The Sumerians began building their walled cities around 3500 B.C., The priest-kings of Sumer organized farmers in each city-state to build extensive irrigation systems of canals and dams.

This resulted in a surplus of food that allowed many people to work in occupations other than farming, while still being able to meet their basic needs. They began to develop new ideas, contributions, and trade with other civilizations.

A writing system



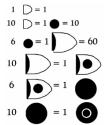
Many scholars believe that the earliest humans to have purposely left written records were the Sumerians, whose writing is called cuneiform. As of today, hundreds of thousands of clay tablets of varying sizes have been unearthed, dating from about

3200 BC to 100 AD. Modern researchers have been studying these Sumerian tablets in efforts to learn the meaning of the 600 or so common cuneiform signs. Though many of the tablets have been translated, there are perhaps 100,000 that have yet to be deciphered and probably more that have yet to be uncovered.

Cuneiform is a series of wedge-shaped signs arranged in crosses and slashes to form words. Scribes, the official writers of ancient times, pressed squared-off reeds into wet clay tablets to form the symbols. Scribes were usually trained from childhood to learn and use the many signs. Most of the writings that have been translated are records of taxes and business deals, but there is also information about religion, science, medicine, and ancient legends. The most famous of the tablets is about the hero King Gilgamesh.

Counting Sheaves

Numbers in Sumer were probably first used to keep records of trade. Originally, different trade goods were shown by different symbols repeated to show quantity. For example three sheaves of grain were illustrated by three "grain marks." Though there had to be as many different symbols as there were products, this system worked well enough for small quantities. As trade grew, though, there was a need for a simpler counting system.



Gradually the Sumerians devised a better means of recording trades. They used the same symbol to represent "three" whether it was three bundles of grain, three chickens, or three jars of oil, followed by a symbol for the product. While their system was still somewhat difficult to use, it was far better than their earlier method and allowed for writing much larger numbers.

Free Wheeling



Archaeologists cannot be certain of who invented the wheel. It most likely developed over time from rolling logs under heavy loads to wheels on axles under chariots and carts. Still the Sumerians are credited with being the first civilization to make wide use of the invention. People of Sumer rode in chariots and

carts and they also adapted the wheel for use in making pottery.

Sumerian carts, like the one shown above, had two wheels fixed on an axle and were pulled by oxen or other animals. The idea for such a vehicle is believed to have come about as an offshoot of the Sumerians' use of animals to pull plows for farming.

The pottery wheels used in Sumer were simple, rough, circular tables from one to three feet across. They were supported a few inches from the ground, pivoting on a kind of small axle in the center and spun by hand. The pottery wheel allowed the potter to create fine, balanced bowls, plates, and jugs in less time than hand building and with far less effort.

Contributions of Ancient Mesopotamia

