I. CHAPTER OVERVIEW

Less than two centuries is covered in this chapter, but during that time, the world changed dramatically. Europe's influence in the West waned even as it waxed in the East. Napoleon tried to conquer Europe. Italy and Germany unified into modern nation-states. Japan became an imperial power. India was entirely overrun by the British. The United States rose to become a world power. And the Industrial Revolution—the single biggest event of the time period—seemed to impact everything it touched, from political and economic developments, to the drive for colonial holdings in Africa and Asia, to daily life.

Here's the chapter outline.

I. Chapter Overview

You're in it.

II. Stay Focused on the Big Picture

Organize the major social, political, and economic changes that occurred during this time period into some big-picture concepts.

III. Industry and Imperialism

This section focuses on the Industrial Revolution and its consequences, especially as it impacted social and economic developments in Europe and European imperialism in Africa and Asia. Here's how we've organized this section.

A. The Industrial Revolution

B. European Imperialism in India

C. European Imperialism in China

D. Japanese Imperialism

E. European Imperialism in Africa

IV. Political Developments in the Americas and Europe

While Africa and Asia were increasingly dominated by Europe in the eighteenth and nineteenth centuries, the Europeans lost most of their holdings in the Americas due to successful revolutionary movements. In the meantime, Europe underwent continuous political restructuring, and strong centralized nation-states were formed. Here's how we've organized this section.

A. Two Revolutions: American and French

B. Lots of Independence Movements: Latin America

C. Two Unifications: Italy and Germany

D. Other Political Developments

V. Technology and Intellectual Developments 1750 to About 1914

Big machines, assembly lines, and new products.

VI. Changes and Continuities in the Role of Women

More education and more work!

VII. Pulling It All Together

Refocus on the big-picture concepts now that you've reviewed the historical details.

VIII. Timeline of Major Developments 1750–1914

II. STAY FOCUSED ON THE BIG PICTURE

As you review the details of the developments in this chapter, stay focused on some big-picture concepts and ask yourself some questions, including the following:

1. How are the events of this time period interconnected? The Industrial Revolution and imperialism are not only interconnected, but are connected to other developments in this time period as well. Stay focused on how developments in one region of the world had an impact on developments in another. Also, stay focused on *how* regional developments were able to have a global impact through improvements in communication and transportation, as well as through colonialism.
2. Why did nationalism grow during this time period? How did the impact of nationalism vary among different countries? Whether in the Americas, Europe, or Asia, nationalism was a huge force. It sparked rebellions, independence movements, and unification movements. It also sparked domination and colonialism.
3. How and why does change occur? Stay focused on the complexity of social, political, and economic developments, as opposed to presuming that the dominant economic or political philosophies were shared universally among people in a certain country or region. Think about change as an evolving process in which certain ideas gain momentum, while other ideas lose steam but don't entirely die out.
4. How did the environment impact industrial and economic development? In Europe, the earliest phases of the Industrial Revolution were fueled by the resources available in England, so the resulting imperialism on a global-scale was driven by the need for additional resources. Keep in mind the political and economic decisions that resulted in environmental change. At the same time, the environment impacted people. The general global cooling that began around 1500 C.E. put pressure on the populations of Europe and contributed to great poverty and peasant revolts, especially in the northern countries.

III. INDUSTRY AND IMPERIALISM

The Industrial Revolution, which began in the mid-eighteenth century in Britain and spread rapidly through the nineteenth century, is inseparable from the Age of Imperialism, which reached its peak in the late nineteenth and early twentieth centuries. Industrial technology had two enormous consequences: (1) Countries with industrial technology by definition had advanced military weapons and capacity, and were therefore easily able to conquer people who did not have this technology; (2) To succeed, factories needed access to raw materials to make finished products, and then markets to sell those finished products. Colonies fit both of these roles quite well.

Because the bulk of the western hemisphere freed itself from European control by the early nineteenth century (a lot more on this later), the industrial imperialists turned their eyes toward Africa and Asia, where exploitation was easy and markets were huge.

A. The Industrial Revolution

The Industrial Revolution began in Britain, helping to propel the country to its undisputed ranking as the most powerful in the nineteenth century. But Britain wasn't the only country that industrialized. The revolution spread through much of Europe, especially Belgium, France, and Germany, as well as to Japan and ultimately to the country that would eclipse Britain as the most industrialized—the United States. Still, since most of the developments occurred in Britain first, and since the social consequences that occurred in Britain are representative of those that occurred elsewhere, this section will focus heavily on the revolution in Britain. References to other countries will be made where warranted.

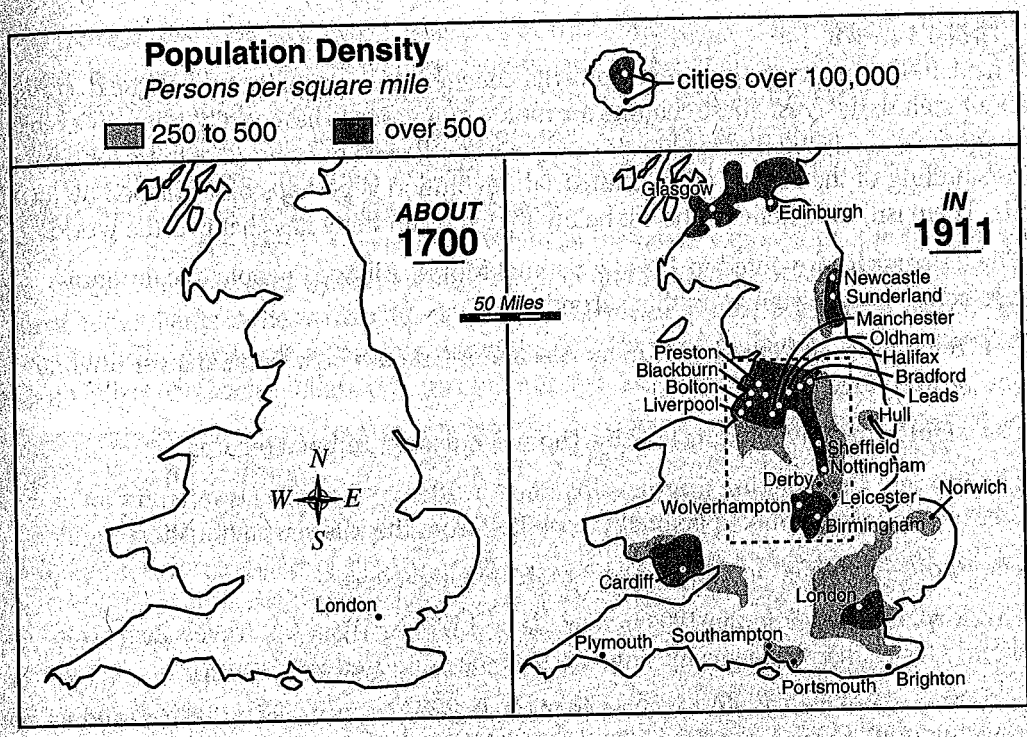
Agricultural Revolution Part II

Hopefully you remember that early civilizations came about, in part, because of an Agricultural Revolution that resulted in food surpluses. This freed some of the population from farming, and those people then went about the business of building the civilization. In the eighteenth century, agricultural output increased dramatically once again. This time, it allowed not just some people, but as much as half of the population to leave the farms and head toward the cities, where jobs in the new industrial economy were becoming available.

Keep in mind that agricultural techniques had been slowly improving throughout history. Since so many developments happened so quickly in the eighteenth century this period was considered a revolution. Agricultural output increased for a whole host of reasons. Potatoes, corn, and other high-yield crops were introduced to Europe from the colonies in the New World. Farmers started rotating their crops, rather than leaving one-third of their land fallow (as they had done in the Middle Ages under the three-field system), which allowed them to farm all of their land each season without stripping the land of its nutrients. Through a process known simply as **enclosure,** public lands that were shared during the Middle Ages were enclosed by fences, which allowed for private farming and private gain.

But what really cranked up the efficiency and productivity of the farms was the introduction of new technologies. New machines for plowing, seeding, and reaping, along with the development of chemical fertilizers, allowed farmers to greatly increase the amount of land they could farm, while decreasing the number of people needed to do it. **Urbanization** was a natural outgrowth of the increased efficiencies in farming and agriculture. In short, cities grew. In 1800, there were only 20 cities in Europe with a population of more than 100,000. By 1900, 150 cities had similar populations, and the largest, London, had a population of more than 6 million.

Cities developed in areas where resources such as coal, iron, water, and railroads were available for manufacturing. The more factories that developed in favorable locations, the larger cities would grow. In 1800, along with London, the Chinese cities of Beijing (Peking) and Canton ranked in the top three, but just 100 years later, nine of the 10 largest cities in the world were in Europe or the United States.



Population Density in Great Britain

Technological Innovations: The Little Engine That Could

Prior to the Industrial Revolution, most Europeans worked on farms, at home, or in small shops. Even after Britain started importing huge amounts of cotton from its American colonies, most of the cotton was woven into cloth in homes or small shops as part of an inefficient, highly labor-intensive arrangement known as the **domestic system.** Middlemen would drop off wool or cotton at homes where women would make cloth, which would then be picked up again by the middlemen, who would sell the cloth to buyers. All of this was done one person at a time.

However, a series of technological advancements in the eighteenth century changed all this. In 1733, John Kay invented the **flying shuttle,** which sped up the weaving process. In 1764, John Hargreaves invented the **spinning jenny,** which was capable of spinning vast amounts of thread. When waterpower was added to these processes, notably by Richard Arkwright and Edward Cartright in the late eighteenth century, fabric-weaving was taken out of the homes and was centralized at sites where waterpower was abundant. In 1793, when **Eli Whitney** invented the **cotton gin,** thereby allowing massive amounts of cotton to be quickly processed in the Americas and exported to Europe, the textile industry was taken out of the homes and into the mills entirely.

Although industrialization hit the textile industry first, it spread well beyond into other industries. One of the most significant developments was the invention of the **steam engine,** which actually took the work of several people to perfect. In the early 1700's, Thomas Newcomer developed an inefficient engine, but in 1769, **James Watt** dramatically improved it. The steam engine was revolutionary because steam could not only be used to generate power for industry but also for transportation. In 1807, **Robert Fulton** built the first **steamship,** and in the 1820's, **George Stephenson** built the first **steam-powered locomotive.** In the hands of a huge, imperial power like Britain, steamships and locomotives would go a long way toward empire-building and global trade. Because Britain had vast amounts of coal, and because the steam engine was powered by coal, Britain industrialized very quickly.

But Wait, There's More

During the next 100 years, enormous developments changed how people communicated, traveled, and went about their daily lives. These changes are far too numerous to list entirely, but we've picked a few major inventions and listed them below. It's unlikely you'll need to know all of these for the exam, but an understanding of the impact of the Industrial Revolution is perhaps best grasped by looking at the details. There isn't one item on the list below that you can deny has changed the world.

- **The Telegraph**—Invented in 1837 by Samuel Morse. Allowed people to communicate across great distances within seconds.
- **The Telephone**—Invented in 1876 by Alexander Graham Bell. Don't answer it while you're studying.
- **The Lightbulb**—Invented in 1879 by Thomas Edison. Kind of a big deal.
- **The Internal Combustion Engine**—Invented in 1885 by Gottlieb Daimler. If you've ever been in a car, you've personally benefited from the internal combustion engine.
- **The Radio**—Invented in the 1890's by Marconi Guglielmo.
- **The Airplane**—Invented in 1903 by Orville and Wilbur Wright. It travels ever so slightly faster than a steamship (invented just one hundred years prior).

At the same time, there were huge advances in medicine and science. Pasteurization and vaccinations were developed. X-rays came onto the scene. **Charles Darwin** developed the concept of evolution by means of natural selection. The developments of this time period go on and on and on.

Compare Them: The Scientific Revolution and The Industrial Revolution

Both changed the world, of course. One was about the process of discovering, learning, evaluating, and understanding the natural world. The other was about applying that understanding to practical ends. In both cases, knowledge spread and improvements were made across cultures and across time. Even though patents protected individual inventions, one scientist or inventor could build on the ideas of colleagues who were tackling the same issues, thereby leading to constant improvement and reliability. This same collaborative effort is used today. Universities and research organizations share information among colleagues across the globe. The Internet, of course, allows data to be analyzed almost instantaneously by thousands of like-minded individuals.

The Factory System: Efficiency (*Cough*), New Products (*Choke*), Big Money (*Gag*)

The Industrial Revolution permitted the creation of thousands of new products from clothing to toys to weapons. These products were produced efficiently and inexpensively in factories. Under Eli Whitney's system of **interchangeable parts**, machines and their parts were produced uniformly so that they could be easily replaced when something broke down. Later, Henry Ford's use of the **assembly line** meant that each factory worker added only one part to a finished product, one after another after another. These were incredibly important developments in manufacturing, and they made the factory system wildly profitable, but they came with social costs. Man wasn't merely working with machines; he was becoming one. Individuality had no place in a system where consistency of function was held in such high esteem.

The factories were manned by thousands of workers, and the system was efficient and inexpensive primarily because those workers were way overworked, extremely underpaid, and regularly put in harm's way without any accompanying insurance or protection. In the early years of the Industrial Revolution, 16-hour workdays were not uncommon. Children as young as six worked next to machines. Women worked long hours at factories, while still having to fulfill their traditional roles as caretakers for their husbands, children, and homes.

This was a huge change from rural life. Whereas the farms exposed people to fresh air and sunshine, the factories exposed workers to air pollution and hazardous machinery. The farms provided seasonal adjustments to the work pattern, while the factories spit out the same products day after day, all year long. The despair and hopelessness of the daily lives of the factory workers were captured by many novelists and social commentators of the time, for example, Charles Dickens.

Focus On: The Family

The biggest social changes associated with industrialization were to the family. Both women and children became part of the work force, albeit at lower wages, and in more dangerous conditions than their male counterparts. Factory-run boardinghouses housed workers dependent on the company for housing, food, and personal items. These new living arrangements removed workers from families and traditional structures. In many ways, this lessened the restrictions on young women and men. They were able to live away from home, manage their own incomes, and pursue independent leisure activities—theatres, dance halls, recitals, dining out in restaurants—all of which developed to support the new urban working class.

The emergence of a middle-class also brought changes to the family. Home and work were no longer centered in the same space. Middle and upper class women were expected to master the domestic sphere and to remain private and separate from the realities of the working world. This was a time of great consumption as desirable products were mass produced and women were expected to arrange parlors and dining rooms with fancy tea-cups and serving trays.

New Economic and Social Philosophies: No Shortage of Opinions

Industrialization created new social classes. The new aristocrats were those who became rich from industrial success. A middle class formed, made up of managers, accountants, ministers, lawyers, doctors, and other skilled professionals. Finally, at the bottom of the pyramid was the working class—and it was huge—made up of factory workers in the cities and peasant farmers in the countryside.

Contrast Them: Social Class Structures Before and After Industrialism

Keep in mind that throughout history, the wealthy class was small and the poorest class was huge, but industrialism gave it a new twist. Because of urbanization, people were living side-by-side. They could see the huge differences among the classes right before their eyes. What's more, the members of the working class saw factory owners gain wealth quickly—at their expense. The owners didn't inherit their position, but instead achieved success by exploiting their workers, and the workers knew it. In the past, under feudalism, people more readily accepted their position because, as far as they knew, the social structure was the way it had always been, and that's the way it was meant to be. If your dad was a farmer, you were a farmer. If your dad was the king, you were a prince. After industrialism, people literally saw for the first time the connection between their sacrifices and the aristocracy's luxuries.

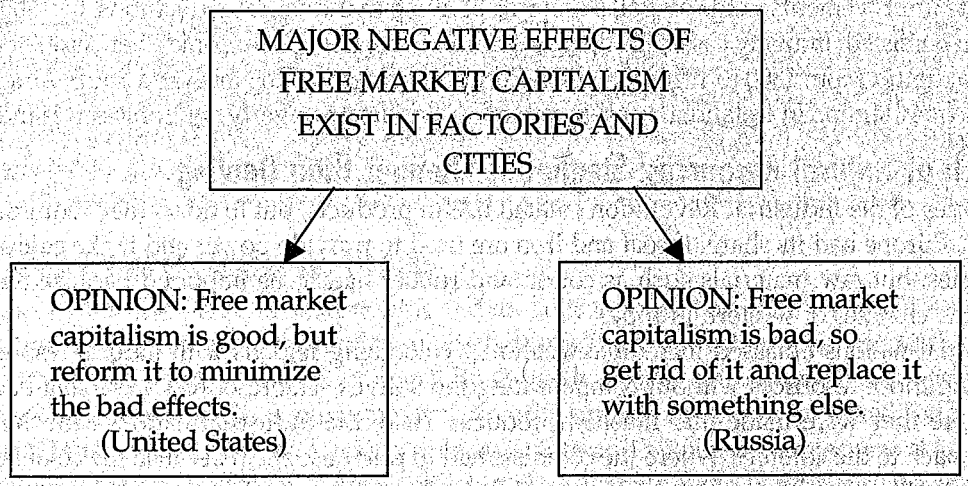
The rise of the industrial class had its origins in the concept of private ownership. **Adam Smith** wrote in *The Wealth of Nations* (1776) that economic prosperity and fairness is best achieved through private ownership. Individuals should own the means of production and sell their products and services in a free and open market, where the demand for their goods and services would determine their prices and availability. A **free market system** (also known as **capitalism**), Smith argued, would best meet the needs and desires of individuals and nations as a whole. When governments remove themselves entirely from regulation, the process is called **laissez-faire capitalism.**

Smith wrote his book in response to the western European mercantilist practices that had dominated during the Age of Exploration. In the New World, monarchies—which were not only corrupt, but also highly inefficient—closely managed their economies. In the nineteenth century, European countries continued to develop their mercantilist philosophies (especially using colonies as a way of obtaining raw materials without having to import them from other countries and as a way of increasing exports). European countries also permitted and encouraged the development of private investment and capitalism. Hence the rise of factory workers and the rise of major investment firms like the British East India Company.

While Adam Smith believed that free market capitalism would lead to better opportunities for everyone, **Karl Marx,** a German economist and philosopher who spent a good part of his adult life living in poverty, pointed out that the factory workers had genuine opportunities but were being exploited as a consequence of capitalism. In other words, the abuses weren't merely the result of the way in which capitalism was practiced, but an inherent flaw in the system. In *The Communist Manifesto* (1848), Marx and Friedrich Engels wrote that the working class would eventually revolt and take control of the means of production. All the instruments of power—the government, the courts, the police, the church—were on the side of the rich against the workers. Once the class struggle was resolved by the massive uprising of the exploited, Marx predicted that the instruments of power wouldn't even be needed. The impact of Marxism was enormous, and served as the foundation of **socialism** and **communism.**

Marx and Engels were not just theorizing, they were also observing, and there was much discontent to support their view. In England in the early 1800's, groups of workers known as **Luddites** destroyed equipment in factories in the middle of the night to protest working conditions and pitiful wages. The government unequivocally sided with the business owners, executing some of the workers, while also enacting harsh laws against any further action.

At the same time, however, a greater number of people with influence (the middle class and the aristocracy) began to realize how inhumane the factory system had become and started to do something about it. These reformers believed that capitalism was a positive development, but that laws were needed to keep its abuses in check. In other words, they believed that the government needed to act on behalf of the workers as well as the factory owners. By the mid-nineteenth century, there was a major split in thought among intellectuals and policymakers.



In Britain and the United States, where the impact of the Enlightenment was strong, democracy was developing, and the middle class was growing, reforms to the free market system that lessened the negative impact of capitalism on workers took root. In other countries like Russia where absolute rule was strong and the peasant class extremely oppressed, reform was almost nonexistent. There, Marxist ideas grew popular among a small group of urban intellectuals, eventually including Vladimir Lenin, who believed they could lead a worker revolution and end the tyranny of the czars. Elsewhere, Marxism impacted social thought and intermixed with capitalist thought to create economic systems that were partly socialist (in which the government owned some of the means of production) and partly capitalist (in which individuals owned some of the means of production). Most of Europe, including Britain after World War II, mixed socialist and capitalist ideas.

Capitalism and Enlightenment Combine: Reform Catches On

In the second half of the nineteenth century, after the abuses and social consequences of the Industrial Revolution became clear, a series of reforms occurred. The British Parliament passed laws, such as the **Factory Act of 1883,** which limited the hours of each workday, restricted children from working in factories, and required factory owners to make working conditions safer and cleaner. Meanwhile, **labor unions** were formed. The unions were vehicles through which thousands of employees bargained for better working conditions, or threatened to strike, thereby shutting down the factory. In addition, an increasing number of factory owners realized that a healthy, happy, and reasonably well-paid workforce meant a productive and loyal one.

All of these developments combined, though slowly and sporadically, to improve not only the conditions in the factories and cities, but also the standard of living on an individual family level. The middle class became substantially larger. Public education became more widely accessible. **Social mobility**—the ability of a person to work his way up from one social class to the next—became more commonplace. In 1807, the slave trade was abolished, which meant that no new slaves were transported from Africa, though the ownership of existing slaves continued. In 1833, the British outlawed slavery, and three decades later, it was outlawed in the United States.

As men earned more money, women left the factories and returned to their traditional roles in the home, which limited their influence socially, politically, professionally, and intellectually, even as democratic reforms greatly increased the power of most men, especially through the right to vote. In response, women began organizing to increase their collective influence. It wasn't until 1920 in the United States, and 1928 in Britain, however, that the **women's suffrage movement** fully succeeded in giving women the right to vote.

Despite improvements in the overall standards of living in industrialized nations, by 1900 extreme hardships persisted. In many cases, Europeans dreamed of starting over somewhere else, or escaping cruelties at home. From 1800 to 1920, 50 million Europeans migrated to North and South America. Millions fled from famine in Ireland, or anti-Semitism in Russia, or poverty and joblessness in general.

In Search of Natural Resources: Stealing Is Cheaper than Dealing

The factories of the Industrial Revolution created useful products, but to do so they required natural resources. Europe had its share of coal and iron ore used to provide power and make equipment for the factories, but raw materials such as cotton and rubber had to be imported because they didn't grow in the climates of western Europe.

Industrial nations amassed incredible wealth by colonizing regions with natural resources, and then taking those resources without compensating the natives. The resources were sent back to Europe, where they were made into finished products. Then, the industrial nations sent the finished products back to the colonies, where the colonists had to purchase them because the colonial powers wouldn't let the colonies trade with anyone else. In short, the colonial powers became rich at the expense of the colonies. The more colonies a nation had, the richer it became.

Soon, Europe colonized nations on every other continent in the world. Europe became a clearinghouse for raw materials from around the globe while the rest of the world increasingly became exposed to Europe and European ideas. What's more, the need for raw materials transformed the landscape of the conquered regions. Limited raw materials depleted faster than at any time in human history. The Industrial Revolution, in addition to creating pollution, began to have an impact on the environment by gobbling natural resources.

The European Justification: Superiority Is a Heavy Burden

Even as progressives argued for an end to the slave trade and better working conditions in the factories, a huge number of Europeans—not just the industrialists—either supported or acquiesced in the colonization of foreign lands. Most Europeans were very ethnocentric and viewed other cultures as barbarian and uncivilized. Ironically, this ethnocentrism may have driven some of the social advancements within European society itself—after all, if you think of yourself as civilized, then you can't exactly brutalize your own people.

Two ideas contributed to this mindset. First, **social Darwinists** applied Charles Darwin's biological theory of natural selection to sociology. In other words, they claimed that dominant races or classes of people rose to the top through a process of "survival of the fittest." This meant that because Britain was the most powerful, it was the most fit, and therefore the British were superior to other races.

Second, many Europeans believed that they were not only superior, but that they had a moral obligation to (crassly said) dominate other people or (politely said) teach other people how to be more civilized—in other words, how to be more like Europeans. **Rudyard Kipling** summed it up in his poem "**White Man's Burden.**" As European nations swallowed up the rest of the world in an effort to advance their economies, military strategic positioning, and egos, Kipling characterized these endeavors as a "burden" in which it was the duty of Europeans to conquer each "half-devil and half-child" so that they could be converted to Christianity and civilized in the European fashion. Never mind if the non-Europeans didn't want to be "civilized." The Europeans supposedly knew what was best for everyone.