

# Running water's effect on roman society

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One of the greatest civilizations of all time was Ancient Rome. They conquered most of the known world, which influenced most of the ancient and modern cultures. Their achievements in architecture rendered modern observers speechless, and brought great wealth to the Roman Empire. By far the greatest achievement in Roman history came in the form of running water. The three part system, which was developed by early Etruscans, kept diseases away and saved time. This system included the entrance, use, and exit of ancient Roman water.

According to numerous historical texts, ancient Romans relied upon the water from the Tiber River, small springs, and shallow wells. Said water had to be carried in buckets to the city in many grueling passages. Over time, the water became insufficient for the growing population of Rome, and to rectify this problem, aqueducts were built. Most of the information on the aqueducts in ancient Rome comes from Sextus Julius Frontius, the water commissioner in the 1st century A. D.

He described in proud detail the sources, length, and function of each of Rome's aqueducts, and he believed that the Roman achievements in water management were more important than anything else. ". . . With such an array of indispensable structures carrying so many waters, compare if you will, the idle Pyramids or the useless, though famous works of the Greek" (Frontius, trans. By Bennet, 1961). Here, Frontius shows he cares little about the beauty of a monument, for his appreciation lies with the function it is created for: to carry potable water to the cities of the Empire, especially in the case of Frontius, to ancient Rome.

The aqueduct system began at the source: a spring or river that looked to be suitable for the citizens of Rome, and ran at a slight decrease in altitude to the walls of the city. For example, the Aqua Appia, constructed by Appius Cladius Caesus in the year 312 B. C. , was 16, 445 meters in length, but it only dropped 10 meters in altitude from the source to its level in Rome (Lanciani, 1897). Modern engineers marvel at the miniscule percent error of Appius Cladius Caesus' famous aqueduct. The way the Romans built these lines so perfectly was very simple.

If the workers came to a valley that interrupted the flow of gravity, they would build a tiered viaduct to keep the elevation in the same style; if they came upon a depression that was deemed impractical to build a viaduct, they would build an inverted siphon to move the water to and from its original height; and, lastly, if the workers fell upon a mountain or hill that obstructed the flow of the water, they would tunnel through the earth to ensure that the water reached its destination (Smith, 1978). I thought that Aqueducts only consisted of the two tiered bridges; sadly Norman Smith has proved me wrong. The popular but inaccurate image is that Roman aqueducts were elevated throughout their entire length on lines of arches... The system of aqueducts serving Rome had only 5 percent of its total distance supported by viaducts or bridges" (Smith, 1978). This shows that modern archaeologists have deceived many people. Their findings only include the wondrous two tiered bridges that are deceptively named, Aqueducts, whereas these structures are called viaducts, and Aqueducts are a name for the system that brings water from the source to the city.

After the water arrived in the city, it served a purpose depending on its quality. “ Roman water quality standards were remedial, taking into consideration only such factors as taste, temperature, smell, and appearance. Since the quality of water from the nine aqueducts varied, the worst waters were used for artificial lakes and irrigation, and the best for drinking. The aqueducts carrying water to Rome were covered to prevent the water from being contaminated by dust, dirt, and other impurities and from being heated by the sun.

The best quality waters came from the valley of the Anio River” (Hansen, 1983). This quote shows that the quality of the water brought into the city determined the purpose it served, such as, water for fountains, drinking, latrines, public baths, cleaning the streets, for putting out fires, and, occasionally, for mock naval battles. Latrines in ancient Rome consisted of large, circular or square rooms. The seating was that of a short marble countertop with a circular hole on top and a square hole cut from the edge.

At the feet of the user was a trench, and running water flowed through the trench. Every Roman had their own sponge on a stick; they would dip their sponge in the fresh water, and use it to clean themselves accordingly. This was a huge step in public sanitation. It cut down the spread of nasty diseases, which were running amok in the ancient times. Even today, though we do not clean ourselves with sponges, there is still a square slot cut, similar to the one in ancient Rome, in most modern toilets. Public baths served not only for bathing, but for every social interaction in Roman culture.

People went to the baths practically all day to play games, discuss politics, exercise, read, lecture, listen to musical performances, and engage in prostitution. Waters of these baths were changed several times daily and used massive amounts of water. Mock naval battles, such as the one on lake Naumachia were the most entertaining of all spectacles put on by the ancient Romans. “ Another popular form of entertainment was the sham naval battle on arti[fi]cial lakes (Naumachia). These not-so-sham battles were the most elaborate of all spectacles offered at Roman celebrations.

The contestants butchered one another until one side or the other was eliminated; the victors, if they fought bravely, were occasionally given their freedom. The Emperor Domitian had the arena of the Coliseum flooded and reproduced an historic naval battle. Special piping was installed under the floor for flooding. The arena, however, proved to be too small. Roman historians report that Domitian staged sham naval battles with almost regular fleets, having dug an artificial lake near the Tiber River and surrounded it with seats... Generally the aqueduct with poorest quality water was used to fill the naumachia” (Hansen, 1983)

Emperor Domitian used the Coliseum, the Flavian Amphitheater, to stage mock naval battles as well, but it was too small, so he returned to filling Lake Naumachia. These quotes show that the ancient Roman people depended greatly on the aqueducts of Rome. The range of water delivered by the aqueducts varies from a low of 322, 000 cubic meters per day (Herschel, 1913) to a high of 1, 010, 623 (Ashby, 1935). Roman water management was highly impressive, although the rich and influential received a much greater amount than the lowly citizens' share.

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Good portions of this water were dumped into the street; this helped for the destruction of diseases because it kept the streets clean, by moving these hazards into the sewer system and out from under the feet of passerby.

Virtually all water that entered the city of ancient Rome left via the Cloaca Maxima, and its main outlet was the Tiber River (Hansen, 1983). Several years before the birth of Christ, engineers built the Cloaca Maxima, which was the drainage and wastewater collection system in the ancient city of Rome. It still exists, and is used today, sparingly.

Not everyone used the Cloaca Maxima, for it was highly taxed. The lazy, the misers, the poor, and the invalids had to resort to chamber pots. These would be emptied into the sewer nearby or dumped directly into the street, causing a passerby to receive an “ unwanted gift” (Hansen, 1983). “ From every towering roof the rubbish falls, striking the head, and injuries grow rank. See how pots strike and dint the sturdy pavement There's death from every window where you move. You'd be a fool to venture out to dine, Oblivious of what goes on above, Without you having penned the dotted line

Of your last testament, You can but hope they spill a [chamber pot]. ”

(Juvenal, trans. Jerome Mazzaro, 1965) One can see the irritation that jumps from the quote of Juvenal, and it shows that this practice was highly frowned upon in ancient Roman society. If a free man was struck by one of these projectiles, in addition to medical fees and other expenses, he could be paid in a similarity to Workman's Compensation from the guilty party (Carcopino, 1940). This poem adds emphasis to the unorthodox disposal of waste, in addition to the orthodox methods of the Cloaca Maxima.

Water entered ancient Rome mainly through aqueducts, which made the entrance grand, profitable, and allowed for even lowly citizens to have fresh water; this water was used by the citizens in numerous ways, including latrines, public baths, and fake naval battles; and said water exited ancient Rome into the Tiber River through the Cloaca Maxima, which was the sewer system in ancient Rome, and the chamber pot. These wondrous events greatly influenced the culture of ancient Roman cities, which consisted of mostly the entire known world.

Consequently, this influence allowed for other civilizations to build upon the ideas of the ancient Romans, thus improving the architecture for societies to come. 1, 549 Words For this paper I used numerous quotes from the text of Roger D. Hansen, WATER AND WASTEWATER SYSTEMS IN IMPERIAL ROME, this paper was the basis for all of my citations because all of the citations are used for his cited support as well as mine. I did have a great understanding for the information that was given here, but I had trouble finding sources for the information I gained in Western Civilization class, because it was my knowledge.

That was a problem until I found this essay, but all references to his text are cited according to Hansen, and the references that he used in his paper are cited according to the works he used for support. Works Cited Ashby, Th. , 1935. *The Aqueducts of Ancient Rome* (ed. I. Richmond), Oxford. Carcopino, Jerome, 1947 (first published in 1940). *Daily Life in Ancient Rome*. Yale University Press, New Haven, Connecticut. Frontinus, Sextus Julius (trans. Charles Bennett), 1961. *Stratagems and the Aqueducts of Rome*. Harvard University Press, Cambridge, Massachusetts. Hansen, Roger D. 1983, <https://assignbuster.com/running-waters-effect-on-roman-society/>

WATER AND WASTEWATER SYSTEMS IN IMPERIAL ROME. Web. 5 Nov. 2010. .  
Herschel, Clemens, 1913. *Frontinus and the Water Supply of Rome*.  
Longman, Green and Company, New York. Juvenal, Decimus Julius (trans.  
Jerome Mazzaro), 1965. *Satire*. University of Michigan Press, Ann Arbor.  
Lanciani, Rodolfo, 1967 (first published in 1897).

*The Ruins of Ancient Rome*. Benjamin Blom, New York. Smith, Norman, 1978.  
*Roman Hydraulic Technology*. *Scientific American* 238: 154-161. Quotes:  
Ashby, 1935: " A high of 1, 010, 623 cubic meters of water delivered daily to  
ancient Romans" Carcopino, 1940: When in consequence of the fall of one of  
these projectiles from a house, the body of a free man shall have suffered  
injury, the judge shall award to the victim in addition to medical fees and  
other expenses incurred in his treatment and necessary to his recovery, the  
total of the wages of which he has been or shall in the future be deprived by  
the inability to work which has ensued. " Frontinus, 1961: ". . . With such an  
array of indispensable structures carrying so many waters, compare if you  
will, the idle Pyramids or the useless, though famous works of the Greek"

Hansen, 1983: " Romans without indoor facilities were forced into one of two  
options. For a relatively small charge they could enter one of the city's public  
latrines or they could use chamber pots...Rome's elaborate latrines were not  
a haven for the lazy, the misers, the poor, or the invalids. These latter groups  
had to resort to chamber pots. These were emptied into vats placed under  
the stairwells or, if vats were not provided, jars could be emptied into a  
nearby cesspool or an opening into the central sewer.



There were many who found their stairs too steep, the distances to cesspools or sewers too far, and who found it more energy efficient to empty the contents of their chamber pots from windows onto the streets below” “ The Roman sewer system probably carried off at least as much water as the aqueducts provided...The flow of the Tiber River was greatly increased by discharges from Rome's sewers” “ Another popular form of entertainment was the sham naval battle on arti[fi]cial lakes (Naumachia).

These not-so-sham battles were the most elaborate of all spectacles offered at Roman celebrations. The contestants butchered one another until one side or the other was eliminated; the victors, if they fought bravely, were occasionally given their freedom. The Emperor Domitian had the arena of the Coliseum flooded and reproduced an historic naval battle. Special piping was installed under the floor for flooding.

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heated by the sun. The best quality waters came from the valley of the Anio River” Herschel, 1913: “ As low as 322, 000 cubic meters per day delivered by aqueducts”