

This is a model of a wheeled chariot used in the Sumerian army. Chariots were pulled by horses or donkeys while soldiers stood behind the shields.



5.8 Technology

All civilizations create new forms of technology. The Sumerians made several technological advances.

The most important Sumerian invention was the wheel. The earliest examples of the wheel date back to 3500 B.C.E. Sumerian potters, or pottery makers, first used wheels as a surface for shaping clay into pots. Potters' wheels spun, flat side up, on an axle. The Sumerians discovered that a wheel that was flipped onto its edge could be rolled forward. They used this discovery to create wheeled carts for farmers, and chariots for the army. They built the wheels by clamping pieces of wood together.

It would be hard to discover a more powerful invention than the wheel. Before the wheel, people had to drag their goods on flat-bottomed carts called *sledges*. The sledges often got stuck in mud, and they couldn't support heavy loads. Wheeled carts made it much easier to move goods over long distances. Oxen could pull three times more weight on wheeled carts than on sledges.

Another technological advance was the arch. Sumerian arches were inverted (upside-down) U- or V-shaped structures built above doorways. To build arches, the Sumerians stacked bricks, made of clay and straw, to rise from the walls in steps until they met in the center.

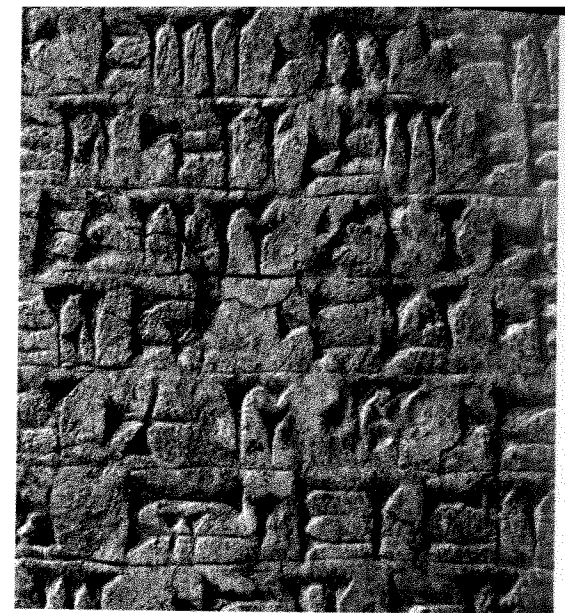
Arches added strength and beauty to Sumerian buildings. They became a common feature of temple entrances and upper-class homes. Some historians say that the arch is the Sumerians' greatest architectural achievement.

5.9 Writing

A final characteristic of civilizations is a highly developed written language. The Sumerians created a written language called **cuneiform**. This name comes from the Latin word for "wedge." The Sumerians used a wedge-shaped stylus (a sharp, pointed tool) to etch their writing in clay tablets.

Sumerians developed cuneiform around 2400 B.C.E. The earliest examples of cuneiform show that it was used to record information about the goods people exchanged with one another. At first, cuneiform writing may have contained as many as 2,000 symbols to stand for ideas and sounds. Over time, this number was reduced to about 700.

Cuneiform was based on an earlier, simpler form of writing that used **pictographs**. Pictographs are symbols that stand for real objects, such as a snake or water. Scribes used a sharpened reed to draw the symbols on wet clay. When the clay dried, the marks became a permanent record.



Shown here is cuneiform writing etched in a clay tablet.

cuneiform writing that uses wedge-shaped characters

pictograph a symbol that stands for an object

Chapter Summary

In this chapter, you have learned about the characteristics of Sumer society that made it a civilization.

Stable Food Supply Ancient Sumerians invented an irrigation system and the plow to help them create a stable food supply.

Social Structure, Government, and Religion Ancient Sumer had a complex social structure with different jobs and social levels. The government was led by kings. Religious beliefs influenced every part of daily life.

Arts, Technology, and Writing Ancient Sumerians had a highly developed culture that included the creative arts of painting, architecture, and music. The Sumerians' most important technological invention was the wheel. They also created a written language called cuneiform that was based on pictographs.