



3 Civilization

PATTERNS
OF CHANGE

CASE STUDY: Ur in Sumer

TERMS & NAMES

- civilization
- specialization
- artisan
- institution
- scribe
- cuneiform
- Bronze Age
- barter
- ziggurat

MAIN IDEA

Prospering agricultural villages, food surpluses, and new technology led to the rise of civilizations.

WHY IT MATTERS NOW

Contemporary civilizations share the same characteristics typical of ancient civilizations.

SETTING THE STAGE Agriculture marked a dramatic change in how people lived together. They began dwelling in larger, more organized communities, such as farming villages and towns. Gradually, from some of these permanent settlements, cities emerged, forming the backdrop of a much more complex way of life—civilization.

Villages Grow into Cities

Over the centuries, people settled in stable communities that were based on agriculture. Domesticated animals became more common. The invention of new tools—hoes, sickles, and plow sticks—made the task of farming easier. As people gradually developed the technology to control their natural environment, they reaped larger harvests. Settlements with a plentiful supply of food could support more heavily populated communities.

As the population of some early farming villages increased, social relationships became more complex. The change from a nomadic hunting-gathering way of life to settled village life took a long time. Likewise, the change from village life to city life was a gradual process that spanned several generations.

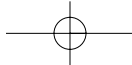
Economic Changes To cultivate more land and to produce extra crops, ancient people in larger villages built elaborate irrigation systems. The resulting food surpluses freed some villagers to pursue other jobs and to develop skills besides farming. Individuals who learned to become craftspeople created valuable new products, such as pottery, metal objects, and woven cloth. In turn, people who became traders profited from a broader range of goods to exchange—craftwork, grains, and many raw materials. Two important inventions also fostered the expanded trade between villages. The wheel and the sail enabled traders to transport more goods over longer distances.

Social Changes A more complex and prosperous economy affected the social structure of village life. For example, building and operating large irrigation systems required the cooperation and labor of many people. As other special groups of workers formed, social classes with varying wealth, power and influence began to emerge. A system of social classes would later become more clearly defined as cities grew.

Religion also became more organized. During the Old Stone Age, prehistoric

This photograph shows the well-preserved remains of Skara Brae. This small agricultural village emerged around 3000 B.C. It is located on an island off the coast of northern Scotland.





peoples' religious beliefs centered around nature, animal spirits, and some idea of an afterlife. During the New Stone Age, farming peoples worshiped the many gods and goddesses who they believed had power over the rain, wind, and other forces of nature. Early city dwellers developed rituals founded on these earlier religious beliefs. As populations grew, common spiritual values became lasting religious traditions.

What Is Civilization?

Most historians believe that one of the first civilizations arose in Sumer, a region that is now part of modern Iraq. Sumer was located in Mesopotamia. Just what set the Sumerians apart from their neighbors? Most scholars define **civilization** as a complex culture with these five characteristics: (1) advanced cities, (2) specialized workers, (3) complex institutions, (4) record keeping, and (5) advanced technology.

Advanced Cities Cities were the birthplaces of the first civilizations. In fact, the word *civilization* comes from the Latin word for *city*. A city is more than a large group of people living together. The size of the population alone does not distinguish a village from a city. One of the key differences is that a city is a center of trade for a larger area. Like their modern-day counterparts, ancient city dwellers depended on trade. Farmers, merchants, and traders brought goods to market in the cities. The city dwellers themselves produced a variety of goods for exchange.

Specialized Workers As cities grew, so did the need for more specialized workers, such as traders, government officials, and priests. Food surpluses provided the opportunity for **specialization**—the development of skills in a specific kind of work. An abundant food supply allowed some people to become expert at jobs besides farming. In early civilizations, some city dwellers became **artisans**—skilled workers who make goods by hand. Specialization helped artisans develop their skill at designing jewelry, fashioning metal tools and weapons, or making pottery. The wide range of crafts that artisans produced helped cities become thriving centers of trade.

Complex Institutions The soaring populations of early cities made government, or a system of ruling, necessary. In civilizations, leaders emerged to maintain order among people and to establish laws. Government is an example of an **institution**—a long-lasting pattern of organization in a community. Complex institutions, such as government, religion, and the economy, are another characteristic of civilization.

With the growth of cities, religion became a formal institution. Most cities had

great temples where dozens of priests took charge of religious duties. Sumerians believed that every city belonged to a god who lived in the temple and governed the city's activities. The temple became the hub of both government and religious affairs. It also served as the city's economic center. There food and trade items were distributed to the city's residents.

Record Keeping As government, religion, and the economy became more complex and structured, people recognized the need to keep records. In early civilizations, government officials had to document tax collections, the passage of laws, and the storage of grain. Priests needed some way to keep track of the yearly calendar and important rituals. Merchants had to record accounts of debts and payments.

Most civilizations developed a system of writing, though some devised other methods of record keeping. Around 3000 B.C., Sumerian **scribes**—or professional record keepers—invented a system of writing called **cuneiform** (KYOO-nee-uh-FAWRM), which means “wedge-shaped.” (Earlier versions of Sumerian writing consisted of signs called pictographs—symbols of the objects or things

SPOTLIGHT ON

The Inca's System of Record Keeping

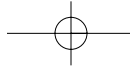
The empire of the ancient Inca civilization stretched along the western coast of South America. Though the Inca had no writing system, they kept records using a *quipu*, a complicated set of colored strings tied with different-sized knots at various intervals. Each knot represented a certain amount or its multiple. The colors of each cord represented the item being counted: people, animals, land, and so on.

The *quipucamayoc*, special officials who knew how to use the *quipu*, kept records of births, deaths, marriages, crops, and even important historical events.

THINK THROUGH HISTORY

A. Drawing Conclusions

Why were cities essential to the growth of civilizations?



they represented.) The scribe’s tool, called a stylus, was a sharpened reed with a wedge-shaped point. It was pressed into moist clay to create symbols. Scribes baked their clay tablets in the sun to preserve the writing.

People soon began to use writing for other purposes besides record keeping. They also wrote about their cities’ dramatic events—wars, natural disasters, the reign of kings. Thus, the beginning of civilization in Sumer also signaled the beginning of written history.

Advanced Technology New tools and techniques are always needed to solve the problems that emerge when large groups of people live together. In early civilizations, some farmers began to harness the powers of animals and nature. For example, they used ox-drawn plows to turn the soil. They created elaborate irrigation systems to expand planting areas.

Artisans relied on new technology to make their tasks easier. Around 3500 B.C., Sumerian artisans first used the potter’s wheel to shape jugs, plates, and bowls. Sumerian metalworkers discovered that melting together certain amounts of copper and tin made bronze. After 2500 B.C., skilled metalworkers in Sumer’s cities turned out bronze spearheads by the thousands.

The period called the **Bronze Age** refers to the time when people began using bronze, rather than copper and stone, to fashion tools and weapons. The Bronze Age began in Sumer around 3000 B.C., but the starting date varied in different parts of Europe and Asia.



The wedge-shaped symbols of cuneiform are visible in this close-up of a clay tablet.

Background

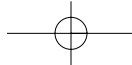
Toolmakers discovered how to combine copper with a small amount of tin to make bronze. Bronze is harder than copper.

PATTERNS OF CHANGE: Key Traits of Civilizations

Characteristics	Examples from Sumer
Advanced Cities	<ul style="list-style-type: none"> • Uruk—population of about 10,000, which doubled in two centuries • Lagash—population of about 19,000 • Umma—population of about 16,000
Specialized Workers	<ul style="list-style-type: none"> • priests • metalworkers • scribes • soldiers • teachers • weavers • merchants • government officials • potters • farmers
Complex Institutions	<ul style="list-style-type: none"> • Formal governments with officials and laws • Priests with both religious and political power • A rigorous education system for training of scribes
Record Keeping	<ul style="list-style-type: none"> • Cuneiform tablets—records of business transactions, historical events, customs, and traditions
Advanced Technology	By around 3000 B.C.: <ul style="list-style-type: none"> • The wheel, the plow, and the sailboat probably in daily use • Bronze weapons and body armor that gave Sumerians a military advantage over their enemies

SKILLBUILDER: Interpreting Charts

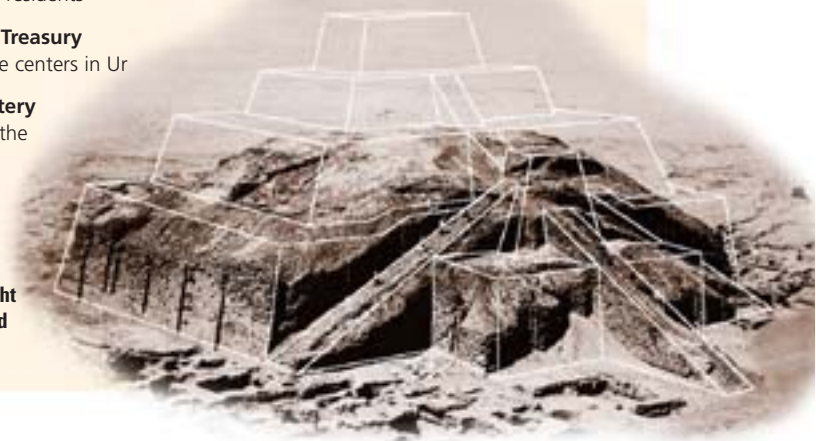
1. Based on the chart, what is one important feature of a city?
2. What kinds of social behavior are basic to the five characteristics of civilizations?



The City of Ur

- 1 **Ziggurat** A massive temple
- 2 **Court of Nanna** Sacred place of Ur's moon god
- 3 **Home of the High Priestess** Place where a woman with great religious authority lived
- 4 **Surrounding Wall** Defense for protecting Ur residents
- 5 **Temple and Treasury** Administrative centers in Ur
- 6 **Royal Cemetery** Burial site of the queen and king of Ur

The white lines indicate the shape of the original structure, which once rose as high as 80 feet.



Aerial photograph of Ur taken in 1930.

The underlying photograph at the right shows how the temple mound looked after Leonard Woolley excavated it during the 1920s and 1930s

CASE STUDY: Ur in Sumer

Civilization Emerges in Ur

Ur, one of the earliest cities in Sumer, stood on the banks of the Euphrates River in what is now southern Iraq. Some 30,000 people once lived in this ancient city. Ur was the site of a highly sophisticated civilization.

After a series of excavations from 1922 to 1934, English archaeologist Leonard Woolley and his team unraveled the mystery of this long-lost civilization. Woolley's archaeological dig at Ur revealed important clues about Ur's past. Woolley concluded that around 3000 B.C., Ur was a flourishing urban civilization. People in Ur lived in well-defined social classes. Priests and rulers wielded great power. Wealthy merchants profited from foreign trade. Artists and artisans created many extraordinary works, such as lavish ornaments and jewelry, musical instruments, and gold helmets and daggers. Woolley's finds have enabled historians to reconstruct scenes illustrating Ur's advanced culture.

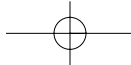
An Agricultural Economy Imagine a time nearly 5,000 years ago. Outside the mud-brick walls surrounding Ur, ox-driven plows cultivate the fields. People are working barefoot in the irrigation ditches that run between patches of green plants. With stone hoes, the workers widen the ditches. The ditches carry water into their fields from the reservoir a mile away. The people of Ur have developed this large-scale irrigation system to provide Ur with food surpluses, which keep the economy thriving. The government officials who plan and direct this public works project ensure its smooth operation.

A Glimpse of City Life A broad dirt road leads from the fields up to the city's wall. Inside the city gate, the city dwellers go about their daily lives. Most people live in small, windowless, one-story, boxlike houses packed tightly together along the street. However, a few wealthy families live in two-story houses with an inner courtyard.

Down another street, accomplished artisans work full-time in their shops. A metal-worker makes bronze by carefully mixing molten copper with just the right quantity of tin. Later he will hammer the bronze to make sharp spears—weapons to help Ur's well-organized armies defend the city. As a potter spins his potter's wheel, he expertly shapes the moist clay into a large bowl. These artisans and other craftworkers produce trade goods that help the city of Ur prosper.

THINK THROUGH HISTORY B. Analyzing Causes

How did Ur's agricultural way of life foster the development of civilization there?



Ur's Thriving Trade The narrow streets open out into a broad avenue where merchants squat under their awnings and trade farmers' crops and artisans' crafts. This is the city's bazaar, or marketplace. People do not use coins to make purchases because money has not yet been invented. However, merchants and their customers know roughly how many pots of grain a farmer must give to buy a jug of wine. This way of trading goods and services without money is called **barter**. More complicated trades require the services of a scribe. He carefully forms cuneiform signs on a clay tablet. The signs show how much barley one farmer owes a merchant for a donkey.

The Temple: Center of City Life Farther down the main avenue stands Ur's tallest and most important building—the temple. Like a city within a city, the temple is surrounded by a heavy wall. Within the temple gate, a massive, tiered structure towers over the city. This pyramid-shaped monument is called a **ziggurat** (ZIHG-uh-RAT), which means “mountain of god.” On the exterior of the ziggurat, a flight of perhaps 100 mud-brick stairs leads to the top. At the peak, priests conduct rituals to worship the city god who looms over Ur. Every day, priests with shaved heads climb these stairs. They often drag a plump goat or sheep for a sacrifice. The temple also houses storage areas for grains, woven fabrics, and gems—offerings to the city's god.

A Religious Ritual Recorded A poem preserved in cuneiform tablets reveals Sumerians' burial rituals and their belief in an afterlife. The following is a lament for a young woman's lover who was killed in a distant land. These lines describe what foods she will provide for his spirit when his body is returned home for his funeral:

A VOICE FROM THE PAST

I will offer him cakes and herbs of the grove,
 I will provide him with the fruits of the field,
 I will provide him with roasted barley and dates . . .
 I will provide him with grapes on the vine,
 I will provide him with apples of the wide earth,
 I will provide him with figs of the wide earth . . .
 I will provide him with dates on their cluster.

Quoted in *From the Poetry of Sumer* by Samuel Kramer

The fruits, grains, and other foods mentioned in these lines also suggest the wide range of crops that Sumerians either grew themselves or received as trade goods.

The first early cities such as Ur represent a model of civilizations that continued to arise throughout history. While the Sumerians were advancing their culture, civilizations were also developing in Egypt, China, and other countries in Asia.

CONNECT to TODAY

Ziggurat's Role in Persian Gulf War

After 4,000 years, the city of Ur is still making history. During the Persian Gulf War in 1991, the Iraqi military established an air base near the site of the city of Ur. The ziggurat there had been reconstructed.

Hoping that U.S. and Allied forces would not risk destroying the ancient ziggurat, Iraqi forces parked aircraft next to the structure at Ur for protection. However, enemy planes targeted the city of Ur. Exploding bombs caused large craters at the site. Machine-gun attacks from enemy planes also left many bullet holes in the sides of the ziggurat itself.

Background

The ziggurat of Ur was a huge temple dedicated to the moon god Nanna. The tiers are supposed to represent steps leading toward the heavens.

Section 3 Assessment

1. TERMS & NAMES

- Identify*
- civilization
 - specialization
 - artisan
 - institution
 - scribe
 - cuneiform
 - Bronze Age
 - barter
 - ziggurat

2. TAKING NOTES

Create a two-column chart like the one below. List the five characteristics of civilization and give an example from Ur.

Characteristics of Civilization	Example from Ur
1.	
2.	
3.	
4.	
5.	

3. MAKING INFERENCES

In what ways does the ziggurat of Ur reveal that Sumerians had developed an advanced civilization?

THINK ABOUT

- the skills required to build the monument
- the various purposes of the ziggurat
- its location

4. THEME ACTIVITY

Economics Role-play a character from Ur who has a specialized skill, such as an artisan, a trader, or a scribe. Write a monologue explaining how you contribute to the economic welfare of the city.