

# PART I



- CHAPTER 1 From the Origins of Agriculture to the First River-Valley Civilizations
- CHAPTER 2 New Civilizations in the Eastern and Western Hemispheres, 2200–250 B.C.E.
- CHAPTER 3 The Mediterranean and Middle East, 2000–500 B.C.E.



British Museum/HIP/Art Resource, NY

**Babylonian Map of the World, ca. 600 B.C.E.** This map on a clay tablet, with labels written in Akkadian cuneiform, shows a flat, round world with the city of Babylon at the center. Nearby features of the Mesopotamian landscape include the Euphrates River, mountains, marshes, and cities. Beyond the great encircling salt sea are seven islands. Like many ancient peoples, the Babylonians believed that distant lands were home to legendary beasts, strangely formed peoples, and mysterious natural phenomena.



# The Emergence of Human Communities, to 500 B.C.E.

**H**uman beings evolved over several million years from primates in Africa. Able to walk upright and possessing large brains, hands with opposable thumbs, and the capacity for speech, early humans used teamwork and created tools to survive in diverse environments. They spread relatively quickly to almost every habitable area of the world, hunting and gathering wild plant products. Around 10,000 years ago some groups began to cultivate plants, domesticate animals, and make pottery vessels for storage. This led to permanent settlements—at first small villages but eventually larger towns as well.

The earliest complex societies arose in the great river valleys of Mesopotamia, Egypt, Pakistan, and northern China. In these arid regions agriculture depended on river water, and centers of political power arose to organize the labor required to dig and maintain irrigation channels. Kings and priests dominated these early societies from the urban centers, helped by administrators, scribes, soldiers, merchants, craftsmen, and others with specialized skills. Surplus food grown in the countryside by a dependent peasantry sustained the activities of these groups.

Certain centers came to dominate broader expanses of territory, seeking access to raw materials, especially metals. This development also stimulated long-distance trade and diplomatic relations between major powers. Artisans made weapons, tools, and ritual objects from bronze. Culture and technology spread to neighboring regions, such as southern China, Nubia, Syria-Palestine, Anatolia, and the Aegean.

In the Western Hemisphere, different geographical circumstances called forth distinctive patterns of technological and cultural response in the early civilizations in southern Mexico and the Andean region of South America.



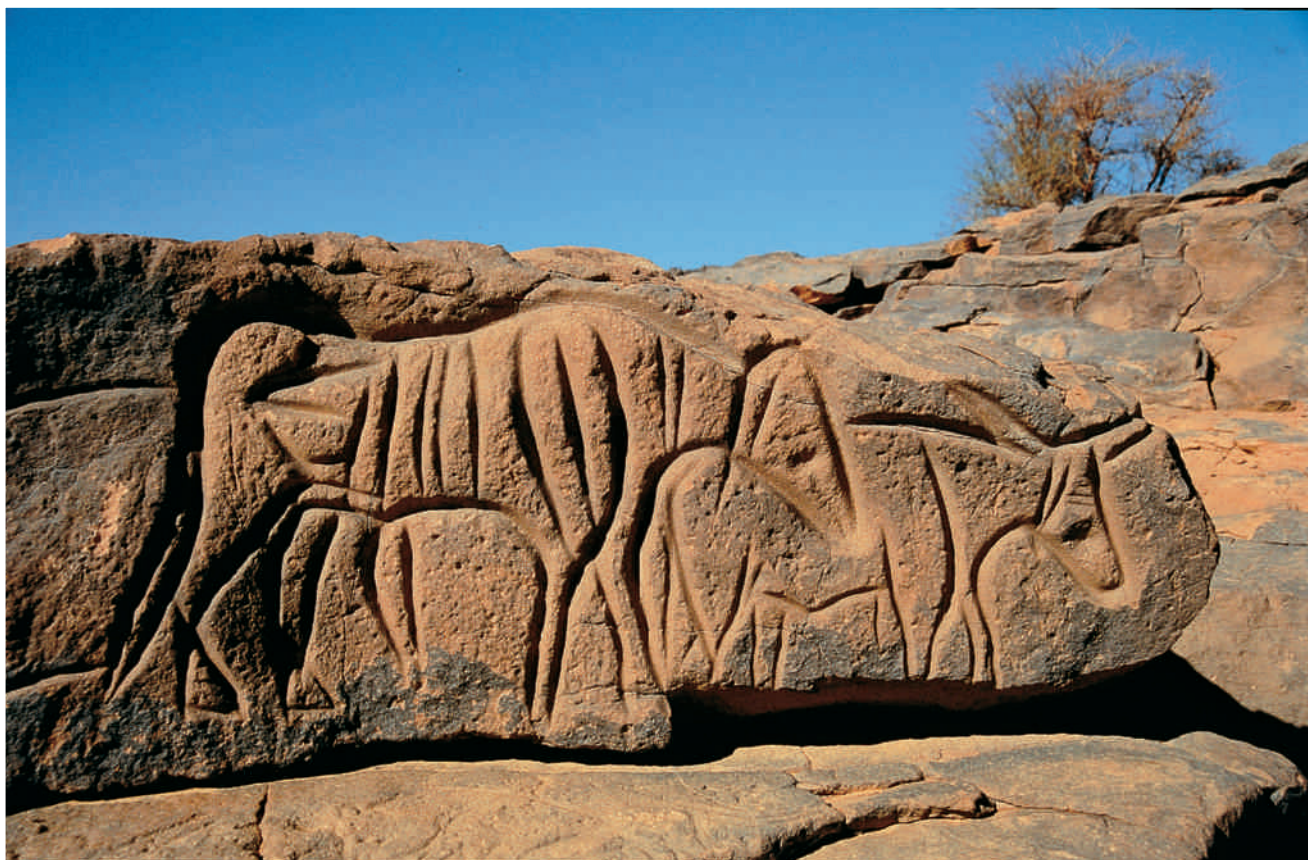


## CHAPTER OUTLINE

- Before Civilization
- Mesopotamia
- Egypt
- The Indus Valley Civilization
- Conclusion

**DIVERSITY + DOMINANCE** *Violence and Order in the Babylonian New Year's Festival*

**ENVIRONMENT + TECHNOLOGY** *The Iceman*



David Coulson/Robert Estall Photo Agency

**Engraving of Two Cattle in the Sahara, ca. 5000 B.C.E.** Around 10,000 B.C.E. people settled in the central Sahara and began to engrave rocks with pictures of animals. The engravings display an expert knowledge of animal stance, movement, and anatomy.



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# From the Origins of Agriculture to the First River-Valley Civilizations

The *Epic of Gilgamesh*, whose roots date to before 2000 B.C.E., defines *civilization* as the people of ancient Mesopotamia (present-day Iraq) understood it. Gilgamesh, an early king, sends a temple prostitute to tame Enkidu (**EN-kee-doo**), a wild man who lives like an animal in the grasslands, perhaps symbolizing the foraging lifestyle of the preagricultural populations of the Mesopotamian borderlands. Using her sexual charms to win Enkidu's trust, the temple prostitute tells him:


Come with me to the city, to Uruk (**OO-rook**), to the temple of Anu and the goddess Ishtar . . . to Uruk, where the processions are and music, let us go together through the dancing to the palace hall where Gilgamesh presides.<sup>1</sup>

She clothes Enkidu and teaches him to eat cooked food, drink beer, and bathe and oil his body. Her words and actions signal some of the traits of civilized life in ancient Mesopotamia.


The Mesopotamians, like other peoples throughout history, equated civilization with their own way of life, but *civilization* is an ambiguous concept, and the charge that a particular group is “uncivilized” has been used throughout human history to justify many things. Thus, it is important to explain the common claim that the first advanced civilizations emerged in Mesopotamia and Egypt sometime before 3000 B.C.E.

Scholars agree that certain political, social, economic, and technological traits are indicators of **civilization**: (1) cities as administrative centers, (2) a political system based on control of a defined territory rather than kinship connections, (3) many people engaged in specialized, non-food-producing activities, (4) status distinctions based largely on accumulation of substantial wealth by some groups, (5) monumental building, (6) a system for keeping permanent records, (7) long-distance trade, and (8) major advances in science and the arts. The earliest societies exhibiting these traits developed in the floodplains of great rivers: the Tigris (**TIE-gris**) and Euphrates (**you-FRAY-teez**) in Iraq, the Indus in Pakistan, the Yellow (Huang He [**hwang huh**]) in China, and the Nile in Egypt (see Map 1.2 on page 14). The periodic flooding of the rivers deposited fertile silt and provided water for agriculture, but it also threatened lives and property. To protect themselves and channel the forces of nature, people living near the rivers created new technologies and forms of political and social organization.

- What cultural achievements characterized life in the Neolithic period?
- How did Mesopotamian civilization emerge, and what technologies promoted its advancement?
- What role did the environment and religion play in the evolution of Egyptian civilization?
- What does the material evidence tell us about the nature of the Indus Valley civilization, and what is the most likely reason for its collapse?

 **PRIMARY SOURCE:**  
**The Epic of Gilgamesh** Find out how Gilgamesh's friend Enkidu propels him on a quest for immortality, and whether or not that quest is successful.

**civilization** An ambiguous term often used to denote more complex societies but sometimes used by anthropologists to describe any group of people sharing a set of cultural traits.

**AP\* Exam Tip** The interaction of geography and climate with the development of human society is tested on the exam. 



In this chapter, we describe the origins of domestication among the scattered groups of foragers living at the end of the last Ice Age (a long period when glaciers covered much of North America, Europe, and Asia) and the rise of complex societies in Mesopotamia, Egypt, and the Indus River Valley from approximately 3500 to 1500 B.C.E. (China, developing slightly later, is discussed in Chapter 2).

## BEFORE CIVILIZATION

**culture** Socially transmitted patterns of action and expression. *Material culture* refers to physical objects, such as dwellings, clothing, tools, and crafts. Culture also includes arts, beliefs, knowledge, and technology.

**history** The study of past events and changes in the development, transmission, and transformation of cultural practices.

**Stone Age** The historical period characterized by the production of tools from stone and other nonmetallic substances. It was followed in some places by the Bronze Age and more generally by the Iron Age.

**Paleolithic** The period of the Stone Age associated with the evolution of humans. It predates the Neolithic period.

**Neolithic** The period of the Stone Age associated with the ancient Agricultural Revolution(s). It follows the Paleolithic period.

### Cooking, Traveling, and Shelter

**foragers** People who support themselves by hunting wild animals and gathering wild edible plants and insects.

Evidence of early humans' splendid creative abilities first came to light in 1940 near Lascaux in southern France. Youths who stumbled onto the entrance to a vast underground cavern found its walls covered with paintings of animals, including many that had been extinct for thousands of years. Other ancient cave paintings have been found in Spain, Africa, Australia, and elsewhere.

To even the most skeptical person, these artistic troves reveal rich imaginations and sophisticated skills, qualities also apparent in the stone tools and in the evidence of complex social relations uncovered from prehistoric sites. The production of such artworks and tools over wide areas and long periods of time demonstrates that skills and ideas were not simply individual expressions but were deliberately passed along within societies. These learned patterns of action and expression constitute **culture**. Culture includes material objects, such as dwellings, clothing, tools, and crafts, along with nonmaterial values, beliefs, and languages. Although it is true that some animals also learn new ways, their activities are determined primarily by inherited instincts. Only human communities trace profound cultural developments over time. The development, transmission, and transformation of cultural practices and events are the subject of **history**.

The first recognizable cultural activity, toolmaking, first appeared around 2 million years ago. The **Stone Age**, which lasted from then until around 4,000 years ago, can be a misleading label. Stone tools abound at archaeological sites, but not all tools were of stone. They were made as well of bone, skin, and wood, materials that survive poorly. In addition, the Stone Age encompasses many cultures and subperiods. Among the major subdivisions, the **Paleolithic** (Old Stone Age) lasted until 10,000 years ago, about 3,000 years after the end of the last Ice Age. The **Neolithic** (New Stone Age), which is associated with the origins of agriculture, followed.

### Food Gathering and Stone Tools

Fossilized animal bones bearing the marks of butchering tools testify to the scavenging and hunting activities of Stone Age peoples, but anthropologists do not believe that early humans depended primarily on meat for their food. The few surviving present-day **foragers** (hunting and food-gathering peoples) in Africa derive the bulk of their day-to-day nourishment from wild vegetable foods, with meat reserved for feasts. The same was probably true for Stone Age peoples, even though tools for gathering and processing vegetable foods have left few traces because they were made of perishable materials. Ancient humans would have used skins and mats woven from leaves for collecting fruits, berries, and wild seeds. They would have dug edible roots out of the ground with wooden sticks.

Both meat and vegetables become tastier and easier to digest when they are cooked. The first cooked foods were probably found by accident after wildfires. Humans may have been setting fires deliberately as early as 1.5 million years ago, but only with the appearance of clay cooking pots some 12,500 years ago in East Asia is there hard evidence of cooking.

Researchers studying present-day foragers infer that Ice Age women would have done most of the gathering and cooking (which they could do while caring for small children). Older women past childbearing age would have been the most knowledgeable and productive food gatherers. Men, with stronger arms, would have been more suited than women to hunting, particularly for large animals.

All recent foragers have lived in small bands. The community has to have enough members to defend itself from predators and divide responsibility for collection and preparation of foods. However, too many members would exhaust the food available in the band's immediate vicin-

<b>CHRONOLOGY</b>			
	<b>Mesopotamia</b>	<b>Egypt</b>	<b>Indus Valley</b>
<b>8000 B.C.E.</b>	8000–2000 B.C.E. Neolithic (New Stone Age); earliest agriculture		
<b>3000 B.C.E.</b>	3000–2350 B.C.E. Early Dynastic (Sumerian)	3100–2575 B.C.E. Early Dynastic	
<b>2500 B.C.E.</b>	2350–2230 B.C.E. Akkadian (Semitic)	2575–2134 B.C.E. Old Kingdom	2600 B.C.E. Beginning of Indus Valley civilization
<b>2000 B.C.E.</b>	2112–2004 B.C.E. Third Dynasty of Ur (Sumerian)	2134–2040 B.C.E. First Intermediate Period	
		2040–1640 B.C.E. Middle Kingdom	
<b>1500 B.C.E.</b>	1900–1600 B.C.E. Old Babylonian (Semitic)	1640–1532 B.C.E. Second Intermediate Period	1900 B.C.E. End of Indus Valley civilization
		1532–1070 B.C.E. New Kingdom	
<b>1500 B.C.E.</b>	1500–1150 B.C.E. Kassite		

ity. The band has to move at regular intervals to follow migrating animals and take advantage of seasonally ripening plants in different places. Archaeological evidence from Ice Age campsites suggests that early humans, too, lived in highly mobile bands.

Because frequent moves were necessary, early hunter-gatherers did not lavish much time on housing. Natural shelters under overhanging rocks or in caves were favorite camping places to which bands returned at regular intervals. Where the climate was severe or where natural shelters did not exist, people erected huts of branches, stones, bones, skins, and leaves. Large, solid structures were common in fishing villages that grew up along riverbanks and lakeshores, where the abundance of fish permitted people to occupy the same site year-round.

### Clothing and Lifestyle

Animal skin cloaks were probably an early form of clothing. While the oldest evidence of fibers woven into cloth dates from about 26,000 years ago, the appearance of the body louse around 70,000 years ago has been linked to people beginning to wear close-fitting garments. An “Iceman” from 5,300 years ago, whose frozen remains were found in the European Alps in 1991, was wearing many different garments made of animal skins sewn together with cord fashioned from vegetable fibers and rawhide (see Environment and Technology: The Iceman).

Although accidents, erratic weather, and disease might take a heavy toll on a foraging band, day-to-day existence was probably not particularly hard or unpleasant. Studies suggest that, in game-rich areas, obtaining necessary food, clothing, and shelter would have occupied only from three to five hours a day. This would have left a great deal of time for artistic endeavors, toolmaking, and social life.

### Nonstone Technologies, Art, and Religion

The foundations of science, art, and religion were built during the Stone Age. Basic to human survival was extensive knowledge about the natural environment. Gatherers learned which local plants were best for food and when they were available. Successful hunting required intimate knowledge of the habits of game animals. People learned how to use plant and animal parts for clothing, twine, building materials, and dyes; minerals for paints and stones for tools; and various natural substances for medicine and consciousness altering. It is very likely that the transmission of such knowledge involved verbal communication, even though direct evidence for language appears only in later periods.

Early music and dance have left no traces, but there is abundant evidence of painting and drawing. Because many cave paintings feature wild animals that were hunted for food, some believe they were meant to record hunting scenes or formed part of magical and religious rites to ensure successful hunting. However, a newly discovered cave in southern France features rhinoceroses, panthers, bears, and other animals that probably were not hunted for food. Other drawings include people dressed in animal skins and smeared with paint. In many caves there



## The Iceman

The discovery of the well-preserved remains of a man at the edge of a melting glacier in the European Alps in 1991 provided detailed information about everyday technologies of the fourth millennium B.C.E. Not just the body of this “Iceman” was well preserved. His clothing, his tools, and even the food in his stomach survived in remarkably good condition.

Dressed from head to toe for the cold weather of the mountains, the fifty-year-old man was wearing a fur hat fastened under the chin with a strap, a vest of different colored deer-skins, leather leggings and loincloth, and a padded cloak made of grasses. His calfskin shoes also were padded with grass for warmth and comfort. The articles of clothing had been sewn together with fiber and leather cords. He carried a birch-bark drinking cup.

In a leather fanny pack he carried small flint tools for cutting, scraping, and punching holes, as well as some tinder for making a fire. He also carried a leather quiver with flint-tipped arrows, but his 6-foot (1.8-meter) bow was unfinished, lacking a bowstring. In addition, he had a flint knife and a tool for sharpening flints. His most sophisticated tool, indicating the dawning of the age of metals, was a copper-bladed ax with a wooden handle.

A small arrowhead lodged in his shoulder caused the Iceman’s death. In his stomach, researchers found the remains of the meat-rich meal he had eaten not long before he died.



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**The Iceman** This is an artist’s rendition of what the Iceman might have looked like. Notice his tools, remarkable evidence of the technology of his day.

are stencils of human hands. Are these the signatures of the artists or the world’s oldest graffiti? Some scholars suspect that other marks in cave paintings and on bones from this period may represent efforts at counting or writing. Other theories suggest that cave and rock art represent concerns with fertility, efforts to educate the young, or elaborate mechanisms for time reckoning.

Without written texts it is difficult to know about the religious beliefs of early humans. Sites of deliberate human burials from about 100,000 years ago give some hints. The fact that an adult was often buried with stone implements, food, clothing, and red-ochre powder suggests that early people revered their leaders enough to honor them after death and may imply a belief in an afterlife.

Today we recognize that the Stone Age, whose existence was scarcely dreamed of two centuries ago, was a formative period. Important in its own right, it also laid the foundation for major changes ahead as human communities passed from being food gatherers to food producers.

## The Agricultural Revolutions

For most of human existence people ate only wild plants and animals. But around 10,000 years ago global climate changes seem to have induced some societies to enhance their food supplies with domesticated plants and animals. More and more people became food producers over the following millennia. Although hunting and gathering did not disappear, this transition from foraging to food production was one of the great turning points in history because it fostered a rapid increase in population and greatly altered humans' relationship to nature.

Because agriculture arose in combination with new kinds of stone tools, archaeologists called this period of change the “Neolithic” and the rise of agriculture the “Neolithic Revolution.” But that name can be misleading: first, stone tools were not its essential component, and second, it was not a single event but a series of separate transformations in different parts of the world. A better term is **Agricultural Revolutions**, which emphasizes that the central change was in food production and that agriculture arose independently in many places. In some cases agriculture included the domestication of animals for food as well as the cultivation of new food crops (see Map 1.1).

### Agricultural Revolutions

The change from food gathering to food production that occurred between ca. 8000 and 2000 B.C.E. Also known as the Neolithic Revolution.

#### A Gradual Process

Food gathering gave way to food production in stages spread over hundreds of generations. The process may have begun when forager bands, returning year after year to the same seasonal camps, deliberately scattered the seeds of desirable plants in locations where they would thrive and discouraged the growth of competing plants by clearing them away. Such semicultivation could have supplemented food gathering for many generations. Eventually, families choosing to concentrate on food production would have settled permanently near their fields.

The presence of new, specialized tools for agriculture first alerted archaeologists to the beginning of a food production revolution. These included polished stone heads to work the soil, sharp stone chips embedded in bone or wooden handles to cut grain, and stone mortars to pulverize grain. Since stone axes were not very efficient for clearing away shrubs and trees, farmers used fire to get rid of unwanted undergrowth (the ashes were a natural fertilizer).

#### Middle East Wheat and Barley

The transition to agriculture occurred first in the Middle East. By 8000 B.C.E. humans, by selecting the highest-yielding strains, had transformed certain wild grasses into the domesticated grains now known as emmer wheat and barley. They had also discovered that alternating the cultivation of grains and pulses (plants yielding edible seeds such as lentils and peas) helped maintain soil fertility. Women, the principal gatherers of wild plant foods, probably played a major role in this transition to plant cultivation, but the heavy work of clearing the fields would have fallen to men.



**AP\* Exam Tip** It is important to understand agricultural, pastoral and foraging societies and their demographic characteristics.

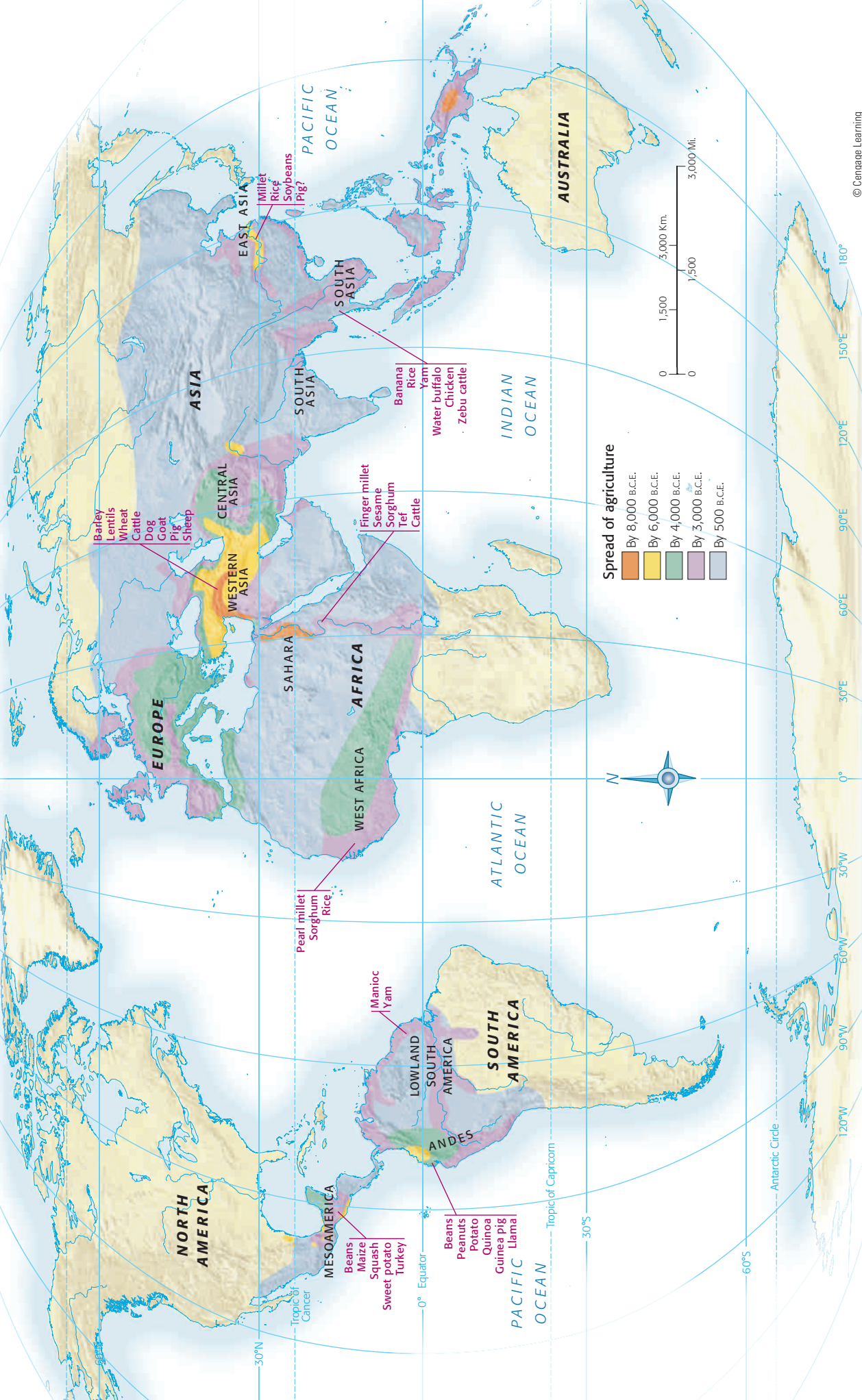
Plants domesticated in the Middle East spread to Greece as early as 6000 B.C.E., to the light-soiled plains of central Europe and along the Danube River shortly after 4000 B.C.E., and then to other parts of Europe over the next millennium (see Map 1.1). Early farmers in Europe and elsewhere practiced shifting cultivation, also known as swidden agriculture. After a few growing seasons, the fields were left fallow (abandoned to natural vegetation) for a time to restore their fertility, and new fields were cleared nearby. From around 2600 B.C.E. people in central Europe began using ox-drawn wooden plows to till heavier and richer soils.

#### African, Asian, and American Crops

Wheat and barley could not spread farther south because the rainfall patterns in most of Africa were unsuited to their growth. Instead, separate Agricultural Revolutions took place in Saharan and sub-Saharan Africa, beginning almost as early as in the Middle East. During a particularly wet period after 8000 B.C.E. people in what is now the eastern Sahara began to cultivate sorghum, a grain derived from wild grasses they had previously gathered. Over the next three thousand years the Saharan farmers domesticated pearl millet, blackeyed peas, a kind of peanut, sesame, and gourds. In the Ethiopian highlands farmers domesticated finger millet and a grain called teff. The return of drier conditions about 5000 B.C.E. led many Saharan farmers to move to the Nile Valley, where the annual flooding of the river provided moisture for farming. People in the rain forests of equatorial West Africa domesticated yams and a variety of rice.

The kind of rice eaten in most places today, which thrives in warm and wet conditions, was first domesticated in southern China, the northern half of Southeast Asia, or northern India, possibly as early as 10,000 B.C.E. but more likely closer to 5000 B.C.E. In India several pulses (including hyacinth beans, green grams, and black grams) domesticated about 2000 B.C.E. were cultivated along with rice.





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**MAP 1.1 Early Centers of Plant and Animal Domestication** Many different parts of the world made original contributions to domestication during the Agricultural Revolutions that began about 10,000 years ago. Later interactions helped spread these domesticated animals and plants to new locations. In lands less suitable for crop cultivation, pastoralism and hunting remained more important for supplying food.



Interactive Map

**Animal Domestication**

The inhabitants of the American continents were domesticating other crops by about 5000 B.C.E.: maize (**mayz**) (corn) in Mexico, manioc in Brazil and Panama, and beans and squash in Mesoamerica. By 4000 B.C.E., the inhabitants of Peru were developing potatoes and quinoa (**kee-NOH-uh**), a protein-rich seed grain. Insofar as their climates and soils permitted, other farming communities throughout the Americas adopted these crops, along with tomatoes and peppers.

The domestication of animals also expanded rapidly during these same millennia. The first domesticated animal was the dog, possibly tamed to help early hunters in Siberia track game. Later animals were initially domesticated to provide meat and were later exploited for milk, fiber, and energy.

Refuse heaps outside some Middle East villages during the centuries after 7000 B.C.E. show that sheep and goat bones gradually replaced gazelle bones. Since genetically inherited tameness is part of the definition of domestication, it is assumed that reproductive isolation of captive sheep and goats from their wild cousins was a necessary part of the process. How and why people isolated animals in this fashion is unclear and probably differs from one species to another. Selective breeding for desirable characteristics such as high milk production and long woolly coats eventually led to distinct breeds of sheep and goats. Domestic cattle and pigs are of similar antiquity to sheep and goats, though scholars debate the location of their first domestication.

Elsewhere, other animal species were domesticated during the centuries before 3000 B.C.E.: donkeys in northern Africa, camels in Arabia (one-humped) and Central Asia (two-humped), water buffalo in China, and humped-back Zebu (**ZEE-boo**) cattle in India. Varieties of domesticated animals spread from one region to another.

Once cattle became tame enough to be yoked to plows, which occurred long after their initial domestication, they became essential to grain production. In addition, animal droppings provided valuable fertilizer. However, there were two notable deviations from the pattern of complementary agriculture and animal husbandry. In the Americas comparatively few species of wild animals became domesticated, and domesticated species from the Eastern Hemisphere could not spread to the Americas because the land bridge to Asia had been submerged by raised sea levels. Domesticated llamas provided transport and wool, while guinea pigs, dogs, and turkeys furnished meat. Hunting remained the most important source of meat for Amerindians.

**Pastoralism**

In the more arid parts of Africa and Central Asia, pastoralism, a way of life dependent on large herds of small and large stock, predominated. As the Sahara approached its maximum dryness around 2500 B.C.E., pastoralists replaced farmers, who migrated southward (see Chapter 7). Moving their herds to new pastures and watering places throughout the year made pastoralists almost as mobile as foragers and discouraged accumulation of bulky possessions and construction of substantial dwellings. Early herders probably relied more heavily on milk than on meat, since killing animals reduced their herds. During wet seasons, they may also have done some hasty crop cultivation or bartered meat and skins for plant foods with nearby farming communities.

**Agriculture and Ecological Crisis**

Why did the Agricultural Revolutions occur? Some theories assume that people were drawn to food production by its obvious advantages. However, most experts believe that climate change drove people to abandon hunting and gathering in favor of agriculture or pastoralism. With the end of the Great Ice Age, the temperate lands became exceptionally warm between 6000 and 2000 B.C.E., the era when people in many parts of the world adopted agriculture. The precise nature of the crisis probably varied. Shortages of wild food in the Middle East caused by a dry spell or population growth may have prodded people to take up food production. Elsewhere, a warmer, wetter climate could turn grasslands into forest, reducing supplies of game and wild grains.

In many drier parts of the world, where wild food remained abundant, people did not take up agriculture. The inhabitants of Australia continued to rely exclusively on foraging until recent centuries. Many Amerindians in the arid grasslands from Alaska to the Gulf of Mexico hunted bison, while in the Pacific Northwest others took up salmon-fishing. Abundant supplies of fish, shellfish, and aquatic animals permitted food gatherers east of the Mississippi River to thrive, and conditions in the equatorial rain forest and the southern part of Africa also favored retention of the older ways. The reindeer-based societies of northern Eurasia were also unaffected by the spread of farming.

Whatever the causes, the gradual adoption of food production transformed most parts of the world. A hundred thousand years ago there were fewer than 2 million people, and their range was largely confined to the temperate and tropical regions of Africa and Eurasia. The population



may have fallen even lower during the last glacial epoch, between 32,000 and 13,000 years ago. Then, as the glaciers retreated and people took up agriculture, their numbers rose. World population may have reached 10 million by 5000 B.C.E. and then mushroomed to between 50 million and 100 million by 1000 B.C.E.<sup>2</sup> This increase led to important changes in social and cultural life.

## Life in Neolithic Communities

Evidence that an ecological crisis may have driven people to food production has prompted a reexamination of the assumption that farmers enjoyed better lives than foragers. Modern studies demonstrate that food producers have to work much harder and for much longer periods than do food gatherers, clearing and cultivating land, guiding herds to pastures, and guarding them from predators.

Early farmers were less likely to starve because they could store food between harvests, but their diet was less varied and nutritious than that of foragers. Skeletal remains show that Neolithic farmers were shorter on average than earlier food-gathering peoples. Farmers were also more likely to die at an earlier age because people in permanent settlements were more exposed to diseases. Their water was contaminated by human waste; disease-bearing vermin and insects infested their bodies and homes; and they could catch new diseases from their domesticated animals.

### The Spread of Agriculture

So how did farmers displace foragers? Some researchers have envisioned a violent struggle between practitioners of the two ways of life; others have argued for a more peaceful transition. In most cases, farmers seem to have displaced foragers by gradual infiltration rather than by conquest.

The key to the food producers' expansion may have been the fact that their small surpluses gave them a long-term advantage in population growth by ensuring higher survival rates during times of drought or other crisis. Archaeologist Colin Renfrew argues that over a few centuries farming-population densities in Europe could have increased by a factor of fifty to one hundred. As population rose, individuals who had to farm far from their native village would have formed a new settlement close to their fields. A steady, nonviolent expansion of only 12 to 19 miles (20 to 30 kilometers) a generation could have repopulated the whole of Europe between 6500 and 3500 B.C.E.<sup>3</sup> So gradual a process need not have provoked sharp conflicts with existing foragers, who simply could have stayed clear of the agricultural frontier or gradually adopted agriculture themselves. New studies that map genetic changes also attest to a gradual spread of agricultural people across Europe from southeast to northwest.<sup>4</sup>

### Society and Religion

The expanding farming communities were organized around kinship and marriage. Nuclear families (parents and their children) probably lived in separate households but felt solidarity with all those related to them by descent from common ancestors. These kinship units, known as lineages (**LIN-ee-ij**) or clans, acted together to defend their common interests and land. Some societies trace descent equally through both parents, but most give greater importance to descent through either the mother (matrilineal [**mat-ruh-LIN-ee-uhl**] societies) or the father (patrilineal [**pat-ruh-LIN-ee-uhl**] societies). It is important not to confuse tracing descent through women (matrilineality) with the rule of women (matriarchy [**MAY-tree-ahr-key**]).

Kinship systems influenced early agricultural people's outlook on the world. Burials of elders might be occasions for elaborate ceremonies expressing their descendants' group solidarity. Plastered skulls found in the ancient city of Jericho (**JER-ih-koh**) (see Map 1.2) may be evidence of such early ancestor reverence or worship.

A society's religious beliefs tend to reflect relations to nature. The religion of food gatherers tended to center on sacred groves, springs, and wild animals. Pastoralists worshiped the Sky God who controlled the rains and guided their migrations. In contrast, the religion of many farming communities centered on the Earth Mother, a female deity believed to be the source of all new life.

**megaliths** Structures and complexes of very large stones constructed for ceremonial and religious purposes in Neolithic times.

A recently discovered complex of stone structures in the Egyptian desert that was in use by 5000 B.C.E. includes burial chambers presumably for ancestors, a calendar circle, and pairs of upright stones that frame the rising sun on the summer solstice. The builders must have been deeply concerned with the cycle of the seasons and how they were linked to the movement of heavenly bodies. Other **megaliths** (meaning "big stones") were erected elsewhere. Observation and worship of the sun are evident at the famous Stonehenge site in England, constructed about

### Megalithic Constructions



G. Dagli Orti/The Art Archive

**Passage-Tomb at Newgrange, Ireland** Dating to around 3200 B.C.E., Newgrange is one of the oldest and most impressive Neolithic structures. A wall of white quartz stones rises above a row of horizontal megaliths on either side of the entrance, from which a passage leads to a spacious interior chamber. For several minutes each year, at sunrise on the winter solstice, the chamber is illuminated by a shaft of light which passes through the “roof-box” above the entrance.



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2000 B.C.E., and megalithic burial chambers dating from 4000 B.C.E. are evidence of ancestor rituals in western and southern Europe. The early ones appear to have been communal burial chambers, erected by descent groups to mark their claims to farmland. In the Middle East, the Americas, and other parts of the world, giant earth burial mounds may have served similar functions.

Most early farmers lived in small villages, but in some parts of the world a few villages grew into more densely populated towns that were centers of trade and specialized crafts. These towns had grander dwellings and ceremonial buildings, as well as large structures for storing surplus food until the next harvest. Farmers could make most buildings, tools, and containers in their spare time, but in large communities some craft specialists devoted their full time to making products of unusual complexity or beauty.

### Jericho and Çatal Hüyük

Two early towns in the Middle East that have been extensively excavated are Jericho on the west bank of the Jordan River and Çatal Hüyük (**cha-TAHL hoo-YOOK**) in central Turkey. (Map 1.2 shows their locations.) Jericho, located near a natural spring, was an unusually large and elaborate agricultural settlement. Around 8000 B.C.E. it had round, mud-brick dwellings that may have been modeled on hunters' tents. A millennium later, rectangular buildings with finely plastered walls and floors and wide doorways opened onto central courtyards. A massive stone wall surrounding the 10-acre (4-hectare) settlement defended it against attacks.

The ruins of Çatal Hüyük, an even larger town, date to between 7000 and 5000 B.C.E. and cover 32 acres (13 hectares). Its residents also occupied plastered mud-brick rooms with elaborate decorations, but Çatal Hüyük had no defensive wall. Instead, the walls of the town's houses formed a continuous barrier without doors or large windows. Residents entered their house by means of ladders through holes in the roof.









C. M. Dixon Ancient Art &amp; Architecture Collection

**Neolithic Goddess** Many versions of a well-nourished and pregnant female figure were found at Çatal Hüyük. Here she is supported by twin leopards whose tails curve over her shoulders. To those who inhabited the city some 8,000 years ago, the figure likely represented fertility and power over nature.

Çatal Hüyük prospered from long-distance trade in obsidian, a hard volcanic rock that craftspeople made into tools, weapons, mirrors, and ornaments. Other residents made fine pottery, wove baskets and woolen cloth, made stone and shell beads, and worked leather and wood. House sizes varied, but there is no evidence of a dominant class or centralized political structure. Fields around the town produced crops of barley and emmer wheat, as well as vegetables. Pigs were kept along with goats and sheep. Yet wild foods—acorns, wild grains, and game animals—still featured prominently in the residents' diet.

Wall paintings, remarkably similar to earlier cave paintings, reveal the continuing importance of hunting. Scenes depict people adorned with the skins of wild leopards, and men were buried with weapons of war and hunting, not the tools of farming.

For every two houses in Çatal Hüyük, there is a religious shrine. Many rooms contain depictions of horned wild bulls, female breasts, goddesses, leopards, and handprints. Rituals involved burning grains, legumes, and meat as offerings, but there is no evidence of live animal sacrifice. Statues of plump female deities far outnumber statues of male deities, suggesting that the inhabitants primarily venerated a goddess. According to the site's principal excavator, "it seems extremely likely that the cult of the goddess was administered mainly by women."<sup>5</sup>

Metalworking became an important specialized occupation in the late Neolithic period. At Çatal Hüyük objects of copper and lead—metals that occur naturally in a fairly pure form—date to about 6400 B.C.E. In many parts of the world silver and gold were also worked at an early date. Because of their rarity and softness, those metals did not replace stone tools and weapons but were used primarily to make decorative or ceremonial objects. The discovery of many such

objects in graves suggests they were symbols of status and power.

The emergence of towns and individuals engaged in crafts and other specialized occupations added to the workload of agriculturalists. Extra food had to be produced for nonfarmers such as priests and artisans. Added labor was needed to build permanent houses, town walls, and towers, not to mention religious structures and megalithic monuments. It is not known whether these tasks were performed freely or coerced.

### Metallurgy and Architecture

## SECTION REVIEW

- Around 10,000 years ago, during the Neolithic Age, humans began to cultivate plants and to domesticate animals in various parts of the world. Climate change is probably the major reason for the switch from food gathering to food production.
- Although farming is often harder than hunting and gathering, agriculturalists, because of their capacity to increase their population, expanded across much of the planet at the expense of hunter-gatherers. The process was gradual and largely peaceful. In some places pastoralism, the dependence on herd animals, prevailed.
- Megaliths and other monumental structures are products of the diverse religious beliefs and practices of Neolithic societies.
- In some places small agricultural villages developed into towns that were centers of trade and home to craftsmen and other specialized professions. Jericho and Çatal Hüyük are two excavated sites that give us vivid glimpses of early Neolithic towns.

## MESOPOTAMIA



**AP\* Exam Tip** Be able to compare and contrast two of the early civilizations.

The name *Mesopotamia* means “land between the rivers” in Greek, reflecting the centrality of the Euphrates and Tigris Rivers to the way of life in this region (see Map 1.3). Mesopotamian civilization developed in the plain alongside and between the rivers, which originate in the mountains of eastern Anatolia (modern Turkey) and empty into the Persian Gulf. This is an alluvial plain—a flat, fertile expanse built up over many millennia by silt deposited by the rivers.

Mesopotamia lies mostly within modern Iraq. To the north and east, an arc of mountains extends from northern Syria and southeastern Anatolia to the Zagros (**ZAG-ruhs**) Mountains, which separate the plain from the Iranian Plateau. The Syrian and Arabian deserts lie to the west and southwest, the Persian Gulf to the southeast.

### Settled Agriculture in an Unstable Landscape

#### Irrigation Agriculture

Although the first domestication of plants and animals took place in the “Fertile Crescent” region of northern Syria and southeastern Anatolia around 8000 B.C.E., agriculture did not come to Mesopotamia until approximately 5000 B.C.E. Since the region lacks adequate rainfall (at least 8 inches [20 centimeters] is needed annually), farming in hot, dry southern Mesopotamia depended on irrigation—the artificial provision of water to crops. Farmers did not use the natural spring floods because they could be sudden and violent and came at the wrong time when grain crops were ripening in the field. Moreover, the floods could cause the rivers to change course, cutting off fields and population centers from water and river communication. Shortly after 3000 B.C.E. the Mesopotamians learned to construct canals to carry water to their fields.

By 4000 B.C.E. farmers were using ox-drawn plows to turn over the earth. An attached funnel dropped a carefully measured amount of seed into the furrow. Barley was the main cereal crop because of its ability to tolerate hot, dry conditions and withstand the salt drawn to the surface by evaporation. To replenish the nutrients in the soil, fields were left fallow (unplanted) every other year. Date palms provided food, fiber, and wood, while garden plots produced vegetables. Reed plants, which grew on the riverbanks and in the marshy southern delta, could be woven into mats, baskets, huts, and boats. Fish was a dietary staple, and herds of sheep and goats, which grazed on fallow land or beyond the zone of cultivation, provided wool, milk, and meat. Donkeys, originally domesticated in Northeast Africa, carried burdens, while carts were pulled by cattle. In the second millennium B.C.E. they were joined by newly introduced camels from Arabia and horses from the mountains.

**Sumerians** The people who dominated southern Mesopotamia through the end of the third millennium B.C.E. They were responsible for the creation of many fundamental elements of Mesopotamian culture, such as irrigation technology, cuneiform, and religious conceptions, taken over by their Semitic successors.

**Semitic** Family of related languages long spoken across parts of western Asia and northern Africa. In antiquity these languages included Hebrew, Aramaic, and Phoenician. The most widespread modern member of the Semitic family is Arabic.

### Sumerians and Semites

The people living in Mesopotamia at the start of the “historical period”—the period for which we have written evidence—were the **Sumerians**. Archaeological evidence places them in southern Mesopotamia by 5000 B.C.E. and perhaps even earlier. The Sumerians created the framework of civilization in Mesopotamia during a long period of dominance in the fourth and third millennia B.C.E. Other peoples lived in Mesopotamia as well. Personal names recorded in inscriptions from northerly cities from as early as 2900 B.C.E. reveal the presence of people who spoke a **Semitic** (**suh-MIT-ik**) language. (*Semitic* refers to a family of languages spoken in parts of western Asia and northern Africa, including ancient Hebrew, Aramaic [**ar-uh-MAY-ik**], Phoenician [**fi-NEE-shuhn**], and modern Arabic.) Possibly the descendants of nomads who had migrated into the Mesopotamian plain from the western desert, these Semites seem to have lived in peace with the Sumerians, adopting their culture and sometimes achieving positions of wealth and power.

By 2000 B.C.E. the Semitic peoples had become politically dominant, and from this time forward the Semitic language Akkadian (**uh-KAY-dee-uhn**) supplanted Sumerian, although the Sumerian cultural legacy was preserved. Sumerian-Akkadian dictionaries were compiled and Sumerian literature was translated. Other ethnic groups, including mountain peoples such as the Kassites (**KAS-ite**) as well as Elamites (**EE-luh-mite**) and Persians from Iran, also played a part in Mesopotamian history.





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Interactive Map

**MAP 1.3 Mesopotamia** In order to organize labor resources to create and maintain an irrigation network in the Tigris-Euphrates Valley, a land of little rain, the Sumerians of southern Mesopotamia developed new technologies, complex political and social institutions, and distinctive cultural practices.

## Cities, Kings, and Trade

### Villages and Cities

**city-state** A small independent state consisting of an urban center and the surrounding agricultural territory. A characteristic political form in early Mesopotamia, Archaic and Classical Greece, Phoenicia, and early Italy.

Mesopotamia was a land of villages and cities. Groups of farming families banded together in villages to protect one another, work together at key times in the agricultural cycle, and share tools, barns and threshing floors. Village society also provided companionship and a pool of potential marriage partners.

Most cities evolved from villages. When a successful village grew, small satellite villages developed nearby and eventually merged with the main village to form an urban center. Historians use the term **city-state** to designate these self-governing urban centers and the agricultural territories they controlled. Cities needed food, and many Mesopotamian city dwellers went out each day to labor in nearby fields. However, some urban residents did not engage in food production but instead specialized in crafts, manufacturing pottery, artwork, clothing, and weapons, tools, and other objects forged out of metal. Others served the gods or carried out administrative duties. These specialists depended on the surplus food production of the countryside. Mesopotamian cities collected crop surpluses from the villages in their vicinity and in return provided rural districts with military protection against bandits and raiders and access to manufactured goods produced by urban specialists.

Stretches of uncultivated land, either desert or swamp, served as buffers between the many small city-states of early Mesopotamia. Nevertheless, disputes over land, water rights, and movable property often sparked hostilities between neighboring cities and prompted most to build protective walls of sun-dried mud bricks.

### Religious and Political Leaders

Mesopotamians opened new land to agriculture by building and maintaining irrigation networks. Canals brought water to fields far from the rivers; dams raised the level of the river so

that water could flow by gravity into the canals; and drainage ditches carried water away from flooded fields before evaporation could draw salt and minerals harmful to crops to the surface. Dikes protected fields near the riverbanks from floods. Because the rivers carried so much silt, clogged channels needed constant dredging.

Successful operation of these irrigation systems required leaders able to organize large numbers of people to work together. Other projects called for similar coordination: the harvest, sheep shearing, the construction of fortification walls and large public buildings, and warfare. Little is known about the political institutions of early Mesopotamian city-states, although there are traces of a citizens' assembly that may have evolved from the traditional village council. The two centers of power attested in written records are the temple and the palace of the king.

Each city had one or more centrally located temples that housed the cult (a set of religious practices) of the deity or deities who watched over the community. The temples owned extensive agricultural lands and stored the gifts that worshipers donated. The leading priests, who controlled the shrines and managed their wealth, played prominent political and economic roles in early communities.

In the third millennium B.C.E. the *lugal* (**LOO-gahl**), or “big man”—we would call him a king—emerged in Sumerian cities. A plausible theory maintains that certain men chosen by the community to lead the armies in time of war extended their authority in peacetime and assumed key judicial and ritual functions. The location of the temple in the city's heart and the less prominent location of the king's palace attest to the later emergence of royalty.

The priests and temples retained influence because of their wealth and religious mystique, but they gradually became dependent on the palace. Normally, the king portrayed himself as the deity's earthly representative and saw to the upkeep and building of temples and the proper performance of ritual. Other royal responsibilities included maintaining city walls and defenses, extending and repairing irrigation channels, guarding property rights, warding off outside attackers, and establishing justice.

Some city-states became powerful enough to dominate others. Sargon (**SAHR-gone**), ruler of the city of Akkad (**AH-kahd**) around 2350 B.C.E., was the first to unite many cities under one king and capital. Sargon and the four family members who succeeded him over a period of 120 years secured their power in several ways. They razed the walls of conquered cities, installed governors backed by garrisons of Akkadian troops, and gave land to soldiers to ensure their loyalty. Being of Semitic stock, they adapted the cuneiform (**kyoo-NEE-uh-form**) system of writing used for Sumerian (discussed later in the chapter) to express their own language.

For reasons that remain obscure, the Akkadian state fell around 2230 B.C.E. The Sumerian language and culture became dominant again in the cities of the southern plain under the Third Dynasty of Ur (2112–2004 B.C.E.). Through campaigns of conquest and marriage alliances, this dynasty of five kings flourished for a century. While not controlling territories as extensive as those of the Akkadians, they maintained tight control by means of a rapidly expanding bureaucracy of administrators and obsessive recordkeeping. Messengers and well-maintained road stations enabled rapid communication, and an official calendar, standardized weights and measures, and uniform writing practices increased the efficiency of the central administration.

In the northwest the kings erected a great wall 125 miles (201 kilometers) in length to keep out the nomadic Amorites (**AM-uh-rite**), but in the end nomad incursions combined with an Elamite attack from the southeast toppled the Third Dynasty of Ur. The Semitic Amorites founded a new city at **Babylon**, not far from Akkad. Toward the end of a long reign, **Hammurabi** (**HAM-uh-rah-bee**) (r. 1792–1750 B.C.E.) launched a series of aggressive military campaigns, and Babylon became the capital of what historians have named the “Old Babylonian” state, which stretched beyond Sumer and Akkad into the north and northwest from 1900 to 1600 B.C.E. Hammurabi's famous Law Code, inscribed on a polished black stone pillar, provided judges with a lengthy set of examples illustrating principles to use in deciding cases. Many offenses were met with severe physical punishments and, not infrequently, the death penalty.

The far-reaching conquests of some states were motivated, at least in part, by the need to obtain vital resources. The alternative was to trade for raw materials, and long-distance commerce flourished in most periods. Evidence of boats used in river and sea trade appears as early as the fifth millennium B.C.E. Wool, barley, and vegetable oil were exported in exchange for wood from cedar forests in Lebanon and Syria, silver from Anatolia, gold from Egypt, copper from the eastern Mediterranean and Oman (on the Arabian peninsula), and tin from Afghanistan. Precious stones used for jewelry and carved figurines came from Iran, Afghanistan, and Pakistan.

### Early Regional Empires

#### PRIMARY SOURCE: The State Regulates Health Care: Hammurabi's Code and Surgeons


Consider the various rewards and punishments for surgeons who either succeeded or fail at their job in 1800 B.C.E.

**Babylon** The largest and most important city in Mesopotamia. It achieved particular eminence as the capital of the Amorite king Hammurabi in the eighth century B.C.E. and the Neo-Babylonian king Nebuchadnezzar in the sixth century B.C.E.

**Hammurabi** Amorite ruler of Babylon (r. 1792–1750 B.C.E.). He conquered many city-states in southern and northern Mesopotamia and is best known for a code of laws, inscribed on a black stone pillar, illustrating the principles to be used in legal cases.

### Trade



 **AP\* Exam Tip** Social classes are a major comparison topic in the exam.

In the third millennium B.C.E. merchants were primarily employed by the palace or temple, the only two institutions with the financial resources and long-distance connections to organize the collection, transport, and protection of goods. Merchants exchanged surplus food from the estates of kings or temples for raw materials and luxury goods. In the second millennium B.C.E. more commerce came into the hands of independent merchants, and guilds (cooperative associations formed by merchants) became powerful forces in Mesopotamian society. Items could be bartered—traded for one another—or valued in relation to fixed weights of precious metal, primarily silver, or measures of grain.

## Mesopotamian Society

### Social Classes

Urbanized civilizations generate social divisions—variations in the status and legal and political privileges of certain groups of people. The rise of cities, specialization of labor, centralization of power, and the use of written records enabled some groups to amass unprecedented wealth. Temple leaders and kings controlled large agricultural estates, and the palace administration collected taxes from subjects. An elite class acquired large landholdings, and soldiers and religious officials received plots of land in return for their services.

The Law Code of Hammurabi in eighteenth-century B.C.E. Babylonia reflects three social divisions: (1) the free, landowning class, which included royalty, high-ranking officials, warriors, priests, merchants, and some artisans and shopkeepers; (2) the class of dependent farmers and artisans, whose legal attachment to royal, temple, or private estates made them the primary rural work force; and (3) the class of slaves, primarily employed in domestic service. Penalties for crimes prescribed in the Law Code depended on the class of the offender, with the most severe punishments reserved for the lower orders.

### Slaves and Peasants

Slavery was not as prevalent and fundamental to the economy as it would be in the later societies of Greece and Rome (see Chapters 4 and 5). Many slaves came from mountain tribes, either captured in war or sold by slave traders. Others were people unable to pay their debts. Normally slaves were not chained, but they were identified by a distinctive hairstyle; if given their freedom, a barber shaved off the telltale mark. In the Old Babylonian period, as the class of people who were not dependent on the temple or palace grew in numbers and importance, the amount

**Mesopotamian Cylinder Seal** Seals indicated the identity of an individual and were impressed into wet clay or wax to “sign” legal documents or to mark ownership of an object. This seal, produced in the period of the Akkadian Empire, depicts Ea (second from right), the god of underground waters, symbolized by the stream with fish emanating from his shoulders; Ishtar, whose attributes of fertility and war are indicated by the date cluster in her hand and the pointed weapons showing above her wings; and the sun-god Shamash, cutting his way out of the mountains with a jagged knife, an evocation of sunrise.



Courtesy of the Trustees of the British Museum



**scribe** In the governments of many ancient societies, a professional position reserved for men who had undergone the lengthy training required to be able to read and write using cuneiforms, hieroglyphics, or other early, cumbersome writing systems.

### Women

of land and other property in private hands increased, and the hiring of free laborers became more common. Slaves, dependent workers, and hired laborers were all compensated with commodities such as food and oil in quantities proportional to their age, gender, and tasks.

The daily lives of ordinary Mesopotamians, especially those in villages or on large estates in the countryside, left few archaeological or written remains. Peasants built houses of mud brick and reed, which quickly disintegrate, and they had few metal possessions. Being illiterate, they left no written record of their lives. It is likewise difficult to discover much about the experiences of women. The written sources were produced by male **scribes**—trained professionals who applied their reading and writing skills to tasks of administration—and for the most part reflect elite male activities.

Anthropologists theorize that women lost social standing and freedoms in societies where agriculture superseded hunting and gathering. In hunting-and-gathering societies women provided most of the community's food from their gathering activities, and this work was highly valued. But in Mesopotamia food production depended on the heavy physical labor of plowing, harvesting, and digging irrigation channels, jobs usually performed by men. Since food surpluses permitted families to have more children, bearing and rearing children became the primary occupation of many women, preventing them from acquiring the specialized skills of the scribe or artisan. However, women could own property, maintain control of their dowry (a sum of money given by the woman's father to support her in her husband's household), and even engage in trade. Some worked outside the household in textile factories and breweries or as prostitutes, tavern keepers, bakers, or fortunetellers. Nonelite women who stayed at home helped with farming, planted vegetable gardens, cooked, cleaned, fetched water, tended the household fire, and wove baskets and textiles.

The standing of women seems to have declined further in the second millennium B.C.E., perhaps because of the rise of an urbanized middle class and an increase in private wealth. The laws favored the rights of husbands. Although Mesopotamian society was generally monogamous, a man could take a second wife if the first gave him no children, and in later Mesopotamian history kings and wealthy men had several wives. Marriage alliances arranged between families made women into instruments for preserving and increasing family wealth. Alternatively, a family might decide to avoid a daughter's marriage—and the resulting loss of a dowry—by dedicating her to the service of a deity as “god's bride.”

## Gods, Priests, and Temples

### Gods

The Sumerian gods embodied the forces of nature. When the Semitic peoples became dominant, they equated their deities with those of the Sumerians. Myths of the Sumerian gods were transferred to their Semitic counterparts, and many of the same rituals continued to be practiced. People imagined the gods as anthropomorphic (**an-thruh-puh-MORE-fik**)—like humans in form and conduct. They thought the gods had bodies and senses, sought nourishment from sacrifice, enjoyed the worship and obedience of humanity, and were driven by lust, love, hate, anger, and envy. The Mesopotamians feared their gods, believing them responsible for the natural disasters that occurred without warning in their environment, and sought to appease them.

### State Religion

The public, state-organized religion is most visible in the archaeological record. Cities built temples and showed devotion to the divinities who protected the community. The temple precinct, encircled by a high wall, contained the shrine of the chief deity; open-air plazas; chapels for lesser gods; housing, dining facilities, and offices for priests and other temple staff; and craft shops, storerooms, and service buildings. The most visible part of the temple compound was the **ziggurat (ZIG-uh-rat)**, a multistory, mud-brick, pyramid-shaped tower approached by ramps and stairs. Scholars are not certain of the ziggurat's function and symbolic meaning.

**ziggurat** A massive pyramidal stepped tower made of mud bricks. It is associated with religious complexes in ancient Mesopotamian cities, but its function is unknown.

A temple was considered the god's residence, and the cult statue in its interior shrine was believed to embody the deity's life force. Priests anticipated and met every need of the divine image in a daily cycle of waking, bathing, dressing, feeding, moving around, entertaining, soothing, and revering. These efforts reflected the claim of the Babylonian Creation Myth that humankind had been created from the blood of a vanquished rebel deity in order to serve the gods. Several thousand priests may have staffed a large temple like that of the chief god Marduk at Babylon.

Priests passed their hereditary office and sacred lore to their sons, and their families lived on rations of food from the deity's estates. The amount a priest received depended on his rank

**Ziggurat of Ur-Nammu, ca. 2100 B.C.E.** Built at Ur by King Ur-Nammu for the Sumerian moon-god, Nanna, an exterior made of fine bricks baked in a kiln encloses a sun-dried mud-brick core. Three ramps on the first level converge to form a stairway to the second level. The function of ziggurats is not known.



D. Colton/Visual Connection Archive

### Private Religion

**amulet** Small charm meant to protect the bearer from evil. Found frequently in archaeological excavations in Mesopotamia and Egypt, amulets reflect the religious practices of the common people.

within a complicated hierarchy of status and specialized function. The high priest performed the central acts in the great rituals. Certain priests made music to please the gods, while others exorcised evil spirits. Still others interpreted dreams and divined the future by examining the organs of sacrificed animals, reading patterns in the rising incense smoke, or casting dice.

Harder to determine are the everyday beliefs and religious practices of the common people. Scholars do not know how much access the general public had to the temple buildings, although individuals did place votive statues in the sanctuaries, believing that these miniature replicas of themselves could continually seek the deity's favor. The survival of many **amulets** (small charms meant to protect the bearer from evil) and representations of a host of demons suggests widespread belief in magic—the use of special words and rituals to manipulate and control the forces of nature. For example, people believed that a headache was caused by a demon that could be driven out of the ailing body. In return for a gift or sacrifice, a god or goddess might reveal information about the future. Elite and common folk came together in great festivals such as the twelve-day New Year's Festival held each spring in Babylon to mark the beginning of a new agricultural cycle (see Diversity and Dominance: Violence and Order in the Babylonian New Year's Festival).

## Technology and Science

The term *technology*, from the Greek word *techne*, meaning “skill” or “specialized knowledge,” normally refers to the tools and machines that humans use to manipulate the physical world. Many scholars now use the term more broadly for any specialized knowledge used to transform the natural environment and human society.

### Writing

**cuneiform** A system of writing in which wedge-shaped symbols represented words or syllables. It originated in Mesopotamia and was used initially for Sumerian and Akkadian but later was adapted to represent other languages of western Asia. Because so many symbols had to be learned, literacy was confined to a relatively small group of administrators and scribes.

An important example of the broader type of technology is writing, which first appeared in Mesopotamia before 3300 B.C.E. The earliest inscribed tablets, found in the chief temple at Uruk, date from a time when the temple was the most important economic institution in the community. According to a plausible recent theory, writing originated from a system of tokens used to keep track of property—such as sheep, cattle, or cart wheels—when increases in the amount of accumulated wealth and the complexity of commercial transactions strained people's memories. The tokens, made in the shape of the commodity, were sealed in clay balls, and pictures of the tokens were incised on the outside of the balls as a reminder of what was inside. Eventually, people realized that the incised pictures were an adequate record, making the tokens inside the ball redundant. These pictures were the first written symbols. Each symbol represented an object and could also stand for the sound of the word for that object if the sound was part of a longer word.

The usual method of writing involved pressing the point of a sharpened reed into a moist clay tablet. Because the reed made wedge-shaped impressions, the early realistic pictures were increasingly stylized into a combination of strokes and wedges, a system known as **cuneiform** (Latin for “wedge-shaped”) writing. Mastering this system required years of training and practice. Several hundred signs were in use at any one time, as compared to the twenty-five or so signs in an alphabetic system. The prestige and regular employment that went with their position may have made scribes reluctant to simplify the cuneiform system. In the Old Babylonian

## Violence and Order in the Babylonian New Year's Festival

*The twelve-day Babylonian New Year's Festival was one of the most important religious celebrations in ancient Mesopotamia. Fragmentary documents of the third century B.C.E. (fifteen hundred years after Hammurabi) provide most of our information, but because of the continuity of culture over several millennia, the later Babylonian New Year's Festival preserves many of the beliefs and practices of earlier epochs.*

*In the first days of the festival, most activities took place in inner chambers of the temple of Marduk, patron deity of Babylon, attended only by high-ranking priests. A key ceremony was a ritualized humiliation of the king, followed by a renewal of the institution of divinely sanctioned kingship:*

On the fifth day of the month Nisannu . . . they shall bring water for washing the king's hands and then shall accompany him to the temple Esagil. The *urigallu*-priest shall leave the sanctuary and take away the scepter, the circle, and the sword from the king. He shall bring them before the god Bel [Marduk] and place them on a chair. He shall leave the sanctuary and strike the king's cheek. He shall accompany the king into the presence of the god Bel. He shall drag him by the ears and make him bow to the ground. The king shall speak the following only once: "I did not sin, lord of the countries. I was not neglectful of the requirements of your godship. I did not destroy Babylon. The temple Esagil, I did not forget its rites. I did not rain blows on the cheek of a subordinate." . . . [The *urigallu*-priest responds:] "The god Bel will listen to your prayer. He will exalt your kingship. The god Bel will bless you forever. He will destroy your enemy, fell your adversary." After the *urigallu*-priest says this, the king shall regain his composure. The scepter, circle, and sword shall be restored to the king.

*Also in the early days of the festival, a priest recited the entire Babylonian Creation Epic to the image of Marduk. After relating the origins of the gods from the mating of two primordial creatures, Tiamat, the female embodiment of the salt sea, and Apsu, the male embodiment of fresh water, the myth tells how Tiamat gathered an army of older gods and monsters to destroy the younger generation of gods.*

All the Anunnaki [the younger gods], the host of gods gathered into that place tongue-tied; they sat with mouths shut for they thought, "What other god can make war on Tiamat? No one else can face her and come back." . . . Lord Marduk exulted, . . . with racing spirits he said to the father of gods, "Creator of the gods who decides their destiny, if I must be your avenger, defeating Tiamat, saving your lives, call the Assembly, give me precedence over all the rest; . . . now and for ever let my word be law; I, not you, will decide the world's nature, the things to come. My decrees shall never be altered, never be annulled, but my creation endures to the ends of the world." . . . He took his route towards the rising sound of Tiamat's rage, and all the gods besides, the fathers of the gods pressed in around him, and the lord approached Tiamat. . . . When Tiamat heard him her wits scattered, she was possessed and shrieked aloud, her legs shook from the crotch down, she gabbled spells, muttered maledictions, while the gods of war sharpened their weapons. . . . The lord shot his net to entangle Tiamat, and the pursuing tumid wind, Imhullu, came from behind and beat in her face. When the mouth gaped open to suck him down he drove Imhullu in, so that the mouth would not shut but wind raged through her belly; her carcass blown up, tumescent. She gaped. And now he shot the arrow that split the belly, that pierced the gut and cut the womb. . . .

He split it apart like a cockle-shell; with the upper half he constructed the arc of sky, he pulled down the bar and set a watch on the waters, so they should never escape. . . . He projected positions for the Great Gods conspicuous in the sky, he gave them a starry aspect as constellations; he measured the year, gave it a beginning and an end, and to each month of the twelve three rising stars. . . . Through her ribs he opened gates in the east and west, and gave them strong bolts on the right and left; and high in the belly of Tiamat he set the zenith. He gave the moon the luster of a jewel, he gave him all the night, to mark off days, to watch by night each month the circle of a waxing waning light. . . . When Marduk had sent out the moon, he took the sun and set him to complete the cycle from this one to the next New Year. . . .

Then Marduk considered Tiamat. He skimmed spume from the bitter sea, heaped up the clouds, spindrift of wet and wind

period, the growth of private commerce brought an increase in the number of people who could read and write, but only a small percentage of the population was literate.

The earliest Mesopotamian documents are economic, but cuneiform came to have wide-ranging uses. Written documents marked with the seal of the participants became the primary proof of legal actions. Texts were written about political, literary, religious, and scientific topics. Cuneiform is not a language but rather a system of writing. Developed originally for the Sumerian language, it was later adapted to the Akkadian language of the Mesopotamian Semites as well as to other languages of western Asia, such as Hittite, Elamite, and Persian.

Other technologies enabled the Mesopotamians to meet the challenges of their physical environment. Wheeled carts and sledlike platforms dragged by cattle were used to transport goods in some locations. In the south, where numerous water channels cut up the landscape,

**Transportation,  
Metallurgy, and  
Engineering**



and cooling rain, the spittle of Tiamat. With his own hands from the steaming mist he spread the clouds. He pressed hard down the head of water, heaping mountains over it, opening springs to flow: Euphrates and Tigris rose from her eyes, but he closed the nostrils and held back their springhead. He piled huge mountains on her paps and through them drove water-holes to channel the deep sources; and high overhead he arched her tail, locked-in to the wheel of heaven; the pit was under his feet, between was the crotch, the sky's fulcrum. Now the earth had foundations and the sky its mantle. . . .

Marduk considered and began to speak to the gods assembled in his presence. This is what he said, "In the former time you inhabited the void above the abyss, but I have made Earth as the mirror of Heaven, I have consolidated the soil for the foundations, and there I will build my city, my beloved home. A holy precinct shall be established with sacred halls for the presence of the king. When you come up from the deep to join the Synod you will find lodging and sleep by night. When others from heaven descend to the Assembly, you too will find lodging and sleep by night. It shall be BABYLON the home of the gods. The masters of all crafts shall build it according to my plan." . . . Now that Marduk has heard what it is the gods are saying, he is moved with desire to create a work of consummate art. He told Ea the deep thought in his heart.

*"Blood to blood  
I join,  
blood to bone  
I form  
an original thing,  
its name is MAN,  
aboriginal man  
is mine in making.  
  
"All his occupations  
are faithful service . . ."*

Ea answered with carefully chosen words, completing the plan for the gods' comfort. He said to Marduk, "Let one of the kindred be taken; only one need die for the new creation. Bring the gods together in the Great Assembly; there let the guilty die, so the rest may live."

Marduk called the Great Gods to the Synod. . . . The king speaks to the rebel gods, "Declare on your oath if ever before you spoke the truth, who instigated rebellion? Who stirred up Tiamat? Who led the battle? Let the instigator of war be handed

over; guilt and retribution are on him, and peace will be yours for ever."

The great Gods answered the Lord of the Universe, the king and counselor of gods, "It was Kingu who instigated rebellion, he stirred up that sea of bitterness and led the battle for her." They declared him guilty, they bound and held him down in front of Ea, they cut his arteries and from his blood they created man; and Ea imposed his servitude. . . .

*Much of the subsequent activity of the festival, which took place in the temple courtyard and streets, was a reenactment of the events of the Creation Myth. The festival occurred at the beginning of spring, when the grain shoots were beginning to emerge, and its essential symbolism concerns the return of natural life to the world. The Babylonians believed that the natural world had an annual life cycle consisting of birth, growth, maturity, and death. In winter the cycle drew to a close, and there was no guarantee that life would return to the world. Babylonians hoped proper performance of the New Year's Festival would encourage the gods to grant a renewal of time and life, in essence to re-create the world.*

### QUESTIONS FOR ANALYSIS

1. According to the Creation Epic, how did the present order of the universe come into being? What does the violent nature of this creation tell us about the Mesopotamian view of the physical world and the gods?
2. How did the symbolism of the events of the New Year's Festival, with its ritual reading and reenactment of the story of the Creation Myth, validate such concepts as kingship, the primacy of Babylon, and mankind's relationship to the gods?
3. What is the significance of the distinction between the "private" ceremonies celebrated in the temple precincts and the "public" ceremonies that took place in the streets of the city? What does the festival tell us about the relationship of different social groups to the gods?

Source: Adapted from James B. Pritchard, ed., *Ancient Near Eastern Texts Relating to the Old Testament*, 3d ed. with supplement (Princeton, NJ: Princeton University Press, 1969), 332-334. Copyright © 1950, 1955, 1969, renewed 1978 by Princeton University Press. Reprinted by permission of Princeton University Press.

**bronze** An alloy of copper with a small amount of tin (or sometimes arsenic), it is harder and more durable than copper alone. The term *Bronze Age* is applied to the era—the dates of which vary in different parts of the world—when bronze was the primary metal for tools and weapons. The demand for bronze helped create long-distance networks of trade.

boats and barges predominated. In northern Mesopotamia, donkeys were the chief pack animals for overland caravans before the advent of the camel around 1200 B.C.E. (see Chapter 7).

The Mesopotamians had to import metals, but they became skilled in metallurgy, refining ores containing copper and alloying them with arsenic or tin to make **bronze**. Craftsmen poured molten bronze into molds to produce tools and weapons. The cooled and hardened bronze took a sharper edge than stone, was less likely to break, and was more easily repaired. Stone implements remained in use among poor people, who could not afford bronze.

Widely available clay was used to make dishes and storage vessels. By 4000 B.C.E. the potter's wheel, a revolving platform spun by hands or feet, made possible the rapid production of vessels with precise and complex shapes. Mud bricks, dried in the sun or baked in an oven for greater durability, were the primary building material. Construction of city walls, temples, and palaces

**Warfare**

required practical knowledge of architecture and engineering. For example, the reed mats that Mesopotamian builders laid between the mud-brick layers of ziggurats served the same stabilizing purpose as girders in modern high-rise construction.

Early military forces were nonprofessional militias of able-bodied men called up for short periods when needed. The powerful states of the later third and second millennia B.C.E. built up armies of well-trained and well-paid full-time soldiers. In the early second millennium B.C.E. horses appeared in western Asia, and the horse-drawn chariot came into vogue. Infantry found themselves at the mercy of swift chariots carrying a driver and an archer who could easily run them down. Using increasingly effective siege machinery, Mesopotamian soldiers could climb over, undermine, or knock down the walls protecting the cities of their enemies.


**Mathematics and Science**

Mesopotamians used a base-60 number system in which numbers were expressed as fractions or multiples of 60 (in contrast to our base-10 system; this is the origin of the seconds and minutes we use today). Advances in mathematics and careful observation of the skies made the Mesopotamians sophisticated practitioners of astronomy. Priests compiled lists of omens or unusual sightings on earth and in the heavens, together with a record of the events that coincided with them. They consulted these texts at critical times, for they believed that the recurrence of such phenomena could provide clues to future developments. The underlying premise was that the elements of the material universe, from the microscopic to the macrocosmic, were interconnected in mysterious but undeniable ways.

**SECTION REVIEW**

- Mesopotamia was home to a complex civilization that developed in the plain of the Tigris and Euphrates Rivers beginning in the fourth millennium B.C.E.
- The elements of civilization initially created by the Sumerians, the earliest known people to live in Mesopotamia, were later taken over and adapted by the Semitic peoples who became dominant in the region.
- The temples of the gods, the earliest centers of political and economic power, gradually became subordinate to kings.
- City-states, centered on cities that coalesced out of villages and controlled rural territory, were initially independent but later were united under various empires.
- Mesopotamian society was divided into three classes: free landowners and professionals in the cities, dependent peasants and artisans on rural estates, and slaves in domestic service.
- Mesopotamians feared their gods, who embodied the often-violent forces of nature.
- Cuneiform writing, which originally evolved from a system of tokens used for economic records, came to have a wide range of uses in several languages.
- A range of technologies (metallurgy, ceramics, transportation, and engineering) and sciences (mathematics and astronomy) enabled Mesopotamians to meet the challenges of their environment.

**EGYPT**

 **PRIMARY SOURCE: The Hymn to the Nile** Discover the degree to which the Nile River is viewed as godlike and the perceived power it has over the survival of the people of Egypt.

No place exhibits the impact of the natural environment on the history and culture of a society better than ancient Egypt. Located at the intersection of Asia and Africa, Egypt was protected by surrounding barriers of desert and a harborless, marshy seacoast. Whereas Mesopotamia was open to migration or invasion and was dependent on imported resources, Egypt's natural isolation and material self-sufficiency fostered a unique culture that for long periods had relatively little to do with other civilizations.


**The Land of Egypt: “Gift of the Nile”****River and Desert**

The fifth-century B.C.E. Greek traveler Herodotus (**he-ROD-uh-tuhs**) called Egypt the “gift of the Nile.” The world's longest river, the Nile flows northward from Lake Victoria and several



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**MAP 1.4 Ancient Egypt** The Nile River, flowing south to north, carved out of the surrounding desert a narrow green valley that became heavily settled in antiquity.

 Interactive Map

### Natural Resources

Egypt was well endowed with natural resources and far more self-sufficient than Mesopotamia. Egyptians used papyrus reeds growing in marshy areas to make sails, ropes, and a kind of paper. Hunters pursued the abundant wild animals and birds in the marshes and on the edge of the desert, and fishermen netted fish from the river. Building stone was quarried and floated downstream from southern Egypt. Clay for mud bricks and pottery could be found almost everywhere. The state organized armed expeditions and forced labor to exploit copper and turquoise deposits in the Sinai desert to the east and gold from Nubia to the south.

large tributaries in the highlands of tropical Africa, carving a narrow valley between a chain of hills on either side, until it reaches the Mediterranean sea (see Map 1.4). Though bordered mostly by desert, the banks of the river support lush vegetation. About 100 miles (160 kilometers) from the Mediterranean the Nile divides into channels to form a triangular delta. Most of the population, then as now, lived on the twisting, green ribbon of land alongside the river or in the Nile Delta. The rest of the country, 90 percent or more, is a bleak and inhospitable desert of mountains, rocks, and dunes. The ancient Egyptians distinguished between the low-lying, life-sustaining dark soil of the “Black Land” along the river and the elevated, deadly “Red Land” of the desert.

The river was the main means of travel and communication, with the most important cities located upstream away from the Mediterranean. Because the river flows from south to north, the Egyptians called the southern part of the country “Upper Egypt” and the northern delta “Lower Egypt.” In most periods the southern boundary of Egypt was the First Cataract of the Nile, the northernmost of a series of impassable rocks and rapids below Aswan (*AS-wahn*) (about 500 miles [800 kilometers] south of the Mediterranean). At times Egyptian control extended farther south into what they called “Kush” (later Nubia, today part of southern Egypt and northern Sudan). The Egyptians also settled a chain of large oases west of the river, green and habitable “islands” in the midst of the desert.

While the hot, sunny climate favored agriculture, rain rarely falls south of the delta, and agriculture was entirely dependent on river water. Each September the river overflowed its banks, spreading water into the bordering basins, and irrigation channels carried water farther out into the valley to increase the area suitable for planting. Unlike the Tigris and Euphrates, the Nile flooded at exactly the right time for grain agriculture. When the waters receded, they left behind a moist, fertile layer of mineral-rich silt, where farmers could easily plant their crops. Egyptian creation myths commonly featured the emergence of a life-supporting mound of earth from a primeval swamp.

The level of the flood’s crest determined the abundance of the next harvest. “Nilometers,” stone staircases with incised units of measure placed along the river’s edge, gauged the flood surge. When the flood was too high, dikes protecting inhabited areas were washed out, and much damage resulted. When the floods were too low for several years, less land could be cultivated, and the country experienced famine and decline. The ebb and flow of successful and failed regimes seems to have been linked to the cycle of floods. Nevertheless, remarkable stability characterized most eras, and Egyptians viewed the universe as an orderly and beneficent place.



The farming villages that appeared in Egypt as early as 5500 B.C.E. relied on domesticated plant and animal species that had originated several millennia earlier in western Asia. Egypt's emergence as a focal point of civilization stemmed, at least in part, from a gradual change in climate from the fifth to the third millennium B.C.E. Until then, the Sahara, the vast region that is now the world's largest desert, had a relatively mild and wet climate, and its lakes and grasslands supported a variety of plant and animal species as well as populations of hunter-gatherers (see Chapter 7). As the Sahara became a desert, displaced groups migrated into the Nile Valley, where they developed a sedentary way of life.

## Divine Kingship

The increase in population led to more complex political organization, including a form of local kingship. Later generations of Egyptians saw the conquest of these smaller units and the unification of all Egypt by Menes (**MEH-nee-z**), a ruler from the south, as a pivotal event. Kings of Egypt bore the title “Ruler of the Two Lands”—Upper and Lower Egypt—and wore two crowns symbolizing the unification of the country. In contrast to Mesopotamia, Egypt was unified early in its history.

Historians organize Egyptian history using the system of thirty dynasties (sequences of kings from the same family) identified by Manetho, an Egyptian from the third century B.C.E. The rise and fall of dynasties often reflects the dominance of different parts of the country. More generally, scholars refer to the “Old,” “Middle,” and “New Kingdoms,” each a period of centralized political power and brilliant cultural achievement, punctuated by “Intermediate Periods” of political fragmentation and cultural decline. Although experts debate the specific dates for these periods, the chronology on page 7 reflects current opinion.

The Egyptian state centered on the king, often known by the New Kingdom term **pharaoh**, from an Egyptian phrase meaning “palace.” From the time of the Old Kingdom, if not earlier, Egyptians considered the king to be a god sent to earth to maintain **ma'at** (**muh-AHT**), the divinely authorized order of the universe. He was the indispensable link between his people and the gods, and his benevolent rule ensured the welfare and prosperity of the country.

So much depended on the kings that their deaths called forth elaborate efforts to ensure the well-being of their spirits on their perilous journey to rejoin the gods. Massive resources were poured into the construction of royal tombs, the celebration of elaborate funerary rites, and the sustenance of the kings' spirits in the afterlife by perpetual offerings in funerary chapels attached to the royal tombs. Early rulers were buried in flat-topped, rectangular tombs made of mud brick. Around 2630 B.C.E. Djoser (**JO-sur**), a Third Dynasty king, constructed a stepped **pyramid** consisting of a series of stone platforms laid one on top of the other at Saqqara (**suh-KAHR-uh**), near Memphis. Rulers in the Fourth Dynasty filled in the steps to create the smooth-sided, limestone pyramids that have become the most memorable symbol of ancient Egypt. Between 2550 and 2490 B.C.E. the pharaohs Khufu (**KOO-foo**) and Khefren (**KEF-ren**) erected huge pyramids at Giza, several miles north of Saqqara.

### Unification

**pharaoh** The central figure in the ancient Egyptian state. Believed to be an earthly manifestation of the gods, he used his absolute power to maintain the safety and prosperity of Egypt.

**ma'at** Egyptian term for the concept of divinely created and maintained order in the universe. Reflecting the ancient Egyptians' belief in an essentially beneficent world, the divine ruler was the earthly guarantor of this order.

### Royal Tombs

**pyramid** A large, triangular stone monument, used in Egypt and Nubia as a burial place for the king. The largest pyramids, erected during the Old Kingdom near Memphis with stone tools and compulsory labor, reflect the Egyptian belief that the proper and spectacular burial of the divine ruler would guarantee the continued prosperity of the land.



**Model of Egyptian River Boat, ca. 1985 B.C.E.** This model was buried in the tomb of a Middle Kingdom official, Meketre, who is shown in the cabin being entertained by musicians. The captain stands in front of the cabin, the helmsman on the left steers the boat with the rudder, while the lookout on the right lets out a weighted line to determine the river's depth. Lightweight ships equipped with sails and oars were well suited for travel on the peaceful Nile and sometimes were used for voyages on the Mediterranean and Red Seas.

The Metropolitan Museum of Art, Rogers Fund and Edward S. Harkness Gift, 1920 (20.3.1). Photograph © 1997 The Metropolitan Museum of Art.

**Memphis** The capital of Old Kingdom Egypt, near the head of the Nile Delta. Early rulers were interred in the nearby pyramids.

### Centralized Administration

**Thebes** Capital city of Egypt and home of the ruling dynasties during the Middle and New Kingdoms. Amon, patron deity of Thebes, became one of the chief gods of Egypt. Monarchs were buried across the river in the Valley of the Kings.

### Writing

**hieroglyphics** A system of writing in which pictorial symbols represented sounds, syllables, or concepts. It was used for official and monumental inscriptions in ancient Egypt. Because of the long period of study required to master this system, literacy in hieroglyphics was confined to a relatively small group of scribes and administrators. Cursive symbol-forms were developed for rapid composition on other media, such as papyrus.

### Tensions Between Rulers and Officials

**papyrus** A reed that grows along the banks of the Nile River in Egypt. From it was produced a coarse, paperlike writing medium used by the Egyptians and many other peoples in the ancient Mediterranean and Middle East.

### Cities

Egyptians accomplished this construction with stone tools (bronze was still expensive and rare) and no machinery other than simple levers, pulleys, and rollers. What made it possible was almost unlimited human muscle power. Calculations of the human resources needed to build a pyramid within the lifetime of the ruler suggest that large numbers of people must have been pressed into service for part of each year, probably during the flood season when no agricultural work could be done. Although this labor was compulsory, the Egyptian masses probably regarded it as a kind of religious service that helped ensure prosperity. The age of the great pyramids lasted only about a century, although pyramids continued to be built on a smaller scale for two millennia.

## Administration and Communication

Ruling dynasties usually placed their capitals in the area of their original power base. **Memphis**, near the apex of the delta (close to Cairo, the modern capital), held this central position during the Old Kingdom. **Thebes**, far to the south, supplanted it during the Middle and New Kingdom periods (see Map 1.4).

The administrative system began at the village level and progressed to the districts into which the country was divided and, finally, to the central government in the capital city. Bureaucrats kept track of land, products, and people, extracting as taxes a substantial portion of the country's annual revenues—at times as much as 50 percent. This income supported the palace, bureaucracy, and army, as well as the construction and maintenance of temples and great monuments celebrating the ruler's reign. The government maintained a monopoly over key sectors of the economy and controlled long-distance trade. This was different from Mesopotamia, where commerce increasingly fell into the hands of an acquisitive urban middle class.

The hallmark of the administrative class was literacy. A writing system had been developed by the beginning of the Early Dynastic period. **Hieroglyphics (high-ruh-GLIF-iks)**, the earliest form of this system, were picture symbols standing for words, syllables, or individual sounds. Hieroglyphic writing long continued to be used on monuments and ornamental inscriptions. By 2500 B.C.E., however, a cursive script, in which the original pictorial nature of the symbol was less apparent, had been developed for the everyday needs of administrators and copyists. The Egyptians used writing for many purposes other than administrative recordkeeping. Their written literature included tales of adventure and magic, love poetry, religious hymns, and instruction manuals on technical subjects. Scribes in workshops attached to the temples made copies of traditional texts, working with ink on a writing material made from the **papyrus (puh-PIE-ruhs)** reed. The plant grew only in Egypt but was in demand throughout the ancient world and was exported in large quantities.

When the monarchy was strong, the king appointed officials, promoted them on the basis of ability and accomplishment, and gave them grants of land cultivated by dependent peasants. Low-level officials were assigned to villages and district capitals; high-ranking officials served in the royal capital. When Old Kingdom officials died, they were buried in tombs around the monumental tomb of the king so that they could serve him in death as they had in life.

Throughout Egyptian history there was an underlying tension between the centralizing power of the monarchy and the decentralizing tendencies of the bureaucracy. One sign of the breakdown of royal power in the late Old Kingdom and First Intermediate Period was the placement of officials' tombs in their home districts, where they spent much of their time and exercised power more or less independently, rather than near the royal tomb. Another sign was the tendency of administrative posts to become hereditary. The early monarchs of the Middle Kingdom restored centralized control by reducing the power and prerogatives of the old elite and creating a new class of loyal administrators.

It has often been said that Egypt lacked real cities because the political capitals were primarily extensions of the palace and central administration. Compared to Mesopotamia, a far larger percentage of Egyptians lived in rural villages and engaged in agriculture, and Egypt's wealth derived to a higher degree from the land and its products. But there were towns and cities in ancient Egypt, although they were less crucial to the economic and cultural dynamism of the country than were Mesopotamian urban centers. Unfortunately, archaeologists have been unable to excavate many ancient urban sites in Egypt because they lie beneath modern communities.

### Foreign Relations and Trade

During the Old and Middle Kingdoms, Egypt's foreign policy was essentially isolationist. All foreigners were considered enemies. When necessary, local militia units backed up a small standing army of professional soldiers. Nomadic groups in the eastern and western deserts and Libyans to the northwest were a nuisance rather than a real danger and were readily handled by the Egyptian military. Egypt's interests abroad focused on maintaining access to valuable resources rather than on acquiring territory. Trade with the coastal towns of the Levant (**luh-VANT**) (modern Israel, the Palestinian territories, Lebanon, and Syria) brought in cedar wood. In return, Egypt exported grain, papyrus, and gold.

In all periods the Egyptians had a particularly strong interest in goods from the south. Nubia had rich sources of gold (Chapter 2 examines the rise of a civilization in Nubia that, though considerably influenced by Egypt, created a vital and original culture that lasted for more than two thousand years), and the southern course of the Nile offered the easiest passage to sub-Saharan Africa. In the Old Kingdom, Egyptian noblemen led donkey caravans south to trade for gold, incense, and products of tropical Africa such as ivory, dark ebony wood, and exotic jungle animals. A line of forts along the southern border protected Egypt from attack. In the early second millennium B.C.E. Egyptian forces struck south into Nubia, extending the border to the Third Cataract of the Nile and taking possession of the gold fields. Still farther to the south, perhaps in the coastal region of present-day Sudan or Eritrea, lay the fabled land of Punt (**poont**), source of the fragrant myrrh resin burned on the altars of the Egyptian gods.

## The People of Egypt

The million to million and a half inhabitants of Egypt included various physical types, ranging from dark-skinned people related to the populations of sub-Saharan Africa to lighter-skinned people akin to the populations of North Africa and western Asia. Although Egypt did not experience the large-scale migrations and invasions common in Mesopotamia, settlers periodically trickled into the Nile Valley and assimilated with the people already living there.

Although some Egyptians had higher status and more wealth and power than others, in contrast to Mesopotamia no formal class structure emerged. At the top of the social hierarchy were the king and high-ranking officials. In the middle were lower-level officials, local leaders, priests and other professionals, artisans, and well-to-do farmers. At the bottom were peasants, who made up the vast majority of the population.

### Peasant Life

Any account of the lives of ordinary Egyptians is largely conjectural; the villages of ancient Egypt, like those of Mesopotamia, left few traces in the archaeological or literary record. In tomb paintings of the elite, artists indicated status by pictorial conventions, such as obesity for wealthy and comfortable patrons, baldness and deformity for the working classes. Egyptian poets frequently used metaphors of farming and hunting, and papyrus documents preserved in the hot, dry sands tell of property transactions and legal disputes among ordinary people.

Peasants living in rural villages engaged in the seasonally changing tasks of grain agriculture: plowing, sowing, reaping, and threshing. They also maintained and extended the irrigation network of channels, basins, and dikes. Meat from domesticated animals—cattle, sheep, goats, and poultry—and fish supplemented a diet based on wheat or barley, beer, and vegetables. Villagers shared implements, work animals, and storage facilities and helped one another at peak times in the agricultural cycle and in the construction of houses and other buildings. They prayed and feasted together at festivals to the local gods. Periodically they had to contribute labor to state projects. If taxation or compulsory service was too great a burden, flight into the desert was the only escape.

### Women's Lives

Some information is available about the lives of women of the upper classes, but it is filtered through the brushes and pens of male artists and scribes. Tomb paintings show women of the royal family and elite classes accompanying their husbands and engaging in typical domestic activities. They are depicted with dignity and affection, though they are clearly subordinate to the men. The artistic convention of depicting men with a dark red and women with a yellow flesh tone implies that the elite woman's proper sphere was indoors, away from the searing sun. In the beautiful love poetry of the New Kingdom, lovers address each other in terms of apparent equality and express emotions of romantic love.

Legal documents show that Egyptian women could own property, inherit from their parents, and will their property to whomever they wished. Marriage, usually monogamous, was not confirmed by any legal or religious ceremony and essentially constituted a decision by a



man and woman to establish a household together. Either party could dissolve the relationship, and the divorced woman retained rights over her dowry. At certain times queens and queen-mothers played significant behind-the-scenes roles in the politics of the court, and priestesses sometimes supervised the cults of female deities. In general, the limited evidence suggests that women in ancient Egypt were treated more respectfully and had more legal rights and social freedom than women in Mesopotamia.

## Belief and Knowledge


### Gods

Egyptian religion was rooted in the landscape of the Nile Valley and the vision of cosmic order that it evoked. The consistency of their environment—the sun rose every day in a clear and cloudless sky, and the river flooded on schedule every year, ensuring a bounteous harvest—persuaded the Egyptians that the natural world was a place of recurrent cycles and periodic renewal. The sky was imagined to be a great ocean surrounding the inhabited world. The sun-god Re (**ray**) traversed this blue waterway in a boat by day, then returned through the Underworld at night, fighting off the attacks of demonic serpents so that he could be born anew in the morning. In one especially popular story Osiris (**oh-SIGH-ris**), a god who once ruled Egypt, was slain by his jealous brother Seth, who then scattered the dismembered pieces. Isis, Osiris's devoted sister and wife, found and reconstructed the remnants, and Horus, his son, took revenge on Seth. Osiris was restored to life and installed as king of the Underworld, and his example gave people hope of a new life in a world beyond this one.

The king, who was seen as Horus and as the son of Re, was thus associated with both the return of the dead to life and the life-giving and self-renewing sun-god. He was the chief priest of Egypt, intervening with the gods on behalf of his land and people. Egyptian rulers zealously built new temples, refurbished old ones, and made lavish gifts to the gods. Much of the country's wealth was directed to religious activities in a ceaseless effort to win the gods' favor, maintain the continuity of divine kingship, and ensure the renewal of the life-giving forces that sustained the world.

The many gods of ancient Egypt were diverse in origin and nature. Some were normally depicted with animal heads; others were always given human form. Few myths about the origins and adventures of the gods have survived, but there must have been a rich oral tradition. Many towns had temples for locally prominent deities. When a town became the capital of a ruling dynasty, the chief god of that town became prominent across the land. Thus did Ptah (**puh-TAH**) of Memphis, Re of Heliopolis (**he-lee-OP-uh-lis**), and Amon (**AH-muhn**) of Thebes become gods of all Egypt, serving to unify the country and strengthen the monarchy. As in Mesopotamia, some temples possessed extensive landholdings worked by dependent peasants, and the priests who administered the deity's wealth were influential locally and sometimes even throughout the land.

### Public and Private Cult

 **PRIMARY SOURCE: The Egyptian Book of the Dead's Declaration of Innocence** Read the number of potential sins that would likely tarnish a journeying spirit and prevent entrance into the realm of the blessed.

Cult activities were carried out in the inner reaches of the temples, off limits to all but the priests who served the needs of the deity by attending to his or her statue. During great festivals, the priests paraded a boat-shaped litter carrying the shrouded statue and cult items of the deity around the town. This brought large numbers of people into contact with the deity in an outpouring of devotion and celebration. But little is known about the day-to-day beliefs and practices of the common people. In the household family members made small offerings to Bes, the grotesque god of marriage and domestic happiness, to local deities, and to the family's ancestors. They relied on amulets and depictions of demonic figures to protect the bearer and ward off evil forces. In later times Greeks and Romans commented that the devotion to magic was especially strong in Egypt.

Egyptians believed in the afterlife and made extensive preparations for safe passage to the next world and a comfortable existence once they arrived there. A common belief was that death was a journey beset with hazards. The Egyptian Book of the Dead, present in many excavated tombs, contained rituals and spells to protect the journeying spirit. The final challenge was the weighing of the deceased's heart in the presence of the judges of the Underworld to determine whether the person had led a good life and deserved to reach the ultimate blessed destination.

Obsession with the afterlife led to great concern about the physical condition of the cadaver and to the perfection of mummification techniques to preserve the dead body. The idea probably grew out of the early practice of burying the dead in the hot, dry sand on the edge of the desert, where bodies decomposed slowly. The elite classes utilized the most expensive kind of

### Burial and Afterlife

**Scene from the Egyptian Book of the Dead, ca. 1300 B.C.E.** The mummy of a royal scribe named Hunefar is approached by members of his household before being placed in the tomb. Behind Hunefar is jackal-headed Anubis, the god who will conduct the spirit of the deceased to the afterlife. The Book of the Dead provided Egyptians with the instructions they needed to complete this arduous journey and gain a blessed existence in the afterlife.

**mummy** A body preserved by chemical processes or special natural circumstances, often in the belief that the deceased will need it again in the afterlife. In ancient Egypt the bodies of people who could afford mummification underwent a complex process of removing organs, filling body cavities, dehydrating the corpse with natron, and then wrapping the body with linen bandages and enclosing it in a wooden sarcophagus.



Courtesy of the Trustees of the British Museum

mummification. Vital organs were removed, preserved, and stored in stone jars laid out around the corpse, and body cavities were filled with various packing materials. The cadaver, immersed for long periods in dehydrating and preserving chemicals, eventually was wrapped in linen. The **mummy** was then placed in one or more decorated wooden caskets and deposited in a tomb.

The form of the tomb reflected the wealth and status of the deceased. Common people made do with simple pit graves or small mud-brick chambers, while the privileged classes built larger tombs. Kings erected pyramids and other grand edifices, employing subterfuge to hide the sealed chamber containing the body and treasures, as well as curses and other magical precautions to foil tomb robbers. Rarely did they succeed, however, and archaeologists have seldom discovered an undisturbed royal tomb. The tombs, usually built at the edge of the desert so as not to tie up valuable farmland, were filled with pictures, food, and the objects of everyday life to provide whatever the deceased might need in the next life. Small figurines called shawabtis (**shuh-WAB-tees**) were included to play the part of servants and take the place of the deceased in case the afterlife required periodic compulsory labor. The elite classes attached chapels to their tombs and left endowments to subsidize the daily attendance of a priest and offerings of food-stuffs to sustain their spirits for all eternity.

The ancient Egyptians made remarkable advances in many areas of knowledge. The process of mummification taught them about human anatomy, and Egyptian doctors were in demand in the courts of western Asia. They developed mathematics to

## SECTION REVIEW

- Most of the population of ancient Egypt lived alongside the Nile River or in the delta.
- Egypt was well-endowed with natural resources and largely self-sufficient.
- Because the king was the essential link between the people of Egypt and their gods, lavish resources were poured into the construction of pyramids and other royal tombs.
- Hieroglyphic and other systems of writing were used by administrators and also for many genres of literature.
- The population of Egypt was physically diverse, and there was no formal system of classes.
- The status and privileges of Egyptian women were superior to that of their Mesopotamian counterparts, and poetry reveals an ideal of romantic love.
- Obsessed with the afterlife, Egyptians used mummification to preserve dead bodies, constructed elaborate tombs, and employed the Book of the Dead to navigate the hazardous journey to a blessed final destination.
- Egyptians acquired substantial knowledge about medicine, mathematics, astronomy, and engineering.

**Science and Technology**

measure the dimensions of fields and to calculate the quantity of agricultural produce owed to the state. Through careful observation of the stars they constructed the most accurate calendar in the world, and they knew that the appearance of the star Sirius on the horizon shortly before sunrise meant that the Nile flood surge was imminent. Pyramids, temple complexes, and other monumental building projects called for great skill in engineering. Long underground passageways were excavated to connect mortuary temples by the river with tombs near the desert's edge. On several occasions Egyptian kings dredged out a canal more than 50 miles (80 kilometers) long in order to join the Nile Valley to the Red Sea and expedite the transport of goods.

## THE INDUS VALLEY CIVILIZATION

Civilization arose almost as early in South Asia as in Mesopotamia and Egypt. In the fertile floodplain of the Indus River, farming created the food surplus essential to urbanized society.

### Natural Environment

A plain of more than 1 million acres (400,000 hectares) stretches from the mountains of western Pakistan east to the Thar (**tahr**) Desert in the Sind (**sinned**) region of modern Pakistan (see Map 1.2). Over many centuries silt carried downstream and deposited by the Indus River has elevated the riverbed and its banks above the level of the plain. Twice a year the river overflows and inundates surrounding land as far as 10 miles (16 kilometers). In March and April melting snow from the Pamir (**pah-MEER**) and Himalaya (**him-uh-LAY-uh**) mountain ranges feeds the floods. In August, the great monsoon (seasonal wind) blowing off the ocean to the southwest brings rains that cause a second flood. Farmers in this region of little rainfall are thus able to plant and harvest two crops a year. In ancient times the Hakra (**HAK-ruh**) River (sometimes referred to as the Saraswati), which has since dried up, ran parallel to the Indus about 25 miles (40 kilometers) to the east and supplied water to a second cultivable area.

Adjacent regions shared many cultural traits with this core area. To the northeast is the Punjab, where five rivers converge to form the main course of the Indus. Lying beneath the towering Himalaya range, the Punjab receives considerably more rainfall than the central plain but is less prone to flooding. Settlements spread as far east as Delhi (**DEL-ee**) in northwest India. Settlement also extended south into the great delta where the Indus empties into the Arabian Sea, and southeast into India's hook-shaped Kathiawar (**kah-tee-uh-WAHR**) Peninsula, an area of alluvial plains and coastal marshes. The Indus Valley civilization covered an area much larger than the zone of Mesopotamian civilization.

### Material Culture

The Indus Valley civilization flourished from approximately 2600 to 1900 B.C.E. Although archaeologists have located several hundred sites, the culture is best known from the remains of two great cities first discovered eighty years ago. Since the ancient names of these cities are unknown, they are referred to by modern names: **Harappa** and **Mohenjo-Daro** (**moe-hen-joe-DAHR-oh**). Unfortunately, the high water table at these sites makes excavation of the earliest levels of settlement nearly impossible.

Settled agriculture in this region dates back to at least 5000 B.C.E. The precise relationship between the Indus Valley civilization and earlier cultural complexes in the Indus Valley and in the hilly lands to the west is unclear. Also unclear are the forces that gave rise to urbanization, population increase, and technological advances in the mid-third millennium B.C.E. Nevertheless, the case for continuity with the earlier cultures seems stronger than the case for a sudden transformation due to the arrival of new peoples.

This society produced major urban centers. Harappa, 3.5 miles (5.6 kilometers) in circumference, may have housed a population of 35,000. Mohenjo-Daro was several times larger. High, thick brick walls surrounded each city. The streets were laid out in a rectangular grid, and covered drainpipes carried away waste. The consistent width of streets and length of city blocks and the uniformity of the mud bricks used in construction suggest a strong central authority. The seat of this authority may have been the citadel—an elevated, enclosed compound containing

**Harappa** Site of one of the great cities of the Indus Valley civilization of the third millennium B.C.E. It was located on the northwest frontier of the zone of cultivation (in modern Pakistan) and may have been a center for the acquisition of raw materials, such as metals and precious stones, from Afghanistan and Iran.

#### Urban Centers

**Mohenjo-Daro** Largest of the cities of the Indus Valley civilization. It was centrally located in the extensive floodplain of the Indus River in contemporary Pakistan. Little is known about the political institutions of Indus Valley communities, but the large scale of construction at Mohenjo-Daro, the orderly grid of streets, and the standardization of building materials are evidence of central planning.





Courtesy, National Museum, Karachi

**Man from Mohenjo-Daro, ca. 2600–1900 B.C.E.** This statue of a seated man wearing a cloak and headband was carved from a soft stone called steatite. It is often called the “Priest-King” because some scholars believe it may represent someone with religious and secular authority, but the true identity and status of this person are unknown.

large buildings. Scholars think the well-ventilated structures nearby were storehouses of grain for feeding the urban population and for export. The presence of barracks may point to some regimentation of skilled artisans.

Different centers may have had different functions. Mohenjo-Daro dominates the great floodplain of the Indus. Harappa, which is nearly 500 miles (805 kilometers) to the north, is on a frontier between farmland and herding land, and may have served as a “gateway” for procuring the copper, tin, and precious stones of the northwest. Coastal towns in the south gathered fish and highly prized seashells and engaged in seaborne trade with the Persian Gulf.

Mohenjo-Daro and Harappa have been extensively excavated, and published accounts of the Indus Valley civilization tend to treat them as the norm. Most people, however, lived in smaller settlements, which exhibit the same artifacts and the same standardization of styles and shapes as the large cities. Some scholars attribute this standardization to extensive

exchange of goods within the zone of Indus Valley civilization, rather than to the urban centers’ control of the smaller settlements.

### Technology

There is a greater quantity of metal in the Indus Valley than in Mesopotamia and Egypt, and most metal objects are utilitarian tools and other everyday objects. In contrast, more jewelry and other decorative metal objects have been unearthed in Mesopotamia and Egypt. Apparently metals were available to a broad cross-section of the population in the Indus Valley, while primarily reserved for the elite in the Middle East.

Technologically, the Indus Valley people showed skill in irrigation, used the potter’s wheel, and laid the foundations of large public buildings with mud bricks fired to rocky hardness in kilns (sun-dried bricks would have dissolved quickly in floodwaters). They also had a system of writing with more than four hundred signs. Archaeologists have recovered thousands of inscribed seal stones and copper tablets, but no one has been able to decipher these documents.

### Trade and Culture

The people of the Indus Valley had widespread trading contacts. They had ready access to the metals and precious stones of eastern Iran and Afghanistan, as well as to ore deposits in western India, building stone, and timber. Goods were moved on rivers within the zone of Indus Valley culture. Indus Valley seal stones have also been found in the Tigris-Euphrates Valley, indicating that Indus Valley merchants served as middlemen in long-distance trade, obtaining raw materials from the northwest and shipping them to the Persian Gulf. The undeciphered writing on seal stones may represent the names of merchants who stamped their wares.

We know little about the political, social, economic, and religious institutions of Indus Valley society. Attempts to link artifacts and images to cultural features characteristic of later periods of Indian history (see Chapter 6)—including a system of hereditary occupational groups with priests predominating, bathing tanks like those later found in Hindu temples, depictions of gods and sacred animals on seal stones, a cult of the mother-goddess—are highly speculative. Further knowledge about this society awaits additional archaeological finds and the deciphering of the Indus Valley script.

## Transformation of the Indus Valley Civilization

The Indus Valley cities were abandoned sometime after 1900 B.C.E. Archaeologists once thought that invaders destroyed them, but they now believe this civilization suffered “systems failure”—a breakdown of the fragile interrelationship of political, social, and economic systems that sustained order and prosperity. The cause may have been one or more natural disasters, such as an earthquake or massive flooding. Gradual ecological changes may also have played a role as the Hakra river system dried up and salinization (an increase in the amount of salt in the soil, inhibiting plant growth) and erosion increased.

### SECTION REVIEW

- The Indus Valley civilization occupied a large territory, including the fertile Indus floodplain as well as adjacent regions.
- Both the major urban centers and smaller settlements exhibit a uniformity of techniques and styles that indicates a possible strong central control.
- The Indus Valley people were technologically advanced in irrigation, ceramics, and construction. Metals were more widely available than in Mesopotamia and Egypt. The writing system has not been deciphered.
- The Indus Valley had widespread trading contacts, reaching as far as Mesopotamia.
- Cities were abandoned and the civilization declined after 1900 B.C.E., probably as a result of natural disasters or environmental changes.

Towns no longer on the river, ports separated from the sea by silt deposits in the deltas, and the loss of fertile soil and water would have necessitated the relocation of populations and a change in the livelihood of those who remained. The causes and pace of change probably varied in different areas. The urban centers eventually succumbed, however, and village-based farming and herding took their place. As the interaction between regions lessened, regional variation replaced the standardization of technology and style of the previous era. It is important to keep in mind that in most cases like this the majority of the population adjusts to the new circumstances. But members of the elite, who depend on the urban centers and complex political and economic structures, lose the source of their authority and are merged with the population as a whole.

## CONCLUSION

It is no accident that the first civilizations to develop high levels of political centralization, urbanization, and technology were situated in river valleys where rainfall was insufficient for reliable agriculture. Dependent on river water to irrigate the cultivated land that fed their populations, Mesopotamia, Egypt, and the Indus Valley civilization channeled considerable human resources into the construction and maintenance of canals, dams, and dikes. This required the formation of political centers that could organize the necessary labor force.

In both Egypt and Mesopotamia, kingship emerged as the dominant political form. The Egyptian king's divine origins and symbolic association with the forces of renewal made him central to the welfare of the entire country and gave him religious authority superseding the temples and priests. Egyptian monarchs lavished much of the country's wealth on their tombs, believing that a proper burial would ensure the continuity of kingship and the attendant blessings that it brought to the land and people. Mesopotamian rulers, who were not normally regarded as divine but still dominated the religious institutions, built new cities, towering walls, splendid palaces, and religious edifices as lasting testaments to their power.

The unpredictable and violent floods in the Tigris-Euphrates Basin were a constant source of alarm for the people of Mesopotamia. In contrast, the predictable, opportune, and gradual Nile floods were eagerly anticipated events in Egypt. The relationship with nature stamped the religious outlooks of both peoples, since their gods embodied the forces of the environment. Mesopotamians nervously tried to appease their harsh deities so as to survive in a dangerous world. Egyptians largely trusted in and nurtured the supernatural powers that, they believed, guaranteed orderliness and prosperity. The Egyptians also believed that, although the journey to the next world was beset with hazards, the righteous spirit that overcame them could look forward to a blessed existence. In contrast, Gilgamesh, the hero of the Mesopotamian epic, is tormented by terrifying visions of the afterlife: disembodied spirits of the dead stumbling around in the darkness of the Underworld for all eternity, eating dust and clay and slaving for the heartless gods of that realm.

Although the populations of Egypt and Mesopotamia were ethnically heterogeneous, both regions experienced a remarkable degree of cultural continuity. New immigrants readily assimilated to the dominant language, belief system, and lifestyles of the civilization. Mesopotamia developed sharp social divisions that were reflected in the class-based penalties set down in the Law Code of Hammurabi, whereas Egyptian society was less urban and less stratified. Mesopotamian women's apparent loss of freedom and legal privilege in the second millennium B.C.E. also may have been related to the higher degree of urbanization and class stratification in this society. In contrast, Egyptian pictorial documents, love poems, and legal records indicate respect and greater equality for women in the valley of the Nile.

Because of the lack of readable texts, we can say very little about the political institutions, social organization, and religious beliefs of the Indus Valley people. However, they clearly possessed technologies on a par with those found in Mesopotamia and Egypt. To transform the natural environment and human society, all three civilizations developed writing systems, irrigation, bronze casting, and techniques for producing monumental architecture. The striking uniformity in the planning and construction of cities and towns and in the shapes and styles of artifacts argues for easy communication and some kind of interdependence among the far-flung Indus Valley settlements, as does the relatively rapid collapse of this civilization as a result of ecological changes.

## KEY TERMS

**civilization** p. 5  
**culture** p. 6  
**history** p. 6  
**Stone Age** p. 6  
**Paleolithic** p. 6  
**Neolithic** p. 6  
**foragers** p. 6

**Agricultural  
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**megaliths** p. 12  
**Sumerians** p. 16  
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**scribe** p. 20  
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**Memphis** p. 27  
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**mummy** p. 30  
**Harappa** p. 31  
**Mohenjo-Daro** p. 31

## EBOOK AND WEBSITE RESOURCES

### Primary Sources

The *Epic of Gilgamesh*  
 The State Regulates Health Care: Hammurabi's Code and Surgeons  
 The Hymn to the Nile  
 The Egyptian Book of the Dead's Declaration of Innocence

### Interactive Maps

**Map 1.1** Early Centers of Plant and Animal Domestication  
**Map 1.2** River-Valley Civilizations, 3500–1500 B.C.E.  
**Map 1.3** Mesopotamia  
**Map 1.4** Ancient Egypt

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[www.cengage.com/history/bulletearthpeople5e](http://www.cengage.com/history/bulletearthpeople5e)

## SUGGESTED READING

Anthony, David W. *The Horse, the Wheel, and Language*. 2008. A solid discussion of the evidence and the interpretive problems relating to the origins and spread of Eurasian pastoralism.  
 Ehrenberg, Margaret. *Women in Prehistory*. 1989. Provides interesting, though necessarily speculative, discussions of women's history.

Fagan, Brian. *People of the Earth: An Introduction to World Prehistory*, 12th ed. 2006. A reliable textbook introduction to human prehistory.  
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## NOTES

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2. Colin McEvedy and Richard Jones, *Atlas of World Population History* (New York: Penguin Books, 1978), 13–15.
3. Colin Renfrew, *Archaeology and Language: The Puzzle of Indo-European Origins* (New York: Cambridge University Press, 1988), 125, 150.
4. Luigi Cavalli-Sforza, L. Luca, Paolo Menozzi, and Alberto Piazza, *The History and Geography of Human Genes* (Princeton, NJ: Princeton University Press, 1994).
5. James Mellaart, *Çatal Hüyük: A Neolithic Town in Anatolia* (New York: McGraw-Hill, 1967), 202.

## AP\* REVIEW QUESTIONS FOR CHAPTER 1

- All of the following are indicators of a civilization EXCEPT
  - Monument buildings
  - Large, well-equipped armies
  - A system for keeping permanent records
  - Long-distance trade
- The most important change that took place in the Neolithic Era was
  - the development of stone tools.
  - the cooking of food.
  - the development of agriculture.
  - ceremonial burial of the dead.
- Archaeological evidence suggests that the Agricultural Revolutions began in
  - the Middle East.
  - East Africa.
  - Central Asia.
  - South Asia.
- By the late Neolithic period, the people of Çatal Hüyük had developed the use of
  - step pyramids.
  - glassmaking.
  - sundials.
  - copper metallurgy.
- One of the most important developments of the Sumerians was
  - dry farming.
  - woolen cloth.
  - a political hierarchy.
  - a written record.
- Mesopotamian city-states flourished because
  - they developed long-distance trade.
  - they conquered an area large enough to make themselves self-sufficient.
  - they invented specialized labor.
  - they had powerful armies.
- While it is likely that women lost power and freedom with the spread of agriculture, in Mesopotamia
  - they could hold political office.
  - they could reign.
  - they could own property.
  - many served as warriors.
- The Sumerian gods were
  - anthropomorphic.
  - the same gods as the ancient Hebrew gods.
  - all female.
  - private gods that an individual chose to worship.
- Which of the following is the best explanation of why Egypt was able to develop a unique culture?
  - It was the first real civilization to develop and had no enemies.
  - It had natural isolation and material self-sufficiency.
  - Its neighbors were all tribute states of Egypt.
  - Its armies were the most powerful in the region.
- Following the practice of Manetho, an Egyptian priest from the third century B.C.E., historians divide Egyptian history into dynasties, which are
  - segments of time equaling 100 years.
  - times when a kingdom rose until it fell.
  - sequences of kings from the same family.
  - based on the religion of the Egyptians.

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11. One of the hallmarks of the administrative class in Egypt was that
- (A) membership in it was inherited by the eldest son.
  - (B) only lower nobility could work in it.
  - (C) it included the priests.
  - (D) bureaucrats were literate.
12. In the second millennium B.C.E., Egypt invaded Nubia because
- (A) Nubia had gold fields.
  - (B) Nubia had a leader who claimed to be the pharaoh.
  - (C) Nubia had access to goods from across the Sahara.
  - (D) Nubia had allied with Mesopotamia.
13. One of the major difficulties in understanding the Indus Valley civilization is that
- (A) there is a lack of artifacts.
  - (B) archaeologists are not sure of its exact location.
  - (C) its written language cannot be read.
  - (D) all of its cities have been destroyed.