Martin Waldseemüller’s Map of the World  This map, published in 1507 and included in a German geography book entitled Cosmographiae Introductio, marks the first usage of the name America, placed one-third of the way from the bottom of the New World’s southern continent. Amerigo (original spelling) Vespucci sailed twice to the New World as a navigator in 1499 and 1501. Letters he wrote misled the author into thinking that Vespucci, and not Columbus, had been the first to land on the mainland. “I do not see what right any one would have to object to calling this part after Americus, who discovered it and who is a man of intelligence, [and so to name it] Amerige, that is, the Land of Americus, or America: since both Europa and Asia got their names from women.”
Interregional Patterns of Culture and Contact, 1200–1550

Overland trade along the Silk Road peaked under the Mongols. The empire formed on Genghis Khan’s conquests made Mongolia the center of an administrative and trading system linking Europe, the Middle East, Russia, and East Asia. Some lands flourished; others groaned under tax burdens and physical devastation.

Societies that escaped conquest also felt the Mongol impact. Around the eastern Mediterranean coast and in eastern Europe, Southeast Asia, and Japan, fear of Mongol attack stimulated defense planning and accelerated processes of urbanization, technological development, and political centralization.

By 1500, Mongol dominance had waned. A new Chinese empire, the Ming, was expanding its influence in Southeast Asia. The Ottomans had overthrown the Byzantine Empire, and Christian monarchs in Spain and Portugal, victorious over Muslim enemies, were laying the foundations of new overseas empires.

As Eurasia’s overland trade faded, merchants, soldiers, and explorers took to the seas. State-sponsored long-distance voyages undertaken by the Chinese admiral Zheng He were spectacular but without long-term results. Africans explored the Atlantic, and Polynesians colonized the central and eastern Pacific in the 1300s and 1400s. By 1500 Christopher Columbus had reached the Americas; within twenty-five years a Portuguese ship would sail around the world.

The overland routes of Eurasia had generated massive wealth in East Asia and a growing hunger for commerce in Europe. These factors similarly spurred the development of maritime trade. Exposure to the achievements, wealth, and resources of the Americas, sub-Saharan Africa, and Asia guaranteed the further expansion of European exploration and maritime power.
CHAPTER OUTLINE

- The Rise of the Mongols, 1200–1260
- The Mongols and Islam, 1260–1500
- Regional Responses in Western Eurasia
- Mongol Domination in China, 1271–1368
- The Early Ming Empire, 1368–1500
- Centralization and Militarism in East Asia, 1200–1500
- Conclusion

DIVERSITY + DOMINANCE Observations of Mongol Life
ENVIRONMENT + TECHNOLOGY From Gunpowder to Guns

Defending Japan  Japanese warriors board Mongol warships with swords to prevent the landing of the invasion force in 1281.

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When Temüjin (TEM-u-uh-jin) was a boy, a rival group murdered his father. Temüjin’s mother tried to shelter him, but she could not find a safe haven. At fifteen Temüjin sought refuge with the leader of the Keraits (keh-rates), a warring confederation whose people spoke Turkic and respected both Christianity and Buddhism. Temüjin learned the importance of religious tolerance, the necessity of dealing harshly with enemies, and the variety of Inner Asia’s cultural and economic traditions.

In 1206 the Mongols and their allies acknowledged Temüjin as Genghis Khan (GENG-iz KAHN), or supreme leader. His advisers spoke many languages and belonged to different religions. His deathbed speech, which cannot be literally true even though a contemporary recorded it, captures the strategy behind Mongol success: “If you want to retain your possessions and conquer your enemies, you must make your subjects submit willingly and unite your diverse energies to a single end.” By implementing this strategy, Genghis Khan became the most famous conqueror in history, initiating an expansion of Mongol dominion that by 1250 stretched from Poland to northern China.

Scholars today stress the positive developments that transpired under Mongol rule. European and Asian sources of the time, however, vilify the Mongols as agents of death, suffering, and conflagration, a still-common viewpoint based on reliable accounts of horrible massacres.

The tremendous extent of the Mongol Empire promoted the movement of people and ideas from one end of Eurasia to the other. Trade routes improved, markets expanded, and the demand for products grew. Trade on the Silk Road, which had declined with the fall of the Tang Empire (see Chapter 10), revived.

Between 1218 and about 1350 in western Eurasia and down to 1368 in China, the Mongols focused on specific economic and strategic interests, usually permitting local cultures to survive and develop. In some regions, local reactions to Mongol domination sowed seeds of regional and ethnic identity that blossomed in the period of Mongol decline. Regions as widely separated as Russia, Iran, China, Korea, and Japan benefited from the Mongol stimulation of economic and cultural exchange and also found in their opposition to the Mongols new bases for political consolidation and affirmation of cultural difference.

What accounts for the magnitude and speed of the Mongol conquests?
How did Mongol expansion and Islam affect each other?
What benefits resulted from the integration of Eurasia into the Mongol Empire?
How did Mongol rule in China foster cultural and scientific exchange?
In what ways did the Ming Empire continue or discontinue Mongol practices?
What are some of the similarities and differences in how Korea and Japan responded to the Mongol threat?

Mongol Eurasia and Its Aftermath, 1200–1500

Mongols A people of this name is mentioned as early as the records of the Tang Empire, living as nomads in northern Eurasia. After 1206 they established an enormous empire under Genghis Khan, linking western and eastern Eurasia.

Genghis Khan The title of Temüjin when he ruled the Mongols (1206–1227). It means the “oceanic” or “universal leader.” Genghis Khan was the founder of the Mongol Empire.

AP* Exam Tip Be prepared to discuss the development of the Mongol Empire.
THE RISE OF THE MONGOLS, 1200–1260

nomadism A way of life, forced by a scarcity of resources, in which groups of people continually migrate to find pastures and water.

The Mongol Empire owed much of its success to the cultural institutions and political traditions of the Eurasian steppes (prairies) and deserts. The pastoral way of life known as nomadism gives rise to imperial expansion only occasionally, and historians disagree about what triggers these episodes. In the case of the Mongols, a precise assessment of the personal contributions of Genghis Khan and his successors remains uncertain.

Nomadism in Central and Inner Asia

The pastoral nomads of the Eurasian steppes played an on-again, off-again role in European, Middle Eastern, and Chinese history for hundreds of years before the rise of the Mongols (see Chapter 7). The Mongol way of life probably did not differ materially from that of those earlier peoples (see Diversity and Dominance: Observations of Mongol Life). Traditional accounts maintain that the Mongols put their infants on goats to accustom them to riding. Moving regularly and efficiently with flocks and herds required firm decision making, and the independence of individual Mongols and their families made this decision making public, with many voices being heard. A council with representatives from powerful families ratified the decisions of the leader, the khan. Yet people who disagreed with a decision could strike off on their own. Even during military campaigns, warriors moved with their families and possessions.

Menial work in camps fell to slaves—people who were either captured during warfare or who sought refuge in slavery to escape starvation. Weak groups secured land rights and protection from strong groups by providing them with slaves, livestock, weapons, silk, or cash. More powerful groups, such as Genghis Khan’s extended family and descendants, lived almost entirely off tribute, so they spent less time and fewer resources on herding and more on warfare designed to secure greater tribute.

Leading families combined resources and solidified intergroup alliances through arranged marriages and other acts, a process that helped generate political federations. Marriages were arranged in childhood—in Temüjin’s case, at the age of eight—and children thus became pawns of diplomacy. Women from prestigious families could wield power in negotiation and management, though they ran the risk of assassination or execution just like men.

The wives and mothers of Mongol rulers traditionally managed state affairs during the interregnum between a ruler’s death and the selection of a successor. Princes and heads of ministries treated such regents with great deference and obeyed their commands without question. Since a female regent could not herself succeed to the position of khan, her political machinations usually focused on gaining the succession for a son or other male relative.

Families often included believers in two or more religions, most commonly Buddhism, Christianity, or Islam. Virtually all Mongols observed the practices of traditional shamanism, rituals in which special individuals visited and influenced the supernatural world. Whatever their faith, the Mongols believed in world rulership by a khan who, with the aid of his shamans, could speak to and for an ultimate god, represented as Sky or Heaven. This universal ruler transcended particular cultures and dominated them all.

The Mongol Conquests, 1215–1283

Shortly after his acclamation in 1206, Genghis initiated two decades of Mongol aggression. By 1209 he had cowed the Tangut (TAHNG-gut) rulers of northwest China, and in 1215 he captured the Jin capital of Yanjing, today known as Beijing (bay-jeeng). He turned westward in 1219 with an invasion of Khwarezm (kaw-REZM), a state east of the Caspian Sea that included much of Iran. After 1221, when most of Iran had fallen, Genghis left the command of most campaigns to subordinate generals.

Ögödei (ERG-uh-day), Genghis’s son, became the Great Khan in 1227 after his father’s death (see Figure 12.1). He completed the destruction of the Tangut and the Jin and put their terri-
The Rise of the Mongols, 1200–1260

The Rise of the Mongols, 1200–1260

By 1234 he controlled most of northern China and was threatening the Southern Song (see Chapter 10). Two years later Genghis's grandson Batu (BAH-too) (d. 1255) attacked Russian territories, took control of the towns along the Volga (VOHL-gah) River, and conquered Kievan Russia, Moscow, Poland, and Hungary in a five-year campaign. Only the death of Ögödei in 1241, which caused a suspension of campaigning, saved Europe from graver damage. With Genghis's grandson Güyük (gi-yik) installed as the new Great Khan, the conquests resumed. In the Middle East a Mongol army sacked Baghdad in 1258 and executed the last Abbasid caliph (see Chapter 8).

Genghis Khan’s original objective had probably been collecting tribute, but the success of the Mongol conquests created a new situation. Ögödei unquestionably sought to rule a united empire based at his capital, Karakorum (kah-rah-KOR-um), and until his death he controlled the subordinate Mongol domains: the Golden Horde in Russia and the Jagadai (JAH-guh-die)
domains in Central Asia (see Map 12.1). After Ögödei’s death, however, family unity began to unravel; when Khubilai (KOO-bih-lie) declared himself Great Khan in 1265, the descendants of Genghis’s son Jagadai (d. 1242) and other branches of the family refused to accept him. As Karakorum was destroyed in the ensuing fighting, Khubilai transferred his court to the old Jin capital now renamed Beijing. In 1271 he declared himself founder of the Yuan Empire.

Jagadai’s descendants continued to dominate Central Asia and enjoyed close relations with the region’s Turkic-speaking nomads. This, plus a continuing hatred of Khubilai, contributed to Central Asia becoming an independent Mongol center and to the spread of Islam there.

After the Yuan destroyed the Southern Song (see Chapter 10) in 1279, Mongol troops attacked Annam—now northern Vietnam. They occupied Hanoi three times and then withdrew after arranging for tribute. In 1283 Khubilai’s forces invaded Champa—now southern Vietnam—and made it a tribute nation as well. A plan to invade Java by sea failed, as did two invasions of Japan in 1274 and 1281.

The Mongols seldom outnumbered their enemies, but they were extraordinary riders and utilized superior bows. The Central Asian bow, made by laminating layers of wood, leather, and bone, could shoot one-third farther (and was correspondingly more difficult to pull) than the bows used by sedentary enemies.

Rarely did an archer expend all of the five dozen arrows in his quiver. As the battle opened, arrows shot from a distance decimated enemy marksmen. Then the Mongols charged the enemy’s infantry to fight with sword, lance, javelin, and mace. The Mongol cavalry met its match only at the Battle of Ain Jalut (ine jah-LOOT), where an under-strength force confronted Turkic-speaking Mamluks whose war techniques matched their own (see Chapter 8).

The Mongols also fired flaming arrows and hurled enormous projectiles—sometimes flaming—from catapults. The first Mongol catapults, built on Chinese models, transported easily but had short range and poor accuracy. During western campaigns in Central Asia, however, the Mongols encountered a design that was half again as powerful. They used it to hammer the cities of Iran and Iraq.

Cities that resisted faced siege and annihilation. Surrender was the only option. The slaughter the Mongols inflicted on Balkh (bahlk) (in present-day northern Afghanistan) and other cities spread terror and caused other cities to surrender. Each conquered area contributed men to the “Mongol” armies. In the Middle East, on the western fringe of their empire, a few Mongol officers commanded armies of recently recruited Turks and Iranians.

**FIGURE 12.1 Mongol Rulers, 1206–1260** The names of the Great Khans are shown in bold type. Those who founded the regional khanates are listed with their dates of rule.
MAP 12.1 The Mongol Domains in Eurasia in 1300  After the death of Genghis Khan in 1227, his empire was divided among his sons and grandsons. Son Ögödei succeeded Genghis as Great Khan. Grandson Khubilai expanded the domain of the Great Khan into southern China by 1279. Grandson Hülegü was the first Il-khan in the Middle East. Grandson Batu founded the Khanate of the Golden Horde in southern Russia. Son Jagadai ruled the Jagadai Khanate in Central Asia.
Observations of Mongol Life

The Mongols, despite the power, geographical extent, and durability of their empire, are known mainly from the observations made by non-Mongols who either traveled in their territory or worked for them. The following passages come from three such authors.

William of Rubruck, a Franciscan friar, journeyed to the court of the Great Khan Möngke in 1253–1255 after living for some period of time in crusader territory in the Middle East. He carried a letter from the French king, Louis IX (ruled 1226–1270), asking that the friar and a companion be allowed to stay with the Mongols, preach Christianity, and comfort German prisoners. William never made contact with the Germans, but his highly personal observations on Mongol life fascinated European readers.

The dwelling in which they sleep is based on a hoop of interlaced branches, and its supports are made of branches, converging at the top around a smaller hoop, from which projects a neck like a chimney. They cover it with white felt: quite often they also smear the felt with chalk or white clay and ground bones to make it gleam whiter, or sometimes they blacken it. . . . These dwellings are constructed to such a size as to be on occasion thirty feet across: I myself once measured a breadth of twenty feet between the wheeltracks of a wagon, and when the dwelling was on the wagon it protruded beyond the wheels by at least five feet on either side. I have counted twenty-two oxen to one wagon, hauling along a dwelling, eleven in a row, corresponding to the width of the wagon, and another eleven in front of them. The wagon’s axle was as large as a ship’s mast, and one man stood at the entrance of the dwelling on top of the wagon, driving the oxen. . . .

The married women make themselves very fine wagons. . . . One rich Mo’al [i.e., Mongol] or Tartar has easily a hundred or two hundred such wagons with chests. Baatu has twenty-six wives, each of whom has a large dwelling, not counting the other, smaller ones placed behind the large one, which are chambers, as it were, where the maids live: to each of these dwellings belong a good two hundred wagons. When they unload the dwellings, the chief wife pitches her residence at the westernmost end, and the others follow according to rank. . . . Hence the court of one wealthy Mo’al will have the appearance of a large town, though there will be very few males in it. . . . One woman will drive twenty or thirty wagons, since the terrain is level. The ox- or camel-wagons are lashed together in sequence, and the woman will sit at the front driving the ox, while all the rest follow at the same pace. If at some point the going happens to become difficult, they untie them and take them through one at a time. For they move slowly, at the pace at which a sheep or an ox can walk.

The History of the World-Conqueror by the Iranian historian Ata-Malik Juvaini, who worked for the Mongols in Iran, was written in elegant Persian during the 1250s. It combines a glorification of the Mongol rulers with an unflinching picture of the cruelties and devastation inflicted by their conquests.

He [i.e., Chingiz-Khan] paid great attention to the chase and used to say that the hunting of wild beasts was a proper occupation for the commanders of armies; and that instruction and training therein was incumbent on warriors and men-at-arms. . . . Whenever the Khan sets out on the great hunt (which takes place at the beginning of the winter season), he issues orders that the troops stationed around his headquarters and in the neighborhood . . . shall make preparation for the chase. . . .

The right wing, left wing and center of the army are drawn up and entrusted to the great emirs; and they set out together with the Royal Ladies and the concubines, as well as provisions of food and drink. For a month, or two, or three they form a hunting ring and drive the game slowly and gradually before them, taking care lest any escape from the ring. . . . Finally, when the ring has been contracted to a diameter of two or three parasangs [approximately 7 to 10 miles] they bind ropes together and cast felts over them; while the troops come to a halt all around the ring, standing shoulder to shoulder. The ring is now filled with the cries and commotion of every manner of game and the roaring and tumult of every kind of fierce beast . . . lions becoming familiar with wild asses, hyenas friendly with foxes, wolves intimate with hares.

When the ring has been so much contracted that the wild beasts are unable to stir, first the Khan rides in together with some of his retinue; then after he has wearied of the sport, they dismount upon high ground in the center . . . to watch the princes likewise entering the ring, and after them, in due order, the noyans [chiefs], the commanders and the troops. Several days pass in this manner; then, when nothing is left of the game but a few wounded and emaciated stragglers, old men and greybeards humbly approach the Khan, offer up prayers for his well-being and intercede for the lives of the remaining animals asking that they be suffered to depart to someplace nearer to grass and water. . . .

Now war—with its killing, counting of the slain and sparing of the survivors—is after the same fashion, and indeed analogous in every detail, because all that is left in the neighborhood of the battlefield are a few broken-down wretches.

Hu Szu-hui, a physician of Chinese-Turkic family background, presented the Yuan emperor with a manual entitled Proper and Essential Things for the Emperor’s Food and Drink in 1330. His
work reflects both the meat-heavy diet of the steppes and traditional Chinese concern with good nutrition.

Foods That Cure Various Illnesses [60 entries]

Donkey’s Head Gruel
It cures apoplexy-vertigo, debility of hand and foot, annoying pain of extremities, and trouble in speaking:

Black donkey’s head (one; remove hair and wash clean), black pepper (two measures), tsako cardamom (two measures). Cook ingredients until overcooked. Add the five spices in fermented black bean juice. Flavor with the spices. Flavor evenly. Eat on an empty stomach.

Donkey’s Meat Soup
It cures wind, mania and depression and pacifies the heart:

Meat of black donkey. (The quantity does not matter. Cut up.) Cook ingredient until overcooked in fermented black beans. When done add the five spices. Eat on an empty stomach.

Fox Meat Gruel
It cures infantile convulsion, epilepsy, spiritual confusion, indistinct speech, and inappropriate singing and laughing:

Fox meat. (The quantity does not matter. Include organ meat.) [To] ingredient add the five spices according to the regular method. Cook until overcooked. When done eat on an empty stomach.

Bear Meat Gruel
It cures the various winds, foot numbness-insensitivity, and five flaccidities, tendon and muscle spasms:


Foodstuffs That Mutually Conflict [55 entries]
Horse meat cannot be eaten together with granary rice.
Horse meat cannot be eaten with cocklebur. It can be eaten with ginger.
Pork cannot be eaten together with beef.
Sheep's liver cannot be eaten together with pepper. It wounds the heart.
Hare meat cannot be eaten together with ginger.
Beef cannot be eaten together with chestnuts.

Mare’s milk cannot be eaten together with fish hash. It produces obstruction of the bowels.
Venison cannot be eaten together with catfish.
Beef stomach cannot be eaten together with dog meat. Quail meat cannot be eaten together with pork. The face will turn black.
Pheasant eggs cannot be eaten together with onions. It produces vermin.
Meat of sparrows cannot be eaten together with plums. Eggs cannot be eaten together with turtle meat.

QUESTIONS FOR ANALYSIS
1. Can you determine from the subject matter of these passages the different viewpoints of a European, an Iranian, and a Chinese?
2. Is there anything in these passages to indicate that the Mongols were Muslims, Christians, Buddhists, or Confucians?
3. Do you expect the observations of a traveler to be more or less valuable as historical sources than those of someone who served a Mongol ruler?

Passport  The Mongol Empire facilitated the movement of products, merchants, and diplomats over long distances. Travelers frequently encountered new languages, laws, and customs. The paisa (from a Chinese word for “card” or “sign”), with its inscription in Mongolian, proclaimed that the traveler had the ruler’s permission to travel through the region. Europeans later adopted the practice, thus making the paisa the ancestor of modern passports.

bubonic plague  A bacterial disease of fleas that can be transmitted by flea bites to rodents and humans; humans in late stages of the illness can spread the bacteria by coughing. Because of its very high mortality rate and the difficulty of preventing its spread, major outbreaks have created crises in many parts of the world.

Overland Trade and Disease
Commercial integration under Mongol rule affected all parts of the empire. Like earlier nomad elites, Mongol nobles had the exclusive right to wear silk, almost all of which came from China. Trade brought new styles and huge quantities of silk westward to feed the luxury trade in the Middle East and Europe. Artistic motifs from Japan and Tibet reached as far as England and Morocco. Porcelain, another eastern luxury, became important in trade and strongly influenced later tastes in the Islamic world.

Merchants encountered ambassadors, scholars, and missionaries over the long routes to the Mongol courts. Some of the resulting travel literature, like the account of the Venetian Marco Polo (mar-koe POE-loe) (1254–1324), freely mixed the fantastic with the factual. Stories of fantastic wealth stimulated a European ambition to find easier routes to Asia.

Exchange also spread disease. In southwestern China bubonic plague had festered since the early Tang period. In the mid-thirteenth century, supply trains servicing the Mongol garrison in Yunnan (YOON-nahn) province facilitated the spread of rats carrying infected fleas. Marmots and other rodents along the caravan routes became infected and passed the disease to dogs and people. Plague incapacitated the Mongol army during its assault on the city of Kaffa (KAH-fah) in Crimea (cry-MEE-ah) in 1346. They withdrew, but the plague remained. From Kaffa flea-infested rats reached Europe and Egypt by ship (see Chapter 14).

Typhus, influenza, and smallpox traveled the same route. The combination of these and other diseases created what is called the “great pandemic” of 1347–1352 and spread devastation far in excess of what the Mongol armies inflicted. Peaceful trade, not conquest, ended up taking the greatest toll in lives.

SECTION REVIEW
- The society of the nomadic Mongols functioned through kinship and tribute ties, in which women often played important roles.
- Genghis Khan began the period of Mongol conquest to win tribute from Eurasian kingdoms.
- His successors turned to territorial rule, yet internal politics split the empire into smaller ones in China and Central Asia.
- The Mongols won territory through superior battle tactics and integrated it into a vast overland commercial network.
- That network allowed the bubonic plague and other diseases to spread across Asia into Europe.
THE MONGOLS AND ISLAM, 1260–1500

From the perspective of Mongol imperial history, the issue of which branches of the family adopted Islam and which did not mostly concerns political rivalries. From the standpoint of Islamic history, however, recovery from the devastation that culminated in the destruction of the Abbasid Caliphate in Baghdad in 1258 attests to the vitality of the faith and the ability of Muslims to overcome adversity. Within fifty years of its darkest hour, Islam reemerged as a potent ideological and political force.

**Mongol Rivalry**

By 1260 the Il-khan (IL-con) state, established by Genghis’s grandson Hülegü, controlled Iran, Azerbaijan, Mesopotamia, and parts of Armenia. North of the Caspian Sea the Mongols who had conquered southern Russia established the capital of their Khanate of the **Golden Horde** (also called the Kipchak [KIP-chahk] Khanate) at Sarai (saHR-ye) on the Volga River. Like the Il-khans, they ruled an indigenous Muslim population, mostly Turkic-speaking.

Some members of the Mongol imperial family professed Islam before the Mongol assault on the Middle East, and Turkic Muslims served the family in various capacities. Hülegü himself, though a Buddhist, had a trusted Shi’ite adviser and granted privileges to the Shi’ites. However, the Mongols under Hülegü’s command came only slowly to Islam.

Islamic doctrines clashed with Mongol ways. Muslims abhorred the Mongols’ worship of Buddhist and shamanist idols. Furthermore, Mongol law specified slaughtering animals without spilling blood, which involved opening the chest and stopping the heart. This horrified Muslims, who were forbidden to consume blood and slaughtered animals by slitting their throats and draining the blood.

Islam became a point of inter-Mongol tension when Batu’s successor as leader of the Golden Horde declared himself a Muslim. He swore to avenge the murder of the Abbasid caliph and laid claim to the Caucasus—the mountains between the Black and Caspian Seas—which the Il-khans also claimed (see Map 12.2).

Some European leaders believed that if they helped the non-Muslim Il-khans repel the Golden Horde from the Caucasus, the Il-khans would help them relieve Muslim pressure on the crusader principalities in Syria, Lebanon, and Palestine (see Chapter 8). This resulted in a brief correspondence between the Il-khan court and Pope Nicholas IV (r. 1288–1292) and a diplomatic mission that sent two Christian Turks to western Europe as Il-khan ambassadors in the late 1200s. The Golden Horde responded by seeking an alliance with the Muslim Mamluks in Egypt (see Chapter 8) against both the crusaders and the Il-khans. These complicated efforts extended the life of the crusader principalities, but the Mamluks finally ended their existence in the fifteenth century.

Before the Europeans’ diplomatic efforts could bear fruit, a new Il-khan ruler, Ghazan (haz-ZAHN) (1271–1304), declared himself a Muslim in 1295. Conflicting indications of Sunni and Shi’ite affiliation, such as coin inscriptions, indicate that Ghazan had a casual attitude toward theological matters. It is similarly unclear whether the Muslim Turkic nomads who served in the army were Shi’ite or Sunni.

**Islam and the State**

The Il-khans gradually came to appreciate the traditional urban culture of the Muslim territories they ruled. Nevertheless, they used tax farming, a fiscal method developed earlier in the Middle East, to extract maximum wealth from their subjects. The government sold tax-collecting contracts to small partnerships, mostly consisting of merchants who might also finance caravans, small industries, or military expeditions. Whoever offered to collect the most revenue for the government won the contracts. They could use whatever methods they chose and could keep anything over the contracted amount.
Contracting tax collection initially lowered administrative costs; but over the long term, the extortions of the tax farmers drove many landowners into debt and servitude. Agricultural productivity declined, making it hard to supply the army. So the government resorted to taking land to grow its own grain. Like land held by religious trusts, this land paid no taxes. Thus the tax base shrank even as the demands of the army and the Mongol nobility continued to grow.

Ghazan faced many economic problems. Citing Islam’s humane values, he promised to reduce taxes. But the need for revenue kept the decrease from becoming permanent. The Chinese practice of printing paper money had been tried unsuccessfully by a predecessor. Now it was tried again. The experiment, to which the Il-khan’s subjects responded negatively, pushed the economy into a depression that lasted beyond the end of the Il-khan state in 1349. Mongol nobles competed among themselves for the decreasing revenues, and fighting among Mongol factions destabilized the government.

While the Golden Horde and the Il-khan Empire quarreled, a new power was emerging in the Central Asian Khanate of Jagadai (see Map 12.1). The leader Timur (TEE-moor), known to Europeans as Tamerlane, maneuvered himself into command of the Jagadai forces and launched campaigns into western Eurasia, apparently seeing himself as a new Genghis Khan. By ethnic background he was a Turk with only an in-law relationship to the family of the Mongol conqueror. This prevented him from assuming the title khan, but not from sacking the Muslim sultanate of Delhi in northern India in 1398 or defeating the sultan of the rising Ottoman Empire.
in Anatolia in 1402. He was reportedly preparing to march on China when he died in 1405. However, Timur’s descendants could not hold the empire together.

Culture and Science in Islamic Eurasia

The Il-khans and Timurids (descendants of Timur) presided over a brilliant cultural flowering in Iran, Afghanistan, and Central Asia based on blending Iranian and Chinese artistic trends and cultural practices. The dominant cultural tendencies were Muslim, however. Timur died before he could reunite Iran and China, but by transplanting Middle Eastern scholars, artists, and craftsmen to his capital, Samarkand, he fostered the cultural achievements of his descendants.

The historian Juvaini (joo-VINE-nee) (d. 1283), who recorded Genghis Khan’s deathbed speech cited at the beginning of this chapter, came from the city of Balkh, which the Mongols had devastated in 1221. His family switched their allegiance to the Mongols, and both Juvaini and his older brother assumed high government posts. The Il-khan Hülegü, seeking to immortalize and justify his conquests, enthusiastically supported Juvaini’s writing of the first comprehensive narrative of Genghis Khan’s empire.

Juvaini combined a florid style with historical objectivity, often criticizing the Mongols. This approach served as an inspiration to Rashid al-Din (ra-SHEED ad-DEEN), Ghazan’s prime

Tomb of Timur in Samarkand The turquoise tiles that cover the dome are typical of Timurid architectural decoration. Timur’s family ornamented his capital with an enormous mosque, three large religious colleges facing one another on three sides of an open plaza, and a lane of brilliantly tiled Timurid family tombs in the midst of a cemetery. Timur brought craftsmen to Samarkand from the lands he conquered to build these magnificent structures.
minister, when he attempted the first history of the world. Rashid al-Din’s work included the earliest known general history of Europe, derived from conversations with European monks, and a detailed description of China based on information from an important Chinese Muslim official stationed in Iran. The miniature paintings that accompanied some copies of Rashid al-Din’s work included depictions of European and Chinese people and events and reflected the artistic traditions of both cultures. The Chinese techniques of composition helped inaugurate the greatest period of Islamic miniature painting under the Timurids.

Rashid al-Din traveled widely and collaborated with administrators from other parts of the far-flung Mongol dominions. His idea that government should be in accord with the moral principles of the majority of the population buttressed Ghazan’s adherence to Islam. Administratively, however, Ghazan did not restrict himself to Muslim precedents but employed financial and monetary techniques that roughly resembled those used in Russia and China.

Under the Timurids, the tradition of the Il-khan historians continued. After conquering Damascus, Timur himself met there with the greatest historian of the age, Ibn Khaldun (ee-bin hal-DOON) (1332–1406), a Tunisian. In a scene reminiscent of Ghazan’s answering Rashid al-Din’s questions on the history of the Mongols, Timur and Ibn Khaldun exchanged historical, philosophical, and geographical viewpoints. Like Genghis, Timur saw himself as a world conqueror. At their capitals of Samarkand and Herat (in western Afghanistan), later Timurid rulers sponsored historical writing in both Persian and Turkish.

A Shi’ite scholar named Nasir al-Din Tusi (nah-SEER ad-DEEN TOO-si) represents the beginning of Mongol interest in the scientific traditions of the Muslim lands. Nasir al-Din may have joined the entourage of Hülegü during a campaign in 1256 against the Assassins, a Shi’ite religious sect derived from the Fatimid dynasty in Egypt and at odds with his more mainstream Shi’ite views (see Chapter 8). Nasir al-Din wrote on history, poetry, ethics, and religion, but he made his most outstanding contributions in mathematics and cosmology. Following Omar Khayyam (oh-mar kie-YAM) (1038?-1131), a poet and mathematician of the Seljuk (SEL-jook) period, he laid new foundations for algebra and trigonometry. Some followers working at an observatory built for Nasir al-Din at Maragheh (mah-RAH-gah), near the Il-khan capital of Tabriz, used the new mathematical techniques to reach a better understanding of celestial orbits.

The mathematical tables and geometric models of lunar motion devised by one of his students somehow became known to Nicholas Copernicus (1473–1543), a Polish monk and astronomer. Copernicus adopted this lunar model as his own, virtually without revision. He then proposed the model of lunar movement developed under the Il-khans as the proper model for planetary movement as well—but with the planets circling the sun.

Observational astronomy and calendar-making had engaged the interest of earlier Central Asian rulers, particularly the Uighurs (WEE-ger) and the Seljuks. Under the Il-khans, the astronomers of Maragheh excelled in predicting eclipses. Astrolabes, armillary spheres, three-dimensional quadrants, and other instruments acquired new precision.

The remarkably accurate eclipse predictions and tables prepared by Il-khan and Timurid astronomers reached the hostile Mamluk lands in Arabic translation. Byzantine monks took them to Constantinople and translated them into Greek, Christian scholars working in Muslim Spain translated them into Latin, and in India the sultan of Delhi ordered them translated into Sanskrit.

The Great Khan Khubilai (discussed later in this chapter) summoned a team of Iranians to Beijing to build an observatory for him. Timur’s grandson Ulugh Beg (oo-loog bek) (1394–1449), whose vocation was astronomy, constructed a great observatory in Samarkand and actively participated in com-

Islamic Science and Astronomy

Nasir al-Din Tusi Persian mathematician and cosmol-

ist whose academy near Tabriz provided the model for the movement of the planets that helped to inspire the Copernican model of the solar system.

SECTION REVIEW

- For the Mongols of the Il-khan and Golden Horde states, Islam became a matter of political rivalry.
- In the Il-khan state Islamic values struggled with economic needs, and the resulting unrest left it open to invasions by Golden Horde Mongols.
- At the same time, Timur took control of the Jaghadai territory and began his own imperial conquests.
- Under the Il-khans and Timurids, Iran and Central Asia experienced a flowering of Islamic culture.
- These rulers fostered great achievements in historical writing, literature, art, mathematics, and astronomy.
piling observational tables that were later translated into Latin and used by European astronomers.

A further advance made under Ulugh Beg came from the mathematician Ghiyas al-Din Jamshid al-Kashi (gee-YASS ad-DIN jam-SHEED al-KAH-shee), who noted that Chinese astronomers had long used one ten-thousandth of a day as a unit in calculating the occurrence of a new moon. This seems to have inspired him to employ decimal notation, by which quantities less than one could be represented by a marker to show place. Al-Kashi's proposed value for $\pi$ was far more precise than any previously calculated. This innovation arrived in Europe by way of Constantinople, where a Greek translation of al-Kashi's work appeared in the fifteenth century.

**REGIONAL RESPONSES IN WESTERN EURASIA**

Safe, reliable overland trade benefited Mongol ruling centers and commercial cities along the Silk Road. But the countryside, ravaged by conquest, sporadic violence, and heavy taxes, suffered...
terribly. As Mongol control weakened, regional forces in Russia, eastern Europe, and Anatolia reasserted themselves. Sometimes this meant collaborating with the Mongols. At other times it meant using local ethnic or religious traditions to resist or roll back Mongol influence.

**Russia and Rule from Afar**

The Golden Horde, established after Genghis’s grandson Batu defeated a combined Russian and Kipchak (a Turkic people) army in 1223, started as a unified state but gradually lost unity as some districts crystallized into smaller khanates. The White Horde, for instance, ruled much of southeastern Russia in the fifteenth century, and the Crimean khanate on the northern shore of the Black Sea succumbed to Russian power only in 1783.

East-west routes across the steppe and north-south routes along the rivers of Russia and Ukraine (you-CRANE) conferred importance on certain trading entrepôts (places where goods are stored and from which they are distributed), as they had under Kievan Russia (see Chapter 9). The Golden Horde capital was (Old) Sarai, just north of where the Volga flows into the Caspian Sea (see Map 12.1). It ruled its Russian domains to the north and east from afar. To facilitate control, it granted privileges to the Orthodox Church, which then helped reconcile the Russian people to their distant masters.

The politics of language played a role in subsequent history. Old Church Slavonic, an ecclesiastical language, revived; but Russian steadily acquired greater importance and eventually became the dominant written language. Russian scholars shunned Byzantine Greek, previously the main written tongue, even after the Golden Horde permitted renewed contacts with Constantinople. The Golden Horde enlisted Russian princes to act as their agents, primarily as tax collectors and census takers.

The flow of silver and gold into Mongol hands starved the local economy of precious metal. Like the Il-khans, the khans of the Golden Horde attempted to introduce paper money as a response to the currency shortage. The unsuccessful experiment left such a vivid memory that the Russian word for money (denga [DENG-ah]) comes from the Mongolian word for the stamp (tamga [TAHM-gah]) used to create paper currency. In fact, commerce depended more on direct exchange of goods than on currency transactions.

Alexander Nevskii (nih-EFF-skee) (ca. 1220–1263), the prince of Novgorod, persuaded some fellow princes to submit to the Mongols. In return, the Mongols favored both Novgorod and the emerging town of Moscow, ruled by Alexander’s son Daniel. As these towns eclipsed Kiev (earlier devastated by the Mongols) as political, cultural, and economic centers, they drew people northward to open new agricultural land far from the Mongol steppe lands. Decentralization continued in the 1300s, with Moscow only very gradually becoming Russia’s dominant political center.

In appraising the Mongol era, some historians stress Mongol destructiveness and brutality in tax collecting. Ukraine, a fertile and well-populated region in the late Kievan period (1000–1230), suffered severe population loss from these sources. Isolated from developments to the west, Russia and parts of eastern Europe are portrayed as suffering under the “Mongol yoke.”

Other historians point out that even before the Mongols struck Kiev had declined economically and ceased to mint coins. Yet the Russian territories regularly paid the heavy Mongol taxes in silver, indicating both economic surpluses and an ability to convert goods into cash. The burdensome taxes stemmed less from the Mongols than from their tax collectors, Russian princes who often exempted their own lands and shifted the load to the peasants.

As for Russia’s cultural isolation, skeptics observe that before the Mongol invasion, the powerful and constructive role played by the Orthodox Church oriented Russia primarily toward Byzantium (see Chapter 9). This situation discouraged but did not eliminate contacts with western Europe, which probably would have become stronger after the fall of Constantinople to the Ottomans in 1453 regardless of Mongol influence.

The traditional structure of local government survived Mongol rule, as did the Russian princely families, who continued to battle among themselves for dominance. The Mongols merely added a new player to those struggles.

Ivan (ee-VAHN) III, the prince of Moscow (r. 1462–1505), established himself as an autocratic ruler in the late 1400s. Before Ivan, the title tsar (from caesar), of Byzantine origin, applied
Transformation of the Kremlin  Like other northern Europeans, the Russians preferred to build in wood, which was easy to handle and comfortable to live in. But they fortified important political centers with stone ramparts. In the 1300s, the city of Moscow emerged as a new capital, and its old wooden palace, the Kremlin, was gradually transformed into a stone structure.

only to foreign rulers, whether the emperors of Byzantium or the Turkic khans of the steppe. Ivan’s use of the title probably represents an effort to establish a basis for legitimate rule with the decline of the Golden Horde and the disappearance of the Byzantine Empire.

New States in Eastern Europe and Anatolia

Anatolia and parts of Europe responded dynamically to the Mongol challenges. Raised in Sicily, the Holy Roman Emperor Frederick II (r. 1212–1250) appreciated Muslim culture and did not recoil from negotiating with Muslims. When the pope threatened to excommunicate him unless he waged a crusade, Frederick nominally regained Jerusalem through a flimsy treaty with the Mamluk sultan in Egypt. Dissatisfied, the pope continued to quarrel with the emperor, leaving Hungary, Poland, and Lithuania to deal with the Mongol onslaught on their own. Many princes capitulated and went to (Old) Sarai to offer their submission to Batu.

However, the Teutonic (two-TOHN-ik) Knights resisted. These German-speaking warriors were dedicated to Christianizing the Slavic and Kipchak populations of northern Europe and to colonizing their territories with German settlers. To protect Slav territory, Alexander Nevskii joined the Mongols in fighting the Teutonic Knights and their Finnish allies. The latter suffered a catastrophe in 1242, when many broke through an icy northern lake and drowned. This destroyed the power of the Knights, and the northern Crusades virtually ceased.

The “Mongol” armies encountered by the Europeans consisted mostly of Turks, Chinese, Iranians, a few Europeans, and at least one Englishman, who went to crusade in the Middle East but joined the Mongols and served in Hungary. But most commanders were Mongol.
Mongol Domination in China, 1271–1368

After conquering northern China in the 1230s, Great Khan Ögödei told a Confucian adviser that he planned to turn the heavily populated North China Plain into a pasture for livestock. The adviser reacted calmly but argued that taxing the cities and villages would bring greater wealth. The Great Khan agreed, but he imposed an oppressive tax-farming system instead of the fixed-rate method traditional to China.

The Chinese suffered under this system during the early years, but the Yuan Empire, established by Genghis Khan’s grandson Khubilai in 1271, also brought benefits: secure trade routes; exchange of experts between eastern and western Eurasia; and transmission of information, ideas, and skills.
The Yuan Empire, 1271–1368

The Yuan sought a fruitful synthesis of the Mongol and Chinese traditions. Khubilai Khan gave his oldest son a Chinese name and had Confucianists participate in the boy’s education. In public announcements and the crafting of laws, he took Confucian conventions into consideration. Buddhist and Daoist leaders who visited the Great Khan came away believing that they had all but convinced him of their beliefs.

Buddhist priests from Tibet called lamas (LAH-mah) became popular with some Mongol rulers. Their idea of a militant universal ruler bringing the whole world under control of the Buddha and thus pushing it nearer to salvation mirrored an ancient Inner Asian idea of universal rulership.

Beijing, the Yuan capital, became the center of cultural and economic life. Karakorum had been geographically remote, but Beijing served as the eastern terminus of caravan routes that began near Tabriz, the Il-khan capital, and (Old) Sarai, the Golden Horde capital. A horseback courier system utilizing hundreds of stations maintained communications along routes that were generally safe for travelers. Ambassadors and merchants arriving in Beijing found a city that was much more Chinese in character than Karakorum had been.

Called Great Capital (Dadu) or City of the Khan (khan-balikh [kahn-BAL-ik], Marco Polo’s “Cambaluc”), Khubilai’s capital included the Forbidden City, a closed imperial complex with wide streets and a network of linked lakes and artificial islands. In summer, Khubilai practiced riding and shooting at a palace and park in Inner Mongolia. This was Shangdu (shahng-DOO), the “Xanadu” (ZAH-nah-doo) with its “stately pleasure dome” celebrated by the English poet Samuel Taylor Coleridge.

Before the arrival of the Mongols, three separate states competed in China (see Chapter 10). The Tanggut and Jin Empires controlled the north, and the Southern Song controlled most of the area south of the Yellow River. They had different languages, writing systems, forms of government, and elite cultures. The Great Khans destroyed all three and encouraged the restoration or preservation of many features of Chinese government and society.

By law, Mongols ranked highest. Below them came Central Asians and Middle Easterners, then northern Chinese, and finally southern Chinese. This ranking reflected a hierarchy of functions. The Mongols were the empire’s warriors, the Central Asians and Middle Easterners its census takers and tax collectors. The northern Chinese outranked the southern Chinese because they came under Mongol control almost two generations earlier.

Though Khubilai included some “Confucians” (under the Yuan, a formal and hereditary status) in government, their position compared poorly with pre-Mongol times. The Confucians disparaged merchants, many of whom were from the Middle East or Central Asia, and physicians. They regarded doctors as mere technicians or Daoist mystics, but the Yuan encouraged them and began the process of integrating Chinese medical approaches with those contained in Muslim and Hellenistic sources.

Like the Il-khans, the Yuan rulers stressed census taking and tax collecting. Persian, Arab, and Uighur administrators staffed the offices of taxation and finance, and Muslim scholars worked at calendar-making and astronomy. The Mongols organized all of China into provinces. Central appointment of provincial governors, tax collectors, and garrison commanders marked a radical change by systematizing control in all parts of the country.

Many cities seem to have prospered: in north China by being on the caravan routes; in the interior by being on the Grand Canal; and along the coast by participation in maritime grain shipments from south China. The reintegration of East Asia (though not Japan) with the overland Eurasian trade, which had lapsed with the fall of the Tang (see Chapter 10), stimulated the urban economies.

With merchants a privileged group, life in the cities changed. So few government posts were open to the old Chinese elite that families that had previously spent fortunes on educating sons for government service sought other opportunities. Many gentry families chose commerce. Corporations—investor groups that behaved as single commercial and legal units and shared the risk of doing business—handled most economic activities, starting with financing caravans and expanding into tax farming and lending money to the Mongol aristocracy. Central Asians and
Merchant Tastes

Population Loss

Agriculture

The Great Khans reunified China and fostered a synthesis of ideas and cultural traditions.

Khubilai Khan made Beijing the capital of the Yuan Empire and presided over a social hierarchy with Mongols at the top and southern Chinese at the bottom.

Mongol rule systematized government, but cities benefited more from Mongol policies than did the countryside.

China’s population shrank as a result of Mongol conquest and rule.

Mongol-protected trade routes encouraged a steady exchange of scientific and cultural ideas.

Internal strife weakened the Yuan Empire, which fell to the Ming in 1368, but many Mongols remained in China.

The Fall of the Yuan Empire

In the 1340s strife broke out among the Mongol princes. Within twenty years farmer rebellions and inter-Mongol feuds engulfed the land. Amidst the chaos, a charismatic Chinese leader, Zhu Yuanzhang (JOO yuwen-JAHNG), mounted a campaign that destroyed the Yuan Empire and brought China under control of his new empire, the Ming, in 1368. Many Mongols—as well as the Muslims, Jews, and Christians who had come with them—remained in China. Most of their descendants took Chinese names and became part of the diverse cultural world of China.

Many other Mongols, however, had never moved out of their home territories in Mongolia. Now they welcomed back refugees from the Yuan collapse. Though Turkic peoples were becoming predominant in the steppe regions in the west, including territories still ruled by descendants of Genghis Khan, Mongols continued to predominate.
in Inner Asia, the steppe regions bordering on Mongolia. Some Mongol groups adopted Islam; others favored Tibetan Buddhism. But religious affiliation proved less important than Mongol identity in fostering a renewed sense of unity.

The Ming thus fell short of dominating all the Mongols. The Mongols of Inner Asia paid tribute to the extent that doing so facilitated their trade. Other Mongols, however, remained a continuing threat on the northern Ming frontier.

THE EARLY MING EMPIRE, 1368–1500

Historians of China, like historians of Russia and Iran, divide over the overall impact of the Mongol era. Since the Ming Empire reestablished many practices that are seen as purely Chinese, it receives praise from people who ascribe central importance to Chinese traditions. On the other hand, historians who look upon the Mongol era as a pivotal historical moment when communication across the vast interior of Eurasia served to bring east and west together sometimes see the inward-looking Ming as less productive than the Yuan.

Ming China on a Mongol Foundation

Zhu Yuanzhang, a former monk, soldier, and bandit, had watched his parents and other family members die of famine and disease, conditions he blamed on Mongol misrule. During the Yuan Empire’s chaotic last decades, he vanquished rival rebels and assumed imperial power under the name Hongwu (r. 1368–1398).

Hongwu moved the capital to Nanjing (nahn-JING) (“southern capital”) on the Yangzi River, turning away from the Mongol’s Beijing (“northern capital”; see Map 12.3). Though Zhu Yuanzhang the rebel had espoused a radical Buddhist belief in a coming age of salvation, once in power he used Confucianism to depict the emperor as the champion of civilization and virtue.

Hongwu choked off relations with Central Asia and the Middle East and imposed strict limits on imports and foreign visitors. Silver replaced paper money for tax payments and commerce. These practices, illustrative of an anti-Mongol ideology, proved as economically unhealthy as some of the Yuan economic policies and did not last. Eventually, the Ming government came to resemble the Yuan. Ming rulers retained the provincial structure and continued to observe the hereditary professional categories of the Yuan period. Muslims made calendars and astronomical calculations at a new observatory at Nanjing, a replica of Khubilai’s at Beijing. The Mongol calendar continued in use.

Continuities with the Yuan became more evident after an imperial prince seized power through a coup d’état to rule as the emperor Yongle (yoong-LAW) (r. 1403–1424). He returned the capital to Beijing, enlarging and improving Khubilai’s Forbidden City, which now acquired its present features: moats, orange-red outer walls, golden roofs, and marble bridges. Yongle intended this combination fortress, religious site, bureaucratic center, and imperial residential park to overshadow Nanjing, and it survives today as China’s most imposing traditional architectural complex.

Yongle also restored commercial links with the Middle East. Because hostile Mongols still controlled much of the caravan route, Yongle explored maritime connections. In Southeast Asia, Annam became a Ming province as the early emperors continued the Mongol program of aggression. This focus on the southern frontier helped inspire the naval expeditions of the trusted imperial eunuch Zheng He (JEHNG HUH) from 1405 to 1433.

A Muslim whose father and grandfather had made the pilgrimage to Mecca, Zheng He had a good knowledge of the Middle East; and his religion eased relations with the states of the Indian subcontinent, where he directed his first three voyages. Subsequent expeditions reached Hormuz on the Persian Gulf, sailed the southern coast of Arabia and the Horn of Africa (modern Somalia), and possibly reached as far south as the Strait of Madagascar.

On early voyages Zheng He visited long-established Chinese merchant communities in Southeast Asia in order to cement their allegiance to the Ming Empire and to collect taxes. When
a community on the island of Sumatra resisted, he slaughtered the men to set an example. The expeditions added some fifty new tributary states to the Ming imperial universe, but trade did not increase as dramatically. Sporadic embassies reached Beijing from rulers in India, the Middle East, Africa, and Southeast Asia. During one visit the ruler of Brunei (broo-NIE) died and received a grand burial at the Chinese capital. The expeditions stopped in the 1430s after the deaths of Yongle and Zheng He.

Why did the Chinese not develop seafaring for commercial and military gain? Contemporaries considered the voyages a personal project of Yongle, an upstart ruler who had always sought to prove his worthiness. Building the Forbidden City in Beijing and sponsoring gigantic encyclopedia projects might be taken to reflect a similar character. Yongle may also have been emulating Khubilai Khan's sea expeditions against Japan and Southeast Asia. This would fit with the rumor spread by Yongle's political enemies that he was actually a Mongol.

A less speculative approach starts with the fact that the new commercial opportunities fell short of expectations, despite bringing foreign nations into the Ming orbit. In the meantime, Japanese coastal piracy intensified, and Mongol threats in the north and west grew. The human and
financial demands of fortifying the north, redesigning and strengthening Beijing, and outfitting campaigns against the Mongols ultimately took priority over the quest for maritime empire.

**Technology and Population**

The Ming government limited mining, partly to keep the value of metal coins and partly to tax the industry. As a consequence, metal implements became more expensive for farmers. Techniques for making the high-quality bronze and steel used for weapons also declined. Japan quickly surpassed China in the production of extremely high-quality swords.

After the death of Emperor Yongle in 1424, shipbuilding skills deteriorated, and few advances occurred in printing, timekeeping, and agricultural technology. Agricultural production peaked around the mid-1400s and remained level for more than a century. New weaving techniques did appear, but technological development in this field had peaked by 1500.

Reactivation of the examination system for recruiting government officials (see Chapter 10) drew large numbers of ambitious men into a renewed study of the Confucian classics. This reduced the vitality of commerce, where they had previously been employed, just as population growth was creating a labor surplus. Records indicating a growth from 60 million at the end of the Yuan period in 1368 to nearly 100 million by 1400 may not be entirely reliable, but rapid population growth encouraged the production of staples—wheat, millet, and barley in the north and rice in the south—at the expense of commercial crops such as cotton that had stimulated many technological innovations under the Song. Staple crops yielded lower profits, which further discouraged capital improvements. New foods, such as sweet potatoes, became available but were little adopted. Population growth in southern and central China caused deforestation and raised the price of wood.

Against the Mongol horsemen in the north the Ming used scattershot mortars and explosive canisters. They even used a few cannon, which they knew about from contacts with the Middle East and later with Europeans (see Environment and Technology: From Gunpowder to Guns). Fearing a loss of technological secrets, the government censored the chapters on gunpowder

**Examination Cells** Students taking examinations on the Confucian classics to gain admission to the class of officials occupied these cells for 24 to 72 hours, depending on the level they were attempting. In the city of Guangdong there were 7,500 cells in long rows. Candidates were identified only by number, and their essays were rewritten to prevent their handwriting being recognized. Approximately 5 percent of the candidates passed the examination.
From Gunpowder to Guns

Long before the invention of guns, gunpowder was used in China and Korea to excavate mines, build canals, and channel irrigation. Alchemists in China used related formulas to make noxious gas pellets to paralyze enemies and expel evil spirits, a critical aid to the colonization of malarial regions in China and Southeast Asia. The Mongol Empire staged fireworks displays on ceremonial occasions, delighting European visitors to Karakorum who saw them for the first time.

Anecdotal evidence in Chinese records gives credit for the introduction of gunpowder to a Sogdian Buddhist monk of the 500s. The monk described the wondrous alchemical transformation of elements produced by a combination of charcoal and saltpeter. In this connection he also mentioned sulfur. The distillation of naphtha, a light, flammable derivative of oil or coal, seems also to have been first developed in Central Asia, the earliest evidence coming from the Gandhara region (in modern Pakistan).

By the eleventh century, the Chinese had developed flamethrowers powered by burning naphtha, sulfur, or gunpowder in a long tube. These weapons intimidated and injured foot soldiers and horses and also set fire to thatched roofs in hostile villages and, occasionally, the rigging of enemy ships.

In their long struggle against the Mongols, the Song learned to enrich saltpeter to increase the amount of nitrate in gunpowder. This produced forceful explosions rather than jets of fire. Launched from catapults, gunpowder-filled canisters could rupture fortifications and inflict mass casualties. Explosives hurled from a distance could sink or burn ships.

The Song also experimented with firing projectiles from metal gun barrels. The earliest gun barrels were broad and squat and were transported on special wagons to their emplacements. The mouths of the barrels projected saltpeter mixed with scattershot minerals. The Chinese and then the Koreans adapted gunpowder to shooting masses of arrows—sometimes flaming—at enemy fortifications.

In 1280 weapons makers of the Yuan Empire produced the first device featuring a projectile that completely filled the mouth of the cannon and thus concentrated the explosive force. The Yuan used cast bronze for the barrel and iron for the cannonball. The new weapon shot farther and more accurately, and was much more destructive, than the earlier Song devices.

Knowledge of the cannon and cannonball moved westward across Eurasia. By the end of the thirteenth century cannon were being produced in the Middle East. By 1327 small, squat cannon called “bombards” were being used in Europe.

Launching Flaming Arrows Song soldiers used gunpowder to launch flaming arrows.

and guns in early Ming encyclopedias. Shipyards and ports shut down to avoid contact with Japanese pirates and to prevent Chinese from migrating to Southeast Asia.

A technology gap with Korea and Japan opened up nevertheless. When superior steel was needed, supplies came from Japan. Korea moved ahead of China in the design and production of firearms and ships, in printing techniques, and in the sciences of weather prediction and calendar-making. The desire to tap the wealthy Ming market spurred some of these advances.

The Ming Achievement

In the late 1300s and the 1400s the wealth and consumerism of the early Ming stimulated high achievement in literature, the decorative arts, and painting. The plain writing of the Yuan period
had produced some of the world’s earliest novels. This genre flourished under the Ming. *Water Margin*, which originated in the raucous drum-song performances loosely related to Chinese opera, features dashing Chinese bandits who struggle against Mongol rule. Many authors had a hand in the final print version.

Luo Guanzhong (*law gwahn-joong*), one of the authors of *Water Margin*, is also credited with *Romance of the Three Kingdoms*, based on a much older series of stories that in some ways resemble the Arthurian legends. It describes the attempts of an upright but doomed war leader and his followers to restore the Han Empire of ancient times and resist the power of the cynical but brilliant villain. *Romance of the Three Kingdoms* and *Water Margin* express the militant but joyous pro-China sentiment of the early Ming era and remain among the most appreciated Chinese fictional works.

Probably the best-known product of Ming technological advance was porcelain. The imperial ceramic works at Jingdezhen (*JING-deh-JUHN*) experimented with new production techniques and new ways of organizing and rationalizing workers. “Ming ware,” a blue-on-white style developed in the 1400s from Indian, Central Asian, and Middle Eastern motifs, became especially prized. Other Ming goods in high demand included furniture, lacquered screens, and silk, all of which found ready markets in Southeast Asia and the Pacific, India, the Middle East, and East Africa.

### Centralization and Militarism in East Asia, 1200–1500

Korea, Japan, and Annam, the other major states of East Asia, were all affected by confrontation with the Mongols, but with differing results. Japan and Annam escaped Mongol conquest but changed in response to the Mongol threat, becoming more effective and expansive regimes with enhanced commitments to independence.

As for Korea, just as the Ming stressed Chinese traditions and identity in the aftermath of Yuan rule, so Mongol domination contributed to revitalized interest in Korea’s own language and history. The Mongols conquered Korea after a difficult war, and though Korea suffered socially and economically under Mongol rule, members of the elite associated closely with the Yuan Empire. After the fall of the Yuan, merchants continued the international connections established in the Mongol period, while Korean armies consolidated a new kingdom and fended off pirates.

**Korea from the Mongols to the Yi, 1231–1500**

Korea was the answer to the Mongol search for coastal areas from which to launch naval expeditions and choke off the sea trade of their adversaries. When the Mongols attacked in 1231, the leader of a prominent Korean family assumed the role of military commander and protector of the king (not unlike the shoguns of Japan). Twenty years of defensive war left a ravaged countryside, exhausted armies, and burned treasures, including the renowned nine-story pagoda at Hwangnyong-sa (*hwahng-NEEYAHNG-sah*) and the wooden printing blocks of the Tripitaka (*tri-PIH-tah-kah*), a ninth-century masterpiece of printing art. The commander’s underlings...
Movable Type  The improvement of cast bronze tiles, each showing a single character, eliminated the need to cast or carve whole pages. Individual tiles—the ones shown are Korean —could be moved from page frame to page frame and gave an even and pleasing appearance. All parts of East Asia eventually adopted this form of printing for cheap, popular books. In the mid-1400s Korea also experimented with a fully phonetic form of writing, which in combination with movable type allowed Koreans unprecedented levels of literacy and access to printed works.

Mongol control broke down centuries of comparative isolation. Cotton was introduced in southern Korea; gunpowder came into use; and the art of calendar-making stimulated astronomical observation and mathematics. Avenues of advancement opened for Korean scholars willing to learn Mongolian, landowners willing to open their lands to falconry and grazing, and merchants servicing the new royal exchanges with Beijing. These developments contributed to the rise of a new landed and educated class.

When the Yuan Empire fell in 1368, the Koryo ruling family remained loyal to the Mongols and had to be forced to recognize the new Ming Empire. In 1392 the Yi ([YEE]) established a new kingdom with a capital in Seoul and sought to reestablish a distinctive Korean identity. Like Russia and Ming China, the Yi regime publicly rejected the period of Mongol domination. Yet the Yi government continued to employ Mongol-style land surveys, taxation in kind, and military garrison techniques.

Like the Ming emperors, the Yi kings revived the study of the Confucian classics, an activity that required knowledge of Chinese and showed the dedication of the state to learning. This revival may have led to a key technological breakthrough in printing technology.

Koreans had begun using Chinese woodblock printing in the 700s. This technology worked well in China, where a large number of buyers wanted copies of a comparatively small number of texts. But in Korea, the comparatively few literate men had interests in a wide range of texts. Movable wooden or ceramic type appeared in Korea in the early thirteenth century and may have been invented there. But the texts were frequently inaccurate and difficult to read. In the 1400s Yi printers, working directly with the king, developed a reliable device to anchor the pieces of type to the printing plate: they replaced the old beeswax adhesive with solid copper frames. This improved the legibility of the printed page, and high-volume, accurate production became possible. Combined with the phonetic han’gul ([HAHN-goor]) writing system, this printing technology laid the foundation for a high literacy rate in Korea.
Yi publications told readers how to produce and use fertilizer, transplant rice seedlings, and engineer reservoirs. Building on Eurasian knowledge imported by the Mongols and introduced under the Koryo, Yi scholars developed a meteorological science of their own. They invented or redesigned instruments to measure wind speed and rainfall and perfected a calendar based on minute comparisons of the Chinese and Islamic systems.

In agriculture, farmers expanded the cultivation of cash crops, the reverse of what was happening in Ming China. Cotton, the primary crop, enjoyed such high value that the state accepted it for tax payments. The Yi army used cotton uniforms, and cotton became the favored fabric of the Korean elite. With cotton gins and spinning wheels powered by water, Korea advanced more rapidly than China in mechanization and began to export considerable amounts of cotton to China and Japan.

Although both the Yuan and the Ming withheld the formula for gunpowder from the Korean government, Korean officials acquired the information by subterfuge. By the later 1300s they had mounted cannon on ships that patrolled against pirates and used gunpowder-driven arrow launchers against enemy personnel and the rigging of enemy ships. Combined with skills in arming ships, these techniques made the small Yi navy a formidable defense force.

**Political Transformation in Japan, 1274–1500**

Having secured Korea, the Mongols looked toward Japan, a target they could easily reach from Korea. Their first thirty-thousand-man invasion force in 1274 included Mongol cavalry and archers and sailors from Korea and northeastern Asia. Its weaponry included light catapults and incendiary and explosive projectiles of Chinese manufacture. The Mongol forces landed successfully and decimated the Japanese cavalry, but a great storm on Hakata Bay on the north side of Kyushu Island (see Map 12.4) prevented the establishment of a beachhead and forced the Mongols to sail back to Korea.

The invasion hastened social and political changes that were already under way. Under the Kamakura (kah-mah-KOO-rah) Shogunate established in 1185—another powerful family actually exercised control—the shogun, or military leader, distributed land and privileges to his followers. In return they paid him tribute and supplied him with soldiers. This stable, but decentralized, system depended on balancing the power of regional warlords. Lords in the north and east of Japan’s main island were remote from those in the south and west. Beyond devotion to the emperor and the shogun, little united them until the terrifying Mongol threat materialized.

After the return of his fleet, Khubilai sent envoys to Japan demanding submission. Japanese leaders executed them and prepared for war. The shogun took steps to centralize his military government. The effect was to increase the influence of warlords from the south and west of Honshu (Japan’s main island) and from the island of Kyushu, because this was where invasion seemed most likely, and they were the local commanders acting under the shogun’s orders.

Military planners studied Mongol tactics and retrained and outfitted Japanese warriors for defense against advanced weaponry. Farm laborers drafted from all over the country constructed defensive fortifications. This effort demanded, for the first time, a national system to move resources toward western points rather than toward the imperial or shogunal centers to the east.

The Mongols attacked in 1281. They brought 140,000 warriors, including many non-Mongols, as well as thousands of horses, in hundreds of ships. However, the wall the Japanese had built to cut off Hakata Bay from the mainland deprived the Mongol forces of a reliable landing point. Japanese swordsmen rowed out and boarded the Mongol ships lingering offshore. Their superb steel swords shocked the invaders. After a prolonged standoff, a typhoon struck and sank perhaps half of the Mongol ships. The remainder sailed away, never again to harass Japan. The Japanese gave thanks to the “wind of the Gods”—kamikaze (KUM-i-kuh-zee)—for driving away the Mongols.

Nevertheless, the Mongol threat continued to influence Japanese development. Prior to his death in 1294, Khubilai had in mind a third invasion. His successors did not carry through with it, but the shoguns did not know that the Mongols had given up the idea. They rebuilt coastal defenses well into the fourteenth century, helping to consolidate the social position of Japan’s warrior elite and stimulating the development of a national infrastructure for trade and commu-
nication. But the Kamakura Shogunate, based on regionally collected and regionally dispersed revenues, suffered financial strain in trying to pay for centralized road and defense systems. Between 1333 and 1338 the emperor Go-Daigo broke the centuries-old tradition of imperial seclusion and aloofness from government and tried to reclaim power from the shoguns. This ignited a civil war that destroyed the Kamakura system. In 1338, with the Mongol threat waning, the Ashikaga (ah-shee-KAH-gah) Shogunate took control at the imperial center of Kyoto. Provincial warlords enjoyed renewed independence. Around their imposing castles, they sponsored the development of market towns, religious institutions, and schools. The application of technologies imported in earlier periods, including water wheels, improved plows, and Champa rice, increased agricultural productivity.

Growing wealth and relative peace stimulated artistic creativity, mostly reflecting Zen Buddhist beliefs held by the warrior elite. In the simple elegance of architecture and gardens, in the contemplative landscapes of artists, and in the eerie, stylized performances of the Noh theater, the aesthetic code of Zen became established in the Ashikaga era.

Despite the technological advancement, artistic productivity, and rapid urbanization of this period, competition among warlords and their followers led to regional wars. By the later 1400s these conflicts resulted in the near destruction of the warlords. The great Onin War in 1477 left Kyoto devastated and the Ashikaga Shogunate a central government in name only. Ambitious but low-ranking warriors, some with links to trade with the continent, began to scramble for control of the provinces.
After the fall of the Yuan in 1368 Japan resumed overseas trade, exporting raw materials and swords, as well as folding fans, invented in Japan during the period of isolation. Japan’s primary imports from China were books and porcelain. The volatile political environment in Japan gave rise to partnerships between warlords and local merchants. All worked to strengthen their own towns and treasuries through overseas commerce or, sometimes, through piracy.

The Emergence of Vietnam, 1200–1500

Before the first Mongol attack in 1257, the states of Annam (northern Vietnam) and Champa (southern Vietnam) had clashed frequently. Annam (once called Dai Viet) looked toward China and had once been subject to the Tang. Chinese political ideas, social philosophies, dress, religion, and language heavily influenced its official culture. Champa related more closely to the trading networks of the Indian Ocean; its official culture was strongly influenced by Indian religion, language, architecture, and dress. Champa’s relationship with China depended in part on how close its enemy Annam was to China at any particular time. During the Song period Annam was neither formally subject to China nor particularly threatening to Champa militarily, so Champa inaugurated a trade and tribute relationship with China that spread fast-ripening Champa rice throughout East Asia.

The Mongols exacted tribute from both Annam and Champa until the fall of the Yuan Empire in 1368. Mongol political and military ambitions were mostly focused elsewhere, however, which minimized their impact on politics and culture. The two Vietnamese kingdoms soon resumed their warfare. When Annam moved its army to reinforce its southern border, Ming troops occu-

Noh Drama Performance  This slow, rhythmic, chanted form of drama appealed to the military elite with its stories of warriors, women, gods, and demons. The minimal stage is normally bare except for a painting at the rear of a pine tree, symbolizing the means by which deities descend to earth, and a narrow bridge to the left by which major actors enter the stage. The actors wear masks and lavish costumes. Four instrumentalists playing a flute and three types of drum punctuate the chanting.
pied the capital, Hanoi, and installed a puppet government. Almost thirty years elapsed before Annam regained independence and resumed a tributary status. By then the Ming were turning to meet Mongol challenges to their north. In a series of ruthless campaigns, Annam terminated Champa’s independence, and by 1500 the ancestor of the modern state of Vietnam, still called Annam, had been born.

The new state still relied on Confucian bureaucratic government and an examination system, but some practices differed from those in China. The Vietnamese legal code, for example, preserved group landowning and decision making within the villages, as well as women’s property rights. Both developments probably had roots in an early rural culture based on the growing of rice in wet paddies; by this time the Annamese considered them distinctive features of their own culture.

CONCLUSION

Despite their brutality and devastation, the Mongol conquests brought a degree of unity to the lands between China and Europe that had never before been known. Nomadic mobility and expertise in military technology contributed to communication across vast spaces and initially, at least, an often-callous disregard for the welfare of farmers, as manifested in oppressive tax policies. By contrast, trade received active Mongol stimulation through the protection of routes and encouragement of industrial production.

The Mongols ruled with an unprecedented openness, employing talented people irrespective of their linguistic, ethnic, or religious affiliations. As a consequence, the period of comparative Mongol unity, which lasted less than a century, saw a remarkable exchange of ideas, techniques, and products across the breadth of Eurasia. Chinese gunpowder spurred the development of Ottoman and European cannon; Muslim astronomers introduced new instruments and mathematical techniques to Chinese observatories.

However, rule over dozens of restive peoples could not endure. Where Mongol military enterprise reached its limit of expansion, it stimulated local aspirations for independence. Division and hostility among branches of Genghis Khan’s family—between the Yuan in China and the Jagadai in Central Asia or between the Golden Horde in Russia and the Il-khans in Iran—provided opportunities for achieving these aspirations. The Russians gained freedom from Mongol domination in western Eurasia, and the general political disruption and uncertainty of the Mongol era assisted the emergence of the Lithuanian, Serbian, and Ottoman states.

In the east, China, Korea, and Annam similarly found renewed political identity in the aftermath of Mongol rule, while Japan fought off two Mongol invasions and transformed its internal political and cultural identity in the process. In every case, the reality or threat of Mongol attack and domination encouraged centralization of government, improvement of military techniques, and renewed stress on local cultural identity. Thus, in retrospect, despite its traditional association with death and destruction, the Mongol period appears as a watershed, establishing new connections between widespread parts of Eurasia and leading to the development of strong, assertive, and culturally creative regional states.

SECTION REVIEW

- Mongol conquest devastated Korea, but Mongol rule opened it to new ideas and technologies.
- The Yi dynasty succeeded the Koryo and fostered local identity while encouraging economic expansion and technological innovation.
- In Japan, the Mongol threat forced military and organizational innovations, but the expense of these defenses weakened the Kamakura Shogunate.
- Go-Daigo’s failed attempt to reassert imperial power resulted in the rise of the Ashikaga Shogunate.
- The warring states of Vietnam avoided Mongol conquest but paid tribute to the Yuan Empire.
- After the Ming withdrawal, Annam conquered Champa, establishing a unified state on both Confucian and local practices.
KEY TERMS

Mongols  p. 341
Genghis Khan  p. 341
nomadism  p. 342
Yuan Empire  p. 344
bubonic plague  p. 348
Il-khan  p. 349
Golden Horde  p. 349
Timur  p. 350
Rashid al-Din  p. 351
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EBOOK AND WEBSITE RESOURCES

Interactive Maps
Map 12.1 The Mongol Domains in Eurasia in 1300
Map 12.2 Western Eurasia in the 1300s
Map 12.3 The Ming Empire and Its Allies, 1368–1500

Map 12.4 Korea and Japan, 1200–1500
Plus flashcards, practice quizzes, and more. Go to:
www.cengage.com/history/bullietearthpeople5e

SUGGESTED READING


NOTES

AP* REVIEW QUESTIONS FOR CHAPTER 12

1. One benefit of the size of the Mongol Empire was that
   (A) it was easier to force all people to speak one language.
   (B) religious homogeneity was easier to establish.
   (C) it promoted the movement of people, ideas, and goods.
   (D) it promoted the development of ethnic identity.

2. Under Khubilai Khan
   (A) the Mongol Empire expanded to include Vietnam, Korea, and part of Japan.
   (B) the Mughal Empire was founded in India.
   (C) the Yuan dynasty was founded in China.
   (D) Islam became the dominant religion of the empire.

3. The Mongol leader Timur
   (A) gained control of much of the Middle East but never assumed the title of khan.
   (B) conquered the Delhi Sultanate and the Ottoman Empire but never conquered the Golden Horde.
   (C) became a Sunni scholar and retired to live in Mecca.
   (D) most likely was a fictional character because there is little evidence of his life.

4. The achievements of Nasir al-Din are evidence of
   (A) the Mongols encouraging the continuation of science and learning.
   (B) Muslim interference in the governing of Mongol lands.
   (C) expansion of Mongol conquests in North Africa.
   (D) Korean adaptation of Muslim culture.

5. Which of the following is true of the Golden Horde?
   (A) They refused to pay tribute to Batu.
   (B) They began as a unified state but soon fragmented.
   (C) Their low taxes encouraged the growth of business and trade.
   (D) They adopted Orthodox Christianity as their faith and assimilated with the Russians.

6. Overall, Mongol rule in Russia
   (A) was devastating because of warfare, raiding, tax collection, and the spread of disease.
   (B) encouraged the growth of long-distance trade and brought Russia wealth in the long run.
   (C) encouraged the Russians to seek alliances with the Ottomans to force the Mongols out of Russia.
   (D) was harmful to all places except the city of Kiev.

7. Understanding the history of the Yuan dynasty is difficult because
   (A) Mongol writing is difficult to translate accurately.
   (B) much of the recorded history was destroyed by Chinese scholars who despised the Mongols.
   (C) the best records come from European travelers, like Polo, who wrote with a European point of view.
   (D) the vast majority of what we have are commercial records and very few details of social history.

8. Hongwu, the founder of the Ming dynasty,
   (A) kept many of the Mongol practices in place.
   (B) established his power base in northern China by making an alliance with the Khitans.
   (C) used Confucianism to help solidify his power and control in China.
   (D) was the only emperor who was a eunuch.

9. Under Ming leadership, China
   (A) encouraged naval expeditions into the Indian Ocean.
   (B) destroyed the Korean army, conquering Korea and Japan.
   (C) began to develop its mining capabilities and improve its smelting of steel.
   (D) abolished the practice of footbinding.
10. During the Koryo period, Korean kings were
   (A) interested in new ways of governing and sought advice from Japan.
   (B) mainly Mongol in descent and favored Mongol dress and customs.
   (C) strong allies of the Ming Chinese.
   (D) descended from the Japanese emperors and strongly disliked the Ming Chinese.

11. With the establishment of the Ming dynasty in China, Japan
   (A) began to fear renewed attacks from China.
   (B) allied with Korea and the Taiwanese against China.
   (C) reopened trade with China.
   (D) adopted the Confucian examination system for its bureaucracy.

12. The culture of the southern portion of today's Vietnam has been strongly influenced by
   (A) China.
   (B) India.
   (C) Japan.
   (D) Indonesia.