The Factory System The domestic system naturally gave way to the **factory system [factory system: an industrial system of manufacturing in which workers, raw materials, and machinery are gathered under the same roof]**. Instead of traveling from cottage to cottage, some cloth merchants decided that they could save themselves time and better meet rising demand by gathering workers together in a single factory. The merchants provided their workers with spinning wheels and looms and whatever other equipment they needed. In time, many other goods besides textiles were made in factories.

The factory system had several advantages over the domestic system. In a factory, merchant-entrepreneurs could supervise their workers. They could also take advantage of innovations in technology and new sources of energy, especially the steam engine. In short, they could make the revolutionary shift from muscle power to machine power.

In addition, factory owners developed new ways of organizing work. They saw that when individual skilled workers carried out all the tasks to make a product, each worker needed a variety of different tools, but most of the tools sat idle much of the time. In the factory system, unskilled or semi-skilled workers specialized in just one of the tasks needed to make a product. Each worker did only that task, all day long, and they learned to do it rapidly.

The factory and the shift to simplification were two key aspects of what became known as **mass production [mass production: the high-volume, low-cost manufacture of identical items through the use of specialization and interchangeable parts]**. Another was the use of interchangeable parts. Factory workers could sit at their station with a pile of standardized parts in front of them and know that the parts were all the same and that any one of them would fit properly.

The desire to speed up the manufacturing process even more led to the use of the moving assembly line. An assembly line carried a product on a conveyer belt or track from one station to the next. Workers added one new part at each station. Starting in 1913, Henry Ford of the United States built his Model-T automobile using an assembly line. He was the first to apply assembly-line principles to large-scale manufacturing. The practice soon spread to other industries.

All of these changes increased efficiency and productivity. They also lowered the cost to produce many goods. Lower costs meant lower prices for consumers. By the late 1800s, incomes were rising, especially among the middle class in industrialized countries. This helped strengthen consumer demand for manufactured goods.

A Revolution in Agriculture The mechanization that took place in industry also helped transform agriculture. No longer did farmers have to harvest their grain with hand tools. In the 1830s, the American inventor Cyrus McCormick developed a horse-drawn mechanical reaper that could cut and collect the grain. In the years that followed, a variety of other machines appeared to help farmers plant, harvest, and process crops. Through mechanization, farmers could expand their production while cutting back on the amount of labor needed to produce food.



Starting in the 1500s in England, landowners revoked the traditional peasant right to farm on common land and enclosed their land with fences or hedges, as seen here. The enclosure movement left many peasants landless, and they became an available workforce for early factories.

Besides using new machinery, farmers used new agricultural methods. They improved the soil with chemical fertilizers and cover crops. Cover crops, such as clover, add nutrients to the soil when plowed under. Farmers also worked to control pests, increase irrigation, and breed superior livestock. The agricultural revolution helped expand the population by making more healthful food available, and it helped farmers produce enough food to feed the growing population.

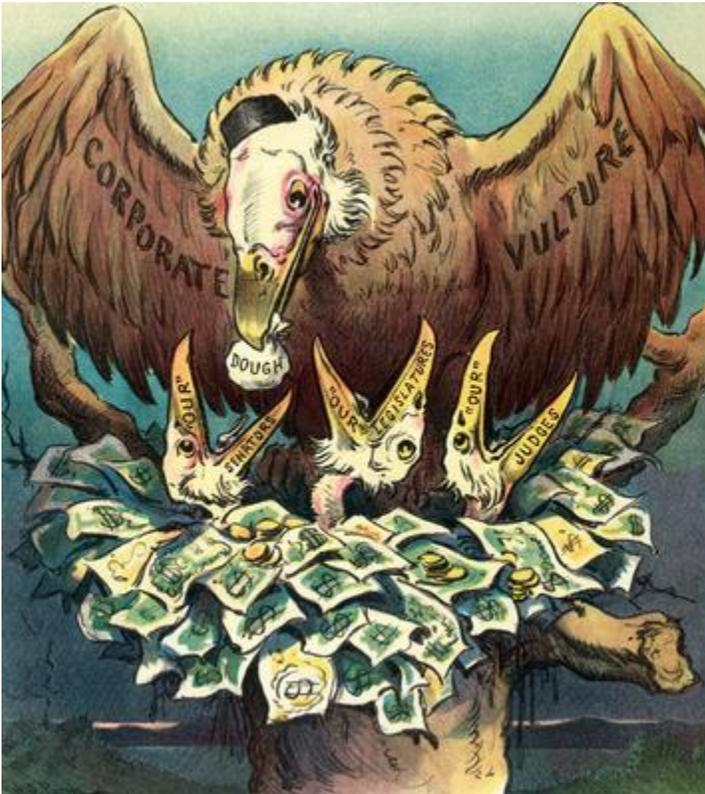
The agricultural revolution coincided with a changing perspective on land rights. Traditionally, peasants had raised crops and grazed animals on so-called common lands. But technically, the land was private property. Peasants who farmed the land paid dues to the landowner.

During the 1500s in England and continuing there and elsewhere into the 1800s, landowners took back the rights to their land. Historians call this the **enclosure [enclosure: the repossession and fencing-in by landowners of formerly common lands, often for the purpose of commercial farming]** movement. Landowners, often under force of law, enclosed their land with hedges or fences to mark its boundaries.

One reason for enclosure was economic. Large landowners realized that they could earn more from growing cash crops such as grain, or raising sheep for the growing textile industry, than they could from renting the land to peasants. The enclosure movement had several important consequences. Many peasants were left with no land to cultivate. The same was true for many smallholders—farmers owning smaller amounts of land. Because of economic downturns or the expense of fencing in their land, they sold their plots to wealthier landowners. On their estates, many large landowners established commercial farms.

Some peasants and former smallholders stayed on the land as wage laborers. Others turned to manufacturing in their homes and later in independent shops or small factories. But many became landless and unemployed—or, at best, seasonally employed—workers. As countries began to industrialize, these former farmers provided a ready workforce for the early factories as they migrated to urban areas in search of work.

The enclosure movement had moral and legal effects as well. It helped develop the notion that making a profit from one's land—even if that meant ending traditional land rights of peasants—was acceptable. It also marked the appearance of capitalist agriculture, or the large-scale growing of crops and raising of animals for profit. Through the years, this commercialization of agriculture led to the establishment of a legal system that would support the rise of industrial **capitalism [capitalism: an economic system, based on the premise of self-interest, in which all resources are privately owned and markets determine how those resources are distributed]** .



One result of industrialization was that powerful corporations, such as John Rockefeller's Standard Oil, came to control entire industries. This American cartoon from 1905 criticizes big business. It shows a "corporate vulture" controlling government with the power of its wealth.

Financing Industry Without capitalism, there might not have been an Industrial Revolution. As the saying goes, it takes money to make money. Wealthy individuals, or capitalists, saw the potential profits to be made by investing in factories and machinery. Their money helped boost industrialization. A broader pool of investor-owners developed with the rise of corporations. A corporation could accumulate great amounts of investment capital. The more money that capitalists had to invest in businesses, the larger the businesses could grow. This allowed for the formation and expansion of the huge enterprises that came to dominate the Industrial Revolution.

The banking system also played a key role in industrialization. Through loans to industrialists and manufacturers, private banks directed customers' savings into projects such as the building of railroads and factories and the mining of coal. They encouraged the formation of capital in its physical form—the buildings, machines, tools, and equipment used to manufacture goods. Also, governments set up national banks to improve domestic and international trade. Together, private and national banks provided financial backing that stimulated the growth of industry.

Big Business Industry grew, along with the companies that thrived in the competitive, capitalist world. They won a greater share of the profits available from selling in a national market. Their wealth allowed them to buy up smaller competitors, merge with them, or drive them out of business. By the late 1800s, big business dominated industrial economies.

In the United States, several firms and the industrialists who ran them gained enormous wealth and power. In the oil business, John D. Rockefeller established a **monopoly** [**monopoly: complete control by one firm of the production and/or the supply of a good**] with his Standard Oil Company. Andrew Carnegie built his Carnegie Steel Company into the world's largest corporation. Powerful companies ruled other economies as well. France had its Parisian Gas Company and Great Britain its Midland Railway. In Japan, big business consisted of firms known as zaibatus. Through investment, they controlled many of Japan's industries and banks.

Big businesses were able to gather enough capital to meet the needs of a growing consumer market. They built huge factories and filled them with hundreds of workers. They mass-produced goods at lower prices to meet rising consumer demand—and increase their own profits. A growing assortment of shops and stores sold the many new products that appeared. They included the sewing machine, typewriter, telephone, phonograph, light bulb, bicycle, dishwasher, radio, vacuum cleaner, and washing machine.

Section 5- Social and Political Consequences

The Industrial Revolution was, first and foremost, an economic phenomenon. But it can be termed a revolution in part because it also transformed the social and political spheres. Industrialization changed the structure of people's day-to-day lives. Moreover, industrialization led to the rise of big government.



Industrial Labor In the domestic system, the making of cloth was often a family business. Father, mother, and children all had roles in the various processes needed to turn raw fiber into fabric. Families worked together in the familiar environment of their home. Family members could work at their own speed and take breaks when they wanted. They could eat meals together and manage the household together. The spinning or weaving or dyeing was part of their daily domestic routine. Furthermore, they had a personal, and socially equal, relationship with the merchant who directed their work.

Laboring in a factory was far different. The main goal there was productivity, and employers strived to get the most out of every worker. The key was discipline. Factory laborers had to follow orders and obey the rules or they could be fined. Workers were expected to show up at the workplace six days a week, on time, and to put in a full day—typically 12 hours for much of the 1800s. By 1900, workers were punching time clocks to mark their arrival and departure times to the minute.

In the home workshop, families chatted or sang as they worked. Not so in the factory. Employers insisted that factory employees focus completely on their work. In the late 1800s, employers began hiring efficiency experts. These industrial engineers devised specific instructions for how workers should do each job, down to such details as the best way to move their hands. The goal was always to speed up production. Employer and employee now had an impersonal relationship. Beyond that, employees now occupied a separate—and lower—social group, the working class.

More and more, workers were treated like the machines that they ran. A British writer, John Byles, characterized factory work this way:

Night and day, the indefatigable [untiring] and ponderous piston stamps. Night and day, relays of human flesh struggle to keep up with its remorseless and unwearied march.

—Sir John Barnard Byles, *Sophisms of Free-Trade and Popular Political Economy Examined*, 1872



Women and Children In cottage industry, women and children performed vital tasks in the home workshop. At the start of the Industrial Revolution, women and children continued to take part in the manufacture of goods. Factory owners could rely on them to perform the unskilled labor, but they could pay them a lower wage than men.

The New England textile industry, in its early years, hired many women to run the machines that spun and wove cloth. Most female mill workers were young and unmarried. They were known as “factory girls.” When Russia and Japan industrialized later in the century, they needed cheap labor to compete with Western textiles. That meant that women filled many of the jobs in textile factories.

Nevertheless, many women were put out of work during the shift from the domestic system to the factory system. Some managed to find work outside the home, often as household servants or teachers. Some started a laundry service in their own home.

By around 1900, Western societies had generally come to the conclusion that industrial labor was primarily the province of men. Only 20 percent or so of women continued to work in manufacturing. Of these, many labored in sweatshops—small factories, typically in the garment industry, where wages were low and conditions unhealthy.

Children, too, helped in the manufacture of cloth, working in textile factories in Great Britain, the United States, France, Belgium, and elsewhere. They also labored in other industrial sectors, such as coal mining. Like women, they worked for a low wage. Yet the incomes of many families were so low that they depended on the earnings of all of their members—including the children. Toward the end of the 1800s, the education of children gained importance, and governments began regulating child labor. First, children’s working hours were cut back. Later, laws prohibited factories from hiring children.

Urbanization Before the Industrial Revolution, manufacturing took place largely in the countryside, in home workshops. Towns served mainly as centers of government and commerce. With industrialization, the town became the main location of manufacturing. Factories attracted a steady stream of workers from the countryside, where the agricultural revolution had reduced the need for farm labor. These migrants settled near the factories, greatly expanding the population of existing towns and cities or creating towns where none had previously existed.

Industrialization also encouraged mass migration from one country to another. Throughout the 1800s, the United States was a major destination for immigrants. Some traveled across the Pacific Ocean from China and Japan. Most, however, came from Europe—even from industrializing countries such as Germany, where too many people competed for too few jobs. The growing United States offered factory work, but it also lured immigrant farmers to its wide-open spaces out West.

The explosion in the number of factories and the flood of migrants to factory towns resulted in rapid **urbanization** [**urbanization: the process of turning a rural area or village into a town or city**]. Within those newly urbanized centers, living conditions were often appalling. Unlike today, government regulation, or legal restriction, of industry was practically nonexistent. Outdoors, smoke belching from factories polluted the air. Chemicals and other industrial wastes fouled rivers, lakes, and coastal waters. So did raw sewage from rapidly expanding towns and cities.

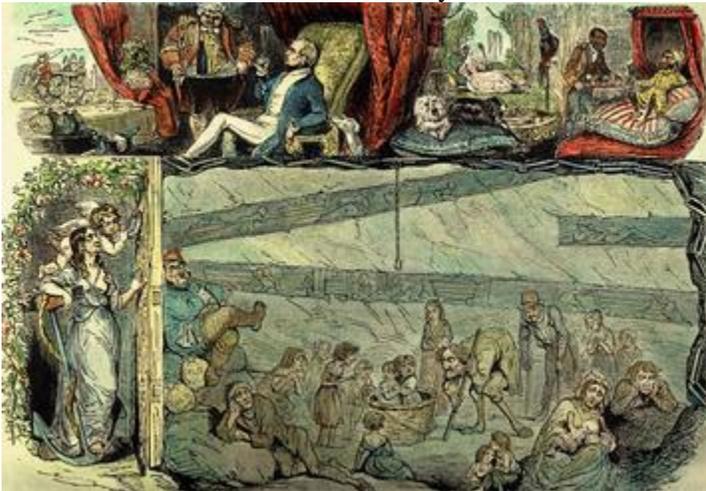
Indoors, living conditions in urban areas were just as bad. Filthy, overcrowded apartment houses encouraged the spread of communicable diseases such as cholera, smallpox, and typhoid fever. Yet few government programs for dealing with public-health issues existed until the second half of the 1800s. Urban death rates soared.

Labor Unions For many industrial laborers, conditions at work were no less harsh than those they experienced at home. They often spent their 12-hour work day in a dark, damp, dirty factory amid the deafening whine and clank of machinery. Factories were dangerous too, with few of the safety precautions that we take for granted today. Pay was another issue. To make a living, merchants have goods to sell. Farmers have crops. Workers, however, have only their labor. Yet employers sought to keep wages as low as possible.

The quest for profits drove the industrialists who ran the factories. They could increase profits by keeping expenses low. Thus it made sense—from a purely economic viewpoint—for them to pay as little as possible in wages and spend as little as possible in improving working conditions. For most of the 1800s, government did not fight for workers’ rights. For this, workers had to turn to labor unions.

A **labor union** [labor union: an organization formed by workers to represent them in negotiations with employers concerning employment issues] , also known as a trade union, is an organization formed by workers to negotiate with employers to resolve work-related issues. During the era of industrialization, those issues usually involved wages, hours, and working conditions. By the late 1800s, strong unions in Europe and the United States had begun to make economic gains for workers, often through strikes or the threat of strikes. A **strike** [strike: an agreement among workers to stop working in order to force an employer to improve wages, hours, benefits, or working conditions] is an agreement among workers to stop working until the employer meets their demands. Strikes could turn violent, with workers battling police or private guards hired by companies to try to break the strike to force employees back to work.

By 1900, through strikes as well as through changes in the law, most workers in the West worked fewer hours. Although hours still varied from one industry to another, the 10-hour workday and 6-day workweek became the standard. Still, many issues remained, and workers continued to rely on labor unions to resolve them well into the 1900s.



From Laissez-Faire to Regulation Through the first century or more of the Industrial Revolution, industries grew without government intervention. Western governments largely heeded the economic laws set down by Adam Smith in his book *The Wealth of Nations*, published in 1776. Smith famously wrote, “It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest.” In other words, because producers seek profit, they create food and other goods. Government, Smith maintained, should not interfere in this process.

Smith’s economic laws lay at the heart of a doctrine known as *laissez-faire* (les-ay FAIR), a French term that loosely translates as “leave it alone.” Western industrialists did not want the government interfering with the economy. Their economic strength gave them political power. As a result, the government largely left them and the economy alone. Government’s *laissez-faire* policies were rooted in a key element of liberalism—the right to private property.



In the late 1800s, however, the rise of big business led government, especially in the United States, to rethink its position on laissez-faire. Corporations were joining together in various combinations—pools, mergers, trusts, cartels—to gain control of markets. These activities hurt consumers because by gaining control of markets, corporations could set prices artificially high and keep competitors from entering the market. The U.S. Congress gradually took steps to restore fairness and competition through laws and regulations. In time, big government would curb the excesses of big business.

A Worldwide Trend Until the 1900s, industrialization was limited to a handful of Western countries, as well as Russia and Japan. But the desire for profits and the general wish to improve living standards led to a widespread push for industry. Also, as more and more peoples throughout the world have demanded a voice in government, liberal democracy has spread across the globe. Capitalism, with its doctrine of private property, has been closely tied to democratic government.

Another phenomenon owed its success, at least partly, to the Industrial Revolution. Nations that industrialized often used their newfound wealth to strengthen their military. In the late 1800s, some of those nations exercised their power by establishing colonies in foreign lands. On that basis, they formed or expanded empires. Their imperialism is the subject of the next chapter.

Summary

In this lesson, you read about the Industrial Revolution, which began in Great Britain and spread to countries throughout the world. Industrialization fundamentally transformed the way people worked and lived.

Economic Structures The Industrial Revolution transformed economies by mechanizing manufacturing and agriculture and shifting from the domestic system of producing goods to the factory system. The need for a means of financing industrialization led to the rise of industrial capitalism.

Social Structures In cottage industry family members worked together to produce goods at their own pace. Factory work called for much more discipline. It also distanced employers from employees, whose unskilled labor and low wages marked them as members of the working class. In the West, women and children were steadily pushed out of factory work.

Human-Environment Interaction New technology, such as the steam engine, made the factory system practical. Factory work attracted migrants from rural areas and from other countries. As a result, the urban population increased greatly, as did air and water pollution and deadly diseases, which spread quickly through overcrowded apartment houses.

Lesson 17: Imperialism Throughout the World

Section 1 Introduction

In September 1898, a British-led army steadily approached Omdurman, a city in the Sudan just west of the Nile River. The British planned to capture the city and thus take command of the entire Nile Valley before their rivals, the French, could do so. Britain had gained control of Egypt in 1882. This expedition would extend Britain's rule more deeply into the African continent.

An army of Mahdists opposed the mixed British and Egyptian force. The Mahdists, Sudanese followers of the Muslim religious leader al-Mahdi, greatly outnumbered their opponents. Yet they had nowhere near their technical skill or firepower. The

campaign to conquer the Sudan showcased British industrial might. British engineers had built a 383-mile-long railway across the desert to transport troops and supplies. Their steam-powered gunboats controlled the Nile River. Their modern rifles and machine-guns could fire a barrage of bullets a distance of 1,500 yards or more.

Many Mahdists carried rifles, but they were older, less effective models. Most fought with spears or swords. During the battle, British artillery shells and bullets mercilessly cut down the Mahdist warriors as they charged across the sandy plain. Thousands of them died. Winston Churchill, a British soldier at Omdurman, later wrote that the slaughter was “a matter of machinery.” He called his fellow troops “soldiers of scientific war.”

Industrialization, with its advances in military science and technology, was a key factor in the British victory at the Battle of Omdurman. By 1914, Britain and a handful of other industrialized European nations would control most of Earth’s surface—both land and sea. Along with Japan and the United States, they comprised the world’s main imperialist powers.

Themes

Cultural Interaction Western imperialist powers introduced new technologies, political ideals, and religious beliefs into Asia and Africa.

Economic Structures The age of industry helped trigger the new imperialism, through which Western powers sought new sources of raw materials and new markets for their exports.

Social Structures Conquests led Europeans to see themselves as superior to conquered Asian and African peoples.

Section 2: New Imperialism

Starting around 1500, European states practiced imperialism by establishing coastal outposts and colonies in Africa, the Americas, and Asia. Their purpose was to support overseas trade. Independence revolutions and the ending of the slave trade severely eroded the imperial system. By the early 1800s, the extent of Western empires had decreased considerably. However, later in the century, a new form of imperialism appeared. A different set of imperialist powers once again sought to expand by exerting control over lands, resources, and peoples beyond their borders.

Renewed Expansion The new imperialism varied from the old style. Typically, under the old imperialism, a European merchant ship would sail to a colonial port, where it picked up a load of slaves or spices or other goods. Often, with demand being low for Europeans’ products, they paid in silver—a “cash-and-carry” arrangement. By around 1800, this mercantile economic system had faded away. Later, a new system evolved. Europeans still took control of foreign lands. But the resulting colonies served not only as sources of raw materials and food but also as markets for machine-made products.

What gave rise to this new imperialism? The answer is not clear-cut. Trade still played a part. But it was no longer the key driving force. The European expansion of the last quarter of the 1800s appears to have come about in a haphazard, unplanned manner. Historians cite a complex mix of possible economic, political, and social factors to explain the rise of new imperialism.

Industrialization One factor that nearly all historians agree on is industrialization. As French statesman Jules Ferry wrote in 1890, “Colonial policy is the daughter of industrial policy.” Nations that mechanized their manufacturing sector became more productive. As a result they needed an increasing supply of natural resources—such as cotton, wool, timber, ore, dyes, and petroleum—to feed their growing industries. And those industries needed larger markets for their manufactured goods. By dominating lands overseas, a country could help fulfill both needs.

Industrialization also increased nations’ wealth and power. That gave them a huge advantage in warfare against less developed countries, as the Battle of Omdurman showed. Advances in military technology included rifles that shot farther and more accurately and steam-powered warships that served as platforms for artillery. Some scholars argue that such military advantages led naturally to imperialism. Industrialized European states, they say, expanded because they could.

Political and Socio-Economic Motives Western powers also had political reasons for engaging in imperialism. In the 1800s, competition among those powers was as fierce as ever. Control of key locations or resources could give a country a strategic edge over rival states.

Imperialism also gave political leaders an edge at home by helping them unify public opinion. Social and economic issues—poverty, labor strikes, business downturns—multiplied as countries industrialized. That led to political fragmentation as various interest groups arose to push for reforms. The ability to dominate other lands enhanced a country’s status and prestige, giving its

citizens a sense of national superiority that encouraged unity. Thus the popularity of an imperialist foreign policy helped politicians overcome political differences and gain support for their domestic policies.

“White Man’s Burden” Feelings of superiority also had a cultural aspect. Europeans saw themselves as a culturally advanced people with a mission, or duty, to civilize more “backward” peoples. This led Christian missionaries to travel to foreign lands to bring their religion and culture to those they considered less fortunate. British poet Rudyard Kipling called this the “White Man’s burden”:

*Take up the White Man’s burden—
Send forth the best ye breed—
Go, bind your sons to exile
To serve your captives’ need;
To wait, in heavy harness,
On fluttered folk and wild—
Your new-caught, sullen peoples
Half devil and half child.
—Rudyard Kipling, “White Man’s Burden,” 1899*

In the late 1800s, Western peoples knew that they had far outstripped others in creating new technology. That led them to believe that they were not only culturally but also biologically superior to the races of peoples in Africa and Asia that they dominated. This **racist** viewpoint helped them justify their imperialism and the way they treated people in their colonies.

Section 3: Colonies and Spheres of Influence in Asia

In Asia in the late 1800s, European states held colonies in a number of prime locations. Where colonies were not practical, they established spheres of influence. A **sphere of influence** [sphere of influence: an area within which the political and economic interests of one nation are more important than those of other nations] is an area within which the political and economic interests of one nation are favored over other nations. Britain, with its large and powerful navy, led the domination of the continent. Its imperialist ventures centered on South Asia.

South Asia The story of imperialism in South Asia is the story of the British in India. Until 1858, the British East India Company had administered colonial India. The Company’s control ended after the Great Rebellion, sometimes called the Indian Mutiny.

The Great Rebellion broke out in 1857 among soldiers of the British-led Indian army. British distribution of cartridges greased with animal fat triggered the rebellion. Before loading a cartridge into their gun, soldiers had to bite off the end of it. Indian soldiers found this extremely offensive culturally. Their Hindu and Muslim religions both forbade oral contact with animal fat. However, the Great Rebellion actually reflected pent-up hostility toward the British, who had, over the years, not only challenged Indians’ religious beliefs but also dominated their political and economic lives.

The British squelched the rebellion, but it caused them to alter their Indian foreign policy. The colony came under the direct control of Parliament, a period known as the British Raj. British rule grew more authoritarian. A former British official in India, Sir James Stephen, offered a reason for taking a harsh approach to governing. “It will never,” he wrote in 1883, “be safe for the British Government to forget for a moment that it is founded not on consent but on conquest.”

The Great Rebellion shocked the British. They had misjudged the extent of Indian resentment. Afterward, the British cut back on efforts to turn members of India’s upper classes into Europeans. They did train Indians for government jobs in the Indian Civil Service. But they were kept from rising to policy-making positions, which were held by the 1,000 or so British members of the Civil Service. Britain continued to manage much of the Indian economy, introducing some industrial technology into a society based on farming. India’s population rose, but so did the incidence of famine.

Central and Southwest Asia British defense of its Indian colony included attempts to check the expansion of Russia. Since the 1500s, Russia had steadily advanced southward from its original homeland surrounding Moscow. By 1885, Russia extended its control of Central Asia to the northern borders of Persia (Iran) and Afghanistan, India’s neighbors to the west. Its influence on those countries deepened.

Britain deemed Russia’s advances a threat to the future of India. During this period, it invaded both Persia and Afghanistan to keep Russia from dominating. In 1907, Britain and Russia ended up splitting Persia into commercial spheres of interest. Afghanistan became a buffer between Russia and India.

East Asia Europe's imperialist powers competed intensely in East Asia. For them, the biggest prize was China. China had begun industrializing in the 1860s, using the West as a model. It failed, however, to develop a strong manufacturing base. With the world's largest population, China offered the Europeans an enormous market for their products.

China's weak military could not resist European advances. Britain, France, Germany, and Russia all demanded and received concessions from the weak Chinese government. They carved out spheres of influence over key ports and large chunks of Chinese territory. Britain held sway over the fertile Yangtze River valley. France gained hegemony [hegemony: indirect social, political, or economic influence exerted by a dominant state] over a large region in the south. Germany forced China to yield control of a smaller region on the northern coast. Russia's sphere of influence lay to the north of the Korean peninsula.

In the 1890s, Japan joined in the China land grab. Like China, Japan had once been one of the West's commercial targets. But the country had grown much stronger since 1868. At that time the Meiji Restoration had restored Japan's emperor to power. It had also started a period of modernization based on Western ways. A popular slogan, "A rich country, strong army," reflected the country's newfound imperialist ambitions.

Japan, a small, mountainous island nation, envied China's expansive farmlands. It also saw China as a possible source of coal and iron ore, which Japan needed in order to compete in an industrializing world. China had plentiful reserves of those minerals. So did China's neighbor Korea, a country that China had traditionally ruled.

In 1894, Japan went to war with China over control of Korea. Despite being seen as the underdog, Japan won the nine-month-long Sino-Japanese War. (Sino stands for "Chinese.") As a result, China had to recognize Korea's independence. It also had to pay Japan's war costs and give Japan the island of Formosa (present-day Taiwan) and the Liaodong Peninsula in Manchuria.

Japan's status in the region was growing, which alarmed some Western powers. Russia, Germany, and France soon forced Japan to give up its newly won control of the Liaodong Peninsula. Russia took over that territory. The Japanese resented this maneuver. A few years later, they took their revenge.

In 1904, a strengthened Japan declared war on Russia, whose troop buildup in Manchuria appeared to threaten Japan's sphere of influence in nearby Korea. Japanese troops landed in Korea and pushed through into Manchuria. The land war dragged on for more than a year. At sea, however, the Japanese proved dominant. In May 1905, the Russian fleet completely crumpled in the face of a Japanese assault. Russia was forced to seek peace.

Japan's victory in the Russo-Japanese War marked the first modern case of an Asian nation's defeating a European nation. It gave the Japanese control of Korea and hegemony over Manchuria, and it whetted their appetite for further expansion. Japan had joined the small circle of imperialist powers.

Southeast Asia and the South Pacific By the late 1800s, China had lost much of its traditional influence over Southeast Asia. This allowed Britain and France to divide much of the region between them. The British moved from India east into Burma, which they annexed in 1886. They already held Singapore and parts of Malaya.

Meanwhile, French Catholic missionaries had long been active in what is today Vietnam, Laos, and Cambodia. So had French traders, who sought access through this area to markets in southern China. The French government also targeted this region. Its aim was to establish a strategic outpost on the China Sea. By the mid-1890s, France had achieved their goal through conquest, sending tens of thousands of troops to secure what became known as French Indochina.

The conquest of Indochina brought France a significant amount of prestige and a limited amount of trade. The inhabitants, for the most part, governed themselves. A French governor-general, however, oversaw the colony. A small number of French troops remained to look after the interests of France. Few French citizens, however, called Indochina their home.

The many islands in the South Pacific also attracted the attention of Western powers. Germany, Britain, and the United States vied with one another for ports to serve as coaling stations for merchant steamships and as strategic naval outposts. The United States had joined the ranks of imperialists through conflict. Their victory in the Spanish-American War in 1898 brought them the Philippines and Guam in the Pacific as well as Puerto Rico and Cuba in the Caribbean Sea.

Section 4: The Partition of Africa

During the era of the new imperialism, nearly all of Africa came under European control. The colonizers partitioned [partitioned: divide a region into separate political units] the continent, dividing it into distinct parts. They turned tribal regions with fluid boundaries into states with fixed borders. Many of these states received clearly European names,

such as British East Africa, French Equatorial Africa, German Southwest Africa, Italian Somaliland, Spanish Sahara, and Belgian Congo. All faced a future of European political, economic, and social domination.

Early Inroads into the Continent Starting around 1500, European states established outposts along the African coast. Those stations had two main functions. They provided links with the interior for trading in slaves and gold. They also served as stopover points for ships sailing to Asia. True colonies—those with a substantial number of settlers from the home country—were rare in Africa. The Dutch, followed by the British, established one such colony in South Africa.

To geographers at the time, South Africa included several present-day southern African countries, including what is now the Republic of South Africa. In the 1650s, Dutch farmers established the first settlement there, on the Cape of Good Hope. They admitted immigrants, including Germans and Huguenots. Huguenots were French Protestants, who faced persecution in France. They also brought in slaves from India and other parts of Africa to perform manual labor. The settlement was called the Cape Colony. It would have the largest number of white settlers on the continent.

In 1814, Britain took control of the Cape Colony. In the years that followed, several thousand British settlers arrived. By then a number of its earlier settlers, known as Boers or Afrikaners, had migrated away from the coast in search of land to farm. Their quest for land and slave labor brought the Boers into continual conflict with indigenous, or native, African peoples.

The Boers also clashed with their new British overlords, who tried to restrain their expansion. Then, in 1834, the British abolished slavery. As a result, from 1835 to 1837, many Boers left the colony altogether in what historians call the Great Trek. Those Boers eventually established three republics—Natal, the Transvaal, and the Orange Free State. The British annexed Natal but recognized the other Boer republics' independence. However, ongoing tensions between the British and the Boers later led to two wars, in 1881 and 1899. The treaty ending the second Boer War also brought an end to the Boer republics.

Unlike most of the rest of the continent, South Africa was blessed with enormous mineral wealth. In the 1860s, settlers discovered diamonds. The diamond fields attracted thousands of prospectors, including immigrants from Europe and the United States. Railway construction, trade, and employment all boomed.

Then, in 1886, South Africans struck gold. This set off an industrial explosion. Much of the gold was located deep underground. Large enterprises formed to acquire land, using capital raised in New York and London. Commercial mining companies went to work, using steam-powered machinery to do the digging. They bought South African coal to fuel their machines and to run the steam locomotives that serviced the goldfields. They hired tens of thousands of workers. South Africa's economy surged.

While Britain established a thriving, if troubled, colony in South Africa, France was also making inroads into the continent. By 1850, the French colony of Algeria, in North Africa, had attracted several thousand settlers from France. They came as traders, government officials, and farmers. Native Algerians violently resisted French expansion. To protect its colonists, France had to maintain a large army in Algeria.

By 1880, Britain and France had invested a lot of time and money in Africa. In the next 30 years, other European powers would do the same. Their rush to establish colonies became known as the scramble for Africa.

The Scramble for Africa Instability in Egypt helped trigger the scramble for Africa. Egypt fell deeply into debt in the 1870s, in part because of the expense of building the Suez Canal. The canal, which ran through Egypt, was completed in 1869. It linked the Mediterranean and Red seas. For the British, the canal brought their most valuable colony, India, much closer. Compared with a voyage around Africa, sailing by way of the Suez Canal chopped some 4,500 miles off the trip.

France and Britain worked to keep Egypt stable. Both countries had invested heavily in the country. But they also recognized the Suez Canal's strategic importance as the gateway to India and East Asia. By 1880, they had taken financial control of the country. Their intervention in Egypt set off protests by Egyptian nationalists who, in 1882, led an uprising. In part to protect their access to the canal, the British put down the rebellion and occupied Egypt.

France decided not to join Britain in the assault on Egypt. But it undertook its own expansion, from Algeria east into Tunisia. Then, in 1884, Germany laid claim to the western coastal region of South Africa and three other substantial areas. Belgium quickly followed by claiming the Congo Basin, a huge region in Central Africa drained by the Congo River. In the years that followed, Spain, Portugal, and Italy all asserted their rights to various territories.

The scramble for Africa had started, and with it came multiple disputes. Europeans met at the Berlin West Africa Conference of 1884–1885 to try to iron out their differences. The stated goal of the conference was to open the interior of Africa to free trade and, in the process, bring civilization to the native peoples. The “interior” referred mainly to the vast Congo River basin, a million square miles of Central Africa. The formal conference achieved written agreement on this goal. In informal

negotiations, members of the conference resolved other disputes. Then and later, diplomats signed treaties and had maps of Africa drawn to show who “owned” which slice of the vast continent.

Resistance to Imperialism Claiming a territory on paper was easy. Actually taking physical control of that territory was not so simple. Sometimes, African elites cooperated with European occupiers. But nearly everywhere, native peoples resisted imperialist expansion. Much of that resistance was violent—and largely unsuccessful. As the Sudanese found out at the Battle of Omdurman, sheer courage could not effectively combat modern weaponry.

Throughout Africa this point was proven over and over again. Europeans used superior firearms to put down popular **resistance**. Uprisings by the Ashanti people in Gold Coast, the Ndebele in Rhodesia, and the Zulu in Natal all ended fairly quickly. Some rebellions, though unsuccessful, lasted much longer. In West Africa, a Mande tribe led by Samory Touré fought against French occupation from 1883 to 1898. In East Africa, the Tutsi and Hutu resisted the Germans and British from 1911 to 1917.

One major African resistance campaign did meet with success. It involved Ethiopia and Italy. Menelik, Ethiopia’s emperor, had modernized his country, which included acquiring up-to-date weapons for his sizeable military. When Italy sent 18,000 soldiers to take control of Ethiopia, Menelik declared war. On March 1, 1896, at the Battle of Adowa, the emperor sent out a force of some 100,000 troops, most of them well-armed. They quickly overwhelmed the Italian army, which suffered heavy losses. Italy gave up its goal of conquest and, instead, accepted Ethiopia as a sovereign and independent nation.

Section 5: Western Influence in Latin America

Western powers dominated countries and territories by occupying them and ruling them directly. Scholars refer to this as formal imperialism. In contrast, informal imperialism is marked by indirect rule. The dominant country exerts pressure or influence without physical conquest. Informal imperialism is often economic in nature, but it can also include force or the threat of force, and cultural imperialism, or influence. The informal version of imperialism, often called hegemony, was the type most often wielded by Western powers in Latin America.

Independent Politically but Not Economically By 1830, nearly all of Latin America had gained its political independence. Yet many issues remained unresolved. They ranged from the clash of liberal and conservative ideals to power struggles waged by military strongmen.

In that volatile atmosphere, even resource-rich nations in Latin America failed to industrialize. They remained largely dependent on Britain, France, and other Western countries for manufactured goods. Political turmoil and economic dependence opened these Latin American states to imperialism, both formal and informal.

Western Economic Control Through most of the 1800s, Britain remained the most highly industrialized nation on Earth. As such, it needed easy access to raw materials as well as markets for its goods. In its own economic interest, therefore, it favored the removal of all barriers to trade. As applied to Latin America, scholars call this “free-trade imperialism.” It involved both trade and **capital** [capital: the tools, machines, and buildings used to produce goods and services] .

Britain viewed the Latin American revolutions as a way to strengthen its commercial ties with the region. The economies of the new Latin American countries produced mainly raw materials. They depended on industrializing nations, especially Britain, to buy those goods. Argentina, for example, based its economy on the export of meat, hides, and grain into the early 1900s.

British capital added to the control that Britain exercised over Latin America. British investors saw potential profit in expanding the ability of countries such as Brazil, Argentina, and Uruguay to export their raw materials and foodstuffs. British business people migrated to Latin America to oversee these investments, which included the raising of sheep and cattle and the building of facilities to transport goods. British banks financed the capital expansions through loans. Managing those loans gave the banks further influence over Latin American economies.

As they industrialized, France and the United States duplicated Britain’s approach to Latin America. French and American businesses and banks invested in Latin America and provided loans for capital expansion. The United States, however, also got politically involved in the region.

United States Foreign Policy During the 1800s, the United States came to view Latin America as its personal sphere of influence. In 1823 President James Monroe put forward the **Monroe Doctrine**[**Monroe Doctrine: a U.S. foreign policy focused on keeping European powers from controlling any Latin American nation**] , which banned the nations of Europe from further colonizing Latin America.

In 1904, President Theodore Roosevelt extended the Monroe Doctrine in an address to Congress that became known as the **Roosevelt Corollary** [**Roosevelt Corollary: an extension of the Monroe Doctrine declaring that the United States would police unstable Latin American debtor nations; also known as the Big Stick Policy**].

Roosevelt noted that the Monroe Doctrine was designed to prevent European meddling in the Americas. Yet he pointed out that nearly a century later many countries in Latin America were still too weak to defend themselves. Roosevelt stated that the United States therefore must use “international police power” to preserve peace and order in the hemisphere and protect American interests. The Roosevelt Corollary implied two things. Europe had no reason to interfere in Latin America, and the United States was now powerful enough to police the entire region.

Western Aggression Much of Western imperialism in Latin America was informal, but not all. In spite of the Monroe Doctrine, Britain and France continued to practice imperialism in the region. Britain established or formalized its control of British Guiana in 1831, the Falkland Islands in 1833, British Honduras in 1859, and Jamaica in 1866.

France tried to conquer Mexico in 1862. Mexico’s failure to pay its debts to European banks had led Britain and France to send a naval force there in 1861 as a threat. France ended up occupying the country and installing its own emperor. Mexican resistance and pressure from the United States forced France out in 1867.

In 1898, the United States itself engaged in formal imperialism. After winning the Spanish-American War, it occupied Cuba and seized Puerto Rico. Later, under the pretext of ensuring stability, the United States intervened militarily in Nicaragua, Haiti, and the Dominican Republic. It also helped Panama break away from Colombia in order for the United States to acquire the right to build the Panama Canal.

Section 6: Impact of Imperialism

By 1900, powerful Western states controlled half the continent of Asia. They ruled some nine tenths of Africa. Their influence extended over a quarter of the Americas. The actions of these imperialist powers had a complex mix of positive and negative effects on colonized peoples.

Imperialism killed people, especially in Africa. European armies used force—often brutal—to secure and hold on to territory. One example is the rebellion by the Herero and Nama people in German South West Africa. In 1904, the rebels killed about a hundred traders and farmers. The German response was to exterminate the two African groups. Only a quarter of the original population of 100,000 Herero and Nama survived the slaughter that followed.

At the same time, imperialism had some humanitarian consequences. Through the 1800s, European societies developed a sense that slavery was morally wrong. It went against their ideals of liberty and equality. By 1888, all Western nations had abolished slavery. They used their wealth and superior military power to try to root out this evil not just in their colonies, but everywhere. As a result, slavery declined markedly in Africa, the Philippines, Indonesia, and elsewhere.

Many other aspects of Western society found their way into distant colonies, in a process known as Westernization. The imperialists imposed their own legal systems, taxes, and political administration. They introduced Western education, medicine, technology, languages, and dress. They worked to convert native peoples to Christianity.

Colonizers also improved their colonies’ **infrastructure** [**infrastructure: large-scale transportation, communication, and other systems that support economic activity**]. This supported their key economic goal—expansion of a colony’s exports. Europeans built railroads to transport goods from plantations and mines to the nearest port. There they constructed warehouses to hold the goods and harbor facilities to serve the cargo ships that carried the goods. However, they stopped short of encouraging their colonies to industrialize. In general, colonized lands continued to serve solely as sources of raw materials and a few consumer goods well into the twentieth century.

Summary

In this lesson, you read about the second era of European imperialism, during the 19th and early 20th centuries. In this period, a few European nations with great military and industrial power took control of much of the world.

Cultural Interaction Western imperialist powers used their advanced military technologies, such as the machine-gun and the steam-powered gunboat, to conquer new territories. They introduced their culture—including education, language, political ideals such as equality and liberty, and the Christian religion—into Asia and Africa.

Economic Structures Industrialization helped trigger the new imperialism, through which capitalistic Western powers sought raw materials for their factories and markets for their machine-made goods. The colonized lands themselves failed to industrialize during the imperialist period.

Social Structures Racist attitudes supported Europeans' notion that they were culturally and even biologically superior to the Asian and African peoples that they dominated.