

Civilization

CASE STUDY: Ur in Sumer

MAIN IDEA

SCIENCE AND TECHNOLOGY
Prosperous farming 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.

TERMS & NAMES

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

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. From some of these settlements, cities gradually emerged, forming the backdrop of a 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 larger populations.

As the population of some early farming villages increased, social relationships became more complicated. 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—the wheel and the sail—also enabled traders to move 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 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 become more clearly defined as cities grew.

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

TAKING NOTES

Summarizing Use a chart to summarize characteristics of the civilization at Sumer.

Characteristics

- 1.
- 2.
- 3.
- 4.
- 5.

nature. Early city dwellers developed rituals founded on these earlier religious beliefs. As populations grew, common spiritual values became lasting religious traditions.

How Civilization Develops

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

Advanced Cities Cities were the birthplaces of the first civilizations. 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. 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 clothing and pottery. The wide range of crafts artisans produced helped cities become 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 governed the city's activities. The temple was the hub of both government and religious affairs. It also served as the city's economic center. There food and trade items were distributed. **A**

Record Keeping As government, religion, and the economy became more complex, 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 a way to keep track of the 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), meaning “wedge-shaped.” (Earlier Sumerian writing consisted of pictographs—symbols of the

Global Patterns



The Incan System of Record Keeping

Early civilizations other than Sumer also developed record keeping. The empire of the ancient Incan civilization stretched along the western coast of South America. Though the Inca had no writing system, they kept records using a *quipu*, a set of colored strings tied with different-size knots at various intervals (see photograph). 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*, officials who knew how to use the *quipu*, kept records of births, deaths, marriages, crops, and historical events.

MAIN IDEA

Drawing Conclusions

A Why were cities essential to the growth of civilizations?

objects or what 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.

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

Sumerian artisans relied on new technology to make their tasks easier. Around 3500 B.C., they 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., 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 started in Sumer around 3000 B.C., but the date varied in other parts of Asia and in Europe.



▲ The wedge-shaped symbols of cuneiform are visible on this clay tablet.

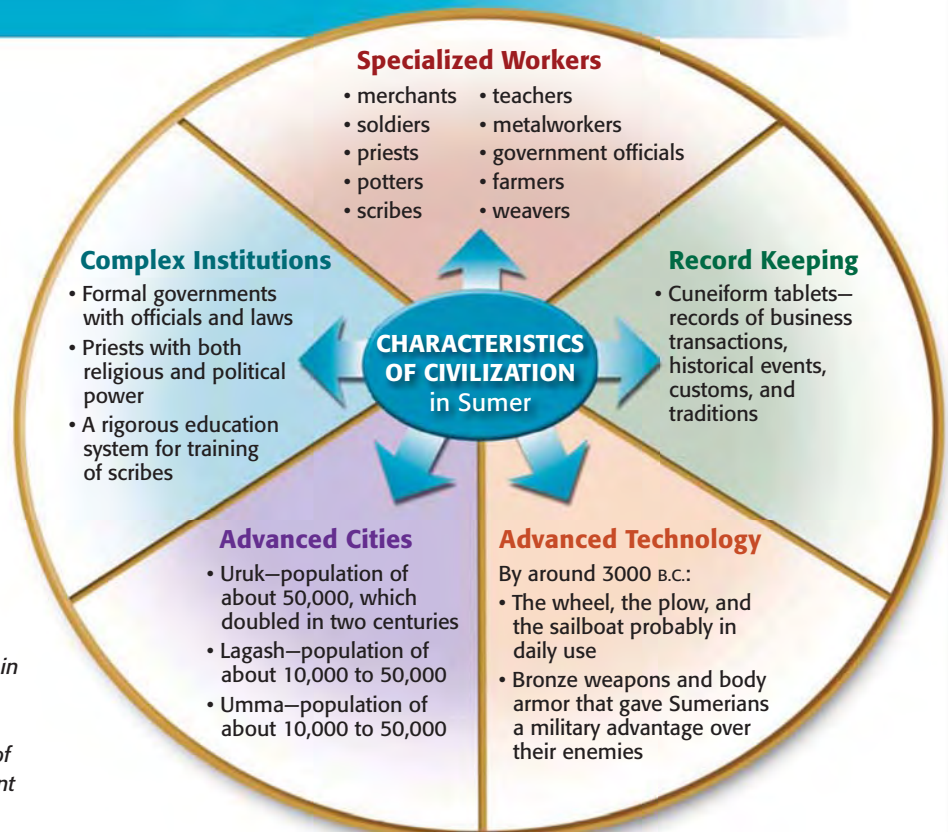
> Analyzing Key Concepts

Civilization

As the history of Sumer demonstrates, civilization first developed in cities. In fact, the very word *civilization* comes from the Latin word for citizen. However, the development of cities is only one aspect of civilization. Many scholars define civilization as a complex culture with five characteristics. The graphic organizer to the right shows how Sumer displayed these five characteristics.

SKILLBUILDER: Interpreting Graphics

- 1. Making Inferences** Judging from the information on this graphic, what economic activities probably took place in Sumerian cities?
- 2. Drawing Conclusions** What is the relationship between the development of specialized workers and the development of complex institutions?



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 excavating from 1922 to 1934, English archaeologist Leonard Woolley and his team unraveled the mystery of this long-lost civilization. From archaeological evidence, Woolley concluded that around 3000 B.C., Ur was a flourishing urban civilization. People in Ur lived in well-defined social classes. Rulers, as well as priests and priestesses, wielded great power. Wealthy merchants profited from foreign trade. Artists and artisans created lavish jewelry, musical instruments, and gold daggers. Woolley's finds have enabled historians to reconstruct 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 ditches to carry water into their fields from the reservoir a mile away. This large-scale irrigation system was developed to provide Ur with food surpluses, which keep the economy thriving. The government officials who direct this public works project ensure its smooth operation. **B**

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

Down another street, artisans work in their shops. A metalworker makes bronze by mixing molten copper with just the right quantity of tin. Later, he will hammer the bronze to make spearheads—weapons to help Ur's well-organized armies

MAIN IDEA

Analyzing Causes

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



The City of Ur

INTERACTIVE

- 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 ziggurat, which once rose as high as 80 feet.

▲ Aerial photograph of Ur taken in 1930.

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 Ur prosper.

Ur's Thriving Trade The narrow streets open into a broad avenue where merchants squat under awnings and trade farmers' crops and artisans' crafts. This is the city's bazaar, or marketplace. Coins are not used to make purchases because money has not yet been invented. But 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 a scribe. He carefully forms cuneiform signs on a clay tablet. The signs may show how much barley a 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 climb these stairs. They often drag a goat or sheep to sacrifice. The temple also houses storage areas for grains, woven fabrics, and gems—offerings to the city's god. Sumerians had elaborate burial rituals and believed in an afterlife.

An early city, such as Ur, represents a model of civilizations that continued to arise throughout history. While the Sumerians were advancing their culture, civilizations were developing in Egypt, China, and elsewhere in Asia.

Connect to Today

Iraq's Ancient Treasures at Risk

The ziggurat at Ur was damaged during the Persian Gulf War of 1991. In that conflict, Iraq parked military planes near the ziggurat, hoping coalition forces would not risk harming the ancient structure. While it was not attacked, bombs caused large craters nearby, and it was hit by stray machine gun fire.

During the 2003 war, the Iraqi National Museum in Baghdad was damaged and then attacked by looters. Some of the treasures of the area's ancient civilizations were either looted or destroyed.

SECTION

3

ASSESSMENT

TERMS & NAMES 1. For each term or name, write a sentence explaining its significance.

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

USING YOUR NOTES

2. Which characteristic is the most important for development of a civilization? Why?

Characteristics

- 1.
- 2.
- 3.
- 4.
- 5.

MAIN IDEAS

3. How did the social structure of village life change as the economy became more complex?
4. What role did irrigation systems play in the development of civilizations?
5. What are the key traits of a civilization?

CRITICAL THINKING & WRITING

6. **DRAWING CONCLUSIONS** How did life in Sumer differ from life in a small farming community of the region?
7. **RECOGNIZING EFFECTS** Why was writing a key invention for the Sumerians?
8. **MAKING INFERENCES** In what ways does the ziggurat of Ur reveal that Sumerians had developed an advanced civilization?
9. **WRITING ACTIVITY** **ECONOMICS** Choose a person from Ur who has a specialized skill, such as an artisan, a trader, or a scribe. Write an **expository essay** explaining that person's contribution to the economic welfare of the city.

INTEGRATED TECHNOLOGY INTERNET ACTIVITY

Use the Internet to create a **chart** showing the ten largest cities in the world, their populations, and the continent on which they are located.

INTERNET KEYWORD
city population