Sumerian Artifact  This gold-encased wooden object was found in 1927 by excavators working near the ancient Sumerian city of Ur. Lively imaginations linked it with the biblical story of Abraham and Isaac (Genesis 22:13) and named it, “Ram Caught in a Thicket,” “Ram in the Thicket.” Ascension #30-12-702. University of Pennsylvania Museum Neg. #T4-1000
LEARNING OBJECTIVES

What kinds of societies arose in the prehistoric era?  
• How did simple cultures become complex civilizations?  
• Why did the earliest civilization appear in Mesopotamia, and what were its features?  
• How and why did civilization in ancient Egypt differ from civilization in ancient Sumer?

And God blessed them and God said unto them, Be fruitful, and multiply, and replenish the earth, and subdue it: and have dominion over the fish of the sea, and over the fowl of the air, and over every thing that moveth upon the earth.… And unto Adam he said,…cursed is the ground for thy sake; in sorrow shalt thou eat of it all the days of thy life; thorns also and thistles shall it bring forth to thee.…

—The Book of Genesis 1:28; 2:17–18 (Standard Version)

For thousands of years the human species was migratory. Men and women survived by hunting and gathering the foodstuffs that nature spontaneously provided. When supplies were exhausted in one area, people moved to another. About 10,000 years ago, some people made what became a nearly universal shift from hunting and gathering to farming and herding. This forced them to stay in place for longer periods of time and to confront the challenges that come with settlement—everything from the construction of durable buildings to the engineering of new social relationships. In a few exceptional locales, environmental conditions and evolving food-producing technologies contributed to the growth of unprecedented population density. The personal relationships that structure tribes and villages were insufficient for the management of the large settlements that began to appear. As societies grew more complex, some of them established the institutions, pioneered the technologies, and built the monuments that have come to be regarded as signs of civilization.

The West’s first civilization flourished some 5,000 years ago on the plains of southern Iraq in a land called Sumer. Among the many achievements of the ancient Sumerians was the invention of writing, a technology that enabled them to leave behind the first
record of thoughts on the human condition—on the conundrum summarized by the biblical quotes that head this chapter. People “subdue” nature and thereby alter the environments in which they live, but nature resists and compels them to adapt to its changing realities. The resulting struggle for survival is an endless interplay between human behavior and its consequences for the environments that sustain life.

From the perspective of the world of nature, the construction of a civilization may be humanity’s most radical act. The Sumerians, Western civilization’s pioneers, lived in artificial environments not found in nature. Their great city-states were governed by kings like Gilgamesh, a quasi-legendary ruler of Uruk, whose reputation inspired The Epic of Gilgamesh, one of the earliest works of literature. This ancient narrative describes its hero’s superhuman efforts to subdue the Earth, and it reflects on the costs as well as the benefits of such behavior. Gilgamesh’s subjects admired his strength, wisdom, and beauty. They boasted of the monsters he killed, the protection he provided, the great walls and temples he built to glorify their city, and his dangerous journeys to bring them treasures from foreign lands. But these good things came at a high price. To serve their king’s ambition his people had to sacrifice their sons to his wars and their daughters to his lusts.

Sumerian city-states maintained order among large populations, coordinated labor on monumental public works, and helped ensure security and prosperity. But while they enhanced life in some ways they burdened it in others. They subordinated ties of family and kinship to hierarchies of class and institutionalized authority. They confiscated wealth, impressed labor, and limited freedoms. This enabled them to marshal unprecedented resources with which they literally redesigned their world. By altering the physical and mental environments on which their survival depended, they recreated themselves. The assumption of such power entailed responsibilities of which they were only dimly aware and led to consequences they could not anticipate. In this, they did not differ from most people past and present. As you reflect on civilization’s history, consider how the human attempt to “replenish the earth, and subdue it,” alters the natural and cultural environments that sustain humanity.

The Evolution of Prehistoric Cultures

The human story has traditionally been divided into two phases. History is said to begin with the invention of writing and the accumulation of documents. Prehistory is the pre-literate era that preceded the appearance of writing systems. It is important to remember, however, that this way of dividing the past is arbitrary and imprecise. Some complex societies have created vast bodies of sophisticated literature in oral traditions long before they began to write. And after writing began, it was a very long time before it was used for more than a few specialized purposes. A civilized community can function without writing.

Humanity’s prehistory is vastly longer than its history. Hominids, the biological family to which human beings belong, may have evolutionary roots that go back 7 million years. The modern human species, Homo sapiens sapiens (“thinking man”), has probably existed for only about 150,000 years. Anthropologists divide the immensely long prehistoric era into periods called Stone Ages, so designated
because most of what is known about them has been inferred from the study of the stone implements that are their chief surviving artifacts. The characterization of the prehistoric eras as Stone Ages can, however, be misleading, for it is risky to judge an entire culture on the basis of only one of its products (particularly when that product may not reflect that culture’s most sophisticated work). Stone is a difficult medium, and some prehistoric people produced other—and possibly more elaborate—things from more pliable materials (e.g., wood, leather, and fibers). Had more specimens of these crafts survived, we might better appreciate the inventiveness of these peoples and the complexity of their cultures.

The Paleolithic Era  

The Paleolithic (“Old Stone”) era began with the appearance of the first hominids who displayed evidence of tool use and started to draw to a close with the retreat of the last Ice Age (c. 10,500 years ago). Tool use is a behavior characteristic of human cultures, but it is not unique to the human species. Some animals and birds use and even make tools, but none relies on tools to the extent that humans do. Tools equipped Paleolithic peoples to survive by hunting and gathering. As hunters and gatherers, they had a largely (but not entirely) passive relationship with their environment. Because they depended on resources that nature spontaneously provided, different environments would have created different kinds of Paleolithic cultures. Tropical locales with a rich variety of foodstuffs would have rewarded gathering, while colder regions would have fostered greater dependence on hunting a few species. In some modern aboriginal communities, gathering is often a female specialization, and hunting is an activity dominated (although not exclusively) by males. Scholars have speculated about how this might have affected the distribution of power between males and females in Paleolithic communities, but theories about prehistoric gender relations are more abundant than evidence to support them.

The modern human species may descend from a single population in Africa or trace its origin to developments in several regions. About 30,000 years ago it crossed a crucial threshold. Cultural activity exploded, and Homo sapiens sapiens emerged as the sole surviving member of a family of hominids that had once had many branches. What happened to other members of the family—particularly the Neanderthals with whom Homo sapiens sapiens coexisted for a time—is unknown. Homo sapiens sapiens may have won the competition for essential resources or actively exterminated the Neanderthals. It has also been suggested that the two species might have interbred. DNA studies have been conducted with inconclusive results.

Highly refined and specialized tools indicate that the people who lived in Europe as the Paleolithic era drew to a close were evolving increasingly complex cultures, but their most remarkable advance was the creation of a new genre of artifacts—things that modern scholars characterize as works of art rather than tools. The difference between an art object and a tool is not a simple contrast between a utilitarian instrument and an ornament. A tool can have aesthetic attributes, and an art object can have a purpose other than evoking delight. Paleolithic sculptors and painters may indeed have been less motivated by aesthetic impulses than by the belief that their work would
help them relate to nature’s mysterious powers. The key distinction between a tool and an art object lies in art’s symbolic functions. Human intellectual capacity took a great leap forward once people began to see things not just as themselves, but as symbols—as representations of something more or other than themselves. The ability to perceive and manipulate symbols is the basis for all higher-level thinking.

What Paleolithic artists intended to symbolize by their work is uncertain. Scholars have, for instance, puzzled over the meaning of the numerous female figurines that have been found at Paleolithic sites from Western Europe to Siberia. Many of these follow a standard design: a naked, obese, pregnant female torso with full breasts. Some scholars claim that these objects are evidence for the existence of a prehistoric mother-goddess cult. Others believe that this reads too much into them. Rather than indicating something as intellectually advanced as a religion, these objects may have served as simple fertility amulets or as charms to ensure safety in childbirth. Equally puzzling are the pictures that Paleolithic people began to paint on the walls of caves about 32,000 years ago (a custom that continued for about 20,000 years). These were not decorations for places where people lived. They are found in deep caverns that were sometimes difficult and dangerous to access. There is evidence that rituals took place in some of the painted caves, but no one knows the purpose of the art or of the ceremonies associated with it. When cave paintings first began to come to light in the nineteenth century, scholars assumed the paintings were products of hunter magic—symbols used for ritual enactments of hunts to ensure a hunter’s success. But then it was noticed the kinds of animals that Paleolithic people ate were rarely depicted. Some caves also appear to be organized thematically—grouping different species of animals in different places and associating animals that would not be found together in nature. Cave artists lavished great skill on realistic descriptions of animals, but they rarely treated a human subject. Sometimes they covered walls with abstract shapes, hand prints, patterns of dots, and clusters of lines. It may be that cave art was linked with cycles of myths and legends that have long been forgotten.

The Paleolithic era phased into the **Neolithic** (“New Stone”) at roughly the same time in perhaps seven different places around the world. The cultural innovations that marked the transition suggest that people were responding to a need to increase their food supplies. As the last glaciers of the Ice Ages retreated, the global climate became warmer and wetter, sea levels rose, the tundra favored by herd animals shrank and shifted northward, and plant and animal species redistributed themselves. Stressed communities that could not migrate to the shrinking regions where their old way of life was still viable had to figure out how to wring more sustenance from environments that were changing. Hunting techniques evolved to snare fish and birds. Diets diversified, and, in a few regions with unique advantages, people embarked on practices that inched them toward the brink of civilization.

**The Neolithic “Revolution”**  As one of the Stone Ages, the Neolithic era is associated with the emergence of a particular kind of stone implement. In earlier periods, tools were manufactured by **pressure chipping**—by nicking flakes from pieces of flint, quartz, or obsidian (volcanic glass) to make instruments with sharp edges. Neolithic toolmakers developed methods for grinding to work tougher kinds of stone, but theirs was not the technology that made the New Stone Age truly new.
The documents on which historians rely often enable them to reconstruct the lives of individuals, but students of prehistory are almost always limited to generalizing about groups or categories of people. A rare exception to this rule became possible on September 19, 1991, when some hikers in the Alps stumbled across the corpse of a man who had died about 3300 B.C.E. Because his remains (the oldest known human mummy) had survived frozen inside a glacier, the media called him “the Iceman” and nicknamed him Otzi (from the Otztal Alps where he was found). He was 5 feet 3 inches tall and was 30 to 45 years old when he died. His clothes, weapons, and a few other possessions were preserved with his body: an axe with a copper head and yew-wood handle, a flint-bladed knife with a wooden handle, a pouch filled with materials that may have been a fire-starting kit, an unfinished bow of yew wood (longer than its owner was tall), and a quiver with 14 arrows (two of which were finished with stone points and feathered shafts). He wore a fur-lined cap, a vest of pelts stitched together, a leather loincloth, a leather belt, fur leggings, a cloak woven of grasses, and what appear to have been large snow shoes—with bearskin soles, cow-hide uppers, and an insulating layer of grass. His body bore 57 tattoos, and he sported an ornament or talisman suspended on a leather thong—a doughnut-shaped disk of white marble.

Chemical analyses of his remains suggest that he grew up in a region near a modern village called Feldthurns and that he had probably never ranged more than about 40 miles from his home. The partially digested remains of a meal he had ingested about eight hours before his death were recovered from his gut. He had dined on meat (probably venison), some vegetable matter, and grain—einkorn, a form of domesticated wheat that farmers introduced to Europe. Pollen grains consumed with his food were from trees that bloom in March and April, indicating the season when he died. His death was not from natural causes. A flint arrowhead about an inch long was lodged about 3 inches under his left shoulder near his lung. It traveled upward into his body, missing organs but severing blood vessels. He had been involved in a fight that left bruises and cuts on his hands and chest and traces of blood from four other people on his clothes and weapons. The shaft of the arrow that mortally wounded him had been pulled out. But he may have done that himself, for he apparently died alone (his possessions were not looted). He seems to have stowed his equipment before lying down beside it either to bleed to death or die of exposure. He may have been a hunter or shepherd who was accustomed to spending months each year in the high country. If he had friends and relatives who searched for him, they never found him, and his fate remained unknown for over 5,000 years.

**QUESTION:** What do the Iceman’s possessions and physical remains suggest about his environment and the cultural adaptations that helped him deal with its challenges?
Chapter 1

The Neolithic has been described as a revolution, for it marked the beginning of humankind’s conscious effort actively to transform its environment. Instead of simply harvesting what nature spontaneously provided, Neolithic cultures intervened in nature’s systems to compel their environments to produce more of what they wanted. They decreased their reliance on hunting and gathering as they began to farm and herd. Herding and farming certainly revolutionized the human lifestyle, but they were not revolutionary inventions. People became herders and farmers by exploiting what Paleolithic people had long since learned about the life cycles and behaviors of plants and animals. Nomadic gatherers sometimes sowed seeds before they left a region to ensure a crop when they returned, and hunters, who trapped animals, knew that some species would feed and breed in captivity.

It did not take a stroke of genius to turn a hunter-gatherer into a farmer-herder, but it did take strong motivation. Cultivating a food supply did not make life easier. Farming probably required longer and more arduous labor than hunting and gathering. Farmers had a less varied and healthy diet. They staked their survival on fewer resources, and they ran a greater risk of disease from prolonged contact with domesticated animals and the wastes that accumulate when people remain in one place for an extended period of time. Anthropological evidence suggests that (as a result of all these unhealthy developments) the transition to farming reduced life spans. Why, then, was farming so widely adopted?

Farming offered one crucial advantage: It increased the yield of food from a given plot of land. If climate change or population growth made it difficult for a people to feed themselves, they had no choice but to go on the offensive—that is, to choose the hard path of forcing nature to produce more of what they needed than it would when left to its own devices.

The agricultural economy that the Neolithic era pioneered has worked extraordinarily well for humanity. Some 500,000 years ago, Earth’s hominid population may have numbered no more than a million. At the start of the Neolithic era, about 6 million people were spread around the globe. For eons population growth was moderated by plagues, wars, and famines, and it was not until the eighteenth century C.E. that the human species could boast a billion members. Another two centuries brought it to 6 billion, and it is predicted to reach 9 billion by the mid-twenty-first century. Given that Earth’s environment is showing signs of stress, humanity may well be undone by its own success.

Prelude to Civilization

Farming appeared first where nature made it easiest. Pioneering farmers looked for fields they could clear of undesirable vegetation, soil they could work with simple tools, and a climate in which grains flourished. The thick forests of central and northern Europe, with their damp, heavy soils, were too challenging and lacked the desired indigenous species of plant life. The semi-arid grasslands of Asia Minor and the Middle East were, however, ideal, and many of the domesticated species on which Western agriculture came to depend (wheat, barley, pigs, sheep, goats, and cattle) were native to that region (see Map 1–1).

The earliest agricultural settlements arose about 10,000 years ago. At first they probably combined hunting and gathering with farming. This was true of the...
The world's oldest known continuously inhabited community, the biblical city of Jericho, which appeared about 8400 B.C.E. By 7300 B.C.E., it had about 2,000 residents and was partially protected by a dry-stone wall and a circular tower about 30 feet high. Whether the wall was meant to defend against human aggressors or flash floods is uncertain. The tower could have been used for observation or for exposure of corpses. (Some cultures retrieve the bones of their dead for burial after carrion-eating birds have stripped away the flesh.) During the eighth millennium, the people of Jericho collected skulls, which they coated with plaster and painted to represent flesh and hair. This might suggest a cult of ancestor worship, but no one can be certain of the skulls' meaning.

Many early agricultural sites have been found in Syria and Palestine and in neighboring Anatolia (Asia Minor or modern Turkey). The most remarkable of these may be Çatalhöyük in central Turkey. It flourished for about 1,400 years (c. 7400 to 6000 B.C.E.). At its peak it sprawled over 33 acres and was home to about 8,000 people. From a distance it probably looked like a huge adobe building, a cluster of 1,000 mud-brick houses.

**QUESTION:** Why did the places where agriculture was first practiced not produce the first civilizations?
Although each house had its own walls, these abutted the walls of neighboring buildings on all sides. There were a few open spaces in the town, which separated sections of settlement and became dumping grounds for refuse, but there were no streets. People traveled over the roofs of buildings and used ladders to access their interiors.

Most houses at Çatalhöyük had a large room for living space and one or more smaller storage rooms. They were furnished with mud-brick benches or sleeping platforms, woven floor mats, baskets, and various wooden and pottery vessels. Tools were made from obsidian. People clothed themselves with fur, leather, and cloth woven from plant fibers and animal hair. They wore jewelry made from bone and seashells, and figurines depict them with elaborately styled hair. The bodies of their dead were interred beneath the floors of their homes where their successors continued to live. The remains of as many as 62 people have been identified from excavation of a single house site. Sometimes skulls were retrieved from previously buried bodies, and at least one plastered skull, similar to those found at Jericho, has come to light.

Many of the buildings excavated at Çatalhöyük are elaborately decorated. Domed ovens were standard features of homes whose walls, soiled by soot from their fires, were frequently replastered and painted. Horns, skulls, and claws of cattle and wild beasts were embedded in walls. Bulls, leopards, vultures, and bears are common artistic motifs, and there are scenes that represent mass hunts or group baiting of wild animals. Human and animal figurines have been recovered, many of which have been mutilated, presumably for ritual purposes.

Some houses were a bit larger or more lavishly decorated than others. Some graves were a bit more richly equipped than others, too, but these differences are not great enough to suggest that the population of the town was divided into classes on the basis of wealth or privilege. No communal structures—that is, places for group activities—have been found. Although imported materials prove that Çatalhöyük was tied into a wide-ranging trade network, its households appear to have been economically autonomous. That is, each may have produced what it needed for its own members, and there is not much evidence of specialized labor manufacturing items for trade. Protection was provided by clustering buildings, but the town had no wall. Archaeologists have found no evidence that it was presided over by kings, priests, or a warrior caste. Communal feasts and ritual celebrations probably helped to integrate the community and enable its residents to cope with the challenges of living together in close quarters. Çatalhöyük was a large, long-lived, stable settlement, but was it a truly civilized community or only an imposing agglomeration of households?

The Archaic States

Fired clay objects are known from the Paleolithic era, but extensive production of pottery only began in conjunction with the Neolithic lifestyle. Vessels made of fired clay were too heavy and fragile to be of use to nomadic hunters and gatherers, but they were invaluable for the Neolithic’s settled farmers. They provided secure storage
for the grains that were staple foods, and they facilitated the cooking that made these grains easier to consume. The spreading use of pottery has proved a great boon for archaeology. Pottery can survive burial for eons, and shifting pottery styles and designs provide evidence that scholars use to identify cultures, date sites, establish chronologies, and identify trade and migration routes.

Civilization dawned as people added metals to their repertoire of stone and pottery artifacts. Nuggets of copper were being beaten into tools and ornaments as early as 7500 B.C.E., but it was not until about 5500 B.C.E. that copper began to be smelted from ore and cast in molds. Pure copper was too soft to make durable tools, but when it was alloyed with tin or arsenic, it became a much more serviceable metal called bronze. The technique was developed in Anatolia, and by 4000 B.C.E. it had spread throughout the Middle East.

Societies that were indisputably complex enough to be classed as civilizations arose in Sumer and Egypt well before 3000 B.C.E. Similar transitions to civilization occurred somewhat later at other places around the globe. The Harappan civilization of the Indus River valley emerged about 2500 B.C.E., and city-states ruled by the Shang dynasty flourished along China’s Yellow River sometime after 1800 B.C.E. A society capable of erecting monumental buildings was thriving on the coast of Peru as early as 2000 B.C.E., and the Olmecs pioneered civilization in Mesoamerica about 1500 B.C.E. The fact that peoples who lived on the Eurasian continent (i.e., in Egypt, Mesopotamia, India, and China) took the lead in founding civilizations may be explained by the natural advantages they enjoyed. Compared with other parts of the world, Eurasia had a much greater abundance of native species of plants and animals (e.g., kinds of wheat, barley, rice, sheep, goats, oxen, horses, etc.) that could be domesticated. Unlike Africa and the Americas, Eurasia also has an east-west horizontal axis, which meant that its people and species could easily spread across wide regions without having to adapt to changes in climate and environment. Eurasians had the resources needed to support large settlements and unusual ease in sharing the domesticated species and the ideas that facilitated the development of civilized lifestyles.

The Origin of Civilization in Mesopotamia: Sumer

At first glance, it seems surprising that Earth’s first civilization should have arisen in one of its more hostile environments. Average summer temperatures on the Sumerian plain hover around 104 degrees Fahrenheit and may soar to 120 degrees or more. There is little rainfall, and no natural barriers to offer protection from the windstorms and floods that scour the flat, open landscape. Resources are few. The region has little stone, no metal ores, and no trees sturdy enough to provide lumber. However, it did have an abundance of deep, rich soil deposited and continuously renewed by the annual flooding of the Tigris and Euphrates rivers. Many of the primal civilizations...
(e.g., Sumer, Egypt, India, and China) sprang up along flooding rivers. Once the Sumerians developed irrigation systems, water from their rivers unleashed the unique fertility of their land. The Sumerian farmer may have got 20 seeds back for every one that he sowed—two to four times what a Roman or medieval farmer earned thousands of years later (see Map 1–2).

During the Neolithic era, farmers flourished in the Iranian highlands east of the Tigris River, but they were slow to move down onto the hot, dry plain and confront its many environmental challenges. The Tigris River ran fast through a relatively deep channel that made its waters difficult to tap for use in irrigation. Early settlers preferred the banks of its partner, the shallower, slower-moving Euphrates. But it, too, presented them with problems. The sluggish Euphrates dropped silt that formed levees along its banks and raised its bed above the level of the surrounding countryside. The river sometimes broke through these levees, turning wide stretches of land into swamp. Its annual floods might carve new channels that altered its course, and these inundations came at an inconvenient time of year—in April, when grain

MAP 1-2  The Fertile Crescent  The arc of agriculturally productive land where civilization first took root is called the Fertile Crescent. Farmers in its eastern portion (Mesopotamia—Greek for “between rivers”) relied on irrigation and the annual floods of the Tigris and Euphrates rivers. Those inhabiting its center section (the Mediterranean coast) had enough rainfall to sustain their crops. The Nile’s floods and irrigation ensured the productivity of the Crescent’s western segment.

QUESTION: Would geography have facilitated contacts between the two primal civilizations or encouraged them to develop in isolation?
crops were ripening. Skilled engineering and massive labor were needed to trap flood waters in reservoirs for distribution when and where they were needed during the growing seasons. However, once the Sumerians found solutions to these problems, their homeland was able to produce enough food to support a population of unprecedented density.

The Predynastic Era  

Historians refer to the people who pioneered civilization on the alluvial plains of Mesopotamia as Sumerians, for the earliest written language in that region was Sumerian. But no one knows how Sumerian came to be the dominant literary language, for the inhabitants of Sumer were always linguistically and ethnically diverse. The Sumerian language also provides no clue as to the background of settlers of the lands north of the Persian Gulf, for it is not related to any other language. Many residents of the region spoke tongues belonging to the Semitic family of languages (i.e., relatives of modern Hebrew and Arabic).

The opening stage in the development of Sumerian civilization is called the Ubaid period (from the site of an early excavation). Early settlers were drawn to southern Mesopotamia by the abundant foodstuffs that could be wrested from the marshes that lined the banks of the rivers and the headwaters of the Persian Gulf. A combination of hunting, fishing, and farming was sustaining villagers there as early as 6500 B.C.E. Sumerian legend identifies Eridu (south of the better known city of Ur) as the place where the god Enki began the creation of their world, and an ancient list of Sumer's rulers claims that kingship began in Eridu. Given that legends claim that Eridu's two kings reigned for a total of 64,800 years, archaeology provides a more plausible means for dating the origin of activity at this site. Eridu was a sacred place whose temple was repeatedly rebuilt at the same location, and archaeologists trace its foundation to 4900 B.C.E. Eridu may have been more a village where the residents of a district came for religious ceremonies and burials than a population center, and it was probably not the only one of its kind.

True city life emerged during the subsequent Uruk period (c. 3800–3200 B.C.E.), which is named for the only large urban center of the fourth millennium. Climate change may explain shifts of population at the start of this period, and the development of a trade network to serve Sumer's growing markets might account for the spread of a common culture throughout Mesopotamia. But little is known about life in Uruk. This city of some 50,000 people had some hierarchical organization, but evidence for a social class system is lacking. The authority of an official called the en rested on religious confirmation. There were temple organizations with landed endowments and dependent laborers, but much land was communally owned by extended families.

Uruk's six miles of walls and its great temples bear witness to the ability of city officials to raise and manage armies of workers. Crude clay bowls, which have been found in abundance, may have contained food rations for these laborers. Administrative challenges also explain two other developments of the Uruk period. The first steps were taken toward the invention of writing, and engraved cylinders began to be used to stamp authorizing “signatures” on seals and documents. Both the Sumerian writing system and the cylinders (whose surfaces offered more space for engraving than a flat stamp) remained in use in the Middle East for centuries. The earliest known specimens of writing were found in the ruins of Uruk's temple to the goddess Inanna.
They are a form of picture writing, not an attempt to record speech. Their meaning is clear, but the language their authors thought in is not.

As the Uruk period came to a close, rural villages declined, and people began to cluster in cities. About a dozen major city-states arose in Sumer. Scholars have speculated about the reasons for this demographic shift. It was once assumed that the creation and management of irrigation systems encouraged centralization of populations, but recent archaeological discoveries suggest that the growth of irrigation systems actually followed the rise of cities. Given that Sumer’s cities were heavily fortified, and that there is other archaeological evidence of growing militarism (e.g., sling-shot balls, maces, and arrowheads), increasing insecurity may have forced the Sumerians to urbanize for greater safety. Threats would have come from outsiders who coveted Sumer’s agricultural wealth and from neighboring cities whose leaders aspired to regional hegemony.

The Dynastic Eras  About the year 2100 B.C.E., a scribe compiled the King List, a record of the names of all the kings who were believed to have reigned in Sumer. The King List purports to cover a period of 240,000 years, but buildings identifiable as palaces have not been dated much before 2500 B.C.E. A great flood that nearly obliterated humanity (a legend that lies behind the Bible’s story of Noah’s ark) supposedly followed the reign of the eighth king. There is no geological evidence for a universal flood. The story was meant to separate Sumerian “history” from a mythic “prehistory.” If a Sumerian myth-maker needed an event that would sweep aside the unknowable era of human origins and serve as a beginning point for the world he knew it, he automatically imagined a flood. Floods often swept across Sumer and forced its people to rebuild their lives literally from the ground up. The kings named before the flood have reigns of tens of thousands of years and are clearly mythical figures symbolizing a vast sweep of time, but the existence of some of the kings who appeared after the flood can be documented. The earliest of these is Enmebaragesi, king of the city of Kish (c. 2600 B.C.E.). Lavishly equipped graves excavated at Ur may also testify to the rise of monarchy in this period.

As villages grew into cities, the increasing challenging political environment would have encouraged a drift toward monarchy. Sumer’s early urban households were economically self-sufficient and, therefore, fairly autonomous. But city life would have eroded their independence. Informal meetings of heads of families suffice to run villages, but not cities—particularly when crises appear and demand swift action. Competition among Sumer’s proliferating cities created no end of military crises. Communities facing attack would have had little time to debate and reach consensus about what to do. Success favored those who submitted to a single leader. After an emergency passed, he might have been expected to surrender his powers and return to private life. (The Bible’s book of Judges suggests that this was how the early Hebrew tribes functioned.) But if one crisis followed quickly on the heels of another, a leader might make his position permanent. His hold on power could then be passed to his kin, creating a dynasty (i.e., a family with a hereditary right to rule). Religion legitimated the authority of Sumerian kings, but unlike the Egyptians, the Sumerians seem not to have deified their rulers. The king had a special relationship with the gods, but was not a god himself. The Epic of Gilgamesh tells the story of the...
king of Uruk’s heroic, but ultimately futile, search for immortality and his effort to come to terms with the inevitability of his death.

City Life  The security of a city required negotiation with both heavenly and earthly powers. Priesthoods may have dominated Sumer’s cities before dynasties of kings were permanently established. When modern scholars first began to delve into Sumer’s history, they thought that Sumerian cities were religious communes in which everyone worked on temple estates and survived on rations doled out from temple granaries. Most authorities now believe, however, that this was an illusion created by the fact that many of the surviving documents come from temple archives. They provide insights into the organization and conduct of one of Sumer’s most important institutions, but do not provide a complete picture of its urban life.

Sumerian cities were complex societies, not hives of temple slaves. Artisans, merchants, priests, and government officials lived in cities, but so did many farmers who commuted to the countryside to work their fields. Temples and kings had large estates, but much property remained in private hands. Title to such land was often held by kinship groups rather than individuals, and it could be sold only with the consent of all the members of the family that owned it. The prejudice against selling land away from the family was so strong that sellers sometimes adopted buyers to make the transaction more socially acceptable and legally secure. Personal property was passed down through the male line, and all a man’s sons shared equally in his estate. Women could own, buy, and sell land and testify in court cases. Monogamous marriage was the rule, but divorce and remarriage were possible. Women as well as men were impressed into labor gangs to carry out communal projects such as clearing irrigation ditches and building walls. The rations they received in exchange for their toil were smaller than those of the men with whom they worked.

Urban economies were complex systems to which farmers, traders, artisans, and various kinds of professionals all contributed. Some families prospered more than others, and class divisions and social stratification eventually became a fact of life. An aristocracy entrenched itself at the top of society, but it did not succeed in blocking social mobility. A few men from obscure backgrounds even became kings. Slave markets were supplied by captives taken in battle and persons who fell into debt. Slavery was taken for granted in this first civilization as it was in almost all of those that followed it until the modern era. It was, however, not essential to the Sumerian economy. Slaves usually worked as household servants, for it was difficult to prevent their running away if they were sent out to labor in the fields.

By modern standards, Sumerian cities were uncomfortable. The tens of thousands who sheltered behind the walls of a large town might be crammed into an area the size of about 20 football fields. Given that stone was scarce, most construction was of mud brick. Major public edifices were sometimes protected with expensive facings of fired brick or sheets of copper. Their walls might be decorated with mosaics made from cones of colored clay set in plaster. With the exception of temples, most buildings were only one or two stories high. They clustered along narrow (seldom more than 9 feet wide) streets that followed no plan or pattern of organization. The expense of fortifying a town made space within it precious, so there were few open areas. Houses were jammed together and fronted directly onto streets. They had few doors or windows on their outside walls and depended on interior courtyards for
light and ventilation. This enhanced both security and cleanliness. The column of
dust that was raised as the thousands of residents of a city (and their animals) trod its
unpaved streets must have been visible for miles. Homes were minimally furnished.
Possessions were few and clothing simple. Men and women wore similar skirts or kilts
and cloaks woven of wool.

Cities were unhealthy, for they had no sewers. Wastes were dumped into streets
for animals to scavenge, and drinking water was drawn from the same streams and
canals into which refuse was discarded or allowed to drain. One of the byproducts
of civilization's urban lifestyle is epidemic disease. Dense human populations (part-
icularly those that live in close association with domesticated animals) create ideal
conditions for the spread of parasites and infectious agents. Trade and war also help
infection spread quickly within and among population centers.

The most imposing features of a Sumerian city were its fortifications and its
temples. Mud-brick walls encircled the greater cities, and temples soared above all
other urban structures. Each city chose one or more deities as its special patrons
and provided them with lavish accommodations. Sumerian gods were assumed to
want the same things human beings crave: shelter, food, leisure, and amusement.
Temples were literally homes for the gods, and their sacred images were cared
for like living things. They were provided with changes of clothing, meals, and
entertainment.

The Sumerians may have believed that a god's residence should be elevated above
the ordinary human plane. The custom of "sealing" a dilapidated temple by using its
ruins as a foundation for its successor created a Sumerian landscape dotted with grow-
ing sacred hillocks. Ancient temple sites and the towns around them became visible
orientation points on the horizon of a largely featureless landscape. Well before 3000
B.C.E., lofty terraces were being built to serve as foundations for temples and other
public buildings. Architects also layered terraces on top of terraces to create pyramidal
structures called ziggurats (from an ancient Babylonian term meaning "pinnacle").
A ziggurat was an artificial mountain, a solid structure on whose top a temple may
have perched. The largest ziggurats covered about two acres and rose as high as a
seven-story building. Given that ziggurats were made of fragile, sun-dried bricks,
considerable engineering skill was needed to stabilize them. They required constant
maintenance, for fundamentally they were huge piles of dirt whose cores were weak-
ened by the moisture they drew from the soil beneath them. Today they are so badly
ruined that experts can only speculate about their original appearances.

Sumerian Trade and Industry  Sumer produced surpluses of grain that
it traded for things that were not locally available. The merchants who dealt in
goods from abroad did not necessarily make long journeys to obtain them. Items
could reach Sumer's markets simply by being passed from hand to hand across
great distances. Lapis lazuli, a blue stone used for jewelry, came from northern
Afghanistan some 1,500 miles from Sumer. Carnelian, a red stone, was mined in
equally remote India.

Sumerian artisans made skillful use of the materials merchants imported. They
created splendid jewelry from beaten gold or silver and semiprecious gems. They
carved statues from blocks of stone brought from distant quarries. They built fur-
niture and musical instruments from rare woods and decorated these objects with
subtle inlays. They wove garments from wool and linen for domestic and foreign markets. (Cotton was not available to the Mediterranean world until the seventh century B.C.E., when an Assyrian king imported cotton plants from India to ornament his palace garden.) Sumerians could make glass, and by 3000 B.C.E. their potters were using wheels to throw vessels. The Sumerians may have pioneered other uses for the wheel, as well. By 3500 B.C.E., sledges were being replaced by wheeled carts.

**Writing, Religions, and Intellectual Life**  
The challenge of managing Sumer’s cities and their economies inspired the most famous Sumerian invention: writing. Fortunately for historians, the Sumerians wrote on tablets made from their country’s most abundant, inexpensive, and potentially durable material—mud. Many of these tablets, some sun-dried and some fired, have survived burial for thousands of years. They are history’s first true documents.

As mentioned above, the first steps toward the invention of writing were taken in Uruk as far back as 3500 B.C.E. The pioneers apparently were accountants. As early as 8000 B.C.E., people were keeping track of what they had in their storehouses by means of small clay tokens representing quantities of various commodities. Eventually it dawned on some accountants that it was easier to draw pictures of these things than to model them. Some of the early tablets from Uruk have rows of lines beside these drawings that may indicate numbers. It appears, therefore, that writing was not first intended (or used) to preserve the words of scholars and poets, but was invented for more mundane purposes by businesspeople. Because only a small minority of people
ever learned to read in the ancient world, oral traditions were much more important than written documents.

Scribes found ways to make their writing systems more efficient. It was time-consuming to draw recognizable pictures of things, and frequent use made this unnecessary. Pictographs were, therefore, stripped down to a few suggestive lines. This made writing easier but reading more difficult, for people now had to be taught what each sign meant. The physical act of writing was also simplified. The Sumerians had nothing like paper, but they had an abundance of mud. The substance used to make tokens was used to make tablets, but drawing lines on slabs of mud produced jagged furrows and messy clumps. It was cleaner and faster to poke a stylus (a reed) into a clay tablet than to push or pull it across one. Poking produced a triangular indentation instead of a line, but a quick series of jabs could create a clump of wedge-shaped impressions that approximated one of the older drawings. The wedge-shaped impressions with which Sumerians scribes covered their tablets became a script now known as cuneiform (from cuneus, Latin for “wedge”).

By the end of the Uruk period (c. 3100 B.C.E.), Sumerian scribes had begun to think of their writing system in a new way. It became a record of what they heard rather than what they saw. As writing evolved to describe speech, it became more complicated. Early cuneiform employed about 1,200 signs...
representing things, fundamental sounds, syllables, and parts of speech. The number of these signs was reduced over time, but the Sumerians never developed a true alphabet (a set of symbols for a language’s vocal elements). That was the achievement of Semitic-speaking Canaanites who lived in Palestine about 1600 B.C.E.

Cuneiform was a script, not a language, so it could be—and was—adapted to write languages other than Sumerian. It spread throughout the ancient Middle East and continued in use into the first century C.E. Its invention made history in every sense of the word by making it possible for the first time for human beings to engage one another intellectually across centuries. While most ancient cuneiform tablets were not written with future generations in mind, even mundane transactions can provide significant insight into the past. And some ancient authorities deliberately undertook to assemble collections of important documents: myths, legends, laws, proverbs, medical texts, astronomical charts, mathematical calculations, scientific treatises, dictionaries, letters, poems, and prayers. Knowledge of the history of Western literature and thought begins with the cuneiform legacy. Even the Bible (though written much later) has significant material that can be traced back to ancient cuneiform sources.

Cuneiform tablets provide much information about Sumerian religion. The Sumerian pantheon numbered about 3,600 male and female deities, but only a few were of major importance: Anu, a remote high god; Inanna (also called Ninhursaga or Ishtar), a war and fertility goddess; Enlil, a storm god; and Enki, the creator god of the fresh waters that imparted life to Sumer’s arid land. Gods were associated with the powers of nature, but they were also assumed to resemble human beings. Myths describe them as being all too human. They schemed, lied, lusted, formed and broke alliances, sought revenge, and held grudges. The politics of heaven were those of a Sumerian city-state. Gods could not be understood but they might be bribed. They sometimes responded to threats and influence peddling, and they endorsed the principle of tit for tat. A god who did a favor expected one in return. When struggles broke out among them, the fates of the cities associated with them hung in the balance. Events in human history were assumed to have (potentially unknowable) causes in heaven.

The major modern Western faiths all posit a connection between religion and ethics. They claim that how people treat one another has transcendent significance and that the deity they worship demands justice and judges their conduct. The Sumerians, by contrast, did not sense a moral principle at the base of reality. They believed that human beings had been created to serve the gods and that gods were primarily concerned for themselves. Gods were constrained by neither reason nor morality. There were, however, various means for trying to influence the gods if you could anticipate what they might be about to do. Given that the universe was an integrated system reflecting the interplay of divine wills, it was assumed that an attentive observer could spot and interpret signs of what was unfolding. A major duty of priests and soothsayers, therefore, was to search out and interpret omens of all kinds: the organs of sacrificial animals, flights of birds, patterns of smoke over altars, deformed human or animal births, and anything else that was deemed unusual or curious.

Some Sumerian myths taught that people should not hope for much from life. People were no more than slaves (or “cattle”) of the gods, and they could expect to spend their lives courting favor from heavenly and earthly superiors. Ultimately, it
made no difference, for everyone suffered the same fate: death followed by a lingering, shadowy parody of life in the underworld. In *The Epic of Gilgamesh*, Enkidu, Gilgamesh’s heroic sidekick, has a deathbed vision of the underworld as a grim place where even kings languish in darkness with nothing to eat but dust and clay.

The Mesopotamian environment doubtless contributed to this gloomy outlook. Sumer was wealthy but insecure. The flooding rivers on which it depended periodically threatened to rout its people and shred the fabric of their civilization. Violent storms swept the countryside. Epidemics and plagues decimated cities. Nomadic raiders pressed in on every side. Power struggles raged within and among cities, and innocent people were caught up in tumultuous events that were beyond their control or understanding. Even a superman like Gilgamesh was advised to yield to fate and to aspire to no more from life than enjoyment of its simple, transient pleasures—food, drink, sex, family, and friends.

**Sumer’s History**  Sumer’s cities probably began as independent settlements, and as they grew, they began to fight among themselves. The King List claims that Eridu was the first state to assert itself and that after the devastation of the great flood, Kish rose up. Then Uruk emerged, and it was followed by Ur.

This late reconstruction of the past by ancient Sumer’s scribes oversimplifies the history of a chaotic era in which increasing urbanization was accompanied by growing militarism. Myths celebrate men like Gilgamesh for fortifying cities with walls whose impressive remains can still be traced. Gilgamesh illustrates a kind of leader called a *lugal* ("big man") who became increasingly prominent as time passed. Scholars debate what Sumerian titles mean, but a *lugal* may have been a wealthy young man who raised a band of soldiers and became a warlord. His position could be passed on to his descendants. With him Sumer entered a period in which its history is measured in successive royal dynasties.

The Sumerian cities were absorbed into history’s first empire by a man called Sargon or “Rightful Ruler” (2371–2316 B.C.E.). He came from the district on the northern edge of the Sumerian plain where the Tigris and Euphrates rivers flow closest together. Legends depict him as a self-made man of obscure origin—allegedly abandoned as an infant and found floating in a basket on the Euphrates. (Similar stories were later told about the founders of other states, the Hebrews’ Moses and Rome’s Romulus and Remus.) How Sargon came to power is unclear, but from his northern base he attacked and defeated Lugalzagesi of Umma who had united Sumer and ruled it from Uruk. Sargon then proceeded to build an empire that allegedly extended from the Persian Gulf up the Euphrates and across the caravan stations of northern Syria to the Mediterranean and Asia Minor.

The site of Akkad, the seat of his government, has yet to be located, but it was near the cluster of natural pathways that were to make the later city of Babylon so important. Given primitive means of communication, however, Sargon could not have exercised much direct control over his far-flung empire. The primary concern of his
government may have been to exploit the trade routes that linked Mesopotamia with Syria and Anatolia. Sargon boasted that he fed 5,400 men each day, which may be a reference to history’s first standing army. Sargon doubtless hoped that family ties would consolidate his government, and he assigned a key post to a daughter, Enheduanna. As the high priestess of Ur’s great temples to Anu and Inanna, she was an important link between Sumer and Akkad. But she is remembered for more than that. Several collections of hymns are ascribed to her, making her history’s first identifiable author.

Sargon’s empire collapsed following the death of his great-grandson (c. 2200 B.C.E.). After a period of confusion, Sumer was reunited under the kings of the III Dynasty of Ur. They presided over the last creative phase (2112–2004 B.C.E.) in the history of Sumerian civilization.

Ur-Nammu, the founder of the III Dynasty, was aware of the antiquity of the civilization over which he ruled, and he and his successors were eager to preserve its legacy. They rebuilt temples, collected ancient documents for safekeeping in their archives, and presided over a kind of Sumerian renaissance. Their reign was, however, relatively short. In 2004 B.C.E. Sumer was attacked by Elamite tribes from southern Iran. This opened the way for the Amorites, nomads who roamed the deserts west of Sumer, to spread throughout Mesopotamia. The Amorites who settled in Akkad founded Babylon, restored order in Mesopotamia, assimilated Sumer’s cuneiform culture, and rescued what they could from Sumer’s passing.

The fading of a civilization that had endured for nearly 2,000 years cries out for explanation. Many things could have happened. As governments age, they can develop rigid bureaucratic structures that resist adapting to changing conditions. States also fail when they cannot find leaders with talents equal to their responsibilities. Divisions between rich and poor (or other kinds of class conflicts) can destabilize societies, and shifting trade routes, military struggles, and natural disasters can pose ruinous economic challenges.

In addition to some or all of these problems, Sumer may also have been the victim of an environmental disaster of its own making. Sumer depended on irrigation, and irrigation can degrade farmland. The minerals dissolved in the water spread by irrigation are left behind in the soil when that water evaporates. Ground water also contains minerals that are drawn to the surface. If these “salts” are not flushed out (which was difficult to do on Sumer’s flat, poorly drained terrain), the earth gradually becomes poisonous to plant life. The effect was mitigated by the new soil that the flooding rivers annually deposited, but as the years passed, the region declined. Farmers tried to adapt to deal with the changing conditions. They planted less

Head of Sargon the Great This foot-tall, bronze bust may represent the Akkadian king, Sargon. It dates to about 2300 B.C.E. and was found in the ruins of the city of Nineveh to which it may have been taken as loot. Originally the eye sockets would have been filled with colored stones. The piece is highly stylized and may have represented ideal kingship more than an individual.
wheat and more barley, for barley better tolerates salted soil. But the combination of declining harvests and political confusion may gradually have encouraged a critical mass of people to seek better conditions elsewhere. The fall of a civilization is not likely to have a single, simple explanation, but it is worth reflecting on the potential link between the collapse of humanity's first civilization and the changes its struggle for survival had worked in its environment.

The Rise of Civilization in Egypt

At the start of the second millennium, the Middle East underwent wrenching transitions. An era of drying climate that began about 2100 B.C.E. and stretched over three centuries may have contributed to the widespread changes. Sumer disappeared. Small cities that had arisen in Palestine declined, and the first phase in the history of Egypt, the West's other primal civilization, came to an end.

The Egyptian Environment

The Egyptians dealt with environmental conditions similar to those that confronted their Sumerian neighbors. It seldom rained in Egypt. Temperatures often hovered around 100 degrees Fahrenheit, and permanent settlement of a large population would not have been possible without an annually flooding river that renewed fertile fields and supplied water for irrigation. An ancient Greek historian aptly described Egypt as "the gift of the Nile." Where the river's floods reached, Egypt was a "black land," formed by deposits of rich silt. A dramatically different "red land," an utterly barren desert, began where the river's reach ended and stretched to the horizons.

The Nile's bounty was so generous that prehistoric Egyptians were slow to take up agriculture. Plant and animal life flourished along the river's banks, and nature needed little encouragement to meet human needs. As early as 5000 B.C.E., Egyptians had domesticated sheep, cattle, goats, barley, and wheat. But for over a thousand years, herding and farming simply supplemented hunting and gathering. Villages fully dependent on agriculture may not have appeared much before 3500 B.C.E., and no great feats of irrigation engineering were needed to support them. The Nile, unlike the Tigris and Euphrates, flooded predictably and at a convenient time for farmers. It rose in late summer following the harvest. Then it dropped a fresh layer of silt and saturated fields just in time for replanting. The Egyptians measured the flood's rise at their southern frontier, and the volume of water helped them predict how large the harvest would be. The floods of the Tigris and Euphrates were a mixed blessing for the Sumerians. They were essential for survival, but sometimes destructive, for Sumer occupied a vast flat land that offered no protection from surging rivers. The Egyptians, on the other hand, had little to fear from the Nile's flood, for much of Egypt was sheltered in a valley, whose walls kept the Nile's waters confined to a series of flood plains.

The Nile rose in Uganda and flowed north toward the Mediterranean as if it were descending a huge staircase. When the river spilled over the edges of the higher steps, it created rapids or cataracts. Egypt's southern boundary was marked by what was, from the Egyptians' perspective, the First Cataract. From there to the Mediterranean—about 700 miles—there was no more white water. The Egyptians did not need roads to tie their country together. Given that the Nile valley is only about 12 miles
across at its widest, no one was ever far from the river. The river made trade and communication easy. Its current carried vessels north, and when boats raised their sails, prevailing winds pushed them south. The Nile provided such convenient transport that the Egyptians were slow to utilize wheeled vehicles.

Nature protected as well as provided for the Egyptians. Borders on both sides of Egypt were defended by cliffs and deserts. The country flourished for over 1,300 years before it suffered a major foreign invasion. Metal ores and good building stone were also to be found in close proximity to Egypt’s agricultural land. Wood was scarce, but it was easily imported by sea from the coast of Palestine. Egypt's generous environment may partially explain why many of its myths and legends seem to express more contentment with the human condition and more hope for life beyond death than some of Sumer’s religious texts.

**Egypt’s Political Development**  
Nature divided Egypt into two distinct regions. The largest part of the country was **Upper Egypt** (i.e., up-river), the long, narrow valley described above. **Lower Egypt** (i.e., down-river) was the broad delta of mud that formed as the Nile flowed into the Mediterranean. Lower Egypt was a flat, swampy land much like Sumer, and it was the part of Egypt most exposed to the outside world. Mediterranean sailors used its ports, and coastal routes linked it by land with **Libya** to the west and the **Sinai** to the east.

Geography and settlement patterns help to explain why Egypt became a unified country early in its history and was politically more stable than Sumer. Sumer’s broad, featureless plain allowed people to gather in a fortified town around which they cultivated a great circle of land. This encouraged the development of separate city-states that competed among themselves for dominance. Much of Egypt’s productive land, by contrast, was confined to a narrow valley, which in many places was no more than 2 miles wide. Because lateral expansion was limited, Egyptian settlements did not become capitals for large, populous city-states. This, together with the relative security from invasion their country enjoyed, encouraged the Egyptians to distribute themselves among small villages. Patterns in the delta may have been different, but archaeological information from that part of Egypt is sparse. A damp environment and deep deposits of silt have worked against preservation and excavation of the earlier stages of human habitation.

Political divisions did exist in Egypt. The Nile valley is composed of a series of flood plains, and long before the dawn of history, each of these probably had some form of tribal organization. Struggles among these tribes eventually led to the consolidation of separate kingdoms in Upper and Lower Egypt, and about 3100 B.C.E. a king of Upper Egypt conquered the delta and unified the country. Egypt emerged as a single state just as monarchies were beginning to appear in some Sumerian cities.

Egypt has an extraordinarily long history, but there were no ancient Egyptian historians. History writing was a Greek invention of the fifth century B.C.E., so it was not until Alexander the Great conquered Egypt in 332 B.C.E. that attempts were made to organize the records of Egypt’s past. The names of the men and women who had ruled Egypt from its unification to its Greek occupation were grouped into 31 dynasties, and events in Egypt’s history were dated by reference to the dynasties in which they were thought to have occurred. Although this ancient list of royal families is not entirely reliable, historians still use its numbers when referring to Egypt’s kings. Egypt’s past divides into three major eras or “kingdoms” separated by shorter “intermediate periods” (i.e., transitional phases).
Early Dynastic Period (3100–2700 B.C.E., Dynasties I–II)  

In 1897 a clue to Egypt’s origin as a unified state was found at the site of ancient Hierakonpolis. Archaeologists uncovered a palette (a stone tablet used for grinding pigments) with inscriptions commemorating the victories of a warrior called Narmer. On one side he wears the crown of Upper Egypt and on the other the crown of Lower Egypt. The object has been interpreted as commemorating the unification of Egypt. Some ancient sources identify a certain Menes as Egypt’s first pharaoh. This may or may not be the same man, and the title of pharaoh (“Great House”) was not used until about 1400 B.C.E.

Key Events in Sumerian and Egyptian History

<table>
<thead>
<tr>
<th>SUMER</th>
<th>EGYPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predynastic Era (5300–3000 B.C.E.)</td>
<td>3500 B.C.E., agricultural villages appear</td>
</tr>
<tr>
<td></td>
<td>3100 B.C.E., unification of Egypt</td>
</tr>
<tr>
<td>Dynastic era (3000–2004 B.C.E.) monarchy appears</td>
<td>Early Dynastic Period (3100–2700 B.C.E.)</td>
</tr>
<tr>
<td></td>
<td>Old Kingdom (2700–2200 B.C.E.)</td>
</tr>
<tr>
<td></td>
<td>2550 B.C.E., pyramids at Giza</td>
</tr>
<tr>
<td>Sargon’s empire (2371–2200 B.C.E.)</td>
<td>First Intermediate Period (2200–2025 B.C.E.)</td>
</tr>
<tr>
<td>III Dynasty of Ur (2112–2004 B.C.E.)</td>
<td>Middle Kingdom (2025–1630 B.C.E.)</td>
</tr>
</tbody>
</table>

The fact that Upper and Lower Egypt were originally separate kingdoms was not forgotten, and the early dynasties ruled from Memphis on the border between them. Pharaohs wore a double crown: the valley’s white conical cap and the cobra-adorned red circlet of the delta.

The institutions, artistic styles, and theologies that evolved early in Egypt’s history established conventions that endured for 2,000 years. What began as a remarkably inventive society grew increasingly conservative as respect for tradition restrained the impulse to innovate. This may have been an effect of Egypt’s often highly centralized administration. Pharaohs were worshiped as manifestations of an eternal god, and their courts were the chief markets for the products of Egypt’s artists and intellectuals. Court taste favored repetition of symbols and images that by their unchanging nature expressed the pharaoh’s timeless essence. Innovation may also have been inhibited, oddly enough, by the invention of writing. In modern societies writing stimulates development by facilitating communication and data collection. For ancient peoples, however, writing was an arcane skill that few possessed. The mysterious markings that only highly trained scribes knew how to make seemed magical and imbued with authority. The word scripture (“writing”) still connotes something holy—something that has power to command obedience and should not be altered.

Archaeologists can trace the gradual development of Sumer’s cuneiform writing system, but Egyptian hieroglyph (“sacred writing”) has no comparable ancestry. Hieroglyphic symbols began to appear about 3100 B.C.E. and quickly flowered into a fully developed script. Egypt had trade contacts with Sumer, and awareness of cuneiform
may have motivated the Egyptians to begin writing themselves. Both the Sumerians and Egyptians based their writing systems on pictographs. But as Sumerian scribes developed cuneiform’s efficient clusters of wedge-shaped impressions, the original representational figures became unrecognizable. Egypt’s hieroglyphs, however, never lost their pictorial features, for Egyptian scribes did not inscribe clay tablets. They wrote with brushes and ink on a paper-like material made from the papyrus reeds that grew along the Nile. They had no difficulty making linear drawings. Hieroglyphs remained in use for monuments and holy texts, but by 2000 B.C.E. a faster cursive script (called demotic) had been developed for ordinary documents.

The Old Kingdom (2700–2200 B.C.E., Dynasties III–VI)  The heart of ancient Egypt’s civilization was its monarchy. The Egyptians believed that their pharaoh was their primary link with the supernatural powers on which life depended. He was an incarnate god whose power was absolute (in theory, if not always in practice). Egypt and its people belonged to him, but his life was circumscribed by his duties to them. He had a vital role to play in sustaining the world. The Egyptians understood the universe to be a dynamic place, a realm threatened by chaos. The pharaoh’s task was to preserve ma’at (“justice”), the balance among the competing forces that threatened to destabilize the natural order and human society. Unlike many ancient states, Egypt has left us no law codes. The pharaoh’s role was not to legislate and devise new rules, but to govern by traditional principles.

Pharaohs governed Egypt with the help of an elaborate bureaucracy. Some 2,000 titles have been identified for officials of the Old Kingdom. The pharaoh needed a horde of royal agents, for he had many functions. He was responsible for the religious ceremonies that placated the gods and regulated the cycles of nature. On a practical level, he handled defense, dispensed justice, oversaw planning for the Nile’s flood, coordinated food production and distribution, erected buildings, provided patronage for artisans, organized long-distance trade missions, supervised public works, and oversaw the army of scribes who audited all this activity.

Egypt was highly centralized but minimally urbanized. Most Egyptians lived in small villages. For administrative purposes, the country was subdivided into units of local government called nomes (22 in Upper Egypt, and 20 in Lower Egypt). In theory, all the land belonged to the pharaoh, and he could impress his subjects into labor gangs to work for him. Actual slavery, however, may not have been all that common in the Old Kingdom. In the ancient world, slaves were often foreigners captured in wars, and the Old Kingdom was not very active in military campaigning in foreign lands.

The tombs of the Old Kingdom’s pharaohs are the best surviving testimonials to their power. The investment that the Egyptians made in tombs throughout their history can create the mistaken impression that they were a grim people preoccupied with death. In reality, their preparations for death attest to their enthusiasm for life. Egyptian burial practices were meant to guarantee that the deceased would continue to enjoy life’s pleasures beyond the grave. So similar and so close were the worlds of the living and the dead that the Egyptians believed that support from this side of the tomb was important for happiness on the other. The dead were assumed to need all kinds of
Chapter 1

things. Supplies were buried with them, and they tried to arrange for a steady stream of offerings to flow in perpetuity across the altars of their funerary temples.

The Egyptian outlook on both life and death was more positive than the view described in some Sumerian texts. The Sumerians, on their exposed plain, were engaged in a constant struggle with human aggressors and erratic forces of nature. Life in the rich Nile valley was easier and safer. The Sumerians conceived of the universe as a chaotic battleground for quarrelsome, incomprehensible gods, but the Egyptian universe was a realm in which a god, the pharaoh, was physically present and laboring to maintain balance and order. The eternal, unchanging nature of things made death seem more like an event in life than an end to life. Observation of the bodies of the dead tended to confirm this. The Egyptians often buried their dead in the deserts that bordered the Nile's flood plains—usually on the western frontier, the direction the sun took on its daily descent to the underworld. The desert's arid sands dehydrated corpses, which shielded them from decay. Nature's reluctance to reclaim the physical remains of the departed may have inspired the Egyptian conviction that physical preservation of the dead was important. The methods the ancient Egyptians developed for embalming their dead imitated nature's technique. Bodies were gutted and the internal organs mixed with spices and sealed in jars. The corpse was then thoroughly dried out, wrapped in bandages and dipped in pitch to preserve its shape. The English word \textit{mummy} derives from an Arabic word for tar.

It could be more difficult to provide a secure grave for a corpse than to preserve it from decay. Tomb construction evolved as the Egyptians experimented with ways to prevent bodies buried in desert sands from being exposed by the wind or dug up by animals. At the dawn of the dynastic eras, flat, rectangular structures made from mud bricks were being used to stabilize mounds of dirt over graves. This inspired a kind of tomb called a \textit{mastaba} (from an Arabic word for a bench). Corpses could be

\textbf{King Menkaure and Queen Kamerernebti II}  
This regal couple from Egypt’s IV Dynasty reigned about 2490 B.C.E. Their dress is simple, barely concealing their perfect bodies. The pharaoh’s chin sports a false beard, a mark of his rank. His rigid posture—facing forward, hands at sides, one foot advanced—follows a convention of ancient Egyptian sculpture. The hug his queen gives him may not indicate affection. The inheritance customs of the early dynasties are uncertain, but since blood lines were most securely traced through female lines, some pharaohs may have claimed their thrones through marriages with princesses—possibly their half-sisters. The queen’s gesture might signal the king’s legitimacy. 

\textit{King Menkaura (Mycerinus) and queen, Egyptian, Old Kingdom, Dynasty 4, reign of Menkaure (2490–2472 B.C.E.) 56 in. × 22 1/2 in. × 21 3/4 in. Museum of Fine Arts, Boston, Harvard University-Boston Museum of Fine Arts Expedition, 11.1738. Photograph © 2011 Museum of Fine Arts, Boston}
interred in the ground beneath *mastabas*, but rooms were also created within them to house coffins and grave offerings. Royal tombs conformed to this pattern until about 2650 B.C.E., when the pharaoh **Djoser**, the second king of the Old Kingdom, departed from tradition. The result was a monument so impressive that later generations deified **Imhotep**, the vizier traditionally credited with overseeing its construction. Imhotep first built a *mastaba* for his employer, but then he began to tinker with its design. He enlarged it several times and finally piled levels of masonry on top of it to create a solid building resembling a square, six-layered wedding cake. Imhotep’s “**step pyramid**” (a pyramid whose layers are not angled or filled in to create smooth sides) is the world’s first monumental stone building. (Previously, mud brick had been the preferred medium for tomb builders.) A model city in stone was erected around the pyramid, and the whole 40-acre complex was enclosed within a mile-long wall.

Djoser launched a fad for pyramid construction that lasted for centuries. The ruins of about 110 pyramids have been identified in Egypt, but the greatest are the earliest—those erected during the Old Kingdom (the Pyramid Age). What pyramid designers strove to create was a soaring structure that rose at a steep angle. This was difficult to do, for as any child who builds a sand castle discovers, gravity causes the sides of a steep mound to sheer off. By 2550 B.C.E., the Egyptians had developed engineering techniques that enabled them to erect what is still the world’s most massive stone structure: the **Great Pyramid at Giza**.

The Great Pyramid, which was built for the pharaoh **Khufu** (Cheops), is the supreme example of its kind. It anchors a sprawling complex of smaller pyramids, tombs, temples, and other monuments on the western bank of the Nile near modern Cairo. The building’s statistics are staggering. It covers 13 acres, rises to a height of 481 feet, and is constructed of 2,300,000 blocks of precisely cut and fitted stone. Some of the blocks of granite used for its interior chambers weigh 50 tons and were brought from quarries 500 miles away. Surveyors oriented the building precisely on a north-south axis and kept its sides in perfect alignment. When the Greek historian Herodotus visited the pyramid 2,000 years after it was built, he was told that it took only 20 years to complete. A modern authority has estimated that it might have been finished in much less time.

Whatever the pyramids were built to contain was looted in antiquity, and what they symbolized for the ancient Egyptians is uncertain. Egyptian mythology envisioned the creation of the world as an island emerging from the waters of primal chaos. Pyramids may have represented this island, where life began, or their shape might have been meant to recall the slanting rays of the sun, the path that the pharaoh's spirit took as it mounted to the heavens and the realm of the gods.

For historians, the pyramids provide literally solid evidence for the power and sophistication of the Old Kingdom’s government. The logistics involved in planning, organizing, and implementing their construction are mind-boggling. Each major project may have required the labor of a tenth of Egypt’s adult male population. These men quarried and shaped limestone and granite blocks with copper tools and moved them without the use of wheels or pulleys. They were not slaves in thrall to some megalomaniacal tyrant. Excavation of their homes at their worksites has provided glimpses into their lives and families. The fact that some pharaohs,
FIGURE 1-1 The First Pyramid and the Greatest Pyramid  Most pyramids, like the first one, were solid structures raised over subterranean tombs, or they had one small interior chamber. The Great Pyramid at Giza was not only the largest, but it also had the most complex internal design. Many theories have been proposed to explain the building and its chambers, but there is little evidence with which to work. No inscriptions or paintings have been found within the pyramid. There are mason’s marks left by its builders, which help to clarify how it was constructed, but there are no ancient documentary sources bearing on its purpose.

although they obviously needed only one tomb, built more than one pyramid suggests that the process of building may have been as important as the end product.

Early Egypt did not have to fend off many invaders, but its creation was not bloodless. Texts praise pharaohs for being great warriors. Some led armies into the deserts to discipline nomads or up the Nile to intimidate Egypt’s Nubian neighbors. Some fought to establish and maintain internal order. The Old Kingdom was a relatively new monarchy that was attempting to do something never done before—to consolidate a huge territorial state. Pyramid building could have facilitated this. Governments sometimes grow their power by flaunting it. Extravagant projects can inspire awe and bestow an aura of legitimacy on a ruler. Pharaohs may also have sponsored construction to keep their subjects occupied at times when they might otherwise be inclined to cause trouble. Agricultural work is seasonal, and during the months when Egypt’s fields required little tending, idle men might brawl. Pharaohs may have forestalled this by sponsoring great projects that were sources of employment and communal pride. Egypt certainly built pyramids, but pyramids may also have built Egypt.

First Intermediate Period (2200–2025 B.C.E., Dynasties VII–X)  The Old Kingdom endured for about 500 years. No one is sure why its centralized government ultimately lost control and allowed regional strongmen to begin fighting among themselves. A severe drought afflicted much of the Middle East about the time the Old Kingdom and Sargon’s Mesopotamian empire fell. Environmental conditions may have caused problems, but the pharaohs of the Old Kingdom may inadvertently have undercut their own position. Rulers can protect themselves from competitors by frequently moving officials to prevent them from building regional power bases. But as governments take on greater responsibilities, a desire for efficiency can tempt them to leave experienced men at their posts for longer periods. The clever governor trains his son in the duties of his office and arranges for the boy to succeed him. Over several
generations, a family acquires a hereditary right to its office and a local following. If its royal overlord shows any sign of weakness, it is poised to assert its independence. The last pharaoh of the Old Kingdom lived to a great age, and his failing powers may have given Egypt’s governors the opportunity they were waiting for.

The collapse of the Old Kingdom was followed by an era of political upheaval and division called the First Intermediate Period. By then Egypt may have had over 1 million inhabitants, and it did not function efficiently when divided against itself. The confusion was not, however, entirely detrimental. The destruction of the Old Kingdom’s authoritarian government freed Egyptian society to evolve. When the country’s unity was finally restored by the pharaohs of the Middle Kingdom, cultural creativity flourished with renewed vigor.

The belief that primitive societies thrive without disturbing nature is a romantic fantasy. Any hiker who has tried to “tread lightly on the land” and visit the wilderness without altering it knows how difficult that is. A natural environment is constantly adjusting to what its resident species consume, what they produce, and how they behave. Prehistoric peoples changed the world around them by hunting and gathering. They drove some species toward extinction and encouraged the proliferation of others. The goal of a successful organism is not to avoid having an impact on nature but to strike a sustainable balance with nature. This is difficult, for history and personal experience teach that actions have unintended, unpredictable consequences, particularly when they affect life’s complex symbiotic systems.

The people whose increasingly elaborate cultural activity culminated in the rise of the first civilizations exploited the potential of unique, but similar, environments—arid regions with annually flooding rivers. A major part of their strategy for adapting to these challenging environments was to adapt the environments to their needs. The result was an acceleration of the cycle of action and reaction between communities and their contexts that has continued throughout history.

Some of the significant steps in the early stages of this process must have been taken in complete ignorance of their implications. Civilization rests on an economic foundation laid by agriculture, and agriculture involves exploitation of domesticated species. The domestication of wheat, the staple food of the ancient world, may have come about largely by accident. Grains of wheat are the seeds of a kind of grass. In nature, grasses perpetuate themselves by scattering their seeds to the wind. Therefore, the most prolific species would be those whose ripened seeds are loosely tethered and can easily be blown free. But human gatherers would have had more success collecting the seeds of plants that did not easily break loose and drift away. By planting these seeds they encouraged the evolution of a kind of wheat with firmly attached seeds. This is a domesticated species, for it is poorly adapted to survive by spreading on its own. It depends on a harvester to gather and plant its seeds. The ease with which such wheat could be harvested encouraged the ancient farmer to serve the plant that served him.
Human beings inhabit environments that are shaped by nature and culture. The West’s early civilizations reengineered their physical environments through technologies such as irrigation, agriculture, metal working, and building. But their cities and states were not only new kinds of physical spaces, they were new intellectual and social environments. The Sumerians and the Egyptians acted, and were acted upon, in ways that were similar and ways that were different. But each confronted the same fundamental challenge. As they changed the world, the world changed them. To be civilized is to grasp a tiger by the tail and pin hopes for survival on devising ways to cope with the consequences.

**Key Terms**

- Paleolithic era, p. 7
- Neolithic era, p. 8
- Fertile Crescent, p. 14
- Dynasty, p. 16
- Ziggurat, p. 18
- Cuneiform, p. 20
- Hieroglyph, p. 26
- Old Kingdom, p. 27

**Activities**

1. Compare the Paleolithic and Neolithic stages in cultural development, listing both their similarities and their differences.

2. Describe what was necessary for a civilization to appear. Then explain where and why the first civilizations rose where they did.

3. Compose an outline of historical events in ancient Sumer and Mesopotamia.

4. Describe how life in ancient Egypt differed from life in Sumer. What were the reasons for the differences and how were they reflected in the natures of the two civilizations?

5. Is the rise of civilization a sign of progress for humanity? Outline arguments for and against.

6. For a quick review of the chapter and test of your comprehension, scan the pages paying attention to the terms in bold. The more the terms remind you of what the pages were about, the better your comprehension of the chapter.

**Further Reading**


Jean Clottes, *Cave Art* (2008), a lavishly illustrated text by an archaeological specialist filled with photographs of a large number of paintings from caves that are no longer open to the public.


Barbara Metz, *Temples, Tombs, and Hieroglyphs: A Popular History of Ancient Egypt* (1964/2007), an older book that has remained in print because people have found it accessible.
MyHistoryLab Connections

Visit MyHistoryLab.com for a customized Study Plan that will help you build your knowledge of The Birth of Civilization.

Questions for Analysis

1. How did early human settlements evolve?
   - Read the Document Redefining Self—From Tribe to Village to City, p. 12

2. What do the scenes depicted in the Royal Standard of Ur reveal about Sumerian society?
   - View the Closer Look The Royal Standard of Ur, p. 16

3. What does the Code of Lipit-Istar reveal about Sumerian society?
   - Read the Document Sumerian Law Code: Code of Lipit-Ishtar, p. 20

4. Did the Mesopotamians believe in an afterlife?
   - Read the Document The Epic of Gilgamesh, p. 22

5. Who were the ancient Egyptians?
   - Watch the Video Who Were the Ancient Egyptians?, p. 31

Other Resources from This Chapter

- Read the Document The Toolmaker (3300 B.C.E.), p. 7
- View the Map The Spread of Agriculture, p. 10
- View the Map Discovery: Mesoamerican Settlements, p. 13
- View the Map Discovery: China in the Shang and Zhou Eras, p. 13
- View the Map Sargon’s Empire, 2220 B.C.E., p. 22
- Read the Document Workings of Ma’at: “The Tale of the Eloquent Peasant,” p. 27
- View the Image The Pyramids, p. 29
- View the Map Topographical Map: Ancient Egypt, p. 30