

WATER SUPPLY IN ANCIENT MEDITERRANEAN

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Human societies have always faced the challenge of supplying sufficient quantities of adequate quality drinking water. A society's ability to make clean drinking water available to its citizens – and the means it uses to ensure the constant and reliable supply of this vital resource – provide a unique historical survey of the society's development and its equity.

Provision of clean drinking water is a prerequisite of any enduring society and in ancient times it served not only as a political resource, as it was an important element of citizen care, but it also played a socio-cultural role, showing the wealth of a certain region. In addition to its primary physiological importance, several religious elements were attached to it due to its purifying and healing qualities. Therefore ponds and springs were respected as ritual places. In the well-known Delphi sanctum, for example, the prophetess swam in the spring near the Castalia to purify herself prior to the prophecy *phythia* as part of the oracle's ritual.

Early settlements could only emerge in close vicinity of water sources, in contrast to modern systems where the situation of the habitation is basically not related to direct water sources. In ancient times access to water was a basic right of all citizens. The leader of the community, independent from the complexity of the settlement, needed to arrange the adequate quantity and quality of water accessible to all members of the society.

The Greek and Roman civilizations were primarily urban. As the natural water supplies (rivers, rainwater collected in cisterns and so forth) could not meet the demands of the whole population, development of a constant and stable water-supply became a fundamental requirement. In the 4th century BC, Peisistratos, the tyrant of Athens, constructed a public well

house on the Agora, which was the first building of its kind. Using this sort of social care, he obviously intended to favour his supporters in the public order. From this moment on we can speak of organized urban water supply, which significantly characterized the urban civilizations. We can deduce in what way

water supply belonged to the concept of the *polis* from Pausanias famous work, the *Guide to Greece*, where he wrote about Panopeus, a town situated in the underdeveloped region of Phokis: "if you can call it a city when it has no state buildings no training-ground, no theatre, and no market square, when it has no running water at a water-head and they live on the edge of a torrent in hovels like mountain huts" (X 4,1).

Under the reign of the Mediterranean's dry climate the water supply could only be assured by the inventiveness of the engineers. They even carved underground water channels into the rocks. The most typical example of this is the tunnel in Samos, where water flowed through a 1636-metre long underground channel carved into the mountain. The tunnel, which was built around 530 BC, was considered a remarkable engineering achievement in its era.

In the Roman Empire, organization and technical perfection of the water supply

developed even further, thus representing the highest standard of its age. The state was responsible for the water supply of the cities. As in bigger cities local sources of drinking water were not enough for the residents, so clean water had to be conducted from distant fountains to the wells and public baths of the cities. Differences could be observed in the access and consumption of water between the 'haves' and 'have-nots'. While wealthy families obtained water from their own well and possessed a bathroom, the poor strata were compelled to carry water from the public wells or employ a water carrier for this purpose.

The water system of the city of Rome was considered to be the most advanced system in its time. Most wells were erected during the reign of Augustus (27 BC - 14 AC), when seven hundred wells and 150 fountains were built as 'emperor's gift', in this way almost every corner had a well, which was free for Roman people. The metropolitan water supply was not limited to providing only drinking water. Personal hygiene was also a major issue in the day-to-day life of Romans. Their famous public baths played an important part in this. These baths were used both by

HISTORY

WATER PROVERBS

“ Any water in the desert will do
(Saudi Arabia). ”

“ Water from the well and naked women throw men in their graves
(Argentina). ”

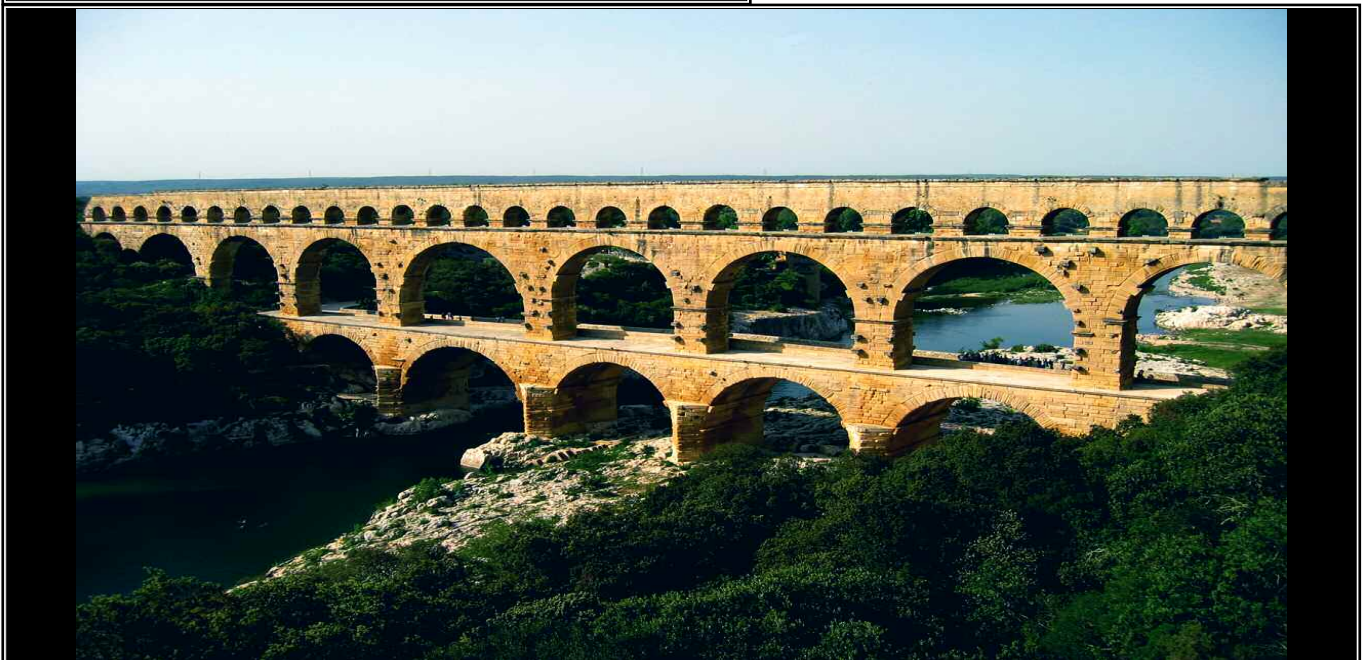


Indor Aqueduct. Photo by Samuel Bengé.

Water was conducted to the city by using two- or three-storey high arched stone aqueducts that gradually declined and thereby provided for the constant flow of water to its final destination. By the 3rd century AD, almost a hundred cities had one or more aqueduct systems in the area of the *Imperium Romanum*. Their construction meant great prestige for the city. Thus the aqueducts, thoroughly enmeshed the urban areas of the Empire, became one of the most important material symbols of the Roman civilization. ■

SOURCES

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Roman Aqueduct, Pont du Gard, Nîmes (France), 19 BC - AD 103.

Photo by Veronika Szlávik.

rich and poor. Most Roman settlements contained a public bath of some sort. Because fire was a constant concern, Romans were encouraged to keep water stored in their apartments. Furthermore, great amounts of water were used for floor and wall heating and for watering the few public parks, as well as the privately owned urban vegetable gardens. For the water supply of the ever-growing cities (e.g. in the city of Rome in 1st century AD water consumption of the approximately one million inhabitants reached the daily high of 700.000 - 1 000 000m³), water was often conducted to the city from remote sources, for example, in Roman Cartago (Carthage) that meant it travelled 132 kilometres. Water arrived to the water towers of the city first, where it was distributed from among apartment houses, wells, water pools, and baths. However, water was only free at public well houses or public baths, on the other hand private houses, baths and gardens needed to pay for the water, although not a considerable amount.



Roman Aqueduct, Segovia, (Spain), AD 50. Photo by Damian Gorrison.