

## Images 1



[www.phoenix.gov/parks/pueblo.html](http://www.phoenix.gov/parks/pueblo.html)



Arizona State Museum, University of Arizona

Helga Tiewes, photographer

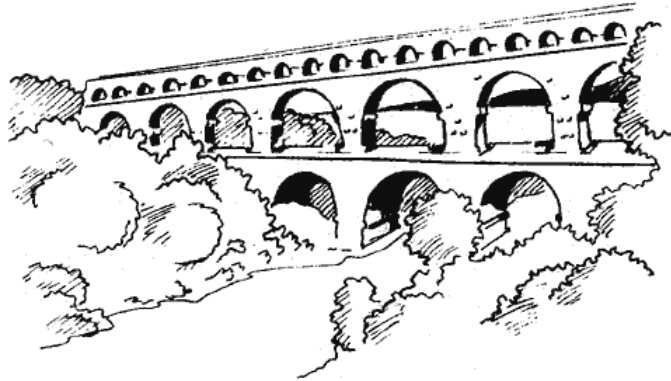
## Images 2



<http://www.TravelingInSpain.com/>



## Student Reading



[www.waterhistory.org](http://www.waterhistory.org)

### Ancient Aqueducts and Canals

What do you do when you're thirsty for a drink of water? At school you go to the drinking fountain. Maybe you go to the kitchen faucet at home. Stop to think how you get water.

Water is very important for everyone. We will read about two groups of people who lived long ago. We will read how they got their water for drinking, for cooking, for bathing, and for watering their crops. These two groups lived in different times and places. They are alike in how they got water to where they needed it. Like all people, they depended on water to live.

#### The Romans



Roman coin

<http://worldimages.sjsu.edu/>

The Ancient Romans lived a long time ago. They lived in parts of Europe, Asia, and North Africa. They are remembered for their government, their

language, and their army. They were very good at building roads, buildings, and bridges. It is amazing that the Romans used very simple tools and no machines. They had to use human and animal power. They used rocks, wood, and concrete.



Roman girl with olives

<http://worldimages.sjsu.edu/>

The Romans invented concrete. Rocks, sand, and water are used in concrete. Concrete holds things together. The Romans also used arches, or curved openings, to make buildings strong. They were very sturdy. Many are still standing today. People copy what the Romans built. They were that good!

The Romans lived in large cities. At one time, the city of Rome had one million people. Their large cities needed lots of water, but the water was far away. The Romans built aqueducts to bring water to their cities. Over two hundred Roman Empire cities had aqueducts. Can you believe that one aqueduct was 40 miles long? Roman farmers used the water from aqueducts to irrigate their crops.

Most aqueducts ran under ground. Some ran above ground. They looked like tall bridges. Some aqueducts connected the tops of mountains. They carried water from mountain lakes to the cities and farms. Aqueducts were made with concrete. The water ran in a large pipe on the top of the aqueduct.



Roman pipe

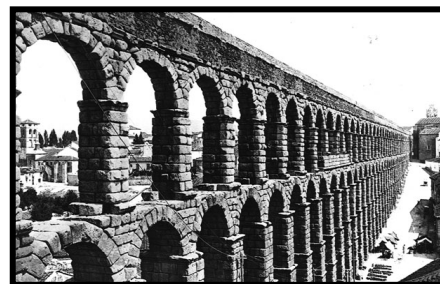
Courtesy Trustees British Museum

Much about the Romans has disappeared. Some aqueducts have lasted. Some are in Spain. Some are in France. When we look at the aqueducts, we can imagine how the water came from the mountains to Roman cities and farms.



Roman aqueduct

<http://worldimages.sjsu.edu/>



Roman aqueduct

<http://www.primarysourcelearning.org/>

## The Ancestral People of the Sonoran Desert



Ancestral People of the Sonoran Desert (Hohokam) canal

Long ago many groups of people lived in the American Southwest. One group is called the Ancestral People of the Sonoran Desert (Hohokam). The Ancestral People of the Sonoran Desert lived after the Romans. The Ancestral People didn't leave written records. They left their pottery, shell jewelry, and canals in the deserts of Arizona.

The Ancestral People were hunters and farmers. They lived close to the Salt and Gila Rivers, near Phoenix and Tucson today. They depended on the rivers for their crops. Very little rain falls in the Arizona desert. The Ancestral People needed lots of water for their fields. Their canals brought water from the rivers to their crops. The Ancestral People built the largest early irrigation system. They are best known for their canals.

The Ancestral People of the Sonoran Desert built over three hundred miles of canals. They didn't use machines or animals. The people used stone hoes and digging sticks in the hard soil. Can you imagine all the work? Then they piled up dirt to build up the walls of the canals. The bottom and sides were lined with clay. The clay helped to keep the water in the canal.

The irrigation system spread out like roots of a tree. Sometimes water reached fields twenty miles away from the river! Because of the canals, the Ancestral People were able to grow crops in the desert.

Today you won't find the Ancestral People of the Sonoran Desert people anywhere. Some of the modern Native American tribes may include people related to the Ancestral People. And modern settlers to Arizona used their canal system for the beginning of Arizona's modern canals. These newer canals still bring water to the people and the fields just like the canals of the Ancestral People.

## Writing Prompt **Answer Key**

*Ancestral People of the Sonoran Desert description* possible answer:

The Ancestral People of the Sonoran Desert people were farmers, and they needed to get water from the rivers to their crops. They made canals by digging up the dirt with stone hoes and digging sticks, and then they piled it up to make the walls of the canals.

*Roman description* possible answer:

The Romans built aqueducts to bring water to their big cities and to their farms. The aqueducts went from the mountains to wherever the Romans needed water. The Romans used rocks, wood, and concrete to build their aqueducts.

## Writing Prompt

You work for National Geographic's Kids Magazine. Their next issue will include an article about how ancient people got their water. The photographer has taken pictures of Roman aqueducts standing today and pictures of what is left of the Ancestral People of the Sonoran Desert's canal system. Your assignment is to draw pictures of how the people built the aqueducts and the canals long ago. Then you will write three sentences describing each of your drawings.

Your ***Ancestral People of the Sonoran Desert drawing*** must include:

- how the canal might have looked then (5 pts)
  - people working on the project with their tools (5 pts)
- total = 10 pts for drawing

Your ***Ancestral People of the Sonoran Desert description*** must be at least three sentences long and include:

- the name of the civilization (3 pts)
  - why the canal was built (3 pts)
  - the materials the Ancestral People of the Sonoran Desert used to build their canals (3 pts)
- total = 9 pts for description

Your ***Roman drawing*** must include:

- how the aqueduct might have looked then (5 pts)
  - people building the aqueduct with their tools (5 pts)
- total = 10 pts for drawing

Your ***Roman description*** must be at least three sentences long and include:

- the name of the civilization (3 pts)
  - why the aqueduct was built (3 pts)
  - the materials the Romans used to build their aqueducts (3 pts)
- total = 9 pts for description



**Ancestral People of the Sonoran Desert**    Name \_\_\_\_\_

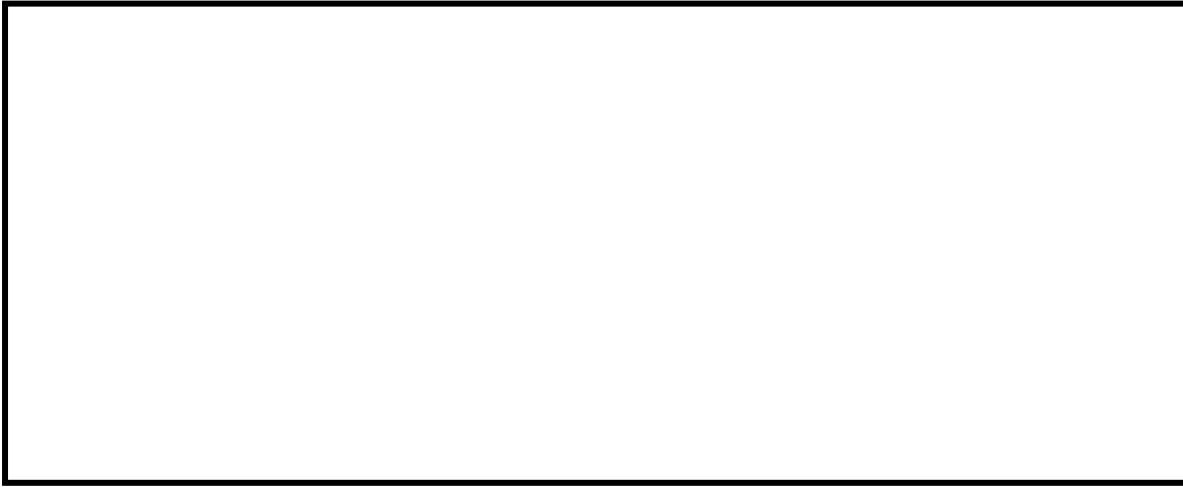
**Now**



[www.phoenix.gov/parks/pueblo.html](http://www.phoenix.gov/parks/pueblo.html)

This is what remains today in Phoenix, Arizona, of the Ancestral People of the Sonoran Desert canals.

**Then**



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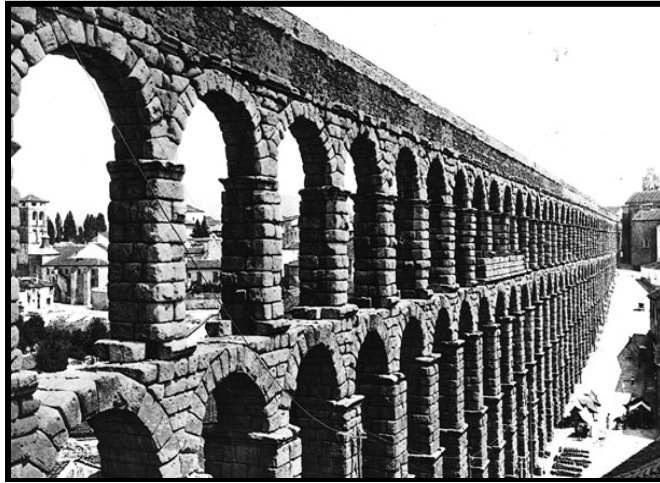
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## Roman Now



Library of Congress [http://lcweb2.loc.gov/frd/cs/spain/es01\\_02.jpg](http://lcweb2.loc.gov/frd/cs/spain/es01_02.jpg)  
This aqueduct still stands today in Spain.

## Then



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