Maya Scribe  Maya scribes used a complex writing system to record religious concepts and memorialize the actions of their kings. This picture of a scribe was painted on a ceramic plate. (© Justin Kerr)

- What were the most important shared characteristics of Mesoamerican cultures in the classic period?
- What role did warfare play in the postclassic period of Mesoamerica?
- In what ways did Mesoamerica influence the cultural centers in North America?
- How did the Amerindian peoples of the Andean area adapt to their environment and produce socially complex and politically advanced societies?
Peoples and Civilizations of the Americas, 600–1500

CHAPTER OUTLINE

Classic-Era Culture and Society in Mesoamerica, 600–900
The Postclassic Period in Mesoamerica, 900–1500
Northern Peoples
Andean Civilizations, 600–1500
Comparative Perspectives

DIVERSITY AND DOMINANCE: Burials as Historical Texts
ENVIRONMENT AND TECHNOLOGY: Inca Roads

The ancient Mesoamerican civilization of the Maya⁷ developed a complex written language that enabled scribes like the one in this illustration to record the important actions of rulers and military events. Recent translations give us a glimpse into the life of a Maya princess. In late August 682 C.E. the Maya princess Lady Wac-Chanil-Ahau⁷ walked down the steep steps from her family's residence and mounted a sedan chair decorated with rich textiles and animal skins. As the procession exited from the urban center of Dos Pilas⁷, her military escort spread out through the fields and woods along its path to prevent ambush by enemies. Lady Wac-Chanil-Ahau's destination was the Maya city of Naranjo⁷, where she was to marry a powerful nobleman.

Maya (MY-ah)  Wac-Chanil-Ahau (wac-cha-NEEL-ab-HOW)  Dos Pilas (dohs PEE-las)  Naranjo (na-ROHN-hoe)
Her marriage had been arranged to reestablish the royal dynasty that had been eliminated when Caracol, the region's major military power, had defeated Naranjo. Lady Wac-Chanil-Ahau's passage to Naranjo symbolized her father's desire to forge a military alliance that could resist Caracol. For us, the story of Lady Wac-Chanil-Ahau illustrates the importance of marriage and lineage in the politics of the Classic-period Maya.

K'ak Tiliw Chan Chaak, the son of Lady Wac-Chanil-Ahau, ascended the throne of Naranjo as a five-year-old in 693 C.E. During his long reign he proved to be a careful diplomat and formidable warrior. He was also a prodigious builder, leaving behind an expanded and beautified capital as part of his legacy. Mindful of the importance of his mother and her lineage from Dos Pilas, he erected numerous stelae (carved stone monuments) that celebrated her life.

When population increased and competition for resources grew more violent, warfare and dynastic crisis convulsed the world of Wac-Chanil-Ahau. The defeat of the city-states of Tikal and Naranjo by Caracol undermined long-standing commercial and political relations in much of southern Mesoamerica and led to more than a century of conflict. Caracol, in turn, was challenged by the dynasty created at Dos Pilas by the heirs of Lady Wac-Chanil-Ahau. Despite a shared culture and religion, the great Maya cities remained divided by the dynastic ambitions of their rulers and by the competition for resources.

As the story of Lady Wac-Chanil-Ahau's marriage and her role in the development of a Maya dynasty suggests, the peoples of the Americas were in constant competition for resources. Members of hereditary elites organized their societies to meet these challenges, even as their ambition for greater power predictably ignited new conflicts. No single set of political institutions or technologies worked in every environment, and enormous cultural diversity existed in the ancient Americas. In Mesoamerica (Mexico and northern Central America) and in the Andean region of South America, Amerindian peoples developed an extraordinarily productive and diversified agriculture. They also built great cities that rivaled the capitals of the Chinese and Roman Empires in size and beauty. The Olmec of Mesoamerica and the Chavin of the Andes were among the earliest civilizations of the Americas (see Chapter 2). In the rest of the hemisphere, indigenous peoples adapted combinations of hunting and agriculture to maintain a wide variety of settlement patterns, political forms, and cultural traditions. All the cultures and civilizations of the Americas experienced cycles of expansion and contraction as they struggled with the challenges of environmental changes, population growth, social conflict, and war.

**CLASSIC-ERA CULTURE AND SOCIETY IN MESOAMERICA, 600–900**

The Mesoamerican civilization of the period 600 to 900 C.E. was the culmination of several centuries of growth involving several peoples speaking different languages. Though no regionwide political integration developed, Mesoamericans were unified by similarities in material culture, religious beliefs and practices, and social structures. Building on the earlier achievements of the Olmec and others (see Chapter 2), the peoples of today's Central America and south and central Mexico developed new forms of political organization, made advances in astronomy and mathematics, and improved agricultural productivity. Population grew; traders exchanged a variety of products over longer distances, and social hierarchies became more complex, giving rise to great cities that served as centers of political and spiritual life.

Classic-period cities, as archaeologists call those of the period ending in about 900 C.E., continued to feature platforms and pyramids devoted to religious functions. They had large full-time populations divided into classes and dominated by hereditary political and religious elites who controlled nearby towns and villages and imposed their will on the rural peasantry.

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**K'ak Tiliw Chan Chaak** (kahk tee-liew CHAN cha-ahk)

**Chavin** (cha-VEEN)
<table>
<thead>
<tr>
<th><strong>Chronology</strong></th>
<th><strong>Mesoamerica</strong></th>
<th><strong>Northern Peoples</strong></th>
<th><strong>Andes</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>600</strong></td>
<td>600 Teotihuacan at height of power</td>
<td></td>
<td>600–1000 Tiwanaku and Wari control Peruvian highlands</td>
</tr>
<tr>
<td><strong>700</strong></td>
<td>ca. 750 Teotihuacan destroyed</td>
<td>700–1200 Anasazi culture</td>
<td>200–700 Moche culture</td>
</tr>
<tr>
<td></td>
<td>800–900 Maya centers abandoned, end of classic period</td>
<td>ca. 900 Beginnings of Mississippian Culture</td>
<td></td>
</tr>
<tr>
<td></td>
<td>968 Toltec capital of Tula founded</td>
<td>919 Pueblo Bonito founded</td>
<td></td>
</tr>
<tr>
<td><strong>1000</strong></td>
<td>1175 Tula destroyed</td>
<td>1050–1250 Cahokia reaches peak power</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1325 Aztec capital Tenochtitlan founded</td>
<td>1150 Collapse of Anasazi centers begins</td>
<td></td>
</tr>
<tr>
<td><strong>1500</strong></td>
<td>1502 Moctezuma II crowned Aztec ruler</td>
<td>1500 Mississippian culture declines</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1504–1525 Inca conquer Ecuador</td>
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</tr>
</tbody>
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Political and cultural innovations did not depend on new technologies. The agricultural foundation of Mesoamerican civilization was centuries old. Irrigation, the draining of wetlands, and the terracing of hillsides had all been in place for more than a thousand years. Instead, the achievements of the classic era depended on the ability of increasingly powerful elites to organize and command growing numbers of laborers and soldiers. What changed was the reach and power of religious and political leaders.

**Teotihuacan**

Located about 30 miles (48 kilometers) northeast of modern Mexico City, Teotihuacan (see Map 11.1) was at the height of its power in 600 C.E. and verging on decline. With between 125,000 and 200,000 inhabitants, it was the largest city in the Americas and larger than all but a few contemporary European and Asian cities.

Religious architecture rose above a city center aligned with nearby sacred mountains and reflecting the movement of the stars. Enormous pyramids dedicated to the Sun and Moon and more than twenty smaller temples devoted to other gods were arranged along a central avenue. The people recognized and worshiped many gods and lesser spirits. Among the gods were the Sun, the Moon, a storm-god, and Quetzalcoatl, the feathered serpent. Quetzalcoatl was a culture-god believed to be the originator of agriculture and the arts. Like the earlier Olmec, people living at Teotihuacan practiced human sacrifice. More than a hundred sacrificial victims were found during the excavation of the temple of Quetzalcoatl at Teotihuacan. Sacrifice was viewed as a sacred duty toward the gods and as essential to the well-being of human society.

**Teotihuacan** (teh-o-tee-WAH-kahn)

**Quetzalcoatl** (kate-zahl-CO-ah-tal)
The rapid growth in urban population initially resulted from a series of volcanic eruptions that disrupted agriculture. Later, as the city elite increased its power, farm families from the smaller villages in the region were forced to relocate to the urban core. As a result, more than two-thirds of the city’s residents retained their dependence on agriculture, walking out from urban residences to their fields. The elite of Teotihuacan used the city’s growing labor resources to bring marginal lands into production. Swamps were drained, irrigation works were constructed, terraces were built into hillsides, and the use of chinampas was expanded. Chinampas, sometimes called “flooding gardens,” were narrow artificial islands constructed along lakeshores or in marshes. They were created by heaping lake muck and waste material on beds of reeds that were then anchored to the shore by trees. Chinampas permitted year-round agriculture—because of subsurface irrigation and resistance to frost—and thus played a crucial role in sustaining the region’s growing population. The productivity of the city’s agriculture made possible its accomplishments in art, architecture, and trade.

As population grew, the housing of commoners underwent dramatic change. Apartment-like stone buildings were constructed for the first time. These apartment compounds were unique to Teotihuacan. They commonly housed members of a single kinship group, but some were used to house craftsmen working in the same trade. The two largest craft groups produced pottery and obsidian tools, the most important articles of long-distance trade. It appears that more than 2 percent of the urban population was engaged in making obsidian tools and weapons. The city’s pottery and obsidian have been found throughout central Mexico and even in the Maya region of Guatemala.

The city’s role as a religious center and commercial power provided both divine approval of and a material basis for the elite’s increased wealth and status. Members
of the elite controlled the state bureaucracy, tax collection, and commerce. Their prestige and wealth were reflected in their style of dress and diet and in the separate residence compounds built for aristocratic families. The central position and great prestige of the priestly class were evident in temple and palace murals. Teotihuacan's economy and religious influence drew pilgrims from as far away as Oaxaca and Veracruz. Some of them became permanent residents.

Unlike the other classic-period civilizations, the people of Teotihuacan did not concentrate power in the hands of a single ruler. Although the ruins of their impressive housing compounds demonstrate the wealth and influence of the city's aristocracy, there is no clear evidence that individual rulers or a ruling dynasty gained overarching political power. In Teotihuacan the deeds of individual rulers were not featured in public art, nor were their images represented by statues or other monuments as in other Mesoamerican civilizations. In fact, some scholars suggest that Teotihuacan was ruled by alliances forged among elite families or by weak kings who were the puppets of these powerful families. Regardless of what form political decision making took, we know that this powerful classic-period civilization achieved regional preeminence without subordinating its political life to the personality of a powerful individual ruler or lineage.

Historians debate the role of the military in the development of Teotihuacan. The city walls of 600 C.E. had not been there a century and a half earlier, suggesting that Teotihuacan enjoyed relative peace during its early development. Archaeological evidence, however, reveals that the city created a powerful military to protect long-distance trade and to compel peasant agriculturalists to transfer their surplus production to the city. The discovery of representations of soldiers in typical Teotihuacan dress in the Maya region of Guatemala suggests to some that Teotihuacan used its military to expand trade relations. Unlike later postclassic civilizations, however, Teotihuacan was not an imperial state controlled by a military elite.

It is unclear what forces brought about the collapse of Teotihuacan about 750 C.E. Pictorial evidence from murals suggests that the city's final decades were violent. Early scholars suggested that the city was overwhelmed militarily by a nearby rival city or by nomadic warriors from the northern frontier. More recent investigators have uncovered evidence of conflict within the ruling elite and the mismanagement of resources. This, they argue, led to class conflict and the breakdown of public order. As a result, most important temples in the city center were pulled
The Maya

During Teotihuacan’s ascendancy in the north, the Maya developed an impressive civilization in the region that today includes Guatemala, Honduras, Belize, and southern Mexico (see Map 11.1). Given the difficulties imposed by a tropical climate and fragile soils, the cultural and architectural achievements of the Maya were remarkable. Although they shared a single culture, they were never unified politically. Instead, rival kingdoms led by hereditary rulers struggled with each other for regional dominance.

Today Maya farmers prepare their fields by cutting down small trees and brush and then burning the dead vegetation to fertilize the land. Swidden agriculture (also called shifting agriculture or slash and burn agriculture) can produce high yields for a few years. However, it uses up the soil’s nutrients, eventually forcing people to move to more fertile land. The high population levels of the Maya classic period, which ended about 900 C.E., required more intensive forms of agriculture. Maya living near the major urban centers achieved high agricultural yields by draining swamps and building elevated fields. They used irrigation in areas with long dry seasons, and they terraced hillsides in the cooler highlands. Nearly every household planted a garden to provide condiments and fruits to supplement dietary staples. Maya agriculturists also managed nearby forests, favoring the growth of the trees and shrubs that were most useful to them.

The most powerful cities of the classic period controlled groups of smaller dependent cities and a broad agricultural zone by building impressive religious temples and by creating rituals that linked the power of kings to the gods. High pyramids, commonly aligned with the movements of the sun and Venus, and elaborately decorated palaces surrounding open plazas awed the masses drawn to the centers for religious and political rituals.

Bas-reliefs painted in bright colors covered most public buildings. Religious allegories, the genealogies of rulers, and important historical events were the most common motifs. Beautifully carved altars and stone monoliths were erected near major temples. Everything was constructed without the aid of wheels—no pulleys, wheelbarrows, or carts—or metal tools. Masses of men and women aided only by levers and stone tools cut and carried construction materials and lifted them into place.

The Maya cosmos was divided into three layers connected along a vertical axis that traced the course of the sun. The earthly arena of human existence held an intermediate position between the heavens, conceptualized by the Maya as a sky-monster, and a dark underworld. A sacred tree rose through the three layers; its roots were in the underworld, and its branches reached into the heavens. The temple precincts of Maya cities physically represented essential elements of this religious cosmology. The pyramids were sacred mountains reaching to the heavens. The doorways of the pyramids were portals to the underworld.

Rulers and other members of the elite served both priestly and political functions. They decorated their bodies with paint and tattoos and wore elaborate costumes of textiles, animal skins, and feathers to project both secular power and divine sanction. Kings communicated directly with the supernaturally residents of the other worlds and with deified royal ancestors through bloodletting rituals and hallucinogenic trances. Scenes of rulers drawing blood from lips, ears, and penises are common in surviving frescoes and on painted pottery.

Warfare in particular was infused with religious meaning and attached to elaborate rituals. Battle scenes and the depiction of the torture and sacrifice of captives were frequent decorative themes. Typically, Maya military forces fought to secure captives rather than territory. Days of fasting, sacred ritual, and rites of purification preceded battle. The king, his kinsmen, and other ranking nobles actively participated in war. Elite captives were nearly always sacrificed; captured commoners were more likely to be forced to labor for their captors.

Only two women are known to have ruled Maya kingdoms. Maya women of the ruling lineages did play important political and religious roles, however. The consorts of male rulers participated in bloodletting rituals and in other important public ceremonies, and their noble blood helped legitimate the rule of their husbands. Although Maya society was patrilineal (tracing descent in the male line), there is evidence that some male rulers traced their lineages bilaterally (in both the male and the female lines). Like Lady Wac-Chan-Itzab’s son K’ak Tiliw Chan Chaak, some rulers emphasized the female line if it held higher status. Much less is known about the lives of the women of the lower classes, but scholars believe that women played a central role in the religious rituals of the home. They were also healers and shamans. Women were essential to the household economy, maintaining essential garden plots and weaving, and in the management of family life.

Building on what the Olmec had done, the Maya made important contributions to the development of the Mesoamerican calendar and to mathematics and writing. Their interest in time and in the cosmos was reflected in the complexity of their calendric system. Each
day was identified by three separate dating systems. Like other peoples throughout Mesoamerica, the Maya had a calendar that tracked the ritual cycle (260 days divided into thirteen months of 20 days) as well as a solar calendar (365 days divided into eighteen months of 20 days, plus 5 unfavorable days at the end of the year). The concurrence of these two calendars every fifty-two years was believed to be especially ominous. Alone among Mesoamerican peoples, the Maya also maintained a continuous "long count" calendar, which began at a fixed date in the past that scholars have identified as 3114 B.C.E., a date that the Maya probably associated with creation.

Both the calendars and the astronomical observations on which they were based depended on Maya mathematics and writing. Their system of mathematics incorporated the concept of the zero and place value but had limited notational signs. Maya writing was a form of hieroglyphic inscription that signified whole words or concepts as well as phonetic cues or syllables. Aspects of public life, religious belief, and the biographies of rulers and their ancestors were recorded in deerskin and bark-paper books, on pottery, and on the stone columns and monumental buildings of the urban centers.

Between 800 and 900 C.E., many of the major urban centers of the Maya were abandoned or destroyed, although a small number of classic-period centers survived for centuries. In some areas, decades of urban population decline and increased warfare preceded abandonment. Some scholars have proposed, on little evidence, that epidemic disease played a role in this catastrophe. Others contend that the earlier destruction of
Teotihuacan around 650 C.E. disrupted trade, thus undermining the legitimacy of Maya rulers who had used the goods in rituals. There is growing consensus that the population expansion led to environmental degradation and declining agricultural productivity, which, in turn, provoked social conflict and warfare.

**The Postclassic Period in Mesoamerica, 900–1500**

The division between the classic and postclassic periods is somewhat arbitrary. Not only is there no single explanation for the collapse of Teotihuacan and many of the major Maya centers, but these events occurred over more than a century and a half. In fact, some important classic-period civilizations survived unscathed. Moreover, the essential cultural characteristics of the classic period were carried over to the postclassic. The two periods are linked by similarities in religious belief and practice, architecture, urban planning, and social organization.

There were, however, some important differences between the periods. There is evidence that the population of Mesoamerica expanded during the postclassic period. Resulting pressures led to an intensification of agricultural practices and to increased warfare. The governing elites of the major postclassic states—the Toltecs and the Aztecs—responded to these harsh realities by increasing the size of their armies and by developing political institutions that facilitated their control of large and culturally diverse territories acquired through conquest.

**The Toltecs**

Little is known about the Toltecs’ prior to their arrival in central Mexico. Some scholars speculate that they were originally a satellite population that Teotihuacan had placed on the northern frontier to protect against the incursions of nomads. After their migration south, the Toltecs borrowed from the cultural
legacy of Teotihuacan and created an important postclassical civilization. Memories of their military achievements and the violent imagery of their political and religious rituals dominated the Mesoamerican imagination in the late postclassic period. In the fourteenth century, the Aztecs and their contemporaries erroneously believed that the Toltecs were the source of nearly all the great cultural achievements of the Mesoamerican world. As one Aztec source later recalled:

In truth [the Toltecs] invented all the precious and marvelous things. . . . All that now exists was their discovery. . . . And these Toltecs were very wise; they were thinkers, for they originated the year count, the day count, all their discoveries formed the book for interpreting dreams. . . . And so wise were they [that] they understood the stars which were in the heavens.²

In fact, all these contributions to Mesoamerican culture were in place long before the Toltecs gained control of central Mexico. The most important Toltec innovations were instead political and military.

The Toltecs created the first conquest state based largely on military power, and they extended their political influence from the area north of modern Mexico City to Central America. Established about 988 C.E., the Toltec capital of Tula was constructed in a grand style (see Map 11.1). Its public architecture featured colonnaded patios and numerous temples. Although the population of Tula never reached the levels of classic-period Teotihuacan, the Toltec capital dominated central Mexico. Toltec decoration had a more warlike and violent character than did the decoration of earlier Mesoamerican cultures. Nearly all Toltec public buildings and temples were decorated with representations of warriors or with scenes suggesting human sacrifice.

Two chieftains or kings apparently ruled the Toltec state together. Evidence suggests that this division of responsibility eventually weakened Toltec power and led to the destruction of Tula. Sometime after 1000 C.E. a struggle between elite groups identified with rival religious cults undermined the Toltec state. According to legends that survived among the Aztecs, Topiltzin—one of the two rulers and a priest of the cult of Quetzalcoatl—and his followers bitterly accepted exile in the east, “the land of the rising sun.” These legendary events coincided with growing Toltec influence among the Maya of the Yucatan Peninsula. One of the ancient texts relates these events in the following manner:

Thereupon he [Topiltzin] looked toward Tula, and then wept. . . . And when he had done these things . . . he went to reach the seacoast. Then he fashioned a raft of serpents. When he had arranged the raft, he placed himself as if it were his boat. Then he set off across the sea.³

After the exile of Topiltzin, the Toltec state began to decline, and around 1175 C.E. northern invaders overcame Tula itself. After its destruction, a centuries-long process of cultural and political assimilation produced a new Mesoamerican political order based on the urbanized culture and statecraft of the Toltecs. Like Semitic peoples of the third millennium B.C.E. interacting with Sumerian culture (see Chapter 1), the new Mesoamerican elites were drawn in part from the invading cultures. The Aztecs of the Valley of Mexico became the most important of these late postclassic peoples.

The Aztecs

The Mexica, more commonly known as the Aztecs, were among the northern peoples who pushed into central Mexico in the wake of the collapse of Tula. At the time of their arrival they had a clan-based social organization. In their new environment they began to adopt the political and social practices that they found among the urbanized agriculturalists of the valley. At first, the Aztecs served their more powerful neighbors as serfs and mercenaries. As their strength grew, they relocated to small islands near the shore of Lake Texcoco, and around 1325 C.E. they began the construction of their twin capitals, Tenochtitlan and Tlacolulco (together the foundation for modern Mexico City).

Military successes allowed the Aztecs to seize control of additional agricultural land along the lakeshore. With the increased economic independence and greater political security that resulted from this expansion, the Aztecs transformed their political organization by introducing a monarchical system similar to that found in more powerful neighboring states. The kinship-based organizations that had organized political life earlier survived to the era of Spanish conquest but lost influence relative to monarchs and hereditary aristocrats.

Tula (TOO-la) Topiltzin (too-PEE-lt-zeen)

Mexica (meh-SHE-ca) Tenochtitlan (teh-noch-TTF-lan)
Costumes of Aztec Warriors. In Mesoamerican warfare individual warriors sought to gain prestige and improve their status by taking captives. This illustration from the sixteenth-century Codex Mendoza was drawn by an Amerindian artist. It shows the Aztecs’ use of distinctive costumes to acknowledge the prowess of warriors. These costumes indicate the taking of two (top left) to six captives (bottom center). The individual on the bottom right shown without a weapon was a military leader. As was common in Mesoamerican illustrations of military conflict, the captives, held by their hair, are shown kneeling before the victors. (The Bodleian Library, University of Oxford, Selc. A.T. fol. 64r)

Aztec rulers did not have absolute power, and royal succession was not based on primogeniture. A council of powerful aristocrats selected new rulers from among male members of the ruling lineage. Once selected, the ruler was forced to renegotiate the submission of tribute dependencies and then demonstrate his divine mandate by undertaking a new round of military conquests. War was infused with religious meaning, providing the ruler with legitimacy and increasing the prestige of successful warriors.

With the growing power of the ruler and aristocracy, social divisions were accentuated. These alterations in social organization and political life were made possible by Aztec military expansion. Territorial conquest allowed the warrior elite of Aztec society to seize land and peasant labor as spoils of war (see Map 11.1). In time, the royal family and highest-ranking members of the aristocracy possessed extensive estates that were cultivated by slaves and landless commoners. The Aztec lower classes received some material rewards from imperial expansion but lost most of their ability to influence or control decisions. Some commoners were able to achieve some social mobility through success on the battlefield or by entering the priesthood, but the highest social ranks were always reserved for hereditary nobles.

The urban plan of Tenochtitlan and Tlatelolco continued to be organized around the clans, whose members maintained a common ritual life and accepted civic responsibilities such as caring for the sick and elderly. Clan members also fought together as military units. Nevertheless, the clans’ historical control over common agricultural land and other scarce resources, such as fishing and hunting rights, declined. By 1500 C.E. great inequalities in wealth and privilege characterized Aztec society.

Aztec kings and aristocrats legitimated their ascendancy by creating elaborate rituals and ceremonies to distinguish themselves from commoners. One of the Spaniards who participated in the conquest of the Aztec Empire remembered his first meeting with the Aztec ruler Moctezuma II (r. 1502–1520): “many great lords walked before the great Montezuma [Moctezuma II], sweeping the ground on which he was to tread and laying
down cloaks so that his feet should not touch the earth. Not one of these chieftains dared look him in the face. Commoners lived in small dwellings and ate a limited diet of staples, but members of the nobility lived in large, well-constructed two-story houses and consumed a diet rich in animal protein and flavored by condiments and expensive imports like chocolate from the Maya region to the south. Rich dress and jewelry also set apart the elite. Even in marriage customs the two groups were different. Commoners were monogamous, great nobles polygamous.

The Aztec state met the challenge of feeding an urban population of approximately 150,000 by efficiently organizing the labor of the clans and additional laborers sent by defeated peoples to expand agricultural land. The construction of a dike more than 5-1/2 miles (9 kilometers) long by 23 feet (7 meters) wide to separate the freshwater and saltwater parts of Lake Texcoco was the Aztec's most impressive land reclamation project. The dike allowed a significant extension of irrigated fields and the construction of additional chinampas. One expert has estimated that the project consumed 4 million person-days to complete. Aztec chinampas contributed maize, fruits, and vegetables to the markets of Tenochtitlan. The imposition of a tribute system on conquered peoples also helped relieve some of the pressure of Tenochtitlan's growing population. Unlike the tribute system of Tang China, where tribute had a more symbolic character (see Chapter 10), one-quarter of the Aztec capital's food requirements was satisfied by tribute payments of maize, beans, and other foods sent by nearby political dependencies. The Aztecs also demanded cotton cloth, military equipment, luxury goods like jade and feathers, and sacrificial victims as tribute. Trade supplemented these supplies.

A specialized class of merchants controlled long-distance trade. Given the absence of draft animals and wheeled vehicles, this commerce was dominated by lightweight and valuable products like gold, jewels, feathered garments, cacao, and animal skins. Merchants also provided essential political and military intelligence for the Aztec elite. Operating outside the protection of Aztec military power, merchant expeditions were armed and often had to defend themselves. Although merchants became wealthy and powerful as the Aztecs expanded their empire, they were denied the privileges of the high nobility, which was jealous of its power. As a result, the merchants feared to publicly display their affluence.

Like commerce throughout the Mesoamerican world, Aztec commerce was carried on without money and credit. Barter was facilitated by the use of cacao, quills filled with gold, and cotton cloth as standard units of value to compensate for differences in the value of bartered goods. Aztec expansion facilitated the integration of producers and consumers in the central Mexican economy. As a result, the markets of Tenochtitlan and Tlatelolco offered a rich array of goods from as far away as Central America and what is now the southwestern border of the United States. Hernán Cortés (1485–1547), the Spanish adventurer who eventually conquered the Aztecs, expressed his admiration for the abundance of the Aztec marketplace:

One square in particular is twice as big as that of Sala-
manca and completely surrounded by arcades where there are daily more than sixty thousand folk buying and selling. Every kind of merchandise such as may be met with in every land is for sale... There is nothing to be found in all the land which is not sold in these markets, for over and above what I have mentioned there are so many and such various things that on account of their very number... I cannot detail them.

The Aztecs succeeded in developing a remarkable urban landscape. The combined population of Tenoch-
titlan and Tlatelolco and the cities and hamlets of the surrounding lakeshore was approximately 500,000 by 1500 C.E. The island capital was designed so that canals and streets intersected at right angles. Three causeways connected the city to the lakeshore.

Religious rituals dominated public life in Tenochtitlan. Like the other cultures of the Mesoamerican world, the Aztecs worshiped a large number of gods. Most of these gods had a dual nature—both male and female. The major contribution of the Aztecs to the religious life of Mesoamerica was the cult of Huitzilopochtli, the southern hummingbird. As the Aztec state grew in power and wealth, the importance of this cult grew as well. Huitzilopochtli, originally associated with war, but eventually the Aztecs identified this god with the Sun, worshiped as a divinity throughout Mesoamerica. Huitzilopochtli, they believed, required a diet of human hearts to sustain him in his daily struggle to bring the Sun's warmth to the world. Tenochtitlan was architecturally dominated by a great twin temple devoted to Huitzilopochtli and Tlaloc, the rain-god, symbolizing the two bases of the Aztec economy: war and agriculture.

War captives were the preferred sacrificial victims, but large numbers of criminals, slaves, and people provided as tribute by dependent regions were also sacrificed. Although

Huitzilopochtli (wheat-ziel-ob-POSHT-lee)
human sacrifice had been practiced since early times in Mesoamerica, the Aztecs and other societies of the late postclassic period transformed this religious ritual by dramatically increasing its scale. There are no reliable estimates for the total number of sacrifices, but the numbers clearly reached into the thousands each year. This form of violent public ritual had political consequences and was not simply the celebration of religious belief. Some scholars have emphasized the political nature of the rising tide of sacrifice, noting that sacrifices were carried out in front of large crowds that included leaders from enemy and subject states as well as the masses of Aztec society. The political subtext must have been clear: rebellion, deviancy, and opposition were extremely dangerous.

**Northern Peoples**

By the end of the classic period in Mesoamerica, around 900 C.E., important cultural centers had appeared in the southwestern desert region and along the Ohio and Mississippi river valleys of what is now the United States. The introduction of maize, beans, and squash from Mesoamerica played an important role in the development of complex societies. Once established, these useful food crops were adopted throughout North America. As growing populations came to depend on maize as a dietary staple, large-scale irrigation projects were undertaken in both the southwestern desert and the eastern river valleys. This development is a sign of increasingly centralized political power and growing social Stratification. The two regions, however, evolved different political traditions.

**Southwestern Desert Cultures**

Of all the southwestern cultures, the Hohokam of the Salt and Gila river valleys of southern Arizona show the strongest Mexican influence. Hohokam sites have platform mounds and ball courts similar to those of Mesoamerica. Hohokam pottery, clay figurines, cast copper bells, and turquoise mosaics also reflect Mexican influence. By 1000 C.E. the Hohokam had constructed an elaborate irrigation system that included one canal more than 18 miles (30 kilometers) in length. Hohokam agricultural and ceramic technology spread over the centuries to neighboring peoples, but it was the Anasazi to the north who left the most vivid legacy of these desert cultures.

Archaeologists use Anasazi, a Navajo word meaning “ancient ones,” to identify a number of dispersed, though similar, desert cultures located in what is now the Four Corners region of Arizona, New Mexico, Colorado, and Utah (see Map 11.2). Between 450 and 750 C.E. the Anasazi had a well-established economy based on maize, beans, and squash. Their successful adaptation of these crops permitted the formation of larger villages and led to an enriched cultural life centered in underground buildings called kivas. Evidence suggests that the Anasazi may have used kivas for weaving and pottery making, as well as for religious rituals. They produced pottery decorated with geometric patterns, learned to weave cotton cloth, and, after 900 C.E., began to construct large multi-story residential and ritual centers.

One of the largest Anasazi communities was located in Chaco Canyon in northwestern New Mexico. Eight large towns were built in the canyon and four more on surrounding mesas, suggesting a regional population of approximately 15,000. Many smaller villages were located nearby. Each town contained hundreds of rooms arranged in tiers around a central plaza. At Pueblo Bonito, the largest town, more than 650 rooms were arranged in a four-story block of residences and storage rooms. Pueblo Bonito had thirty-eight kivas, including a great kiva more than 65 feet (19 meters) in diameter. Social life and craft activities were concentrated in small open plazas or common rooms. Hunting, trade, and the need to maintain irrigation works often drew men away from the village. Women shared in agricultural tasks and were specialists in many crafts. They also were responsible for food preparation and childcare. If the practice of the modern Pueblos, cultural descendants of the Anasazi, is a guide, houses and furnishings may have belonged to the women, who formed extended families with their mothers and sisters.

At Chaco Canyon high-quality construction, the size and number of kivas, and the system of roads linking the canyon to outlying towns all suggest that Pueblo Bonito and its nearest neighbors exerted some kind of political or religious dominance over a large region. Some archaeologists have suggested that the Chaco Canyon culture originated as a colonial appendage of Mesoamerica, but the archaeological record provides little evidence for this theory. Merchants from Chaco provided Toltec-period peoples of northern Mexico with turquoise in exchange for shell jewelry, copper bells, macaws, and trumpets. But these exchanges occurred late in Chaco’s development, and more important signs of Mesoamerican influence

**Anasazi** (ah-nah-SAH-zee)
Map 11.2  Culture Areas of North America  In each of the large ecological regions of North America, native peoples evolved distinctive cultures and technologies. Here the Anasazi of the arid southwest and the mound-building cultures of the Ohio and Mississippi river valleys are highlighted.
such as pyramid-shaped mounds and ball courts are not found at Chaco. Nor is there evidence from the excavation of burials and residences of clear class distinctions, a common feature of Mesoamerican culture. Instead, it appears that the Chaco Canyon culture developed from earlier societies in the region.

The abandonment of the major sites in Chaco Canyon in the twelfth century most likely resulted from a long drought that undermined the culture’s fragile agricultural economy. Nevertheless, the Anasazi continued in the Four Corners region for more than a century after the abandonment of Chaco Canyon. There were major centers at Mesa Verde in present-day Colorado and at Canyon de Chelly and Kiet Siel in Arizona. Anasazi settlements on the Colorado Plateau and in Arizona were constructed in large natural caves high above valley floors. This hard-to-reach location suggests increased levels of warfare, probably provoked by population pressure on limited arable land.

Mound Builders: The Mississippian Culture

Building large mounds for elite burials, the residences of chiefs, and as platforms for temples had been a feature of village life in an area stretching from New York to Illinois and from Ontario to Florida for a period of a thousand years before the development of Mississippian culture (700–1500 C.E.). Economically, the early Mound Builders depended on hunting and gathering supplemented by limited cultivation of locally domesticated seed crops.

Mesa Verde Cliff Dwelling  Located in southern Colorado, the Anasazi cliff dwellings of the Mesa Verde region hosted a population of about 7,000 in 1250 C.E. The construction of housing complexes and religious buildings in the area’s large caves was probably prompted by increased warfare in the region. (David Muench)
As in the case of the Anasazi, some experts have suggested that contacts with Mesoamerica influenced Mississippian culture, but there is no convincing evidence to support this theory. It is true that maize, beans, and squash, all first domesticated in Mesoamerica, were closely associated with the development of the urbanized Mississippian culture. But these plants and related technologies were probably passed along through numerous intervening cultures.

Mississippian political organization continued the earlier North American chiefdom tradition, wherein a territory that had a population as large as 10,000 was ruled by a chief, a hereditary leader with both religious and secular responsibilities. Chiefs organized periodic rituals of feasting and gift giving that established bonds among diverse kinship groups and guaranteed access to specialized crops and craft goods. They also managed long-distance trade, which provided luxury goods and additional food supplies.

Urbanized Mississippian sites developed from the accumulated effects of small increases in agricultural productivity, the adoption of the bow and arrow, and the expansion of trade networks. An improved economy led to population growth and social stratification. The largest towns shared a common urban plan based on a central plaza surrounded by large platform mounds. Major towns were trade centers where people bartered essential commodities, such as the flint used for weapons and tools.

The Mississippian culture reached its highest stage of evolution at the great urban center of Cahokia, located near the modern city of East St. Louis, Illinois (see Map 11.2). At the center of this site was the largest mound constructed in North America, a terraced structure 100 feet (30 meters) high and 1,037 by 790 feet (318 by 241 meters) at the base. Areas where commoners lived ringed the center area of elite housing and temples. At its height in about 1200 C.E., Cahokia had a population of about 20,000—about the same as some of the largest postclassic Maya cities.

Cahokia controlled surrounding agricultural lands and a number of secondary towns ruled by subchiefs. The urban center’s political and economic influence depended on its location on the Missouri, Mississippi, and Illinois rivers. This location permitted canoe-based commercial exchanges as far away as the coasts of the Atlantic and the Gulf of Mexico. Seashells, copper, mica, and flint were drawn to the city by trade and tribute from distant sources and converted into ritual goods and tools. Burial evidence suggests that the rulers of Cahokia enjoyed most of the benefits of this exalted position. In one burial more than fifty young women and retainers were apparently sacrificed to accompany a ruler on his travels after death.

No evidence links the decline and eventual abandonment of Cahokia, which occurred after 1250 C.E., with military defeat or civil war. Climate changes and population pressures undermined the center’s vitality. Environmental degradation caused by deforestation, as more land was cleared to feed the growing population, and more intensive farming practices played roles as well. After the decline of Cahokia, smaller Mississippian centers continued to flourish in the southeast of the present-day United States until the arrival of Europeans.

**Andean Civilizations, 600–1500**

The Andean region of South America was an unlikely environment for the development of rich and powerful civilizations (see Map 11.3). Much of the region’s mountainous zone is at altitudes that seem too high for agriculture and human habitation. Along the Pacific coast an arid climate posed a difficult challenge to the development of agriculture. To the east of the Andes Mountains, the hot and humid tropical environment of the Amazon headwaters also offered formidable obstacles to the organization of complex societies. Yet the Amerindian peoples of the Andean area produced some of the most socially complex and politically advanced societies of the Western Hemisphere. The very harshness of the environment compelled the development of productive and reliable agricultural technologies and attached them to a complex fabric of administrative structures and social relationships that became the central features of Andean civilization.

**Cultural Response to Environmental Challenge**

From the time of Chavin (see Chapter 2) all of the great Andean civilizations succeeded in connecting the distinctive resources of the coastal region, with its abundant fisheries and irrigated maize fields, to the mountainous interior, with its herds of llamas and rich mix of grains and tubers. Both regions faced significant environmental challenges. The coastal region’s fields were
how to use the cold, dry climate to produce freeze-dried vegetable and meat products that prevented famine when crops failed. The domestication of the llama and alpaca also proved crucial, providing meat, wool, and long-distance transportation that linked coastal and mountain economies. Even though the Andean environment was harsher than that of Mesoamerica, the region's agriculture proved more dependable, and Andean peoples faced fewer famines.

The effective organization of human labor allowed the peoples of both the high mountain valleys and dry coastal plain to overcome the challenges posed by their environments. The remarkable collective achievements of Andean peoples were accomplished with a record-keeping system more limited than the one found in Mesoamerica. A system of knotted colored cords, **kipus** was used to aid administration and record population counts and tribute obligations. Large-scale drainage and irrigation works and the terracing of hillsides to control erosion and provide additional farmland led to an increase in agricultural production. Andean people also collectively undertook road building, urban construction, and even textile production.

The sharing of responsibilities began at the household level. But it was the clan, or **ayllu** that provided the foundation for Andean achievement. Members of an ayllu held land communally. Although they claimed descent from a common ancestor, they were not necessarily related. Ayllu members thought of each other as brothers and sisters and were obligated to aid each other in tasks that required more labor than a single household could provide. These reciprocal obligations provided the model for the organization of labor and the distribution of goods at every level of Andean society. Just as individuals and families were expected to provide labor to kinsmen, members of an ayllu were expected to provide labor and goods to their hereditary chief.

With the development of territorial states ruled by hereditary aristocracies and kings, these obligations were organized on a larger scale. The **mit'a** was a rotational labor draft that organized members of ayllus to work the fields and care for the llama and alpaca herds owned by religious establishments, the royal court, and the aristocracy. Each ayllu contributed a set number of workers for specific tasks each year. Mit'a laborers built and maintained roads, bridges, temples, palaces, and large irrigation and drainage projects. They produced textiles and goods essential to ritual life, such as beer

**kipus** (KEY-pou)  **ayllu** (ay-YOU)  **mit'a** (MEET-ah)
made from maize and coca (dried leaves chewed as a stimulant and now also the source of cocaine). The mit'a system was an essential part of the Andean world for more than a thousand years.

Work was divided along gender lines, but the work of men and women was interdependent. Hunting, military service, and government were largely reserved for men. Women had numerous responsibilities in textile production, agriculture, and the home. One early Spanish commentator described the responsibilities of Andean women in terms that sound very modern:

[They did not just perform domestic tasks, but also] labored in the fields, in the cultivation of their lands, in building houses, and carrying burdens... [And more than once I heard that while women were carrying these burdens, they would feel labor pains, and giving birth, they would go to a place where there was water and wash the baby and themselves. Putting the baby on top of the load they were carrying, they would then continue walking as before they gave birth. In sum, there was nothing their husbands did where their wives did not help.]

The ayllu was intimately tied to a uniquely Andean system of production and exchange. Because the region's mountain ranges created a multitude of small ecological areas with specialized resources, each community sought to control a variety of environments so as to guarantee access to essential goods. Coastal regions produced maize, fish, and cotton. Mountain valleys contributed quinoa (the local grain) as well as potatoes and other tubers. Higher elevations contributed the wool and meat of llamas and alpacas, and the Amazonian region provided coca and fruits. Ayllus sent out colonists to exploit the resources of these ecological niches. Colonists remained linked to their original region and kin group by marriage and ritual. Historians commonly refer to this system of controlled exchange across ecological boundaries as vertical integration, or verticality.

The historical periodization of Andean history is similar to that of Mesoamerica. Both regions developed highly integrated political and economic systems long before 1500. The pace of agricultural development, urbanization, and state formation in the Andes also approximated that in Mesoamerica. Due to the unique environmental challenges in the Andean region, however, distinctive highland and coastal cultures appeared. In the Andes, more than in Mesoamerica, geography influenced regional cultural integration and state formation.

Moche

By 600 C.E. the Moche had developed cultural and political tools that allowed them to dominate the north coastal region of Peru. Moche identity was cultural in character. They did not establish a formal empire or create unified political structures. The Moche and the Chimú, who followed them cultivated maize, quinoa, beans, manioc, and sweet potatoes with the aid of massive irrigation works. At higher elevations they also produced coca, which they used ritually. Complex networks of canals and aqueducts connected fields with water sources as far away as 75 miles (121 kilometers). These hydraulic works were maintained by mit'a labor imposed on Moche commoners or on subject peoples. The Moche maintained large herds of alpacas and llamas to transport goods across the region's difficult terrain. Their wool, along with cotton provided by farmers, provided the raw material for the thriving Moche textile production. Their meat provided an important part of the diet.

Evidence from surviving murals and decorated ceramics suggests that Moche society was highly stratified and theocratic. The need to organize large numbers of laborers to construct and maintain the irrigation system helped promote class divisions. Wealth and power among the Moche were concentrated, along with political control, in the hands of priests and military leaders. The residences of the elite were constructed atop large platforms at Moche ceremonial centers. Rich clothing and jewelry confirmed their divine status and set them farther apart from commoners. Moche rulers and other members of the elite wore tall headdresses. Gold and gold alloy jewelry marked their social position; gold plates suspended from their noses concealed the lower portion of their faces, and large gold plugs decorated their ears.

These deep social distinctions also were reflected in Moche burial practices. A recent excavation in the Lambayeque Valley discovered the tomb of a warrior-priest who was buried with a rich treasure of gold, silver, and copper jewelry, textiles, feather ornaments, and shells (see Diversity and Dominance: Burials as Historical Texts). Retainers and servants were executed and buried with this powerful man to serve him in the afterlife.

Most commoners, on the other hand, devoted their time to subsistence farming and to the payment of labor dues owed to their ayllu and to the elite. Both men and women were involved in agriculture, care of llama herds, and the household economy. They lived with

Moche (MO-che)  Chimú (chee-MOO)
**Burials as Historical Texts**

Efforts to reveal the history of the Americas before the arrival of Europeans depend on the work of archaeologists. The burials of rulers and other members of elites can be viewed as historical texts that describe how textiles, precious metals, beautifully decorated ceramics, and other commodities were used to reinforce the political and cultural power of ruling lineages. In public, members of the elite were always surrounded by the most desirable and rarest products as well as by elaborate rituals and ceremonies. The effect was to create an aura of godlike power. The material elements of political and cultural power were integrated into the experience of death and burial as members of the elite were sent into the afterlife.

The first photograph is of an excavated Moche tomb in Sipán, Peru. The Moche (200 B.C.E.-ca. 700 C.E.) were one of the most important of the pre-Inca civilizations of the Andean region. They were masters of metallurgy, ceramics, and textiles. The excavations at Sipán revealed a "warrior-priest" buried with an amazing array of gold ornaments, jewels, textiles, and ceramics. He was also buried with two women, perhaps wives or concubines, two male servants, and a warrior. The warrior, one woman, and one man are missing feet, as if this deformation would guarantee their continued faithfulness to the deceased ruler.

The second photograph shows the excavation of a classic-era (250 C.E.-ca. 800 C.E.) Maya burial at Río Azul in Guatemala. Here a member of the elite was laid out on a carved wooden platform and cotton mattress; his body was painted with decorations. He was covered in beautifully woven textiles and surrounded by valuable goods. Among the discoveries were a necklace of individual stones carved in the shape of heads, perhaps a symbol of his prowess in battle, and high-quality ceramics, some filled with foods like cacao that were consumed by the elite. The careful preparation of the burial chamber had required the work of numerous artisans and laborers, as was the case in the burial of the Moche warrior-priest. In death, as in life, these early American civilizations acknowledged the high status, political power, and religious authority of their elites.

**QUESTIONS FOR ANALYSIS**

1. If these burials are texts, what are stories?
2. Are there any visible differences in the two burials?
3. What questions might historians ask of these burials that cannot be answered?
4. Can modern burials be read as texts in similar ways to these ancient burials?

their families in one-room buildings clustered in the outlying areas of cities and in surrounding agricultural zones.

Among craft workers, women had a special role in the production of textiles; even elite women devoted time to weaving. Moche potters produced highly individualized portrait vases and decorated other vessels with line drawings representing myths and rituals. The most original Moche ceramic vessels depict explicit sexual acts. In addition to gold jewelry, metalworkers produced a range of tools made of heavy copper and copper alloy for agricultural and military purposes.

Without written sources, a detailed history of the Moche cannot be written. The archaeological record reveals, however, that the rapid decline of the major centers coincided with a succession of natural disasters in the sixth century. When an earthquake altered the course of the Moche River, major flooding seriously damaged urban centers. In addition, a thirty-year drought expanded the area of coastal sand dunes, and powerful winds pushed sand onto fragile agricultural lands, overwhelming the irrigation system. As the land dried, periodic heavy rains caused erosion that damaged fields and weakened the economy. This succession of disasters undermined the authority of the religious and political leaders, whose privileges were based on their ability to control natural forces through rituals. Despite massive efforts to keep the irrigation
canals open and construct new urban centers in less vulnerable areas, Moche civilization never recovered.

**Tiwanaku and Wari**

In the Andean highlands the Tiwanaku and Wari cultures paralleled that of Moche of the coastal regions. At nearly 13,000 feet (3,962 meters) on the high treeless plain near Lake Titicaca in modern Bolivia stand the ruins of Tiwanaku* (see Map 11.3). Modern excavations provide the outline of vast drainage projects that reclaimed nearly 200,000 acres (8,000 hectares) of rich lakeside marshes for agriculture. This system of raised fields and ditches permitted intensive cultivation similar to that achieved by the use of chinampas in Mesoamerica. Fish from the nearby lake and llamas added protein to a diet largely dependent on potatoes and grains. Llamas were also crucial for the maintenance of long-distance trade relationships that brought in corn, coca, tropical fruits, and medicinal plants.

The urban center of Tiwanaku was distinguished by the scale of its construction and by the high quality of its stone masonry. Large stones and quarried blocks were moved many miles to construct a large terraced pyramid, walled enclosures, and a reservoir—projects that probably required the mobilization of thousands of laborers over a period of years. Despite a limited metallurgy that
produced only tools of copper alloy, Tiwanaku’s artisans built large structures of finely cut stone that required little mortar to fit the blocks. They also produced gigantic human statuary. The largest example, a stern figure with a military bearing, is cut from a single block of stone 24 feet (7 meters) high.

Many scholars portray Tiwanaku as the capital of a vast empire, a precursor to the later Inca state. It is clear that the elite controlled a large, disciplined labor force in the surrounding region. Military conquests and the establishment of colonial populations provided the highland capital with dependable supplies of products from ecologically distinct zones. Tiwanaku cultural influence extended eastward to the jungles and southward to the coastal regions and oases of the Atacama Desert in Chile. But archaeological evidence suggests that Tiwanaku, in comparison with contemporary Teothuacan in central Mexico, had a relatively small full-time population of around 30,000. It was not a metropolis like the largest Mesoamerican cities; it was a ceremonial and political center for a large regional population.

The contemporary site of Wari was located about 450 miles (751 kilometers) to the northwest of Tiwanaku, near the modern Peruvian city of Ayacucho. Wari shared elements of the culture and technology of Tiwanaku, but the exact nature of this relationship remains unclear. Some scholars argue that Wari began as a dependency of Tiwanaku, while others suggest that they were joint capitals of a single empire. Wari was larger than Tiwanaku, measuring nearly 4 square miles (10 square kilometers). The city center was surrounded by a massive wall and included a large temple. The center had numerous multifamily housing blocks. Less-concentrated housing for commoners was located in a sprawling suburban zone.

Perhaps as a consequence of military conflict, both Tiwanaku and Wari declined to insignificance by about 1000 C.E. The Inca inherited their political legacy.

In little more than a hundred years, the Inca developed a vast imperial state, which they called “Land of Four Corners.” By 1525 the empire had a population of more than 6 million and stretched from the Maule River in Chile to northern Ecuador and from the Pacific coast across the Andes to the upper Amazon and, in the south, into Argentina (see Map 11.3). In the early fifteenth century the Inca were one of many competing military powers in the southern highlands, an area of limited political significance after the collapse of Wari. Centered in the valley of Cuzco, the Inca were initially organized as a chieftaindom based on reciprocal gift giving and the redistribution of food and textiles. Strong and resourceful leaders consolidated political authority in the 1430s and undertook an ambitious campaign of military expansion.

The Inca state, like earlier highland powers, was built on traditional Andean social customs and economic practices. Tiwanaku had relied in part on the use of colonists to provide supplies of resources from distant, ecologically distinct zones. The Inca built on this legacy by conquering additional distant territories and increasing the scale of forced exchanges. Crucial to this
process was the development of a large, professional military. Unlike the peoples of Mesoamerica, who distributed specialized goods by developing markets and tribute relationships, Andean peoples used state power to broaden and expand the vertical exchange system that had permitted ayllus to exploit a range of ecological niches.

Like earlier highland civilizations, the Inca were pastoralists. Inca prosperity and military strength depended on vast herds of llamas and alpacas, which provided food and clothing as well as transport for goods. Both men and women were involved in the care of these herds. Women were primarily responsible for weaving; men were drivers in long-distance trade. This pastoral tradition provided the Inca with powerful metaphors that helped shape their political and religious beliefs. They believed that the gods and their ruler shared the obligations of the shepherd to his flock—an idea akin to references to “The Lord is my Shepherd.”

Collective efforts by mit’a laborers made the Inca Empire possible. Cuzco, the imperial capital, and the provincial cities, the royal court, the imperial armies, and the state’s religious cults all rested on this foundation. The mit’a system also created the material surplus that provided the bare necessities for the old, weak, and ill of Inca society. Each ayllu contributed approximately one-seventh of its adult male population to meet these collective obligations. These draft laborers served as soldiers, construction workers, craftsmen, and runners to carry messages along post roads. They also drained swamps, terraced mountainsides, filled in valley floors, built and maintained irrigation works, and built storage facilities and roads. Inca laborers constructed 13,000 miles (20,930 kilometers) of road, facilitating military troop movements, administration, and trade (see Environment and Technology: Inca Roads).

Imperial administration was similarly superimposed on existing political structures and established elite groups. The hereditary chiefs of ayllus carried out administrative and judicial functions. As the Inca expanded, they generally left local rulers in place. By doing so the Inca risked rebellion, but they controlled these risks by means of a thinly veiled system of hostage taking and the use of military garrisons. The rulers of defeated regions were required to send their heirs to live at the Inca royal court in Cuzco. Inca leaders even required that representations of important local gods be brought to Cuzco and made part of the imperial pantheon. These measures promoted imperial integration while at the same time providing hostages to ensure the good behavior of subject peoples.

Conquests magnified the authority of the Inca ruler and led to the creation of an imperial bureaucracy drawn from among his kinsmen. The royal family claimed descent from the Sun, the primary Inca god. Members of the royal family lived in palaces maintained by armies of servants. The lives of the ruler and members of the royal family were dominated by political and religious rituals that helped legitimize their authority. Among the many obligations associated with kingship was the requirement to extend imperial boundaries by warfare. Thus each new ruler began his reign with conquest.

Tenochtitlan, the Aztec capital, had a population of about 150,000 in 1520. At the height of Inca power in 1530, Cuzco had a population of less than 30,000. Nevertheless, Cuzco was a remarkable place. The Inca were highly skilled stone craftsmen: their most impressive buildings were constructed of carefully cut stones fitted together without mortar. The city was laid out in the shape of a giant puma (a mountain lion). At the center were the palaces that each ruler built when he ascended to the throne, as well as the major temples. The richest was the Temple of the Sun. Its interior was lined with sheets of gold, and its patio was decorated with golden representations of llamas and corn. The ruler made every effort to awe and intimidate visitors and residents alike with a nearly continuous series of rituals, feasts, and sacrifices. Sacrifices of textiles, animals, and other goods sent as tribute dominated the city’s calendar. The destruction of these valuable commodities, and a small number of human sacrifices, helped give the impression of splendor and sumptuous abundance that appeared to demonstrate the ruler’s claimed descent from the Sun.

Inca cultural achievement rested on the strong foundation of earlier Andean civilizations. We know that astronomical observation was a central concern of the priestly class, as in Mesoamerica; the Inca calendar, however, is lost to us. All communication other than oral was transmitted by the khipus borrowed from earlier Andean civilizations. In weaving and metallurgy, Inca technology, building on earlier regional developments, was more advanced than in Mesoamerica. Inca craftsmen produced utilitarian tools and weapons of copper and bronze as well as decorative objects of gold and silver. Inca women produced textiles of extraordinary beauty from cotton and the wool of llamas and alpacas.

Although the Inca did not introduce new technologies, they increased economic output and added to the region’s prosperity. The conquest of large populations
From the time of Chavin (900–250 B.C.E.), Andean peoples built roads to facilitate trade across ecological boundaries and to project political power over conquered peoples. In the fifteenth and sixteenth centuries, the Inca extended and improved the networks of roads constructed in earlier eras. Roads were crucially important to Inca efforts to collect and redistribute tribute paid in food, textiles, and chicha (corn liquor).

Two roads connected Cuzco, the Inca capital in southern Peru, to Quito, Ecuador, in the north and to Chile farther south. One ran along the flat and arid coastal plain, the other through the mountainous interior. Shorter east-west roads connected important coastal and interior cities. Evidence suggests that administrative centers were sited along these routes to expedite rapid communication with the capital. Rest stops at convenient distances provided shelter and food to traveling officials and runners who carried messages between Cuzco and the empire’s cities and towns. Warehouses were constructed along the roads to provide food and military supplies for passing Inca armies or to supply local laborers working on construction projects or cultivating the ruler’s fields.

Because communication with regional administrative centers and the movement of troops were the central objectives of the Inca leadership, routes were selected to avoid natural obstacles and to reduce travel time. Mit’a laborers recruited from nearby towns and villages built and maintained the roads. Roads were commonly paved with stone or packed earth and often were bordered by stone or adobe walls to keep soldiers or pack trains of llamas from straying into farmers’ fields. Whenever possible, roadbeds were made level. In mountainous terrain some roads were little more than improved paths, but in flat country three or four people could walk abreast. Care was always taken to repair damage caused by rain runoff or other drainage problems.

The achievement of Inca road builders is clearest in the mountainous terrain of the interior. They built suspension bridges across high gorges and cut roadbeds into the face of cliffs. A Spanish priest living in Peru in the seventeenth century commented that the Inca roads “were magnificent constructions, which could be compared favorably with the most superb roads of the Romans.”

Inca Tunic  Andean weavers produced beautiful textiles from cotton and from the wool of llamas and alpacas. The Inca inherited this rich craft tradition and produced some of the world's most remarkable textiles. The quality and design of each garment indicated the weaver's rank and power in this society. This tunic was an outer garment for a powerful male.  (From Textile Art of Peru. Collection created and directed by Jose Antonio de Laval and Jose Alejandro Gonzalez Garcia [L. L. Editores, 1989])

In environmentally distinct regions allowed the Inca to multiply the yields produced by the traditional exchanges between distinct ecological niches. But the expansion of imperial economic and political power was purchased at the cost of reduced equality and diminished local autonomy. The imperial elite, living in richly decorated palaces in Cuzco and other urban centers, was increasingly cut off from the masses of Inca society. The royal court held members of the provincial nobility at arm's length, and commoners were subject to execution if they dared to look directly at the ruler's face.

After only a century of regional dominance, the Inca Empire faced a crisis in 1525. The death of the Inca ruler Huayna Capac at the conclusion of the conquest of Ecuador initiated a bloody struggle for the throne. Powerful factions coalesced around two sons, whose rivalry compelled both the professional military and the hereditary Inca elite to choose sides. Civil war was the result. The Inca state controlled a vast territory spread over more than 3,000 miles (4,830 kilometers) of mountainous terrain. Regionalism and ethnic diversity had always posed a threat to the empire. Civil war weakened imperial institutions and ignited the resentments of conquered peoples. On the eve of the arrival of Europeans, the destructive consequences of this violent conflict undermined the institutions and economy of Andean civilizations.
Comparative Perspectives

The Aztec and Inca Empires represent the culmination of long historical development in Mesoamerica and the Andes, respectively. Each empire was created militarily; its survival depending as much on the power of its armies as on the productivity of its economy or the wisdom of its rulers. Both depended on political institutions, economic forms and technologies, and religious practices inherited from their predecessors. Both Mesoamerica and the Andes were also ethnically and environmentally diverse regions, although there were important differences between the two. Their rulers legitimized their authority religiously, serving as priestly intermediaries with the gods. Major cities operated as religious as well as political centers and were dominated by religious architecture. Both regions had long depended on the mobilization of ever-larger work forces to meet growing needs rather than on rapid technological innovation.

There were important differences as well. Elementary markets had been developed in Mesoamerica to distribute specialized regional production, although the forced payment of goods as tribute remained important to sustain cities like Tenochtitlan and Cuzco. In the Andes reciprocal labor obligations and managed exchange relationships were used to allocate goods. The Aztecs used their military to force defeated peoples to provide food, textiles, and even sacrificial captives as tribute, but they left local hereditary elites in place. The Inca, in contrast, created a more centralized imperial administrative structure managed by a trained bureaucracy and used reciprocal labor obligations to produce and distribute goods.

The major cultures of North America were influenced by the transfer of agricultural technology from Mesoamerica and came to depend on corn, beans, and squash. In the desert region of what is now the southwest of the United States, the Anasazi and other peoples also utilized irrigated agriculture, a technology that was also crucial to Mesoamerican and Andean cultures.

As the Western Hemisphere’s long isolation drew to a close in the late fifteenth century, both the Aztec and Inca Empires were challenged by powerful neighbors or by internal revolts. In earlier periods similar challenges had contributed to the decline of great civilizations in both Mesoamerica and the Andean region. In those cases, a long period of adjustment and the creation of new indigenous institutions followed the collapse of dominant powers such as the Toltecs in Mesoamerica and Tiwanaku in the Andes. With the arrival of Europeans, this cycle of crisis and adjustment would be transformed, and the future of Amerindian peoples would become linked to the cultures of the Old World.
SUMMARY

- What were the most important shared characteristics of Mesoamerican cultures in the classic period?
- What role did warfare play in the postclassic period of Mesoamerica?
- In what ways did Mesoamerica influence the cultural centers in North America?
- How did the Amerindian peoples of the Andean area adapt to their environment and produce socially complex and politically advanced societies?

Mesoamerican civilization, represented by both Teotihuacan and the Maya, was based largely on a relationship with the gods and the environment. At Teotihuacan, people worshiped many gods and constructed enormous pyramids devoted to the Sun and the Moon and to Quetzalcoatl. Human sacrifice was viewed as a sacred duty, essential to the well-being of society. Maya city-states also included impressive religious temples that were often built on high ground and reflected the Maya cosmos. Rulers served both political and priestly functions and participated in blood-letting rituals and hallucinogenic trances. Both cultures were dependent upon agriculture and had to adapt to harsh conditions to survive. After a series of volcanic eruptions disrupted agriculture, the elite of Teotihuacan brought marginal lands into production and expanded the use of chinampas. The Maya had to contend with a tropical climate and fragile soils. Those peoples living near cities manipulated their environment by draining swamps and building elevated fields.

The two representative cultures of the postclassic period are the Toltecs and the Aztecs. Scholars are still trying to piece together a coherent history of the Toltecs. They were known for their military achievements and for the violent imagery used in political and religious rituals. Images of war and violence extended to nearly all public buildings and temples. The Mexico created a regional power called the Aztec Empire. Aztec rulers demonstrated their divine mandates by undertaking new military conquests. The military then seized land and peasant labor as spoils of war. The chief deity was Huitzilopochtli, who was originally associated with war and came to be identified as the Sun. The Aztecs offered up human sacrifices to the gods, usually consisting of war captives, criminals, and slaves.

Many of the cultural centers in the southwestern desert region and along the Ohio and Mississippi river valleys exhibit strong Mexican influence. Hookahm sites have platform mounds and ball courts similar to those of Mesoamerica, as well as pottery, clay figurines, and turquoise mosaics. To the north lived the Anasazi, who left the most vivid legacy of desert culture. One of the largest communities was located in Chaco Canyon. Merchants from Chaco traded goods with Toltec-period peoples of northern Mexico, but there is little evidence that Chaco originated as a colonial appendage of Mesoamerica. Beginning around 100 C.E., the Hopewell culture spread through the Ohio River Valley. The Hopewell built large mounds of earth to house elite burials and to serve as platforms for temples and homes for chiefs. Similar mound building is linked to the Mississippian culture. While some have suggested that Mesoamerica influenced their culture, there is no evidence to support this.

Both the coastal and mountainous regions of Andean civilizations faced great environmental challenges, which they overcame with the effective organization of human labor. They undertook large-scale irrigation works, terraced hillsides to control erosion, and built roads. The Andeans functioned in clans called ayllu, which were expected to provide labor on goods to their hereditary chief as well as to manage the exchange of products across ecological boundaries. Each community produced goods that suited its ecological niche: coastal regions produced maize, fish, and cotton; mountain valleys contributed quinoa, potatoes, and tubers; higher elevations contributed the wool and meat of animals; and the Amazonian region provided coca and fruits. The institutions of the ayllu and the state managed exchanges that fostered integration and growth.
# KEY TERMS

<table>
<thead>
<tr>
<th>Term</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teotihuacan</td>
<td>293</td>
</tr>
<tr>
<td>chinampas</td>
<td>294</td>
</tr>
<tr>
<td>Maya</td>
<td>296</td>
</tr>
<tr>
<td>Toltecs</td>
<td>298</td>
</tr>
<tr>
<td>Aztecs</td>
<td>299</td>
</tr>
<tr>
<td>Tenochtitlan</td>
<td>299</td>
</tr>
<tr>
<td>tribute system</td>
<td>301</td>
</tr>
<tr>
<td>Anasazi</td>
<td>302</td>
</tr>
<tr>
<td>chiefdom</td>
<td>305</td>
</tr>
<tr>
<td>khipu</td>
<td>306</td>
</tr>
<tr>
<td>ayllu</td>
<td>306</td>
</tr>
<tr>
<td>mit’a</td>
<td>306</td>
</tr>
<tr>
<td>Moche</td>
<td>307</td>
</tr>
<tr>
<td>Tiwanaku</td>
<td>309</td>
</tr>
<tr>
<td>Wari</td>
<td>310</td>
</tr>
<tr>
<td>Inca</td>
<td>310</td>
</tr>
</tbody>
</table>

# SUGGESTED READING


The best summary of Aztec history is Nigel Davies, *The Aztec Empire: The Toltec Resurgence* (1987). Though controversial in some of its analysis, Inga Clendinnen’s *Aztecs* (1991) is also an important contribution.


1. This summary closely follows the historical narrative and translation of names offered by Linda Schele and David Freidel in *A Forest of Kings: The Untold Story of the Ancient Maya* (New York: Morrow, 1990), 182–186.


Religious Conversion

Religious conversion has two meanings that often get confused. The term can refer to the inner transformation an individual may feel on joining a new religious community or becoming revitalized in his or her religious belief. Conversions of this sort are often sudden and deeply emotional. In historical terms, they may be important when they transform the lives of prominent individuals.

In its other meaning, religious conversion refers to a change in the religious identity of an entire population, or a large portion of a population. This generally occurs slowly and is hard to trace in historical documents. As a result, historians have sometimes used superficial indicators to trace the spread of a religion. Doing so can result in misleading conclusions, such as considering the spread of the Islamic faith to be the result of forced conversion by Arab conquerors, or taking the routes traveled by Christian or Buddhist missionaries as evidence that the people they encountered adopted their spiritual message, or assuming that a king or chieftain’s adherence to a new religion immediately resulted in a religious change among subjects or followers.

In addition to being difficult to document, religious conversion in the broad societal sense has followed different patterns according to changing circumstances of time and place. Historians have devised several models to explain the different conversion patterns. According to one model, religious labels in a society change quickly, through mass baptism, for example, but devotional practices remain largely the same. Evidence for this can be found in the continuation of old religious customs among people who identify themselves as belonging to a new religion. Another model sees religious change as primarily a function of economic benefit or escape from persecution. Taking this approach makes it difficult to explain the endurance of certain religious communities in the face of hardship and discrimination. Nevertheless, most historians pay attention to economic advantage in their assessments of mass conversion. A third model associates a society’s religious conversion with its desire to adopt a more sophisticated way of life, by shifting, for example, from a religion that does not use written texts to one that does.

One final conceptual approach to explaining the process of mass religious change draws on the quantitative models of innovation diffusion that were originally developed to analyze the spread of new technologies in the twentieth century. According to this approach, new ideas, whether in the material or religious realm, depend on the spread of information. A few early adopters—missionaries, pilgrims, or conquerors, perhaps—spread word of the new faith to the people they come in contact with, some of whom follow their example and convert. Those converts in turn spread the word to others, and a chain reaction picks up speed in what might be called a bandwagon effect. The period of bandwagon conversion tapers off when the number of people who have not yet been offered an opportunity to convert diminishes. The entire process can be graphed as a logistic or S-shaped curve. Figure 1, the graph of conversion to Islam in Iran based on changes from Persian (non-Islamic) to Arabic (Islamic) names in family genealogies, shows such a curve over a period of almost four centuries.

In societies that were largely illiterate, like those in which Buddhism, Christianity, and Islam slowly achieved spiritual dominance, information spread primarily by word of mouth. The proponents of the new religious views did not always speak the same language as the people they hoped to bring into the faith. Under these circumstances, significant conversion, that is, conversion that involved some understanding of the new religion, as opposed to forced baptism or imposed mouthing of a profession of faith, must surely have started with fairly small numbers.

Language was crucial. Chinese pilgrims undertook lengthy travels to visit early Buddhist sites in India. There they acquired Sanskrit texts, which they translated into Chinese. These translations became the core texts of Chinese Buddhism. In early Christendom, the presence of bilingual (Greek-Aramaic) Jewish communities in the eastern parts of the Roman Empire facilitated the early spread of the religion beyond its Aramaic-speaking homeland. By contrast, Arabic, the language of Islam, was spoken only in the Arabian peninsula and the desert borderlands that extended northwards from Arabia between Syria, Jordan, and Iraq. This initial impediment to the spread of knowledge about Islam dissolved only when intermarriage with
non-Muslim, non-Arab women, many of them taken captive and distributed as booty during the conquests, produced bilingual offspring. Bilingual preachers of the Christian faith were similarly needed in the Celtic-, Germanic-, and Slavic-language areas of western and eastern Europe.

This slow process of information diffusion, which varied from region to region, made changing demands on religious leaders and institutions. When a faith was adopted primarily by a ruler, his army, and his dependents, religious leaders gave the highest priority to serving the needs of the ruling minority and perhaps discrediting, denigrating, or exterminating the practices of the majority. Once a few centuries had passed and the new faith had become the religion of the great majority of the population, religious leaders turned to establishing popular institutions and reaching out to the common people. Historical interpretation can benefit from knowing where a society is in a long-term process of conversion.

These various models reinforce the importance of distinguishing between emotional individual conversion experiences and broad changes in a society's religious identity. New converts are commonly thought of as especially zealous in their faith, and that description is often apt in instances of individual conversion experiences. It is less appropriate, however, to broader episodes of conversion. In a conversion wave that starts slowly, builds momentum in the bandwagon phase, and then tapers off, the first individuals to convert are likely to be more spiritually motivated than those who join the movement toward its end. Religious growth depends as much on making the faith attractive to late converts as to ecstatic early converts.

Figure 1  Conversion to Islam in Iran

![Conversion to Islam in Iran](image)