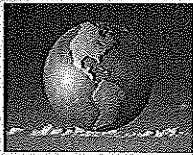


- Chapter 14 analyzes change and continuity in Asia and traces the development of the Russian Empire.

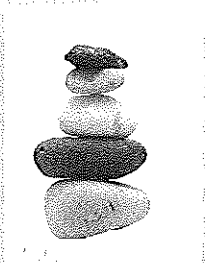
An important shift took place during the era 1450-1750 between land-based and sea-based powers. **Land-based powers** followed the patterns that political organizations had used in most places since the classical era. Governments controlled land by building armies, bureaucracies, roads, canals, and walls that unified people and protected them from outsiders. The focus was on land. During this era **sea-based powers**, such as those in western Europe, built their power by controlling water routes, developing technologies to cross the seas, and gaining wealth from trade and land claims across the oceans. Although Europeans were not the first to discover the importance of sea-based trade, communications, and travel, they took the lead in the new world economy that was developing, and took advantage of the opportunity to capture the world stage by 1750.



### THE BIG PICTURE: 1450-1750

Themes that run through the period 1450-1750 that make it distinct from other periods include:

- 1) The two hemispheres of the world were at last joined in sustained contact, and as a result, world trade networks greatly enlarged and many fewer people remained outside its influence.
- 2) The balance of power in the world changed as kingdoms of western Europe claimed the lands of the Western Hemisphere and gained control of many older trade routes.
- 3) Land-based empires remained important as they expanded their borders and conquered many nomadic groups with the power that gunpowder gave them.
- 4) Labor systems were transformed, as slavery expanded into the new world and became much more central to economic activities than it had ever been before.
- 5) The natural environment changed drastically, as imported domestic animals trampled grasslands and altered native farming habits. New crop exchanges meant that soil conditions changed in many areas, and much land was cleared for farming, including some of the world's great rain forests. Population compositions changed as disease spread to previously isolated people.



## CHAPTER TEN: THE TRANSFORMATION OF EUROPE

In 1450 Europe was connected by trade, communication, and travel to other parts of the Eastern Hemisphere, but the region was still on the periphery of interactions among regions. The old centers of civilization in the Middle East, south Asia, and west Asia still were the most important axes of commerce and culture, while Europeans had only recently recovered from the Dark Ages that followed the fall of the Western Roman Empire. By 1750 Europe had moved to front and center stage, although the older centers continued to be important players in world interactions. How did this transformation occur? Three inter-related changes help to explain the rise of Europe:

- 1) **Important cultural changes** – including the Renaissance, the Reformation, and the Enlightenment – oriented European minds toward invention and allowed them to escape the social and intellectual boundaries of the Middle Ages.
- 2) **Political consolidation of strong centralized states** meant that kings had enough power and money to control regional lands and people and to sponsor trade expeditions and diplomatic envoys to other civilizations.
- 3) **Technological advances and the development of capitalism** allowed European states to increase their riches through trade and territorial claims in the Western Hemisphere. Although they often built on inventions from previous eras and by other people, Europeans made good use of their innovations.

In the period between 1450 and 1750 these three changes evolved together, and changes in one area brought about reactions in the others, which in turn brought further alterations in the first area. By 1750, these changes interacted to bring about the transformation of the continent, so that the Europe of 1750 was almost totally different – politically, culturally, socially, and economically – from the Europe of 1450.

## IMPORTANT CULTURAL CHANGES

Cultural changes in Europe during the era 1450-1750 began with economic changes late in the previous era. The Crusades of the 12<sup>th</sup> and 13<sup>th</sup> centuries started a movement of European knights to the Middle East, which stimulated trade and contact between the Middle East and Europe. Two Italian city states – Genoa and Venice – grew wealthy from the new interactions, so it is not surprising that cultural changes began in Italy and worked their way to the north.

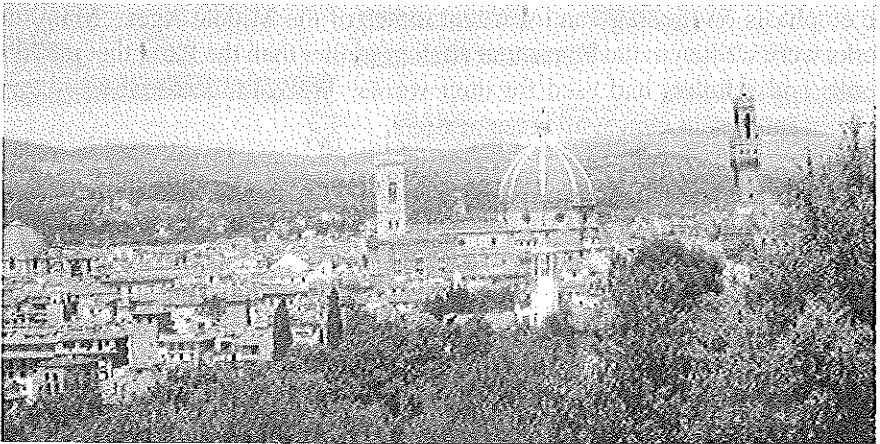
### The Italian Renaissance

By 1450 the Renaissance was already well launched in Italy. The intellectual and artistic creativity of northern Italy was more than a “rebirth,” although it was characterized by a renewed interest in the ancient classical civilizations of the Mediterranean – Greece and Rome. **Humanism**, or the interest in the capabilities and accomplishments of individuals, grew from Greek culture, but during the Italian Renaissance, it was reflected through portrait painting, autobiography, and philosophies that challenged the authority of the Roman Catholic Church. Writers such as Petrarch and Boccaccio had revived interest in classical writing and secular subjects (such as love and pride) in opposition to the emphasis on theology and spiritual topics of the Middle Ages. Many new works were written in the vernacular (Italian) rather than the Latin that medieval monks and scholars had used for their works. Religion declined as a central focus of interest in almost all areas of life.

By the 14<sup>th</sup> century, northern Italy had many urban areas, while the rest of Europe was still mostly rural. Urbanization was a function of the region’s growing trade and the resulting wealth of merchants, who came to dominate politics and society as well as business. Genoa and Venice, as well as Florence and Milan, were powerful, independent city-states that ran their own affairs, each collecting taxes and supporting an army. Wealthy merchants competed with one another for economic and political power, and by the 15<sup>th</sup> century, they also were **patrons**, or supporters of the arts. Patrons found talented artists, often when they were young, and bankrolled their work, allowing them the time to spend on artistic endeavors. Three famous examples of patron-supported artists were **Leonardo da Vinci**, **Michelangelo**, and **Raphael**, all born in the mid-to-late 1400s. They, and countless other artists and writers, were sponsored by rich merchant families, including the powerful **Medici** family of Florence. The Catholic Church also sponsored Renaissance endeavors, and some of the most famous patrons were the popes in Rome. Many artists were interested in science, philosophy, and politics, giving rise to the concept of the “**Renaissance Man**,” or the person – often **genius** – who knows a great deal about many things. For example, Leonardo painted and sculpted, but he also made numerous drawings of inven-

tions that demonstrate an extensive knowledge of mathematics and science, as well as a vivid imagination.

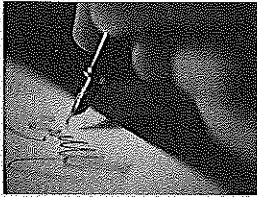
These cultural developments were made possible by the wealth created by commerce, but they in turn changed the nature of business and politics because humanistic values that emphasized individual capabilities and accomplishments supported an entrepreneurial spirit. Partly because of the emphasis on individual endeavors, Renaissance merchants improved their banking techniques and became more openly competitive and profit-seeking. City-state leaders, who were also the patrons of the arts, experimented with new ways to govern. Since their political positions were not hereditary or determined by claims to divinity, political power came to be based on individual efforts to promote their city's well being and cultural accomplishments. Despite the increasing emphasis on the secular, they also competed to see who could build the most glorious churches. The construction of religious buildings inspired experimentation with architecture that strayed from the medieval Gothic model to focus on grand and architecturally challenging domes. The churches were filled with sculpture and paintings of the best artists, further stimulating cultural creativity. The original interest in classical models remained, but the innovations of the Renaissance era resonated in culture, religion, politics, science, literature, and the economy.



**Renaissance Architecture in Florence.** In this view of modern-day Florence, Italy, Renaissance architecture still dominates the skyline. The large dome near the center is the Duomo, or the Dome of the Cathedral, Santa Maria del Fiore, that was completed in the mid-15<sup>th</sup> century.

Italian city-states began to decline politically by about 1500, but Renaissance creativity remained alive by spreading northward. Northern humanists were more religious than the Italians, and as a result, tended to blend secular and religious interests. For example, Erasmus of Rotterdam, a humanist Dutch priest, published the first edition of the New Testament in Greek in 1516, and also produced a revised Latin translation that corrected mistakes made over centuries.

of copying manuscripts. Two famous writers of the northern Renaissance were **William Shakespeare** and **Miguel de Cervantes** (author of *Don Quixote*), who were both quite interested in secular life.



**ORIGINAL DOCUMENT:  
*THE PRINCE* BY  
NICCOLO MACHIAVELLI**

During the early 16th century, a time when Leonardo, Raphael, and Michelangelo were at their peak of creativity, the Italian city-states were attacked repeatedly by the French, Spanish, and German armies, and their very existence as independent states was threatened. In response to these threats, **Niccolo Machiavelli** wrote *The Prince*, a famous philosophical view of the ideal political leader, based on his view of ancient Roman rulers:

“Here the question arises; whether it is better to be loved than feared or feared than loved. The answer is that it would be desirable to be both but, since that is difficult, it is much safer to be feared than to be loved, if one must choose. For on men in general this observation may be made: they are ungrateful, fickle, and deceitful, eager to avoid dangers, and avid for gain, and while you are useful to them they are all with you, offering you their blood, their property, their lives, and their sons so long as danger is remote...but when it approaches they turn on you. Any prince, trusting only in their words and having no other preparations made, will fall to his ruin... Men have less hesitation in offending a man who is loved than one who is feared, for love is held by a bond of obligation which, as men are wicked, is broken whenever personal advantage suggests it, but fear is accompanied by the dread of punishment which never relaxes.”

*Reference: The Prince* (1513) Niccolo Machiavelli, trans. and ed. by Thomas G. Bergin (New York: Appleton-Century-Crofts, 1947), p. 48.

The influence of the humanists was enhanced after 1450 with the printing advances made by a German goldsmith and printer, **Johann Gutenberg** of Mainz. The Gutenberg Bible was first printed in 1454, and the craftsmanship that created it was widely admired and imitated across Europe. Although movable type had been invented earlier in China and Korea, Gutenberg's printing press made it practical for European humanists to work closely with printers to make their writings available to wider audiences. By 1500 at least 10 million printed copies of books were circulating around Europe, greatly increasing the number of people that had access not only to Bibles, but also to Renaissance ideas.

## The Protestant Reformation

The increased access to printed materials also played an important role in the religious upheaval of the 16<sup>th</sup> and 17<sup>th</sup> centuries, a series of events that resulted in the weakening of the religious and political control that the Roman Catholic Church had held during medieval times. These rebellions against the church are known collectively as the **Protestant Reformation**, and they resulted in a permanent new division in Western Christendom: Catholics vs. Protestants. The Reformation began in 1517 when a German monk named **Martin Luther** made his *95 Theses* public. This document consisted of 95 propositions that criticized the Catholic Church, particularly in their sale of **indulgences**, or grants of salvation in return for money. Luther's protests struck a cord with other Christians who were concerned about the growing wealth and corruption of a church that had become quite involved with erecting beautiful buildings and buying great works of art. Luther was very interested in the idea of salvation, or the reward of going to heaven after death, and he came to believe that only faith expressed between a believer and God could gain salvation. To his way of thinking, the church had put itself between the individual and God, breaking the bond that was the essence of religious beliefs. Luther was a prolific and convincing writer, and he soon began publishing criticisms of many practices of the church, an endeavor much assisted by the improved print technology.

Although Luther was eventually excommunicated from the church, his works inspired Protestant movements all over Europe that split religious unity, not just between Catholic and Protestant, but also between Protestant and Protestant, as different versions of protest appeared. One Protestant variation was established in Switzerland by **John Calvin**, whose religion centered on the belief in a stern and vengeful god, whereas Luther's followers believed in a merciful god. Calvinism spread to the British Isles, but Britain soon embraced yet another version of Protestantism when Henry VIII established the **Anglican Church**. Henry's actions were not based on religious beliefs, but instead on the pope's refusal to allow him to divorce his wife, who had not borne a male heir to the throne.

## The Catholic Reformation

The Catholic Church responded forcefully to the Protestant rebellions and managed to retain control of most of southern Europe, Austria, Poland, and much of Hungary. The church initiated reforms, including the banning of indulgences, and Roman Catholic authorities sought to persuade Protestants to return to the Roman church. The church's actions are collectively known as the **Catholic Reformation**, a movement to revive the church's reputation and membership roles. An assembly called the Council of Trent gathered bishops, cardinals, and other high church officials together periodically between 1545 and 1563 to discuss religious doctrines. The council acknowledged many abuses that Protes-

tants criticized, and the resulting reforms included the establishment of schools and seminaries to prepare priests properly for their roles. A new religious order called the **Jesuits** was founded whose members went all over Europe convincing many to return to the church. As we will see, Jesuits eventually became international missionaries with numerous converts in Asia and the Americas.

The most obvious consequence of the Protestant and Catholic Reformations was the breakup of the Catholic Church's powerful hold on the political, religious, economic, and social life of Europeans. The successful questioning of the basic doctrines of the church fed the humanistic influences from the Renaissance that put faith in the ability and accomplishments of individuals. Luther encouraged people to read the Bible to find the meaning of Christianity, an individual act that led to an individual's decisions about religious faith. In doing so, Luther not only encouraged humanism, but also literacy, since one had to be able to read to find meaning in the Bible. More literate Europeans not only gained a different perspective on religion, but they also could take jobs that required literacy, and they could learn about innovations of fellow Europeans.

Religious tensions also led to religious wars between Protestants and Catholics. Religious wars spread through France for thirty-six years, pitting Calvinists against Catholics, ending with the granting of tolerance to Protestants through the **Edict of Nantes** in 1598, although the edict was later revoked by King Louis XIV. In Germany, the **Thirty Years' War** broke out in 1618, involving almost all regions of the Holy Roman Empire. It ended in 1648 with the **Treaty of Westphalia**, which allowed principalities and cities to choose their own religion, creating a patchwork of religious affiliations throughout the Empire. Religious divisions in Britain played out through Henry VIII's daughters: Queen Mary was a Catholic who tried to turn the kingdom back to Rome, and Queen Elizabeth I was a Protestant who ensured the continuation of the Anglican Church. During the early 17<sup>th</sup> century, the **English Civil War** was partially provoked by the Catholic leanings of the Stuart kings. Religious issues dominated European politics for almost a century, but eventually settled into an acceptance of religious pluralism, although the tensions led many to leave Europe. Some headed to the Americas.

### **The Scientific Revolution**

Just as it impacted art, literature, and religion, the growing humanistic emphasis of the era 1450-1750 shaped attitudes toward scientific thought. Scientists loosened their research from the theories devised during the classical era, and based their knowledge of the natural world on direct observation and mathematics. The new vision of science developed during the 16<sup>th</sup> and 17<sup>th</sup> centuries is known as the **Scientific Revolution**, and its reliance on human reason for understanding scientific phenomena reinforced changes brought about by the Renaissance

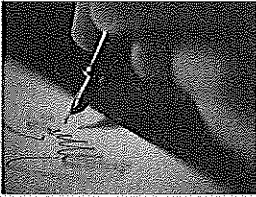
and the Reformation, including a further weakening of the influence of the Roman Catholic Church.

The methods devised by scientists of these early modern times form the basis for science today: mathematical formulation, **empirical evidence** (information verifiable by observations), and freedom of inquiry. The new science contrasted to the **scholasticism** of the Middle Ages, in which scholars based their inquiry on the principles established by the church. This new emphasis on the freedom of inquiry sometimes resulted in clashes between scientists and religious and political authorities, and so the researchers didn't always make their findings public. One of the first European scientists to experience this conflict was **Nicholas Copernicus**, a Polish monk and mathematician who based his early mathematical tables and models on those developed by **Nasir al-Din**, an Islamic scholar of the 13<sup>th</sup> century. Copernicus was commissioned by Pope Paul III to revise the Julian calendar – devised during the time of Julius Caesar – to correct for slight inaccuracies that caused the calendar year to continuously lose time. Copernicus analyzed the astronomy underlying the calendar, which the Romans had based on the work of the Greek Astronomer Ptolemy. Ptolemy believed that the earth was at the center of the universe, and that all heavenly bodies revolved around it, including the sun and the moon. Ptolemy's theory had been adopted by the church as official doctrine, so to question Ptolemy was also to question the church. Based on his own empirical observations, Copernicus discovered that the earth was revolving around the sun. His formulations also revealed that the earth turned on its axis every 24 hours, so that differences in night and day were not caused by the universe revolving around the earth. Since his free inquiry led him in a direction contrary to church doctrine, he tested his developing theory over and over again, and only revealed his outcomes just before his death. Even then, the findings were released only to a handful of scientists and mathematicians.

Two astronomers that followed – **Tycho Brahe** and **Johannes Kepler** – used the Copernicus model to develop a more comprehensive theory that showed the earth and other planets revolving around the sun in elliptical orbits. Unlike Copernicus, Kepler published his results as a relatively young man, fueling a controversy between religious officials and scientists. Protestant leaders criticized the new scientific models, too, with Martin Luther attacking the Copernican model as early as 1539. The Catholic Church was slower to condemn it, but in 1610, it declared Copernicus' work a heresy, and by 1616 all writings that claimed that the earth moved on its axis were forbidden to be taught or read. This course of events entangled an Italian astronomer, **Galileo Galilei**, as he turned the newly invented telescope toward the sky in 1609. The telescope had been created for optical purposes in the Netherlands, but Galileo was the first to use it to study the heavens, where he discovered that the Milky Way was a huge



collection of stars, the moon's light is reflected from the sun, and the earth is not the only planet with moons. These discoveries and many more were disconcerting to people of early modern Europe because they indicated that the earth is nothing special, and is only one of many heavenly bodies in the universe. For the religious, these discoveries implied that the earth was not central to God's creation, and they called in question the belief that God's throne is in a fixed place in heaven. Galileo – like Copernicus, Brahe, and Kepler – stressed his



### ORIGINAL DOCUMENTS: GALILEO ON SCIENCE AND THE BIBLE

Galileo's boldness in discussing the relationship between science and the Bible eventually got him into trouble with the church. In the following excerpts from his *Letter to the Grand Duchess Christiana* in 1615, he argued that the Bible and science don't necessarily contradict one another. His words also illustrate two basic precepts of the Scientific Revolution: empirical observation and reliance on human reasoning.

“The reason produced for condemning the opinion that the earth moves and the sun stands still is that in many places in the Bible one may read that the sun moves and the earth stands still...I think that in discussions of physical problems we ought to begin not from the authority of scriptural passages, but from sense-experiences and necessary demonstrations; for the holy Bible and the phenomena of nature proceed alike from the divine World, the former as the dictate of the Holy Ghost and the latter as the observant executrix of God's commands...I do not mean to infer that we need not have an extraordinary esteem for the passages of holy Scripture...but I do not feel obliged to believe that the same god who has endowed us with senses, reason, and intellect has intended to forgo their use and by some other means to give us knowledge which we can attain by them.”

*Reference: Discoveries and Opinions of Galileo* by Galileo Galilei. Trans. and ed. by Stillman Drake (Garden City, N.Y.: Doubleday Anchor Books, 1957), pp. 181-183.

own empirical observations, but more than the earlier scientists, he wrote for a general audience, not for just scientists. His writings were in the vernacular (Italian) as well, so the impact of his bold questioning of church doctrine was greater. In 1633 Galileo was tried by the Church and found guilty of teach-

ing his theories against the orders of the church. He was forced to recant his beliefs and spent the rest of his life under house arrest. His book, *The Starry Messenger*, was put on the “Index of Forbidden Books,” and he was prohibited from publishing anything else on the subject of heavenly bodies and their movements.

The most famous European scientist of the era was **Isaac Newton**, whose late 17<sup>th</sup> century work built on the work of his predecessors. In 1687 he published his *Principia Mathematica*, which built the framework of natural laws that have guided scientists through the 20<sup>th</sup> century. His book described the basic principles of motion, and most famously the universal law of gravity. Newton explained how his laws governed the universe, including the planetary orbits that Kepler had identified. He worked out mathematical formulas for the pull of gravity, and so doing, greatly advanced the mathematical underpinnings of theoretical research. As complex as his formulas could be, he captured the vision of a natural universe in simple laws that helped to organize scientific thought for subsequent research.

The Scientific Revolution combined with the Renaissance and the Reformation to transition Europe from medieval to modern times. Science had the biggest impact among educated westerners first, while most people continued to believe traditional explanations of the natural world. For example, many people continued to believe that witches had supernatural powers to affect nature, and accusations of witchcraft were still taken seriously in courts of law during much of the 17<sup>th</sup> century. However, people eventually came to believe that their environment could be controlled by humans. Doctors promoted a more scientific approach to illness and publicly denounced popular healers. Writers began to question religious miracles, and some intellectuals rethought conceptions of God through the explanation that a divinity set natural laws in motion, a system of thought called **Deism**. Science had certainly been important in other eras in different parts of the world. For example, China had long been a source of innovative thought about the nature of the universe. However, the Chinese approach was generally a practical one, and their interest in science was based on its perceived usefulness. The thinkers of the European Scientific Revolution were enthralled with the idea of general laws of nature that could explain broad patterns that the Ancient Greeks and Romans and Islamic scholars before them had also been interested in. More than anything, these new scientists were absolutely convinced that it was fully within the reasoning power of human beings to understand, and by implication to control, the vast workings of the universe.

### **The Enlightenment**

The new emphasis on human abilities and accomplishments and the importance of independent, rational thought was displayed in another movement of the era

called the **Enlightenment**. The Enlightenment thinkers were inspired by scientists to understand the natural laws of the universe, but their interest lay in how they affect human society and government. One of the first Enlightenment thinkers was **John Locke**, a 17<sup>th</sup> century Englishman who sought to understand the impact of the “laws of nature” on human liberties and equality and the implications for government. He questioned the gloomy prediction of the earlier English philosopher, **Thomas Hobbes**, that human beings by nature would inevitably be controlled by absolute rulers. In his *Second Treatise of Government*, Locke suggested instead a “social contract” between ruler and subject that required a governor to get the “consent of the governed” to establish a legitimate government. Another Englishman, **Adam Smith**, analyzed the natural law of supply and demand that governed economics in his classic book *The Wealth of Nations*.

By the 18<sup>th</sup> century, the center of Enlightenment thought was France, where “philosophes”, or intellectual philosophers, debated questions such as, “What is true human nature?” and “Can liberty exist in a society without compromising equality?” and “What is the best form of government to preserve human freedoms?” They wrote histories, novels, and philosophical treatises on political and social issues, and they often gathered in salons, usually hosted by socially prominent women in their homes, for the purpose of discussing the leading ideas of the day. One influential French thinker was Charles Louis de Secondat, known as the **Baron de Montesquieu**, who much admired the British Parliament that had successfully gained power at the expense of the king. He admired parliament’s power in the British government, and he advocated something more radical – a government with three independent branches that share political power. Another French philosophe, Francois-Mari Arouet, who used the pen name **Voltaire**, wrote witty criticisms of the French monarchy and the Roman Catholic Church. He believed both institutions to be despotic and intolerant, characteristics that limited the freedoms that individuals deserved by the laws of nature. The most radical of the philosophers was **Jean Jacques Rousseau**, who famously proclaimed in his *Social Contract* that “Man is born free; and everywhere he is in chains.” Since society had corrupted human nature, Rousseau advocated a return to nature in which people live in small, cooperative community with no ownership of property.

As was also true for the natural scientists, most Enlightenment thinkers wrote for one another and a relatively small number of well-educated Europeans. However, their works were to have broad consequences that impacted people at all levels of society. Two great revolutions based on Enlightenment thought were fought at the end of the 18<sup>th</sup> century that not only transformed their societies but also ushered in a modern age of democracy. Enlightenment voices were to reverberate throughout the ages.

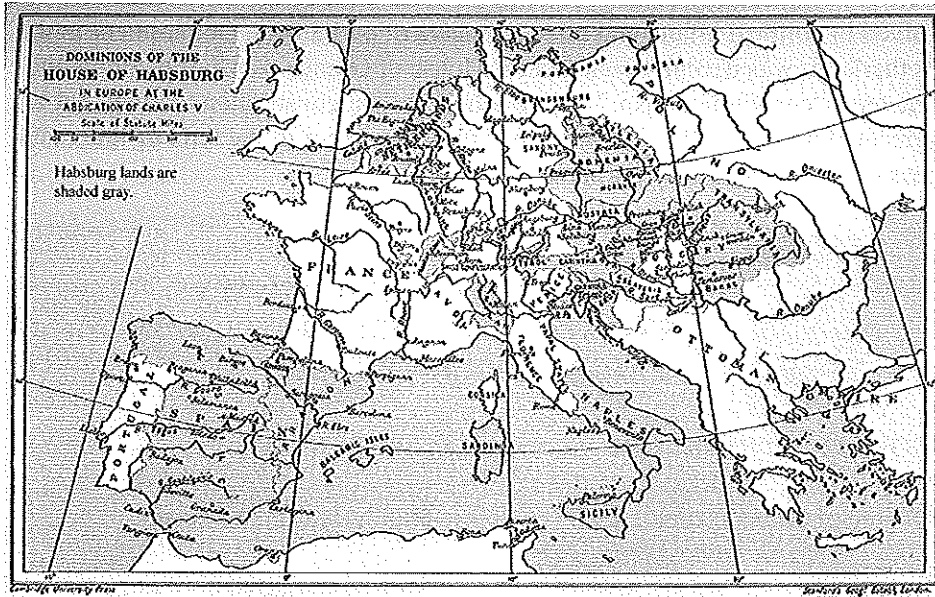
## POLITICAL CONSOLIDATION

The many cultural changes in Europe during early modern times were accompanied by political changes, most notably the consolidation of weak medieval kingdoms into strong, centralized states. These states claimed relatively small land spaces, but the constant competition among them inspired each to seek power through land exploration and trade claims in other parts of the world. European kings generally benefitted from the Reformation because the Catholic Church lost its political power as many Christians joined the ranks of the Protestants. Kings and popes had long clashed over political power, and the 16<sup>th</sup>-century religious crisis gave kings and princes the opportunity to assert themselves. Religion remained very important, and religious issues continued to fragment the Holy Roman Empire, but strong kings emerged in England, France, and Spain by the late 16<sup>th</sup> century.

For a time – the early 16<sup>th</sup> century – it looked as if Europe would fall under the control of one family, the path to empire that so many regions of the world had followed before. The powerful **Habsburg Family**, whose ancestral home was Austria, had land claims all over Europe from Spain to Italy to the Netherlands to Hungary. All Holy Roman emperors had been Habsburgs since 1273, and Emperor Charles V dreamed of unifying all of these areas under his centralized control. Holy Roman emperors had never had much political power before, and Charles' efforts were doomed to failure, partly because of religious conflict between Protestants and Catholics. The Habsburgs were Catholic, and Protestants did not want to see them gain political power, and Charles experienced strong opposition from the French king and the Ottoman sultan. In the end he abdicated his throne to join a monastery in Spain, and his land holdings fragmented, with his son Philip II inheriting the Habsburg lands in Spain.

After Charles V's unsuccessful attempt to unify Europe, his son, Philip II, ruled Spain at the height of its power. The kingdom had only been unified in the late 15<sup>th</sup> century by the marriage of Ferdinand and Isabelle, which combined the two smaller kingdoms of Castile and Aragon. This powerful couple not only sponsored the voyages of Christopher Columbus, but they drove the last of the Muslim rulers from southern Spain with the conquest of Granada in 1492. Spanish rulers remained devoutly Catholic, and they presided over a state that grew rich from New World wealth. The Spanish and French kings gained enough power to become **absolute monarchs**, who held complete control over their kingdoms. French kings steadily built their power during the 17<sup>th</sup> century as their armies grew and nobles became less rebellious, especially with the threat of cannon fire on their castles. French kings built a strong bureaucracy that helped them collect taxes and keep their eyes on dissidents, and they cultivated a belief in the **divine right** of kings. With God's blessing of the king's authority,

the legitimacy of royalty across Europe was enhanced. The apex of absolutism in France occurred under the long reign of **Louis XIV** during the 17<sup>th</sup> and 18<sup>th</sup> centuries. Louis understood the importance of the “theatre state,” by building a magnificent palace at Versailles, far grander than any castles of the nobility. There he entertained regularly and extravagantly, helping the nobility to forget



**Habsburg Land Claims in 1556.** The above map from *The Cambridge Modern History Atlas* (1912) shows the widespread holding of the Habsburg Family at the time of Charles V's abdication of the Holy Roman Empire's throne. The Habsburg lands included Spain, the Netherlands, much of the Holy Roman Empire, and southern Italy. The attempt to consolidate Europe into one empire was resisted by Protestants, the French royal house, and the Ottoman sultan.

their complaints against the king. Known as the “Sun King,” his likeness surrounded by sun beams was placed all around the palace – on medallions above doors, on furniture, and woven into carpets. His famous statement, “L’etat c’est moi” (“I am the state”) succinctly summed up his absolute rule. The monarchies of Prussia in eastern Germany and the Habsburg kings in Austria-Hungary also practiced absolutism, with the Prussian rulers particularly emphasizing a strong military.

Meanwhile, Britain and the Netherlands developed a different style of government, **constitutionalism**. In these states rulers shared power with a parliament, a body of representatives selected by the nobility and leading urban citizens. In Britain, parliamentary power had been growing gradually since the days of William the Conqueror, and had been reinforced by Henry VIII's need for parliamentary support in forming and heading the Anglican Church. Queen Elizabeth I relied on parliament to fund the navy, finance exploratory voyages,

and fight wars. The English Civil War of the early 17<sup>th</sup> century pitted the king against parliament, and though the forces of parliament won and King Charles I was beheaded, Britain eventually settled on a strongly Protestant pair from the Netherlands – William and Mary – to rule together with parliament, with parliament retaining the power of the purse. Both Britain and the Netherlands were growing commercial and colonial powers, and wealthy merchants were involved in political affairs and often members of parliament. Government in the Netherlands was decentralized, but the House of Orange was highly influential. The term “constitutionalism” implies not a written constitution as such, but an agreement that the ruler, like everyone else, is subject to the **rule of law**, with laws of course passed by parliament.



### COMPARISON: ABSOLUTISM VS. CONSTITUTIONALISM IN EARLY MODERN EUROPE

#### CONSTITUTIONALISM

#### ABSOLUTISM

Degree of centralization varied

Highly centralized state

Rule of law

Rule by divine right of kings

Rule over relatively homogeneous populations

Degree of homogeneity varied

Practiced mercantilism

Practiced mercantilism

Power of king shared with parliament

No sharing of power with parliament

Recognition of some individual rights

No recognition of individual rights

### THE DEVELOPMENT OF CAPITALISM AND TECHNOLOGICAL ADVANCES

The cultural and political changes of early modern Europe were accompanied by equally important economic developments that supported the growing emphasis on individual abilities and accomplishments. A unique European development was **capitalism**, an economic system based on private ownership

of property and businesses that produce goods to be bought and sold in a free market. Private individuals pursue their own economic interests, hire their own workers, and decide which goods to produce. Capitalism was explained by Adam Smith in his *Wealth of Nations* as an economic system controlled by an “invisible hand” – the natural law that defines the relationship between supply and demand. Fair prices are set because supply and demand naturally vary together, and no government intervention is necessary. European governments (especially Britain and the Netherlands) also believed in **mercantilism**, or the responsibility of government to promote the state’s economy to improve tax revenues and limit imports to prevent profits from going to outsiders. Whereas mercantilism implies more government control than capitalism, both emphasize the advantages of allowing individuals to develop their own business initiatives. Capitalism does require merchants and businessmen to take risks with their money, and so some support from government and other organizations could minimize the damage if enterprises went awry.

Early capitalism in Europe came to be supported by institutions organized to promote the accumulation of wealth and the ease of buying and selling products. Some of these institutions – such as banks, investment organizations, and insurance underwriters – had been in existence for many years in the older civilizations, who had experimented with various credit and trade mechanisms, some more successfully than others. Banks began appearing in all major European cities, where businessmen and merchants could keep their money and secure loans for their business ventures. Insurance companies formed to share the risk of these ventures, as did **joint-stock companies**, which organized commercial ventures on a large scale by allowing investors to buy and sell shares. Companies such as the East India Company were able to put together the largest businesses in history to that point, and often made a great deal of money for stockholders. If the business failed, all were damaged, but it was less likely that anyone would be completely ruined. Most joint-stock companies formed in Britain and the Netherlands, states that were supportive of rule by law and the use of contracts, whereas in Spain, where absolutism held sway, the government was more likely to control business ventures directly. In Britain and the Netherlands, governments chartered joint-stock companies, enforced contracts, and settled disputes among businessmen and merchants.

The new capitalist system largely replaced the old guild system of the Middle Ages. The craft guilds had monopolized the production of goods by fixing prices and wages and regulating standards of quality. Because guilds represented collective – not individual – efforts and did not emphasize profit-making, entrepreneurs sought to find ways to operate without them. One tactic was to produce goods in the countryside outside the guilds’ control through the “**putting-out system**,” in which entrepreneurs delivered raw materials to workers in

their homes, where they transformed them into finished products to be picked up later by the entrepreneur or his representative. For example, a rural family received raw wool that they spun into yarn, and then weaved the yarn into cloth to be sold in town by the entrepreneur for a profit. Only later would factories organize, where workers came to a central place to produce goods. By 1750 most workers were still operating under the putting-out system.

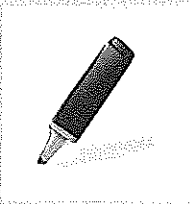
Technological advances also greatly contributed to the transformation of Europe between 1450 and 1750. Mostly, Europeans altered inventions made elsewhere to suit their needs. For example, they designed the hulls of their sailing ships to sail the deep waters of the Atlantic and to carry heavy arms. They used the compass for navigation, an earlier invention of the Chinese, but Europeans improved it by making it less likely to inaccurately respond to the magnetic pull of iron in the ship's structure. A new mapmaking technique produced the **Mercator Projection**, which was particularly well suited for travel on the Atlantic. The Chinese had invented gunpowder many centuries before, but Europeans made advances in metalwork that allowed them to make cannon – and eventually guns – that were more accurate and less dangerous to use than those used by the Mongols. These last innovations were particularly important in the buildup of European military might. Their ships mounted with cannons and soldiers armed with guns had a tremendous advantage over much larger armies without them, including those of the Aztecs and Inca half a world away.

## DEMOGRAPHIC AND SOCIAL CHANGES

Underlying the economic, political, and cultural changes in Europe during the period 1450-1750 was an important demographic change: rapid population growth. Birth rates did not rise dramatically, but healthier diets were made possible by an increase in food available from the expanding trade networks, and old diseases proved to be less deadly than before. These two factors increased the average life span and led to population increases during the 16<sup>th</sup> century. The Thirty Years War of the early 17<sup>th</sup> century caused a temporary decline in population, but after the war ended, population levels continued to grow throughout the era, with overall increases from about 80 million in 1500 to 120 million in 1700. Largely as a result of increasing levels of commerce, rapid urbanization also took place, and both London and Paris had populations of about 500,000 by 1650. Other cities grew rapidly, including Madrid, Amsterdam, Berlin, Copenhagen, and Stockholm. Population growth allowed the rapid economic expansion of the era, and it also provided the fuel for European settlements in the New World.

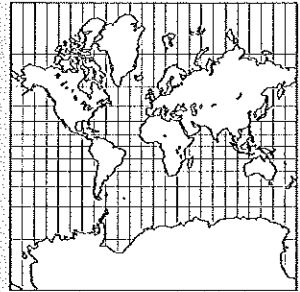
The economic expansion had some important implications for social life. Many people in urban areas profited from the brisk increase in commerce, and the





## MARKER EVENT: THE MERCATOR MAP PROJECTION

Mapmaking is a skill that became well-developed during classical times, but the Mercator Projection was a new one, developed during the 16th century by Gerhard Kremer, known as “Mercator” (the merchant) because his maps were tailored to aid European ocean traders. Although the interiors of North and South America and Africa were still unexplored, he still was able to outline their coastlines, even though his methods exaggerated the size of any land that was a long distance from the equator. In order to represent the globe on a flat surface, Mercator drew the lines of longitude – which actually meet at the poles – as parallel lines, a process that made areas like Greenland and Antarctica look much larger than they really are. The advantage for sailors on the Atlantic was that they could draw a straight line between their point of departure and their destination, making their travel more reliable. As a result, Atlantic trade was stimulated, and the Mercator projection is still a common one. Europeans also may have liked it, though, because in proportion to other landmasses, it made Europe look bigger than it really is!



putting-out system brought wealth to the countryside as well. New wealth encouraged people to buy more goods, stimulating the economy further. The possibility for financial independence had implications for families since it allowed young people more flexibility in establishing their own homes at an earlier age. The nuclear (small, two-generation) family was already more common in Europe than in other parts of the world, but the development of capitalism certainly reinforced this pattern. Marriages were no longer as tied to the interests of the extended family, since people tended to have economic and emotional independence, making it much more possible to marry for love. Since nuclear families are small, they tend to intensify the emotional bonds among family members, making them more independent from outsiders but more dependent on one another.

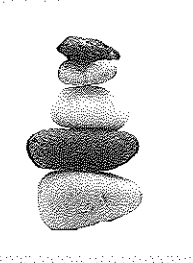
The transformation of Europe between 1450 and 1750 had many mutually reinforcing cultural, political, and economic components that changed the power balance in the world. While older civilizations were either in decline or holding their own, small European states were flexing their muscles in ways that would not only impact this era, but those that followed. These changes encouraged Europeans to venture across the seas to join the hemispheres for the first time in world history, and to contact people in almost every corner of the world as well.

## IDENTIFICATIONS AND CONCEPTS

### *95 Theses*

absolutism, absolute monarch  
 Anglican Church  
 Brahe, Tycho  
 Calvin, John  
 capitalism  
 Catholic Reformation  
 Cervantes, Miguel de  
 Copernicus, Nicholas  
 Deism  
 divine right  
 “early modern” period  
 Edict of Nantes  
 empirical evidence  
 English Civil War  
 Enlightenment  
 Galileo  
 Gunpowder Empires  
 Gutenberg, Johann  
 Habsburg Family  
 humanism  
 indulgences  
 Jesuits  
 joint-stock companies  
 Kepler, Johannes  
 land-based powers, sea-based powers  
 Leonardo da Vinci  
 limited (constitutional) monarchy  
 Locke, John  
 Louis XIV  
 Luther, Martin  
 Machiavelli, Niccolo

Medici family  
Mercator Projection  
Michaelangelo  
Montesquieu, Baron de  
Nasir al-Din  
Newton, Isaac  
patrons  
Protestant Reformation  
putting-out system  
Raphael  
“Renaissance Man”  
Rousseau, Jacques  
rule of law  
scholasticism  
Scientific Revolution  
Shakespeare, William  
Smith, Adam  
Thirty Years War  
Treaty of Westphalia  
Voltaire



## CHAPTER ELEVEN: HEMISPHERES UNITED

By 1450 people had been traveling across the world's seas and oceans since ancient times. The earliest water travel was generally by river, particularly in the areas of the river valley civilizations. Phoenician, Greek, and Roman ships crossed the Mediterranean Sea on a regular basis by the classical era, and dhows and Chinese junks traversed the wide expanses of the Indian Ocean. By the era from 600 to 1450, these trade patterns had intensified, canals connected rivers in China, and Polynesians had explored and settled on islands from the East Indies to Easter Island to Hawaii. Scandinavians had also made their way across the northern Atlantic to North America, but no sustained contact resulted from their travels. In the Americas, the Arawak were travelling around the Caribbean by 1000 C.E., and the Carib settled in many of the same areas by 1500, and had traveled to the North American mainland. All of these ventures throughout the world laid the basis for the extensive sea travel and trade that developed between 1450 and 1750 and made it possible for sea-based states to gain preeminent power in the world.

### ZHENG HE'S VOYAGES

No solid historical proof exists that anyone crossed the Pacific Ocean before the early 16<sup>th</sup> century, and even though some islands in the Atlantic were settled, the Atlantic Ocean provided a great barrier between Europe, Africa, and the Americas. However, some incredible voyages were undertaken by China in the early 15<sup>th</sup> century. Chinese junks were the largest, most seaworthy ships of the day, and Chinese sailors were well trained. The expeditions were led by a Chinese Muslim, **Zheng He**, who was commissioned by the Ming Emperor **Yongle**. Although most of the Ming emperors emphasized self-reliance for China and discouraged extensive contacts with other civilizations, Yongle was something of a renegade who supported a series of seven maritime expeditions between 1405 and 1433, all commanded by Zheng He. The fleets were huge, with as many as 317 vessels and 28,000 men. The voyages stretched from China to Southeast Asia, India, the Red Sea, and east Africa. One purpose of the voyages was to re-