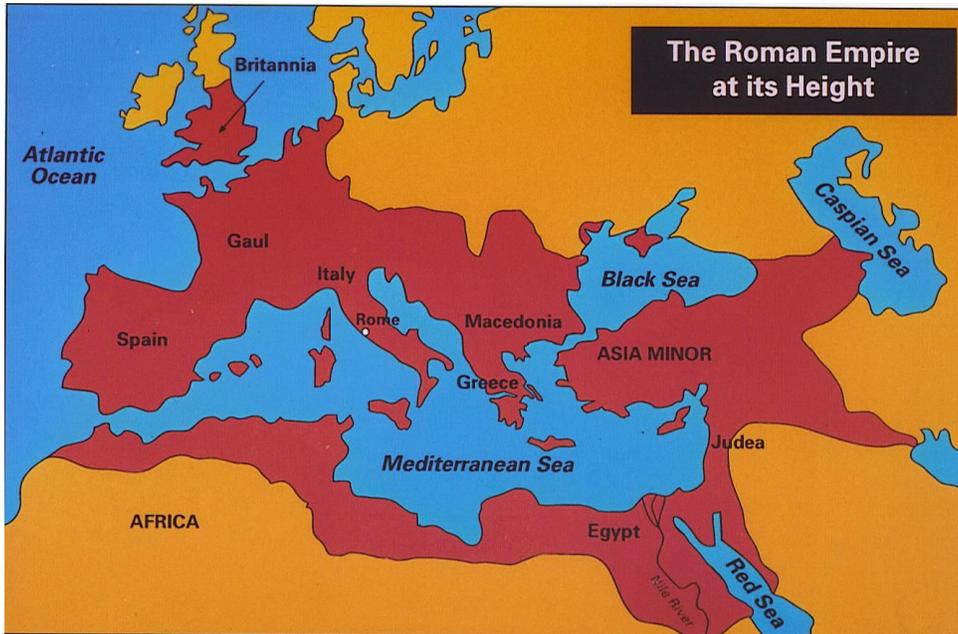


World History

Introduction to Rome (450 BC-AD 476)



Two thousand years after the collapse of Old Kingdom Egypt, a new civilization arose in the west. Rome ruled much of Europe and the Middle East for five centuries. Roman civilization lasted for almost one thousand years beginning around 450 BCE. By the time of the birth of Jesus in 7 BCE, Rome had conquered one of the largest empires on the planet. From 7 BCE to her fall in 476 CE, Rome sat astride the known world like a colossus. For five hundred years Western Europe, North Africa, and the Middle

East were all part of the Roman Empire. The Empire extended from the Atlantic Ocean in the west, to the Caspian Sea and Persian Gulf in the east, and from the North Sea in the north to the first cataract on the Nile in the south. Thirty legions, each consisting of 5000 of most disciplined heavy infantry on the planet, protected a population of fifty-five million. So effective were the Roman legions that the longest period of peace in human history is still the *Pax Romana* (9 BCE-476CE), Latin for the “*Roman peace.*” For close to half a millennium (500 years!) the Roman world experienced war only along the very distant borders of the empire. Within the Empire itself reigned nothing was but peace and prosperity.

The Romans are famous for their advanced engineering accomplishments. Over 240,000 miles of road connected the empire from one end to the other. 50,000 miles of these roads were paved with stone and many are still in use today. Mighty bridges of stone spanned rivers and mountain valleys. Massive stone aqueducts, running for hundreds of miles, brought fresh water from the mountains into the cities, while underground sewage systems pumped out the waste from beneath Roman cities. The legions constructed bath houses wherever they marched. For the first time in human history bathing and daily hygiene became the norm. Advances in Roman medicine, coupled with an emphasis on sanitation pushed back the ravages of disease. The life expectancy for Roman citizens was an unprecedented fifty-five years. Roman markets overflowed with goods from every corner of the empire. The language of the empire was Latin and the citizens of the empire, regardless of ethnicity or national origin were protected under Roman law. For five centuries the known world thrived in the light of the *Pax Romana*. Here are some of Rome’s major accomplishments in more detail:

Roman Architectural Styles—the Roman were the first to extensively use the arch, mosaics and frescoes. Many ancient Roman structures like the Pantheon, the Coliseum and the Roman Forum are still standing today thanks to the development of Roman cement and concrete. The Romans first began building with concrete over 2,100 years ago and used it throughout the Mediterranean basin in everything from aqueducts and buildings to bridges and monuments. Roman concrete was considerably weaker than its modern counterpart, but it has proved remarkably durable thanks to its unique recipe, which used slaked lime and a volcanic ash known as pozzolana to create a sticky paste. Combined with volcanic rocks called tuff, this ancient cement formed a concrete that could effectively endure chemical decay. Pozzolana helped Roman concrete set quickly even

when submerged in seawater, enabling the construction of elaborate baths, piers and harbors. The Romans invented concrete. They built the largest free-standing dome in the world until the 20th century—the Pantheon in Rome, forty-five yards in diameter.

Roman Arches—have existed for roughly 4,000 years, but the ancient Romans were the first to effectively harness their power in the construction of bridges, monuments and buildings. The ingenious design of the arch allowed the weight of buildings to be evenly distributed along various supports, preventing massive Roman structures like the Coliseum from crumbling under their own weight. Roman engineers improved on arches by flattening their shape to create what is known as a segmental arch and repeating them at various intervals to build stronger supports that could span large gaps when used in bridges and aqueducts. Along with columns, domes, and vaulted ceilings, the arch became one of the defining characteristics of the Roman architectural style.

Roman Aqueducts and Viaducts—were the ancestors of modern viaduct (suspension bridges, etc.). Aqueducts would bring drinkable water from hundreds of miles away and were designed with just the right inclination so that the water would not run too fast (and erode the stone), nor too slow (and evaporate or become muddy). Combined with canals and sewers, they enabled a city like Rome to sustain a population of over 1 million. The Romans enjoyed many luxuries for their day, including public toilets, underground sewage systems, fountains and ornate public baths. None of these aquatic innovations would have been possible without the Roman aqueduct. First developed around 312 BCE, these engineering marvels used gravity to transport water along stone, lead and concrete pipelines and into city centers. Aqueducts liberated Roman cities from a reliance on nearby water supplies and proved priceless in promoting public health and sanitation. While the Romans did not invent the aqueduct—primitive canals for irrigation and water transport existed earlier in Egypt, Assyria and Babylon—they used their mastery of civil engineering to perfect the process. Hundreds of aqueducts eventually sprang up throughout the empire, some of which transported water as far as 60 miles. Perhaps most impressive of all, Roman aqueducts were so well built that some are still in use to this day. Rome’s famous Trevi Fountain, for instance, is supplied by a restored version of the Aqua Virgo, one of ancient Rome’s 11 aqueducts.

Roman Roads- "*All roads lead to Rome.*" This quote holds much truth as what Rome has left to Western Civilization is brought to light. At its height, the Roman Empire encompassed nearly 1.7 million square miles and included most of southern Europe. To ensure effective administration of this sprawling domain, the Romans built the most sophisticated system of roads the ancient world had ever seen. These Roman roads—many of which are still in use today—were constructed with a combination of dirt, gravel and bricks made from granite or hardened volcanic lava. Roman engineers adhered to strict standards when designing their highways, creating arrow-straight roads that curved to allow for water drainage. The Romans built over 50,000 miles of road by 200 CE, primarily in the service of military conquest. Highways allowed the Roman legion to travel as far as 25 miles per day, and a complex network of post houses meant that messages and other intelligence could be relayed with astonishing speed. These roads were often managed in the same way as modern highways. Stone mile markers and signs informed travelers of the distance to their destination, while special complements of soldiers acted as a kind of highway patrol.

Roman Law-*Subpoena, habeas corpus, pro bono, affidavit*—all these terms derive from the Roman legal system, which dominated Western law and government for centuries. The basis for early Roman law came from the Twelve Tables, a code that formed an essential part of the constitution during the early part of the Roman Empire. First adopted around 450 BCE, the Twelve Tables detailed laws regarding property, religion and divorce and listed punishments for everything from theft to black magic. The Roman Empire was a society of

laws. It was because of these laws that the Empire knew over five hundred years of peace and stability, called the *Pax Romana*.

Roman Legions- Traditionally the Roman legions were an all-volunteer army, composed only of Roman citizens. The legions were the world's first professional army since Sparta. Men signed on for twenty-five years. There were thirty Roman legions, each one consisting of 5000 men. The Roman legions were considered to be the best trained, best armed and best led military unit in the history of Western Civilization. In short, the legions were a killing machine that was unmatched in the Western world for over one thousand years. So efficient were the legions that an Empire of fifty-five million was protected by an army of 150,000 men! Rome believed that if a society wanted peace, they had to constantly prepare for war. Because of the greatest fighting force on the planet the Roman Empire achieved the longest period of peace in human history, the Pax Romana (7 BCE-476 CE).

Roman Medicine-The Romans invented many surgical tools and pioneered the use of the cesarean section, but their most valuable contributions to medicine came on the battlefield. Under the leadership of Augustus, they established a military medical corps that was one of the first dedicated field surgery units. These specially trained medics saved countless lives through the use of Roman medical innovations like hemostatic tourniquets and arterial surgical clamps to curb blood loss. Roman field doctors also performed physicals on new recruits and helped stem the spread of disease by overseeing sanitation in military camps. They were even known to disinfect instruments in boiling water before use, pioneering a form of antiseptic surgery that was not fully embraced until the 19th century. Roman military medicine proved so advanced at treating wounds and promoting wellness that soldiers tended to live longer than the average citizen despite constantly facing the hazards of combat. The Romans used opiates (opium) as pain killers and understood the medical benefits of cannabis for treating medical conditions. Every town in the Roman Empire had medical facilities that were clean, efficient and modern. Because of Roman medicine and a culture that valued hygiene and bathing, the life expectancy for Roman citizens was an unprecedented fifty-five years.

Roman Calendar-in 46 BCE Julius Caesar introduced the Julian system to align the calendar with the solar year. Caesar lengthened the number of days in a year from 355 to the now-familiar 365 and eventually included the 12 months as we know them today. The Julian calendar was almost perfect, but it miscalculated the solar year by 11 minutes. The Julian Calendar, name after its inventor (Gaius Julius "Caesar"), is almost identical to modern Western calendars used today. It had all the current months, which names all have meanings in Latin : January (from "Janus", god of the beginning of times), February (from "Februa" a Roman festival), March (from "Mars", the god of war), April (from "aprire" meaning "open", referring to the blossoming of spring), May (from "Maia", goddess of the fertility), June (from "Juno", goddess of women and marriage, hence the expression "June bride"), July (from Julius Caesar himself), August (from emperor Augustus), September ("7th", as March was the 1st month at the time, and September was thus the 7th month), October ("8th"), etc.