Prepare yourself, for you are about to embark on a magical journey through art history, one that spans both time and space. You will learn about art from every corner of the world and every historical period, beginning with the first known works created by our prehistoric ancestors. At the conclusion of your journey, you will have a richer, deeper understanding of different cultures and an appreciation for a wide array of artworks in every kind of medium and style.

**Web Museum Tour** View images and tour Egyptian sites along the Nile River. Go to Web Museum Tours at art.glencoe.com to view images and descriptions of Egyptian artifacts.

**Activity** Study images of Egyptian art from the collection at the University of Memphis Exhibit of Artifacts. Then click on Color Tours of Egypt and explore the settings and environment in which these works were created. Which ancient structures are located in the Valley of the Kings in the West Bank, Luxor region?

What do you know about ancient art and the artists of ancient times? Explain what you think a cave painting might look like. Why do you suppose people drew these pictures? Human beings have had the desire to create art since the earliest times. Long before our prehistoric ancestors could write or make tools, they created images on the walls of cave dwellings. Eventually people abandoned their caves, built homes, domesticated animals, and raised crops. Families, clans, and tribes gathered and built villages, towns, and cities. This led to the development of art, religion, science, and social and political organization. Civilization was born.

Read to Find Out As you read this chapter, learn about prehistoric times and the art and architecture of early humans. Read also to find out about the art created by the people in the Tigris-Euphrates Valley.

Focus Activity Look at the colossal sculpture in Figure 6.1. Imagine you are an art critic. Divide a piece of paper into four columns, using the art criticism steps as headings. Then write the answers to these questions: What has the artist done to suggest the three-dimensional form of the figure? Where are different kinds of texture used? What feelings, moods, or ideas do you associate with this figure? Do you regard this as a successful work of art?

Using the Time Line Note the credit line dates for the human-headed winged bull on the facing page. Locate the date on the Time Line. You can see that it was created during the reign of King Sargon II in 721–705 B.C.
**FIGURE 6.1** Monumental relief of a winged bull with human head. c. 722–705 B.C. Limestone. 487.68 × 487.68 cm (16 × 16’). Khorsabad, Iraq. Courtesy of the Oriental Institute, the University of Chicago, Chicago, Illinois.

721–705 B.C.
Sargon II, one of Assyria’s greatest kings, reigns

539 B.C.
The Persians advance into Mesopotamia and capture the city of Babylon

500 B.C.
Audience Hall of Darius and Xerxes

1000 B.C.
c. 900–600 B.C.
Assyrians rule Mesopotamia

500 B.C.

Refer to the Time Line on page H11 in your Art Handbook for more about this period.
Prehistoric Art in Western Europe

Vocabulary
- Paleolithic period
- megaliths
- post-and-lintel construction

Discover
After completing this lesson, you will be able to:
- Explain why prehistoric cave paintings may have originated.
- Explain how prehistoric paintings survived.
- Describe the manner in which prehistoric paintings were created.

Much of our knowledge about the lives of early human beings comes from their art. Before people could write or use metal to make tools, they were painting and scratching pictures of animals on the uneven walls of caves and rock shelters. This was a remarkable achievement when you consider what it must have been like to live in a world in which each person fought a daily battle for survival. The lives of prehistoric people were filled with danger, hunger, and fear.

Art of Prehistoric People

It is difficult to understand why our prehistoric ancestors took time to produce art. Certainly it would be reasonable to expect that the artworks they did create would be primitive and crude, but are they? Before you answer this question, take the time to examine an example of prehistoric art.

The Cave Paintings of Altamira

One noteworthy example of prehistoric art is a painting of a bison from the ceiling in Altamira (Figure 6.2). Notice the accurate proportions of the animal. Look for any indication of what the bison might be doing.

As you examine the bison from Altamira, notice that the animal is not placed in a setting. There is no hint of the ground beneath its hooves, nor are there signs of trees, hills, or sky behind the bison. What effect does this have on the animal’s apparent size and its position in space?
Determining the Age of Prehistoric Art

There is much uncertainty among historians and archaeologists about the early dates of human development. Many experts believe that the earliest known works of human achievement were made during an age that began some 30,000 years ago.

The age of cave paintings and artifacts produced thousands of years ago can be determined by several means. One way is to date the artifact according to the age of the surrounding earth layer. Another way is radiocarbon dating of once-living objects found near the artifact. In general, all living organisms maintain a known amount of radioactive carbon 14. After an organism’s death, the carbon 14 loses its radioactivity at a known rate. By measuring how much radioactivity is left in charcoal or carbonized bones, for instance, it is possible to determine their age.

When these objects are found in caves where prehistoric paintings are located, scholars are able to determine the approximate date the paintings were produced. Since dating methods are constantly being improved, scholars may eventually have to revise some of their estimates.

The Paleolithic Period

Because a study of the history of art must start somewhere, we can look back in time to a period known as the Paleolithic period. The Paleolithic period—also called the Old Stone Age—is the historical period believed to have lasted from 30,000 B.C. until about 10,000 B.C. There you will find these earliest works—the vivid, lifelike pictures of animals painted on the rough ceilings and walls of caves.

The Cave Paintings of Lascaux

In caves in southern France and northern Spain are numerous paintings, so skillfully created and so well preserved that they caused great controversy among scholars when they were discovered. Those who examined the animal paintings in the cave of Lascaux in the Dordogne region of southern France questioned whether cave people, working with the most primitive instruments, could have produced such splendid works of art (Figure 6.3). Some suggested that these paintings might be the work of skilled artists from a more recent time.

Today scholars agree that the paintings discovered at Lascaux and at Altamira are the...
work of prehistoric artists. It is unlikely that they are the first works of art ever created. They are too sophisticated for that. No doubt they were preceded by hundreds, perhaps thousands, of years of slow development about which nothing is yet known.

Use of Paintings in Hunting Rituals

During prehistoric times, cave painting was limited almost entirely to the depiction of animals. This was probably due to prehistoric people’s dependence on animals for food. The painting of animals almost certainly played a part in magic rituals performed before a hunt.

Before taking up their clubs and spears, prehistoric hunters may have turned to magic to place a spell over their prey. This was intended to weaken it and make it easier to hunt. The magic may have involved a ceremony in which an image of the animal was painted on the wall or ceiling of the cave. The hunters probably believed that, by drawing a lifelike picture of an animal, they were capturing some of that animal’s strength and spirit.

Such prehistoric hunting rituals probably bolstered the confidence and the courage of the hunters, who were convinced that their prey would be weaker and easier to kill. In some ways, these prehistoric rituals were like some of the rituals we practice today. A high school pep rally with its rousing cheers and inspiring music serves much the same purpose. It builds confidence and courage in team members just as the hunting ritual may have done for prehistoric hunters.

ARCHAEOLOGY SITE. Evidence of the movements of early people are found in these footprints. They were fossilized into volcanic ash millions of years ago in Africa.

PETROGLYPHS. Symbols carved in stone by settlers in prehistoric North America give us a glimpse into belief systems and ways of life just as the cave paintings of Lascaux and Altamira do.

TOOLS AND UTENSILS. Cooking utensils and tools from the Neolithic era, around 7000 B.C., are adorned with decorative patterns. They represent the beginnings of technology.

ACTIVITY Diary Entry. Imagine you are at an archaeology site and have discovered an artifact similar to the ones pictured here. Write notes about what you have found, and then prepare a report to a museum curator who may be interested in your discoveries.
Survival and Discovery of Cave Paintings

Utensils, bones, and charcoal from numerous campfires found at the mouths of caves suggests that the Stone Age occupants lived there to take advantage of the daylight and ventilation. A special place farther back in the cave was set aside for magic rituals, and this was where the paintings were done. There they were protected from the wind and rain, and for this reason many paintings have survived to the present day. Unfortunately, many others were washed away by underground rivers.

The discoveries of prehistoric paintings at both the caves of Lascaux in 1941 and Altamira in 1879 were quite accidental. The Lascaux cave was found by two boys playing in a field with their dog. The dog fell down a hole and was trapped in a cave. Frantically searching for a way to reach the dog, the boys discovered another, larger hole nearby. Cautiously they crawled down into it. They lit matches and illuminated the magnificent paintings of animals on the cavern surfaces.

Some 70 years earlier near the village of Santillana (Figure 6.4), another dog played a similar key role in discovering the cave of Altamira. A hunter’s dog fell into a hole that proved to be the blocked entrance to an unknown cave.

Several years later, Marcelino de Sautuola, an amateur archaeologist excavated inside the cavern, uncovering a number of flint and stone tools made in prehistoric times. One day de Sautuola’s five-year-old daughter went along with him to the cave. The father had to bend over as he went into the chamber, but the little girl was able to walk upright. She glanced up at the ceiling and screamed for joy. Her father raised his own

![FIGURE 6.4](image) Most of the cave sites used by prehistoric people were situated on a rise offering a view of the surrounding countryside. How do you think this view helped them as hunters?
gaze to the ceiling just above his head. There he saw for the first time the painted images of bison, boar, wild horses, and deer. De Sautuola knew that the cave had been visited by only a few hunters since its discovery. He was convinced from the outset that the paintings dated from the Stone Age. He believed they were the work of the same prehistoric people who had made the tools found earlier in the cave. After similar paintings were uncovered in southern France in 1896, de Sautuola’s amazing discovery was recognized as authentic.

Skills of the Prehistoric Artists

At Altamira the low cave ceiling is covered with animals painted in shades of red, brown, and black (Figure 6.5). At least 16 bison are grouped in the center of the ceiling. Surrounding them are two boars and a deer. A smaller deer painted over a horse is located nearby. It was not uncommon for Stone Age artists to paint on top of earlier paintings when they ran out of space.

Perhaps the most surprising thing about the paintings is their size. A deer at the far end of the chamber is almost 6.5 feet long, while most of the other animals average around 5 feet. The way in which many of the animals have been painted on the uneven rock surfaces seems to accent the swelling muscles and hollows of their bodies.

Though their tools were crude, prehistoric artists were able to demonstrate a knowledge and an affection for the animals they hunted. What they knew and felt was combined with a sensitive artistic instinct. This

MATERIALS AND PROCESSES

A close examination of this cave painting at Altamira reveals some of the details about how the artist worked with available materials to create this work.

- **Pigment.** The fresh, vivid color makes it seem as if the animals had just been painted. The pigments, or coloring mixture, were made from lumps of clay and soft stone that were ground into fine powder. They were then mixed with animal fat, blood, or some other medium.

- **Brushes.** The pigment was applied to the smoothest surfaces with the fingers, although more advanced techniques—perhaps involving some kind of reed or bristle brush—were also used.

- **Technique.** The artist scratched the outline of the animal on the stone and then filled in the lines with black or dark brown pigment to give it a firm edge. Next, the animal was filled in with different shades of reddish brown hue. This shading technique helped create the impression of a three-dimensional form.

![Figure 6.5](image-url)
enabled them to capture in paint the power of a bison, the fleetness of a horse, the gentleness of deer.

**Prehistoric Builders**

Eventually prehistoric peoples ventured out of their caves to begin building more comfortable shelters. Small communities developed, and hunters replaced their weapons with crude farming tools and shepherds’ staffs. In time, communities grew into organized villages surrounded by cornfields and grazing animals.

**Rock Carvings and Standing Stones**

Abstract symbols were carved into stone by prehistoric people during the Paleolithic period. Spirals and concentric arcs appear etched in standing stones, as well as on flat rock surfaces. Detailed relief sculptures carved in stone or horn survive as evidence of prehistoric artists’ carving skills (Figure 6.6). Rock carvings have been discovered throughout England, Spain, France, and Germany, as well as Malta and the Canary Islands.

Today ancient megaliths, or large monuments created from huge stone slabs, lie scattered across Europe, India, Asia, and even the Americas. Remnants of primitive stone art have been discovered all across the globe. Archaeologists once thought that the skills in building and design demonstrated by the megalith builders had originated from more advanced civilizations in the Near East. As more accurate research becomes available, it appears that the architectural methods of prehistoric peoples developed independently in several geographical areas, perhaps earlier than previously believed.

**Stonehenge**

As early as 4000 B.C., unusual circular arrangements of huge, rough-hewn stones were being erected in western Europe. The most famous of these is at Stonehenge in England (Figure 6.7, page 134). Built in several stages around 2000 B.C., Stonehenge consists of a large ring of stones with three progressively smaller rings within. The outermost ring is nearly 100 feet in diameter. Of the 30 original upright stones, more than half are still standing. The tallest of these is about 17 feet and weighs over 50 tons. Stonehenge is an early example of post-and-lintel construction, in which massive posts support crossbeams, or lintels.

Discover more skills of prehistoric artists in Web Links at art.glencoe.com.
Questions concerning Stonehenge have baffled scholars for centuries. What purpose did this prehistoric monument serve? How did people working with the most primitive tools quarry and transport these huge stone blocks across many miles? How did they raise the blocks into position? Today most scholars think it served as a kind of astronomical observatory, enabling prehistoric people to make accurate predictions about the seasons. Whatever its purpose, the impact of Stonehenge is undeniable. Mysterious, massive, and silent, it is a durable testament to the emerging ingenuity of our prehistoric ancestors.

Scholars still do not know how or why the huge stone blocks of this monument were erected. What feeling or emotions does it arouse?

Stonehenge.
Wiltshire, England.
c. 2000 B.C.

**FIGURE 6.7**

Reviewing Art Facts

1. **Explain** How did prehistoric artists give their cave paintings a three-dimensional look?
2. **Describe** Within the caves where prehistoric paintings have been found, where are the paintings located? What does their location indicate?
3. **Define** What is a megalith?
4. **Identify** Give an example of post-and-lintel construction.

**Interpreting Artifacts** Archaeology involves the study of artifacts from ancient cultures. The archaeologist conducts careful scientific studies and makes conclusions based on these studies. What would archaeologists think of your school if they dug it up in the year A.D. 10,000?

**Activity** Imagine your class work group is a team of archaeologists. One member volunteers to provide the artifacts. That person will place all his or her possessions on the table for examination. Team members will study the artifacts, make notes and sketches in their journals, and make interpretations. The group will present their findings to the class.
After completing this lesson, you will be able to:

- Name the different civilizations that were born, flourished, and declined in Mesopotamia beginning around 4500 B.C.
- Discuss the kinds of artworks created in those civilizations.

Civilization developed in a few great river valleys where deposits of rich soil produced abundant harvests. It was there that people first settled, and villages and cities began to rise. One of these river valleys extended about 170 miles north of the Persian Gulf, between the Tigris and Euphrates Rivers (Figure 6.8). In time, the flat plain of this valley, with its rich soil, warm summers, and mild winters, came to be known as the Fertile Crescent.

**Origins of Civilization in Mesopotamia**

Mesopotamia—the eastern part of the Fertile Crescent—attracted settlers from many different areas. Successive tribes fought to possess the land between the Tigris and Euphrates Rivers. Thus, the history of ancient Mesopotamia is a long series of conquests by a variety of peoples.

**Sumerian Civilization**

Sometime before 4500 B.C., a people from the east known as Sumerians abandoned their wandering, tent-dwelling lifestyle to settle in Mesopotamia. The region they settled was called Sumer. They formed agricultural communities with markets that eventually grew into towns built around high temples. These Sumerian temples served as centers of both spiritual and community life.

Although we know little about who the Sumerians were or exactly when they first appeared in Mesopotamia, we do know that they were a highly gifted and creative people. Before recorded history, they tilled the soil, built houses, constructed levees to control the floodwaters of the Tigris River, drained marshes, and dug irrigation canals. They are believed to have invented wheeled transportation and the potter’s wheel. In a land of blazing sun with little rainfall, farming could be carried on only with irrigation. Widespread cooperation was needed to build the irrigation works, keep them in repair, and allocate the water. This need led to the formation of government and laws—and the birth of a civilization.

**Ziggurats: Symbolic Mountains**

There was no Sumerian nation, only small city-states. Each of these city-states grew up around the shrine of a local god. As a city grew in wealth and power, its shrine became more and more elaborate. The name given to
these Sumerian shrines was the **ziggurat**, a stepped mountain made of brick-covered earth. As a towering symbolic mountain, the ziggurat satisfied the desire to create a monument that appeared to span the space between earthbound worshipers and their heavenly gods. The most famous ziggurat, the biblical Tower of Babel, no longer exists, but the still-impressive ruins of others can still be seen rising above the flat plain (Figure 6.9).

### Sumerian Decorative Arts

Archaeologists have unearthed evidence of a rich and flourishing civilization at the site of the Sumerian city of Ur. Much of this evidence comes from the ancient cemetery where burial sites were found filled with chariots, jewelry, headdresses, sculpture, and musical instruments.

An impressive sound box from a lyre found in the tomb of a queen testifies to the imagination and skill of Sumerian artists (Figure 6.10). It is decorated with a striking bull’s head finished in gold leaf. Lapis lazuli, a semiprecious blue stone, was used to fashion a human beard and other smaller details.

The practice of combining human and animal features in a single work is not uncommon in the art of the ancient Near East. The bull in particular is often represented. The fascination for this animal might be traced to early herders who recognized the animal’s power against the wild beasts that threatened their cattle.

### Evolution of Writing

Although it is impossible to say with certainty that the Sumerians were the first to develop writing, their writing is the oldest that has come down to us. Like that of other early peoples, the writing of the Sumerians first took the form of picture writing (Figure 6.11). They wrote on clay tablets, pressing rather than scratching lines into the soft, wet clay. To draw their pictures they used a **stylus**, or writing instrument. The Sumerian stylus was probably a straight piece of reed with a three-cornered end. With this stylus
they could produce triangular forms or wedges, as well as straight lines. Curved lines were made by combining a series of straight strokes. Over time, pictures created through this process lost their form as pictures and became stylized symbols.

The ancient Sumerians were probably the first to develop cuneiform writing, or writing with wedge-shaped characters. When the writing was completed, the clay tablets were fired, or baked, to make them more durable. In this manner the Sumerians kept records, executed contracts, and created a culture in which the stylus became as important to them as computers are to us today.

Akkadian Period

North and west of the Sumerians, in a region called Akkas, lived a Semitic people eager to add to their territory. By 2340 B.C. an Akkadian king had succeeded in establishing his control over Sumer. Eventually the Akkadian Empire included the entire region between the Mediterranean and the Persian Gulf. This vast empire was short-lived, but while it lasted art and literature flourished. (See Figure 6.13, page 138.)

**Neo-Sumerian Period**

The Akkadian dominance in Mesopotamia ended around 2150 B.C. with a revival of Sumerian culture. This revival, referred to as the Neo-Sumerian period, lasted more than 300 years.

The best-known of the Neo-Sumerian rulers was Gudea. His people honored him for his devotion to religion, literature, and good works. He built temples, promoted learning, and demanded mercy for the weak and helpless. After his death, he was worshiped as a god. Gudea’s appearance is known from the many sculpture portraits that have survived to the present.

**Seated Gudea**

One portrait shows the seated ruler with his hands folded as if in prayer (Figure 6.12). The figure is solid, with no openings between the arms and body. The pose is stiff and the proportions squat, but the face appears to be a portrait. The nose, cheeks, and chin are realistically formed, although the eyebrows are incised and stylized. The overall effect is one of quiet dignity—an appropriate effect for a sculpture intended to be placed in a temple.
Symbolism in Akkadian Art

From early times it was the custom of Mesopotamian kings to commission monuments celebrating their military victories such as the one to King Naram-Sin.

The importance of the victorious Akkadian king is emphasized by his large size and his central position at the top of the relief.

The king wears a horned helmet symbolizing his status as a god. He is placed before a triangular mountain with stars shining down on him as he tramples the body of a defeated foe.

Two enemy soldiers confront the Akkadian king, one begging for mercy and another, mortally wounded, attempting to pull an arrow from his neck.

The king’s victorious army marches up the mountain. The only casualties shown are those of the king’s enemy.

FIGURE 6.13 King Naram-Sin of Akkad in Horned Tiara Near Mountain Summit with Soldiers. 2230 B.C. Sandstone stele. Originally from Mesopotamia, found in Susa, Iran. The Louvre, Paris, France.
Babylonian Civilization

Around 1800 B.C., after centuries of warfare between the various Mesopotamian city-states, the Babylonians under the rule of their king, Hammurabi, gained control of Mesopotamia.

Babylonian Sculpture

King Hammurabi (ha-muh-rah-bee) owes his fame to the code he published to unify legal practices in his empire. This code was recorded on a stele (stee-lee), an inscribed stone pillar, placed in a public area for all to see (Figure 6.14). At the top of the stele, the king receives the laws from the seated sun god. The god wears the horned helmet of divinity and holds a ring and a rod, symbols of his power.

The Code of Hammurabi

The code, or set of laws, was inscribed below the relief sculpture and included a listing of punishments for certain crimes. These specified punishments in kind, similar to the biblical “an eye for an eye.” Thus, if a person knocked out an eye or a tooth or broke a limb of another, the same thing was done to that person as punishment. If a house collapsed and killed the purchaser, the architect or builder was sentenced to death. If the accident killed the buyer’s son, the son of the architect or builder had to die. From such harsh beginnings, traditions and habits of law and order were established, modified, and changed over thousands of years to form the basis of Western civilization.

Assyrian Civilization

Following Hammurabi’s death in 1750 B.C., the Babylonian period came to an end. Warring peoples swept across Mesopotamia, plunging the civilized world into a long period of turmoil. This turmoil came to a close when the powerful Assyrians from the north rose to power around 900 B.C. They ruled until early in the seventh century B.C.

Assyrian Relief Sculptures

The most impressive visual records of the Assyrians are the stone reliefs used to cover the mud-brick walls of their royal palaces. On one of these, a winged deity or genie is shown performing what appears to be a magic ritual before a sacred date palm tree (Figure 6.15, page 140). The figure holds a ritual container in his left hand and a conelike object in his right. His firm stance and well-developed...
muscles suggest power and strength, whereas the horned helmet and wings identify him as a god. His actions, however, remain a mystery. Perhaps, as some suggest, the image is intended to symbolize the god’s power to provide for his earthly subjects.

**Neo-Babylonian Period**

Early in the seventh century B.C., King Nebuchadnezzar (neh-byuh-kud-neh-zer) rekindled Babylonian supremacy. This era has become known as the Neo-Babylonian period. Under Nebuchadnezzar, some of the splendor of the past was restored to Babylon. Unfortunately, the temples and other structures erected during the Neo-Babylonian period were made of clay bricks, which crumbled quickly. The only example of architecture from this period is a single arched gateway once located within the city.

**The Ishtar Gate**

Named after a goddess, the Ishtar Gate (Figure 6.16) was one of eight gateways marking a procession route that curled through Babylon. The round-arched gateway
is covered with blue-glazed bricks and edged with geometric designs in white and gold. Contrasting with the blue background are rows of identical long-necked dragons and bulls in white with yellow details.

A dragon from this gate exhibits features of several different kinds of animals. It has a scaly body, a serpent’s head, the front feet of a cat, the hind feet of a bird, and a scorpion’s tail. Created in low relief to project out from the wall, these creatures walk toward or away from the arched opening.

End of the Neo-Babylonian Period

Tradition has it that Nebuchadnezzar, after a long reign marked by military conquest and prosperity and after adorning his city with roads, palaces, and temples, suffered from insanity. He thought of himself as some kind of animal, walked on all fours, and ate grass. Nebuchadnezzar died in 562 B.C., and within 30 years his empire was in shambles.

Persian Empire

Egypt, Babylonia, and Assyria were many centuries old when a vigorous people appeared on the eastern border of the civilized world. These newcomers called themselves Irani and their new homeland Irania (now Iran). They were mistakenly called Persians because later Greek geographers named them after a territory known as Parsa, or Persis, where their early kings had their capital.

In 539 B.C., the Persians advanced into Mesopotamia. That same year they captured the city of Babylon without a fight and made it their capital. The Persians remained in power until 331 B.C., when they were conquered by Alexander the Great.

Persian Architecture and Relief Carving

Persian architecture found its highest accomplishment in palaces. The best example is at Persepolis in modern Iran. It was built on a stone platform with magnificent rooms and wooden ceilings supported by huge columns. The most important room was the enormous Audience Hall, where the Persian king formally received official visitors from every corner of the known world (Figure 6.17). The room contained 100 columns 65 feet high. Nothing remains of it today but a few columns and the outlines of the general plan.

![Figure 6.17](Audience Hall of Darius and Xerxes, (Apadana), East Stairway. c. 500 B.C. Persepolis.)

*Describe the impression this hall might have made on representatives of other lands who came here for an audience with the Persian king.*
The top portion of each column in the Audience Hall was decorated with the figures of two bulls facing in opposite directions (Figure 6.18). With their heads lowered and legs tucked under their bodies, these animals have a powerful appearance. They surely must have impressed visitors with the king’s power.

Further emphasizing the king’s power are the reliefs lining the walls and stairways leading to the Audience Hall. Unlike the military scenes shown on Assyrian reliefs, Persian carvings portray people bringing tributes and offerings to the king.

Today, little remains of the grandeur of the palace at Persepolis. When Alexander the Great marched into the city in 331 B.C., he destroyed the magnificent palace and made off with its huge treasure. This event marked the beginning of a new era in history—an era that saw the rise of Greek civilization. Alexander, however, was not destined to witness this new era. He met death in the palace of Nebuchadnezzar.

In the next chapter we will turn back the pages of history to visit the early civilization that paralleled in time the great civilizations of the fertile crescent. Ancient Egypt was destined to be conquered by Alexander as well, but not before recording nearly 3000 years of glory.

---

**FIGURE 6.18** This is one of two bulls, facing in opposite directions, which decorate the top of the surviving column from the Audience Hall. What features contribute to the powerful impression this bull creates?

Capital in the shape of a Bull. Persian. c. 518–460 B.C.
Bituminous limestone. 71.1 x 76.2 x 30.5 cm (28 x 30 x 12’’).
The Nelson-Atkins Museum of Art, Kansas City, Missouri.
Purchase: Nelson Trust.

---

**LESSON TWO REVIEW**

### Reviewing Art Facts

1. **Describe** Name and describe the writing instruments used by Sumerians.
2. **Explain** For what accomplishment is Hammurabi famous?
3. **Describe** Where was the Ishtar Gate erected and what was its purpose?
4. **Identify** What type of building is regarded as the highest accomplishment of Persian architecture?

### Communicating with Symbols

Many “firsts” in civilization were developed by the cultures of the Fertile Crescent. One first was an early form of writing called cuneiform. The Sumerians used clay tablets and a writing instrument called a stylus to create their writing. Look closely at the cuneiform example in your text. Try to find other examples using available resources.

**Activity** Assign a symbol to each of the 26 letters of our alphabet. Write a short paragraph or poem and translate it into those symbols. Use a small slab of clay and a sharp stick to create your story in cuneiform. Exhibit your work.
Using the modeling process described in Chapter 3, create a compact clay sculpture of an animal based on one of the basic geometric forms (sphere, cylinder, cone). Add contrasting rough and smooth textures.

Insight
Look again at the examples of prehistoric animal paintings in Figures 6.2 and 6.5. Notice how the artists have avoided the use of unnecessary details. What has been done to show the animals’ power, grace, or gentleness?

Process
1. Brainstorm a list of animals with your class.
2. Select an animal from the list, and complete several pencil sketches of it in a compact reclining or sitting position. Each sketch should show the trait associated with the animal such as power or grace.
3. Choose your best sketch, and use that sketch as a guide for modeling the animal in clay:
   - Identify and fashion in clay a geometric form that resembles the body of the animal in your sketch.
   - Attach the head, legs, tail, and other large features to the basic form.
   - Keep turning the sculpture as you continue to work on it. Once the larger features have been joined to the basic body form, use the modeling tools (not your fingers) to refine the features.
   - Finish your sculpture with a clay modeling tool. Add details and textures.
   - When the sculpture is firm but not dry, hollow it out. Dry thoroughly, and fire it in a kiln.

Describe Is your sculpture easily identified as an animal? What features are most useful in helping others identify the animal it represents?

Interpret Does your animal exhibit a trait commonly associated with it? Are other students in your class able to recognize this trait?

Analyze What geometric form did you use as the starting point for your animal sculpture? Point to areas of contrasting rough and smooth textures.

Judge What aesthetic qualities would you refer to when making and defending a judgment about your sculpture? Which of these aesthetic qualities is most appropriate?
The world’s oldest known cave paintings may be the most impressive.

The world’s most famous prehistoric paintings are in the Lascaux cave, in southwestern France. However, another nearby cave discovery may hold even greater artistic riches. It was in this cave that French park ranger Jean-Marie Chauvet stumbled upon a major archaeological find in 1994. Like the Lascaux cave, the limestone cavern was covered with spectacular paintings from the Stone Age. The difference was that this cave art seemed much older, and the paintings showed more variety and originality—and they were also in better condition.

Radiocarbon dating eventually showed that the images in the Chauvet cave are about 30,000 years old—making these the oldest cave paintings ever found. The Lascaux paintings are about 17,000 years old.

The quality of the Chauvet paintings, as much as their great age, makes them unique. The nearly 400 Chauvet cave drawings are beautifully drawn likenesses of rhinoceros, lions, mammoths, horses, and other animals that had rarely if ever been seen on cave walls. The paintings use the caverns’ natural contours to create perspective. Further evidence of the artists’ skills is the proportion, position, and accurate details of the animals’ bodies.

The Ardeche region of southwestern France may not be finished giving up its treasures. Some 200 painted caves have already been found in the area, but as the Chauvet cave has shown, there may be even more surprises in store.

Unique among cave painters, the Chauvet artists drew in charcoal, smudging and blending lines to produce shadows. They created a feeling of depth by drawing overlapping and receding groups of animals.

TIME to Connect

How do art historians and archaeologists determine the age of artifacts or artworks? How can they date the treasures in the Chauvet and Lascaux caves?

- Using your school’s media center, research modern technologies that are used to determine a painting’s age. Be sure to include radiocarbon dating, X rays, and methods to analyze paint.
- Explain how these technologies work, how scientists use them, and the training needed to operate the technologies and analyze the findings. Share your findings with the class.
Reviewing the Facts

Lesson One

1. When describing the painting of a bison from Altamira, what did you discover about the setting in which the animal is placed?
2. How is line used in this prehistoric painting?
3. Where were prehistoric paintings done, and how did this contribute to their survival?
4. Why was the discovery of prehistoric paintings at Altamira first greeted with disbelief?
5. List at least three unusual aspects of the megalith construction at Stonehenge.

Lesson Two

6. What kind of material was used to construct the ziggurats?
7. What is cuneiform writing? Who developed it?
8. Who was Gudea? How do we know about his appearance?
9. Why do almost no examples of Neo-Babylonian architecture remain?
10. How many columns were in the Audience Hall of the Persian palace at Persepolis? How was the top of each column decorated?

Thinking Critically

1. COMPARE AND CONTRAST. Choose two images of animals in this chapter made in different media. Describe the gradation of value and tell how they differ. Tell how the media contribute to the difference.
2. ANALYZE. Pretend you are a noted art critic. You disagree with another scholar who insists that prehistoric cave paintings are simple and childlike. Prepare a list of arguments to debate that cave art is expressive.

Thinking Critically (continued)

Create a replication of cave art by crumpling up a large piece of blank paper into a ball. Open up the paper and lay it flat. Note the creases and lines that resemble the uneven surface and texture of a cave’s wall. Then use felt markers or pencils to sketch the outline of an animal. Keep your sketched cave art in your portfolio or save a digital copy.

As noted on page 134, scientists have long puzzled over Stonehenge’s likely purpose. Recent computerized 3-D models of the structure have revealed some startling facts:

- An observer positioned between the two inner rings of stones could predict the time of sunset and sunrise.
- Shadows cast by posts placed in the Aubrey Holes would reveal the exact date to an observer standing at the Heel Stone.
- Whenever the sun and moon were aligned when viewed through the Station Stones, the date was one on which an eclipse occurred.

According to the paragraph, how were the Aubrey Holes at Stonehenge used?

- [A] as a clock.
- [B] as an astronomical observatory.
- [C] as a calendar.
- [D] as a barometer.