

QUESTIONS OF PERIODIZATION

This era includes only 300 years, but some profound and long-lasting changes occurred. Characteristics of the time between 1450 and 1750 include:

- 1) **The globe was encompassed** - For the first time, the western hemisphere came into continued contact with the eastern hemisphere. Technological innovations, strengthened political organization, and economic prosperity all contributed to this change that completely altered world trade patterns.
- 2) **Sea-based trade rose in proportion to land-based trade** - Technological advancements and willingness of political leaders to invest in it meant that sea-based trade became much more important. As a result, old land-based empires lost relative power to the new sea-based powers.
- 3) **European kingdoms emerged that gained world power** - The relative power and prosperity of Europe increased dramatically during this time in comparison to empires in the longer-established civilization areas. However, Europe did not entirely eclipse powerful empires in Southwest Asia, Africa, and East Asia.
- 4) **The relative power of nomadic groups declined** - Nomads continued to play an important role in trade and cultural diffusion, and they continued to threaten the borders of the large land-based empires. However, their power dwindled as travel and trade by water became more important.
- 5) **Labor systems were transformed** - The acquisition of colonies in North and South America led to major changes in labor systems. After many Amerindians died from disease transmitted by contact with Europeans, a vigorous slave trade from Africa began and continued throughout most of the era. Slave labor became very important all over the Americas. Other labor systems, such as the mita and encomienda in South America, were adapted from previous native traditions by the Spanish and Portuguese.
- 6) **"Gunpowder Empires" emerged in the Middle East and Asia** - Empires in older civilization areas gained new strength from new technologies in weaponry. Basing their new power on "gunpowder," they still suffered from the old issues that had plagued land-based empires for centuries: defense of borders, communication within the empire, and maintenance of an army adequate to defend the large territory. By the end of the era, many were less powerful than the new sea-based kingdoms of Europe.

MAJOR DEVELOPMENTS - 1450-1750 C.E.

- **Changes in Trade, Technology, and Global Interactions** - The Atlantic Ocean trade eventually led to the crossing of the Pacific Ocean. New maritime technologies made these interactions possible, and global trade patterns changed dramatically.
- **Major Maritime and Gunpowder Empires** - Major maritime powers include Portugal, Spain, France, and England, and major Gunpowder Empires were the Ottoman, Ming and Qing China, the Mughal, Russia, Tokugawa, Songhay (Songhai), and Benin.
- **Slave systems and slave trade** - This was the big era for slave systems and slave trade, with the new European colonies in the Americas relying on slavery very heavily. The slave trade was an important link in the Atlantic Ocean trade.
- **Demographic and environmental changes** - The new trade patterns greatly altered habitats for plants and animals and resulted in changes in human diet and activities as well. Major migrations across the Atlantic Ocean also altered demographic patterns profoundly.
- **Cultural and intellectual development** - This era also was shaped by the European Renaissance, Protestant Reformation, and Enlightenment. Neo-Confucianism grew in influence in China, and new art forms developed in the Mughal Empire in India.

CHANGES IN TRADE, TECHNOLOGY, AND GLOBAL INTERACTIONS

The two areas that worked most actively to rebuild trade were China and Europe.

MING CHINA AND THE OUTSIDE WORLD

When the Ming drove the Mongols out, they were intent on restoring the glory of Han China, and they turned first to restoring China's internal trade and political administration. Even though the Ming emperors were wary of foreigners, China had too long prospered from trade to give it up completely, and foreigners eagerly sought silk, porcelain and manufactured goods, in exchange for spices, cotton fabrics, gems, and pearls.

In order to restore Chinese hegemony in Asia, Emperor Yongle sponsored seven naval expeditions commanded by Admiral Zheng He, whose voyages took place between 1405 and 1433. For each journey he launched a fleet of vessels like the world had never seen before. The Chinese junks were huge with nine masts, by far the largest ships ever launched up until that point in history. The main purposes of the voyage were twofold: to convince other civilizations that China had indeed regained their power and to reinstitute tribute from people that no longer gave it. The latter did not bring any income to China, mainly because the cost of the voyages and gifts was more than any revenue they stimulated.

Zheng He's voyages were halted in the 1430s when Emperor Yongle died. Confucian bureaucrats, who had little desire to increase China's interactions with other civilizations, gained control of the court and the new emperor, and refused to continue to finance the voyages. According to the new court, the money was needed to better protect the empire from its age-old problem: nomadic invasions from the west. The voyages and the Ming reaction to them provide good evidence for the pattern that was setting in: the impulse to trade and contact others v. the tendency to turn inward for fear of the negative effects on the Han Chinese.

EUROPEAN EXPLORATIONS

Across the globe, as the mid-15th century approached, kingdoms in another area were ready to venture to the open seas with motivations very different from those of the Chinese:

- Profit from commercial operations - Geographically, Europe was on the outskirts of the established trade routes. The impractical nature of overland travel for Europeans was confirmed by the fact that the first European trade cities - Venice and Genoa - made their fortunes by sea travel. And so the Europeans set out to make their fortunes via water transportation.
- Spread of Christianity - True to its roots, Christianity had remained over the centuries a missionary religion. The Catholic Church took this responsibility seriously, and as a result, Europe was overwhelmingly Catholic by 1450. Once they began traveling to other lands, they aggressively promoted the spread of the Christian faith, so that their missionary motives were often as strong as their desire for profits.

PORTUGUESE EXPLORATION

Portugal was the first European kingdom to explore other lands seriously. For most of the 16th century, the Portuguese dominated the Indian Ocean trade. How did they capture this old sea route that had been shared by Arabs, Persians, Indians, and Southeast Asians? The most important single answer is technological: they had superior weapons. Their ships were armed with cannons that they used so skillfully that their relatively small ships could overpower almost any other type of vessel. The Portuguese were intent on converting all that they met to Christianity, although they often did more harm than good, infuriating the natives by burning down mosques and/or forcing conversions.

EARLY SPANISH EXPEDITIONS - THE CONQUEST OF THE AMERICAS

What Diaz, da Gama, Columbus, and other early European explorers did do was unwittingly start an entirely new era of world trade and cross-cultural exchange. Europeans conquered and claimed the territories and greatly increased their prosperity and power, and Christianity spread to a whole new hemisphere. Portugal and Spain even presumed to divide the world in two by seeking the Pope's blessing on the Treaty of Tordesillas, which drew a line through north and south through the Atlantic, giving Portugal the lands east and Spain the lands west. Portugal actually lost in the long run because the lands that they "received" were already claimed by empires that did not recognize the Portuguese claims.

During the 16th century the Portuguese slowly faded as a power while Spain claimed and kept more and more land in the western hemisphere. In 1519 a Spanish expedition led by Hernan Cortes marched to the Aztec capital of Tenochtitlan and defeated the great empire with only a few hundred soldiers. How? Two weapons helped a great deal - guns and disease. Gunpowder technology revolutionized the world during the 1450-1750 era, and the Amerindian Empires were among its first victims. Disease also made a big difference. Shortly after the Spanish arrived in Tenochtitlan, a smallpox epidemic broke out in the city that killed or incapacitated the Aztec army. A few years later Francisco Pizarro attacked and defeated the Inca. With the fall of those two empires the Spanish gained virtual control of Mesoamerica and South America, with the exception of Brazil, which fell on the Portuguese side of the line set by the Treaty of Tordesillas.

THE FRENCH AND ENGLISH IN NORTH AMERICA

The French and English did not arrive in the Americas until the 17th century, but when they did, they claimed much of North America in areas that the Spanish did not go. The French explored and settled the St. Lawrence River area through Canada, as well as the Mississippi River valley south all the way to its mouth in the Gulf of Mexico. The English settled along the eastern seacoast in North America. Although the three great powers were destined to eventually clash over land claims, most conflicts did not occur until the 18th century. Virtually all explorers sought sea routes to Asia that they hoped would be shorter than the circuit that Magellan took. The English differed from most others in that they allowed great trading companies to control their colonization. These companies encouraged people to settle in the New World, so that the English colonies became quite heavily populated by the end of the 17th century.

THE GREAT CIRCUIT AND THE COLUMBIAN EXCHANGE

The trade routes that appeared during this era in the Atlantic Ocean were collectively known as the Great Circuit. The routes connected four continents: North America, South America, Europe, and Africa, and they linked directly to the old water trade routes established in previous eras. The Atlantic routes were generally circular and complex, with most ships making several stops along the way on at least two of the continents, but sometimes more. These huge circuits represent the most significant change in long-distance trade since its earliest days. The cross-cultural exchange that developed along the Great Circuit is known as the Columbian Exchange, giving credit to the man that unwittingly started the whole

thing. The Columbian Exchange included a huge number of products that changed diets and work habits around the world. Generally, the goods traded according to this pattern:

- Europe to the Americas - horses, cows, pigs, wheat, barley, sugar cane, melons, grapes
- Africa (includes Asian products) to the Americas - bananas, coconut palms, coffee, sugar cane, goats, chickens
- The Americas to Europe and Africa - corn, potatoes, tomatoes, sweet potatoes, pumpkins, squash, beans, pineapples, peppers, tobacco, chocolate

As a result of the new trade routes, the variety in many people's diet increased and resulted in better nutrition and health. Disease also was transferred with the most devastating effects on the Amerindian populations. They had no immunities to diseases that people of the eastern hemisphere had built up resistance to, such as measles, diphtheria, typhus, influenza, malaria, and yellow fever. Estimates vary, but all historians agree that the devastation cannot be overstated. Generally only one major disease that originated in the Americas traveled the other direction - syphilis.

MAJOR EMPIRES: 1450-1750

CENTRALIZATION OF GOVERNMENT

During this era between 1450 and 1750 some of the old feudal kings amassed enough power to allow their kingdoms to sponsor the expensive sea voyages necessary for colonization in the New World. Three powerful countries that emerged were Spain, England, and France. In all three cases these monarchs curbed the power of the nobility and built strong centralized regimes. The new monarchs came up with new means of financing their ambitions, such as imposing new taxes, fines, and fees, and amassing large armies too powerful for individual nobles to match.

Spanish Imperial Attempts

Spain's newfound wealth in the 16th and 17th century was based largely on trade, and the vital link that their American colonies played in world circuits. A good example is provided by the famous Manila Galleons that for 250 years traveled back and forth across the Pacific Ocean between Manila in the Philippines and Acapulco on the west coast of Mexico. The galleons were vast and well armed, and they took Asian Luxury goods to Mexico, and returned with their hulls full of gold and silver. Most of the precious metals made their way into China, an inducement that convinced the Ming emperors to keep trade with outsiders alive. Meanwhile, some of the Asian silks and porcelain stayed in Mexico for use by the Spanish viceroys and other elites, but most of the goods went overland by Mexico to ships that carried them to Spain and other European markets. The Spanish rulers almost turned this wealth into domination of Europe, but not quite.

Absolutism v. Constitutionalism

Most of the newly powerful European states, including Spain and France, developed into absolute monarchies, or governments in which the king held all power. Absolutism was reinforced by the belief in divine right, or the god-given authority to rule. According to divine right theory, kings were not gods but served as "God's lieutenants upon earth." In these countries, no one else had the right to share policymaking powers with the king, not even the nobility. Other countries followed the French model, although generally less successfully. Rulers in Austria, Prussia, and Russia built huge palaces and sought to increase central control. Both Prussia and Russia had developed into formidable powers by 1750.

Elsewhere, in England and the Netherlands, a different government model was developing. Neither had a written constitution, but they both allowed limitations to be placed on the ruler's power. In England the nobility demanded and received the right to counsel with the king before he imposed new taxes, starting with William the Conqueror in the 11th century. The limitations were famously encapsulated in the Magna Carta of 1215, a document that listed the rights of nobility. From this right to counsel developed a "parliament" (literally a place to talk things over) that came to blows with King Charles I in the 1640s in the English Civil War. Parliament won this war, and even though the institution of the monarchy was eventually retained, it marks the turning point of power toward a limited or "constitutional" government. In both England and the Netherlands, wealthy merchants were allowed to participate in government, partly because their continuing prosperity was vital to the states.

Whether they developed into absolute or constitutional monarchies, centralization of government in Europe was a vital step in building state power from the medieval feudalism. Without it, colonization, and eventually the building of vast, worldwide empires, would have been impossible.

CHANGES IN SOCIAL AND GENDER STRUCTURES

With the growth of trade, European towns grew, and by 1700 Europe had large cities. Paris and London both had over 500,000 people, Amsterdam had about 200,000, and twenty other cities had populations over 60,000. Life in these cities was vastly different than before, and their existence affected people who lived elsewhere, in villages and towns. Some of the changes are:

- The rise of the bourgeoisie - Whereas the social structure in medieval Europe was split into two classes (nobility and serfs), increasing trade and business created a new class that the French called the bourgeoisie, meaning

"town dwellers." Over time the bourgeoisie came to have more wealth than the nobles, since they often formed mutually beneficial alliances with monarchs anxious to increase state revenues.

- Growth in the gap between the rich and the poor - By the late 16th century, the rising wealth of the bourgeoisie created a growing gap between the rich and the poor. The poor were not only the rural peasants, but they also lived in cities as craftsmen, peddlers, and beggars.
- Changes in marriage arrangements - Most marriages in the rest of the world were still arranged by families, but the custom of young men and women choosing their own spouses started in early modern Europe. This change was partly due to separations between generations that occurred when younger people moved to towns, but also to the growing trend toward later marriages. Craftworkers and the poor had to delay marriages while they served as apprentices or built their dowries, and bourgeois men delayed marriage in order to finish their educations. The need for education was growing because of the demands for business success. For example, participation in long-distance trade often meant learning new languages and/or acquiring legal expertise. Since people were older when they married, they tended to be more independent from their parents.

COLONIAL MODELS

The governments that European nations set up in their colonies in the New World reflected their own governments back home. Both Spain and Portugal, who followed the absolutist model, set up expensive, controlling bureaucracies that they tried to rule directly. In contrast, the English principle of the limited monarchy allowed some independence for colonial governments. The English also had less interest in converting natives to Christianity than they did in building prosperous, money-generating colonies. The French were unable to establish few colonial governments with wide controls.

COLONIAL POLITICAL AND SOCIAL STRUCTURES

	Political Structures	Social Structures
Spain	<p>Both the Spanish and the Portuguese kings appointed viceroys, or personal representatives, to rule in the king's name. Spain set up a Council of the Indies, whose members remained in Spain, as a supervisory office to pass laws. Advisory councils were then set up within each viceroyalty, which divided according to region. Difficulty in communication caused viceroys and councils to have a great deal of independence</p> <p>Large bureaucracies developed in urban areas, such as Mexico City</p>	<p>Almost complete subjugation of Amerindians, placed at bottom of social structure.</p> <p>A hierarchical class system emerged. Peninsulares (Europeans born in Spain) had the highest status, and creoles (Europeans born in the Americas) were second. In the middle were mestizos (blend of European and Amerindian) and mulattoes (blend of European and African), and at the bottom were full blood natives and Africans.</p> <p>Slavery common, also used encomienda and mita labor systems.</p>
England	<p>No elaborate bureaucracy like Spanish/Portuguese. Individual colonies allowed to set up their own structures, with most of them setting up representative bodies like the British Parliament</p> <p>British government formed partnerships with trading companies, and was most interested in profits. Practice of "salutary neglect" until mid-18th century allowed colonies to run many of their own affairs.</p>	<p>Less successful at subjugating Amerindians, who were generally more friendly to the French</p> <p>Colonies were more diverse than the Spanish, with South Carolina's social structure the most hierarchical and Massachusetts the least</p> <p>Mixing of races (European, Amerindian, African) blurred social distinctions, but still had divisions.</p> <p>Slavery common, especially in the agricultural southern colonies</p>

THE GUNPOWDER EMPIRES

The era between 1450 and 1750 saw the appearance of several land-based empires who built their power on the use of gunpowder: the Ottomans and the Safavids in Southwest Asia, the Mughals in India, the Ming and Qing in China, and the new Russian Empire. All had huge land armies armed with guns. These empires developed relatively independently from western influence, and to some extent they counterbalanced the growth of European power and colonization.

An important consequence of the appearance of the Gunpowder Empires was their conquest of most nomadic groups. Since the nomads had less access to guns, the empires were finally able to conquer and subjugate them.

THE MUSLIM EMPIRES

In the previous era, the political power of Muslim lands had been crushed by Mongol invasions in the 13th century and those of Timur, a central Asian of Mongol descent, in the 14th century. Three new empires; the Ottoman, the Safavid, and the Mughal - rose between 1450 and 1750, and collectively they supported a new flowering of Islamic civilization. However, competition between them also led to important political divisions and military clashes. All three originated in the Turkic nomadic cultures of the central Asian steppe, and they all had absolute monarchs who modeled their courts on those of earlier Islamic dynasties.

Although each of the Muslim Empires had their own special problems, they faced some similar ones that eventually led to their decline.

- **Inadequate transportation and communication systems** - Although they had the necessary military technology to control their empires, transporting it to where it was needed was another issue. The larger they grew, the more difficult it was for the infrastructure to be adequate for the task.
- **Unruly warrior elites and inadequate bureaucracies** - The military leaders knew their importance to the state, and they often operated quite independently of the government. Even in the Ottoman Empire, where the bureaucracy was the strongest, the sultan eventually lost control of the Janissaries, who rebelled against him when their constant demands went unfulfilled.
- **The rise of European rivals** - Ultimately, the Europeans benefited more from the gunpowder revolution than the Muslim Empires. European countries were smaller, both in population and land space, and so mobilization of their human and natural resources was easier. They were also in such strong competition with one another that the Europeans were spurred on to try new technologies and reforms.

THE MING AND EARLY QING DYNASTIES IN CHINA

The Ming Emperors continued to rule China until the mid-1600s, but the dynasty was in decline for many years before that. Although its cultural brilliance and economic achievements continued until about 1600, China had some of the same problems that the Muslim empires had: borders difficult to guard, armies expensive to maintain, and transportation and communication issues. Some particular factors that weakened Ming China included:

- **Climatic change** - A broad change of climate swept from Europe to China during the 1600s, with the weather turning much colder. This change seriously affected agriculture and health, and also contributed to serious famine across China. These conditions led frustrated peasants to frequent rebellion.
- **Nomadic invasions** - The 1500s saw the reemergence of the Mongols as a regional power, this time with the help and support of Tibet. In gratitude, the Mongols bestowed the Tibetan leader with the title of dalai lama, or "universal teacher" of Tibetan Buddhism. The Japanese also attacked Korea, a Chinese tributary state, requiring Ming armies to defend the area.
- **Pirates** - As sea-based trade became more and more important, the number of pirates also increased in the Chinese seas, just as they did in the Americas. Pirates were both Chinese and Japanese, and they lay in wait for ships going in and out of Chinese ports.
- **Decline of the Silk Road** - After so many centuries, the famed Silk Road trade finally fell into decline during this era. New technologies and European control meant that more and more trade was conducted by water, and land-based trade decreased.
- **Inept rulers** - The last emperors lived in luxury in the Forbidden City, and had little to do with governing the empire. For example, the last emperor was so disengaged that he did not know that he was under attack until the enemy literally was climbing over the palace walls.

The Early Qing Dynasty

The Ming Dynasty was finally overthrown in 1644 by the Manchus, a northern power that had previously helped Ming emperors fight the Mongols and Japanese. The Manchus turned on the Ming once they discovered how weak the empire was, and they called themselves the Qing ("pure") Empire because they saw themselves as restoring China to glory. However, the Manchu were seen by some as not being truly "Chinese" because they were northern people from the outside, just as the Mongols had been almost four centuries before.

The Qing Dynasty was to rule China until 1911, and in the years before 1750, the empire was very strong. The emperors ruled under many of the same precepts that China had always had, such as the mandate of heaven, which they saw as justification for their takeover. The Manchu did keep their ethnic identity, forbidding intermarriage between Manchus and Chinese. They also outlawed the Chinese from learning the Manchurian language, and they required Chinese men to shave their heads and grow long queues at the back of their heads as a sign of submission.

Despite the problems that China faced as a land-based Gunpowder Empire, the early Qing Dynasty - until the late 18th century - ruled over a "golden age" of Chinese civilization.

Chinese Contact with Europeans

East-west contacts between China and Europe intensified during the early Qing Dynasty. One type of contact - Christian missionaries from the west - revived during the 16th century when the Jesuits first began arriving in China. The Jesuits dazzled their hosts with European science and technology. For example, they were able to use their math skills to correct Chinese calendars that up until then had miscalculated solar eclipses. The Jesuits did inspire trade demands as word about the riches and sophistication of Qing China got back to Europe. Chinese products - tea, porcelain, silk, wallpaper, and decorative items - became quite fashionable among the European elite. The Chinese reacted by opening the southern port of Canton to Europeans, but again, the Middle Kingdom was very wary of foreign contact, and so they closely supervised the trade.

TOKUGAWA JAPAN

A "gunpowder empire" emerged in Japan, unusual in the sense that Japan was not land-based. The Japanese daimyos, or regional lords, had operated fairly independently from the shoguns before the early 17th century, when these military, feudalistic leaders were unified under one powerful family, the Tokugawa. The Tokugawa shoguns had less patience with Christian missionaries from the west than the Chinese did. Their aversion to Europeans was based partly on their observation of the Spanish conquest of the Philippines, a fate that they did not want to share. They also worried that Europeans might conspire with the daimyos to destroy Tokugawa control. In the 1630s the shogunate literally "closed Japan," by forbidding all Japanese from going abroad and expelling all Europeans from Japan. They carefully controlled trade with other Asians, and European traders could come no closer than nearby islands. These policies were strictly enforced as far as the shoguns were able to, although daimyos on far islands were difficult to control.

THE RUSSIAN EMPIRE

Russian tsar Peter the Great, who ruled Russia during the late 17th and early 18th centuries, cast his eyes in the other direction, toward Europe, for guidance in strengthening his growing empire. Russia's early days had been shaped by the Byzantine Empire, and when the Byzantine's power faded, so did that of the early Russian tsars. Before Peter's rule, Russians had had almost no contact with Europe, and their lack of access to warm water ports crippled their ability to participate in the Maritime Revolution. Peter's Russia was a vast, cold empire with almost no infrastructure: no navy, a limited army, very few decent roads, and few warm water ports.

Peter hoped to strengthen his country by westernizing it – he was convinced that the empire could only become powerful by imitating western successes, and he instituted a number of reforms that revolutionized it:

- **Military reform** - He built the army by offering better pay and also drafted peasants for service as professional soldiers. He also created a navy by importing western engineers and craftsmen to build ships and shipyards, and other experts to teach naval tactics to recruits. Of course, his Gunpowder Empire developed better weapons and military skills.
- **Building the infrastructure** - The army was useless without roads and communications, so Peter organized peasants to work on roads and do other service for the government.
- **Expansion of territory** - The navy was useless without warm water ports, and Peter gained Russian territory along the Baltic Sea by defeating the powerful Swedish military. He tried to capture access to the Black Sea, but he was soundly defeated by the Ottomans who controlled the area.
- **Reorganization of the bureaucracy** - In order to pay for his improvements, the government had to have the ability to effectively tax its citizens. The bureaucracy had been controlled by the boyars, but Peter replaced them with merit based employees by creating the Table of Ranks, eventually doing away with titles of nobility.
- **Relocation of the capital** - Peter moved his court from Moscow to a new location on the Baltic Sea, his "Window on the West" that he called St. Petersburg. The city was built from scratch out of a swampy area, where it had a great harbor for the navy. Its architecture was European, of course.

When Peter died, he left a transformed Russia, an empire that a later ruler, Catherine the Great, would further strengthen. But he also left behind a new dynamic in Russian society: the conflicting tendencies toward westernization mixed with the traditions of the Slavs to turn inward and preserve their own traditions.

AFRICAN KINGDOMS

In 1450 Africa was a diverse continent with a blend of large civilizations, city-states, rural villages, and hunter and gatherer societies. Many people in the north, Sub-Saharan and eastern coastline areas were Muslim, but many native religions remained quite strong. The largest and most organized empire of Africa from the middle of the 15th century until the late 16th century was Songhay (Songhai) in northwest Africa in areas that had been controlled by the earlier Kingdom of Mali. Songhay was prosperous, its cities boasted beautiful public buildings, and Islam was strongly supported by the elite. But the Songhay did not have guns, and that was their downfall. In 1591 a Moroccan army opened their muskets on the Songhay forces, and they were defeated.

The 16th century also saw the destruction of most of the Swahili city-states. Vasco da Gama had noticed them when he passed through on his way to India, and within a few years the Portuguese had aimed their cannons at all the cities, and either captured them or burned them to the ground.

THE SLAVE TRADE AND SLAVE SYSTEMS

It soon was clear how slavery could be readily adopted in the Americas. Like the overwhelming majority of preindustrial societies, African kingdoms practiced slavery, and when Europeans offered to trade their goods for slaves, African traders accommodated them. As a general rule, African slave hunters would capture Africans, generally from other groups than their own, and transport them to trading posts along the coast for European ships to carry to the New World. However, despite the fact that slavery already existed in Africa, the Atlantic trade interacted with and transformed these earlier aspects of slavery.

THE AFRICAN SLAVE TRADE

Before the Atlantic slave trade began, slavery took many forms in Africa, ranging from peasants trying to work off debts to those that were treated as "chattel," or property. The Atlantic trade emphasized the latter, and profits from the trade allowed slaveholders both in Africa and the Americas to intensify the level of exploitation of labor. African slaves were traded to two areas of the world: the Western Hemisphere and Islamic lands in the Middle East and India.

TRADE TO MUSLIM LANDS

Fewer slaves crossed the Sahara than crossed the Atlantic, but the numbers were substantial. Whereas most slaves that went to the Americas were male, most of those destined for the Middle East and India were female. These women either became a part of a wealthy individual's harem, or collection of wives and concubines that filled his household. The wives were not slaves, and their children had higher status than those of the concubines. The African women were almost always granted the lower status as concubines. Other slaves in the Islamic lands were males who were often bought to fight in the large Gunpowder Empire armies.

TRADE TO THE AMERICAS

The major reason that slave labor was practical in the Americas was that so many of the Amerindians who probably would have done the work had died. The economic challenge was to get workers to the New World in as cost effective way as possible. The Spanish and Portuguese expeditions were government ventures, but the success of the Atlantic economy during the 17th and 18th centuries was based on private enterprise. The economic system of mercantilism was developed most effectively by the British and the Dutch, with private companies under charter from the governments carrying out the trade. Mercantilism's main goal was to benefit the mother country by trading goods to accumulate precious metals, and thus enriching the country. The African slave trade was an important piece of mercantile trade. The Great Circuit trade went something like this:

- 1) The first leg from Europe carried hardware, guns, and Indian cotton to Africa
- 2) The second leg was the notorious Middle Passage that carried African slaves to the New World. Slaves were packed as tightly as possible in the ships, often under very inhumane conditions.
- 3) The last leg carried plantation goods from the colonies back to Europe

The theory was that on every leg the ships carried goods from a place where they were abundant to a place where they were scarce. The profits could be enormous, but shipwrecks, slave deaths, and piracy could turn profit into loss. A subset of the Great Circuit trade was the Triangular Trade that carried rum from New England to West Africa, slaves to the West Indies, and molasses and rum back to New England.

LABOR SYSTEMS IN THE AMERICAS

The Spanish were most interested in finding gold and silver in the Americas, and so early on they began mining for it. In areas where no precious metals existed, they set up plantations to raise crops from bananas to sugar cane.

They first tried these labor systems:

- Mita - The Inca had made extensive use of the mita system, a sort of labor tax to support elites and the elderly. Generally, an adult male had to spend 1/7 of his time working for the Inca, a few months at a time. When his obligation to the state was complete, he would return home until his service time came up again. The Spanish adopted this system, particularly for their silver mines in Bolivia and surrounding areas. The problem was that so many natives died, that the Spanish kept having to increase the time spent in the mines that it became impractical. Finally, the work in the mines was so grueling that no Indians were left to do the work.
- Encomienda - This system was used primarily for agricultural work. Natives in an area were placed under the authority of encomenderos, or Spanish bosses, who could extract labor and tribute according to the needs of the area. Again, this system only lasted during the 16th century because so many natives died.

In North America the English colonies had varying bases for their economies. In the north, farms were small and family run, and city-based trade was important. In the south the soil and climate were better suited for large farms, and so a plantation system developed. A labor system used both in North America and the Caribbean was indentured servitude, in which an employer would pay the passage of a person to the New World in return for several years of labor. After the debt

was paid in years worked, the servant would be free. This system was limited in its usefulness, especially in the Caribbean where indentured servant eventually refused to go because of the harsh working conditions on the sugar plantations.

EARLY SLAVE SYSTEMS IN SOUTH AMERICA AND THE CARIBBEAN

Before 1650 most slaves were destined either for the sugar plantations in Brazil and mainland Spanish colonies, but during the second half of the 17th century, more and more went to the Caribbean. Sugar cane was not native to the areas, but once imported, it grew well and resulted in great profit. The strong demand for sugar in Europe was complemented by the trade with China for tea. Perhaps most stereotypically, the English teatime depended on a regular supply of these products. Sugar plantations required large investments of capital because the cane had to be processed within a few hours of when it was cut in order to extract the sugary syrup. So each plantation not only had vast fields of sugar cane, but also had a mill and processing plant. Many slaves were needed for the work, which was hot and grueling. The demand was greater for male slaves than for females because of the nature of the work, so the sex ratio was such that family life was impossible for most. Disease among slaves was particularly problematic in the Caribbean and Brazil, with many dying from dysentery caused by contaminated water and malaria. As a result, slave populations in these areas did not experience a natural growth, and so had to be replaced by more through the slave trade.

EARLY SLAVE SYSTEMS IN NORTH AMERICA

Sugar plantations were among the first to appear in North America as well, mainly in the warm, humid lowlands of present-day Louisiana. However, in the mid-1600s tobacco smoking became fashionable in England, and so tobacco plantations rose in the tidelands of Virginia. North American climates were generally healthier than those in the Caribbean, so slaves in North America did experience a natural increase, requiring fewer new slaves for trade. However, as plantations spread across the South, and eventually began raising other crops, such as cotton, the slave trade remained vigorous.

DEMOGRAPHIC AND ENVIRONMENTAL CHANGES

Demographic changes between 1450 and 1750 were significant. Some major population shifts included:

- A rise in the population of Europe - Europe's population had been decimated by the 14th century plague epidemic, so during the 15th and 16th centuries population levels were growing to match previous levels.
- A decrease in the population of the Americas - This trend may run counter to common knowledge, but it does reflect the decimation of Amerindian populations by their encounters with Europeans. For example, in the late 15th century North America had almost 4 million people, Mexico had more than 21 million, the Caribbean and Central America each had almost 6 million, and South America (Andes and Lowlands) had almost 30 million. By 1700 the entire western hemisphere had only 13 million, a decrease from 67 million or so in 1500.
- No overall population decrease occurred in Africa - Again, counter to common belief, the slave trade did not decimate the populations of Africa. By 1700 Africa had more than 60 million people, almost doubling their population in 1000. To be sure, some areas of Africa did reflect huge population losses, and logically those were places where the slave trade was most vigorous.
- Between 1000 and 1700 C.E., the populations of Asia - including the Middle East, Indian, and East Asia - more than doubled to a total of about 415 million. Clearly, overall world population grew, and the majority of people by the end of the time period still lived in the Middle East and Asia.

The **Columbian Exchange** almost certainly caused some environmental changes that help to explain the population trends listed above. For example, maize and cassava (a nutritious plant used in modern day in tapioca) were transported by Portuguese ships from Brazil to Angola in southwest Africa. Angolans cultivated the crops, which adapted very well to their land. Some historians believe that this exchange provided the base for the population increase that followed, despite the fact that many Angolans were captured and deported to the New World as slaves. Likewise, the Andean potato eventually became the staple for poor people in Europe, sustaining population growth despite the number of people that began to migrate to the New World.

Major environmental changes occurred in the New World in two major ways:

- Soil exhaustion - Plantations in the Americas tended to rely on single crops, a process that depletes the soil of nutrients, and since land was plentiful, often the planters just moved on to clear more land. For example, in the Caribbean, instead of rotating sugar with other crops, planters found it more profitable to clear new lands when yields began to decline. Eventually, they moved on to other islands.
- Deforestation - The Spanish first cut down forests in the Caribbean to make pastures for the cattle they brought, and deforestation accelerated when more areas were cleared for plantations. In North America, shipbuilding in the northern English colonies took its toll of forests. Deforestation was also taking place in Europe during this period. Timber was needed for ships, buildings, wagons, barrels, and many other items. Wood shortages were made worse by the Little Ice Age that began in Europe during the 1590s. People burned wood to keep warm, and by the mid-17th century, forests were growing scarce and wood prices skyrocketed. This wood shortage encouraged the

use of coal for fuel, and since England had coal in great supply, deforestation almost certainly helped their economy grow.

CULTURAL AND INTELLECTUAL DEVELOPMENTS

Trade stimulated by the Crusades had made several of the city-states wealthy, such as Venice, Genoa, and Florence. Wealthy families, such as the Medici in Florence, became patrons of the arts, encouraging and supporting such geniuses as Leonardo da Vinci and Michelangelo. Some of the biggest supporters of Renaissance art and sculpture were the Catholic Popes, who commissioned work for the Vatican and St. Peter's cathedral in Rome. The era also saw a revival of interest in reading, writing, architecture, and philosophy. Without the patrons' wealth, the Italian Renaissance would have been impossible, but it almost certainly was stimulated by contact with the more sophisticated civilizations of the Middle East and south and east Asia.

The **Renaissance**, or "rebirth" was characterized by an attempt to revive the values of the classical civilizations of the Mediterranean, Greece and Rome. Although most of the major Renaissance figures did not actively defy the church, they put emphasis on other aspects of life than the religious. An important philosophical influence restored from ancient civilizations was humanism, which focused on the accomplishments, characteristics, and capabilities of humans, not of God. Humanism is reflected in Renaissance art, with newly skilled artists showing individual differences in faces and beautiful examples of human physiques. The Renaissance spread from Italy north, and by the 16th century had inspired new art styles in the Netherlands and Germany, as well as such literary geniuses as William Shakespeare in England. The importance of the European Renaissance goes far beyond art and literature because it encouraged people to think in different ways than they had before, a quality that Europeans would need as they ventured in science, technology, and eventually across the Atlantic to the Americas.

THE SCIENTIFIC REVOLUTION

The revival of interest in Greek and Roman influences also stimulated developments in math and science. The mathematical traditions that governed the conception of the universe were based in Greek mathematics that had been preserved and built upon by scientists in Muslim lands. Perhaps the greatest scientist of the era was Isaac Newton (1642-1727), an English mathematician whose genius shaped many modern fields of science. He formulated the set of mathematical laws for the force of gravity, made discoveries regarding the nature of light, and built on earlier Indian and Arab ideas for algebra. Newton did not challenge the authority of the Catholic Church, but he did prove that the Greeks and Romans were mistaken in some of their theories, and that fact encouraged others to question traditions that had not been challenged before.

THE PROTESTANT REFORMATION

The Catholic Church had been a very important societal force in medieval Europe. Not only had people's lives revolved around religion, but the church had actively defined many other aspects of society, including politics, art, and science. During the era from 1450 to 1750 the church lost significant power in almost every way. Not only were scientists and literary writers beginning to challenge the church, but the Pope's political power was compromised as centralization of government gave more authority to kings. Starting in the early 16th century, the church's religious authority was seriously weakened by the Protestant Reformation, a movement led by Martin Luther, a German priest who believed that the church was seriously flawed. Luther did what no priest had dared to do before: openly defy the authority of the church.

By the end of the 16th century, large parts of Europe, particularly in Germany and Britain, were no longer under the authority of the Catholic Church. The church responded with its own internal reformation, but the result was a Europe deeply divided between Protestants and Catholics, a dynamic that fed the already intense competition among European nations.

THE IMPORTANCE OF THE PRINTING PRESS

Johannes Gutenberg, a printer from Mainz Germany, contributed greatly to the rapid spread of Protestantism. Guttenberg did not invent moveable type or the printing press. Both the Chinese and Koreans had used them in earlier years, and they too had spread literacy in Asia by printing books and making them accessible to more people. In Europe the device appeared as a critical invention at a critical time in European history. Without it the Renaissance, the Scientific Revolution, the Protestant Reformation, and ultimately the Maritime Revolution would not have been possible.

THE EARLY EUROPEAN ENLIGHTENMENT

During the 17th century, the Scientific Revolution began to be applied to social and political areas of life, a movement known as the Enlightenment. Enlightenment philosophers believed that human reason that discovered laws of science could also discover the laws that governed social and political behavior. The movement was also inspired by the Reformation, which had challenged and revised accepted religious thought, and by contact with political and social philosophies from other parts of the world.

CULTURAL AND INTELLECTUAL LIFE IN CHINA

The Ming and early Qing emperors of this era continued to look to Chinese traditions to strengthen cultural and intellectual life. Neo-Confucianism, which had first emerged as a powerful philosophy during the Song era, was very strong, and numerous Confucian schools were founded by the emperors to reinforce its beliefs. The civil service exams were maintained, and other Chinese philosophy, literature and history were compiled during this time.

PATRONAGE IN THE ISLAMIC EMPIRES

Just wealth in the Italian city-states prompted patronage of the arts, so it did in the Islamic Empires as well. The emperors competed to attract the best scholars, literary writers, artists, and architects to their courts. The Ottoman sultans built beautiful palaces and mosques, with the most famous religious complex built by Suleyman the Magnificent called Suleymaniye, a blend of Islamic and Byzantine architectural features. Perhaps the most famous monument in Islamic lands was the Taj Mahal, built by Mughal Emperor Shah Jahan, who dedicated the white marble mosque and tomb to the memory of his wife. He planned to build a similar mausoleum out of black marble for himself, but he was deposed by his son and spent the rest of his life in prison, where he supposedly could see his wife's tomb through a small window with the help of a mirror.

By 1750 the world was a much different one than had existed in 1450. This era saw the rise of Europe, though scholars debate just how much power Europeans actually had in the world economy. They dominated the New World, which was connected by regular, sustained contact to the eastern hemisphere during this time. They also controlled much of the African slave trade, but it is important to note that no European had ventured far into the interior of the continent by 1750. Europeans had not set up significant colonies in Africa, except at the very southern tip, Capetown near the Cape of Good Hope. This situation would change dramatically during the following era.

Great empires continued to form in East Asia, the Middle East, and India, as the technological invention of gunpowder allowed them to conquer the nomadic groups that had challenged their authority for centuries. However, land-based empires clearly lost power in proportion to sea-faring powers, as world trade routes connected the western hemisphere to the east. These increased contacts were to have important consequences for people all over the world in the period from 1750-1900.