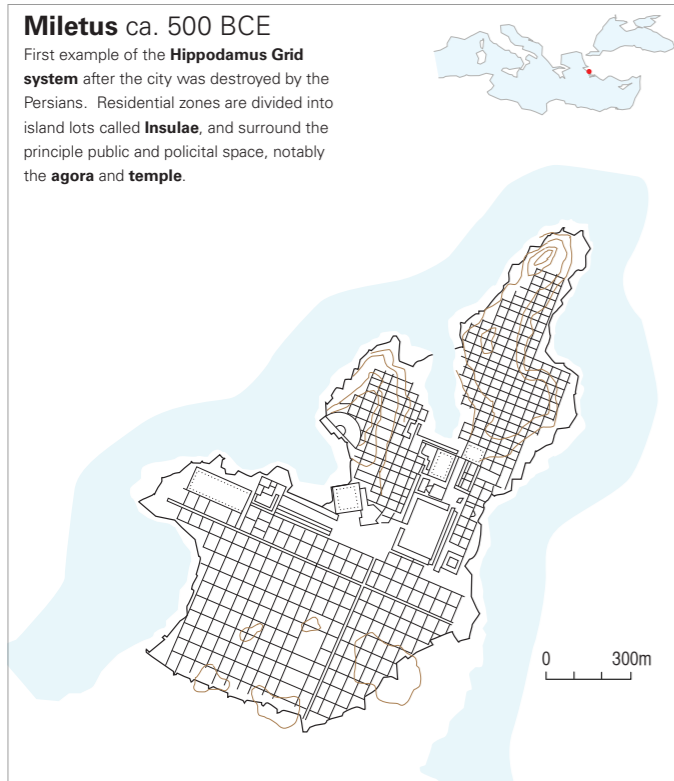


Roman and Byzantine Architecture

CITIES OF THE ROMAN EMPIRE

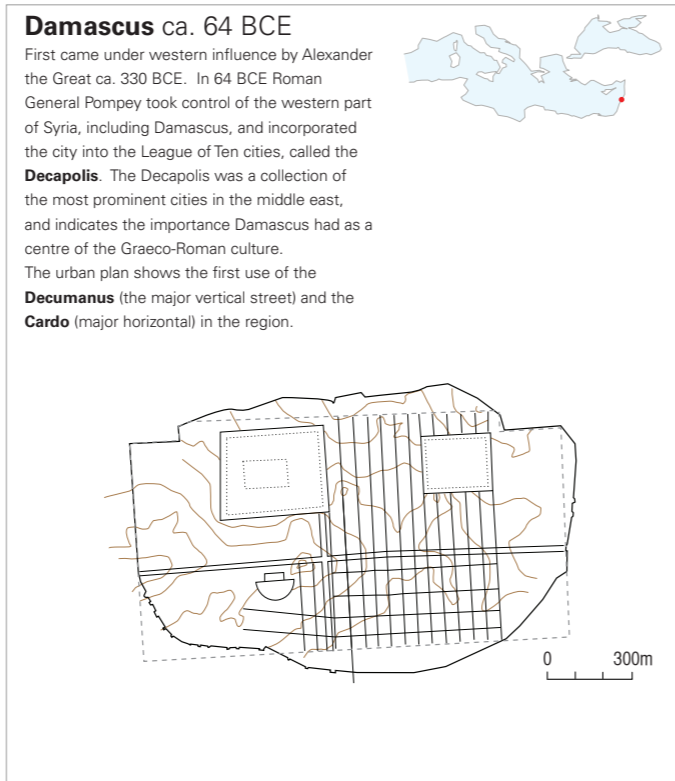
Miletus ca. 500 BCE

First example of the **Hippodamus Grid system** after the city was destroyed by the Persians. Residential zones are divided into island lots called **Insulae**, and surround the principle public and political space, notably the **agora** and **temple**.



Damascus ca. 64 BCE

First came under western influence by Alexander the Great ca. 330 BCE. In 64 BCE Roman General Pompey took control of the western part of Syria, including Damascus, and incorporated the city into the League of Ten cities, called the **Decapolis**. The Decapolis was a collection of the most prominent cities in the middle east, and indicates the importance Damascus had as a centre of the Graeco-Roman culture. The urban plan shows the first use of the **Decumanus** (the major vertical street) and the **Cardo** (major horizontal) in the region.



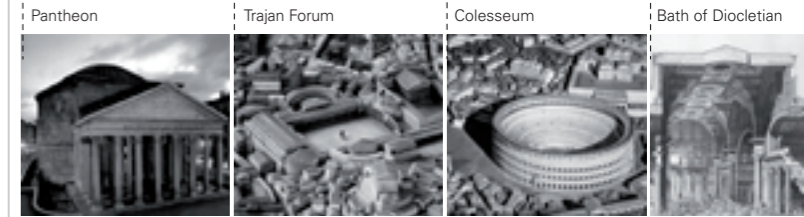
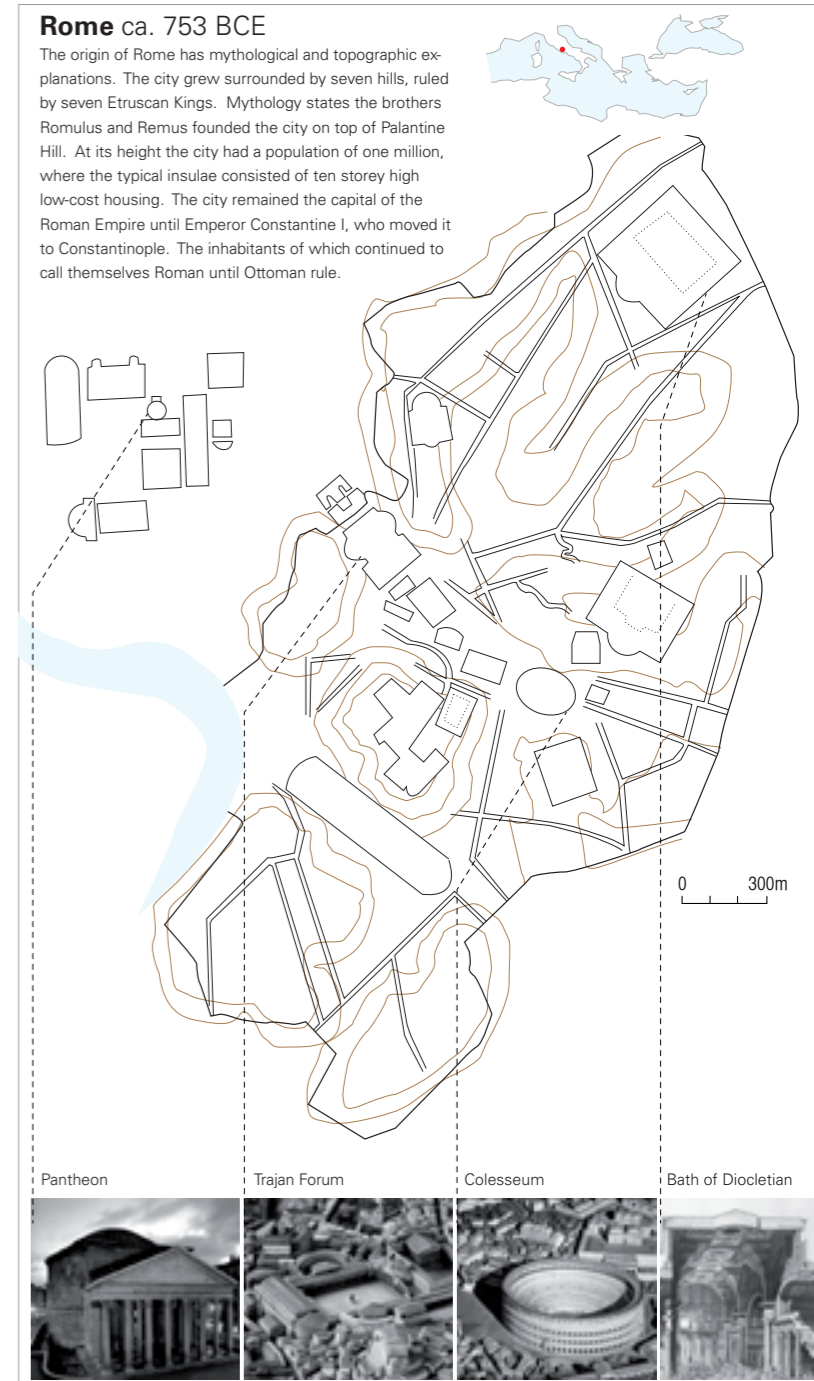
Augusta Raurica ca. 44 BCE

The oldest known Roman colony on the Rhine, founded by Lucius Munatius Plancus in the area of a local Gallic tribe. The city underwent most of its development in 15 BCE under Emperor Augustus.



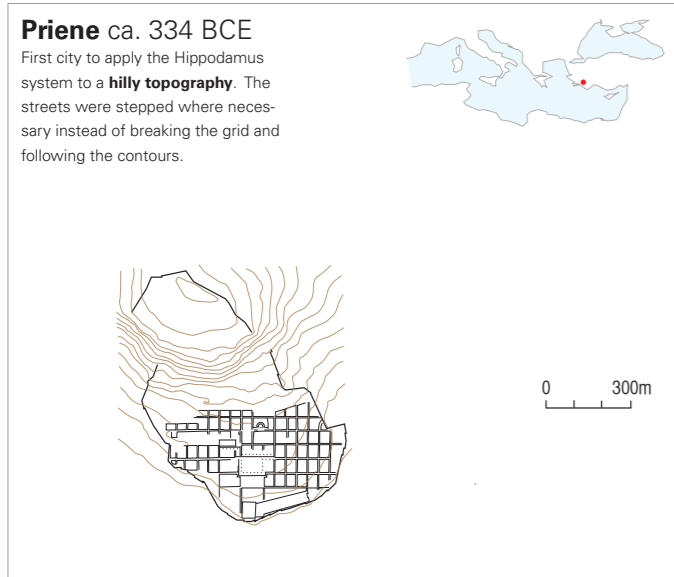
Rome ca. 753 BCE

The origin of Rome has mythological and topographic explanations. The city grew surrounded by seven hills, ruled by seven Etruscan Kings. Mythology states the brothers Romulus and Remus founded the city on top of Palatine Hill. At its height the city had a population of one million, where the typical insulae consisted of ten storey high low-cost housing. The city remained the capital of the Roman Empire until Emperor Constantine I, who moved it to Constantinople. The inhabitants of which continued to call themselves Roman until Ottoman rule.



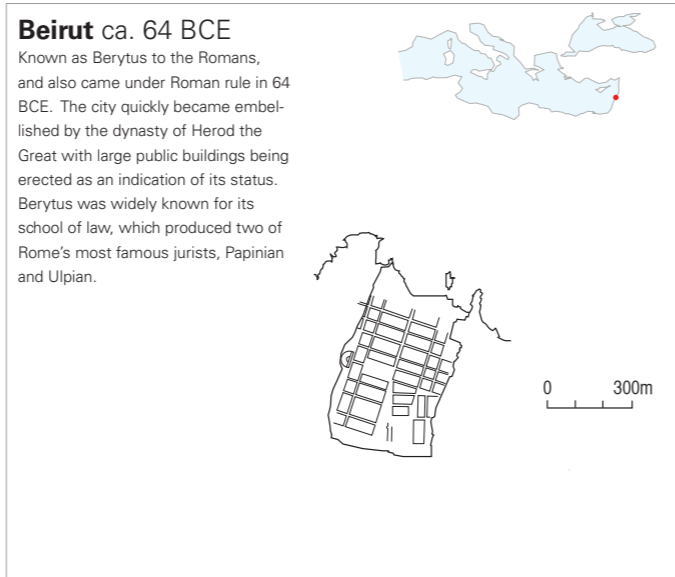
Priene ca. 334 BCE

First city to apply the Hippodamus system to a **hilly topography**. The streets were stepped where necessary instead of breaking the grid and following the contours.



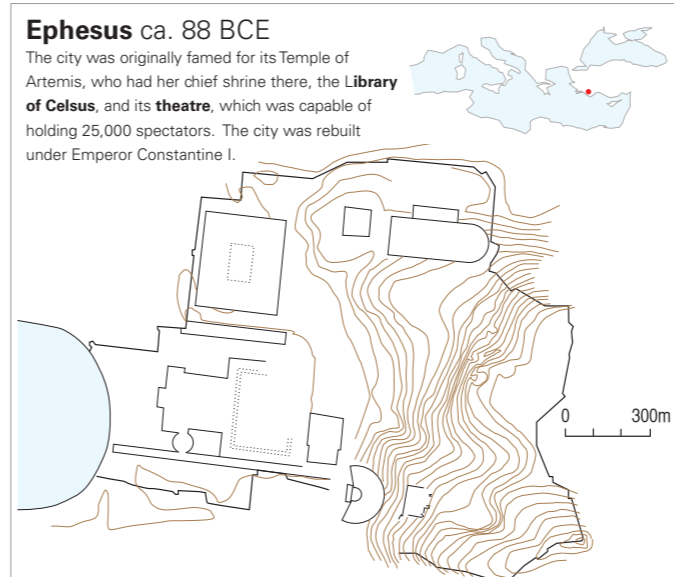
Beirut ca. 64 BCE

Known as Berytus to the Romans, and also came under Roman rule in 64 BCE. The city quickly became embellished by the dynasty of Herod the Great with large public buildings being erected as an indication of its status. Berytus was widely known for its school of law, which produced two of Rome's most famous jurists, Papinian and Ulpian.



Ephesus ca. 88 BCE

The city was originally famed for its Temple of Artemis, who had her chief shrine there, the **Library of Celsus**, and its **theatre**, which was capable of holding 25,000 spectators. The city was rebuilt under Emperor Constantine I.



Examples in the Middle East

Foundation of Rome

by Romulus and Remus ca. 753 BCE
Temple of Poseidon at Isthmia ca. 600 BCE

Miletus

Founded ca. 500 BCE
Parthenon ca. 447 - 432 BCE
Temple of Athena Nike ca. 425 BCE

Alexander the Great conquering Eastern Empire ca. 340 BCE

Priene

Founded ca. 334 BCE

Pergamon from 3rd Century

Petra Rock Tombs ca. 312 BCE - 106 CE

Pompey's takeover of Syria ca. 64 BCE

Damascus and Beirut come under Roman rule ca. 64 BCE

The Imperial Forums ca. 48 BCE - 112 CE

Antioch, Syria flourishes under Julius Caesar ca. 47 BCE

Theatre and gymnasium, Damascus Commissioned by Herod ca. 43 BCE

Foundation of Ephesus

ca. 88 BCE

Foundation of Augusta Raurica ca. 44 BCE

Emperor Augustus rules, use of concrete is common 31 BCE - 14 CE

Forum of Augustus, Rome begun ca. 24 BCE

Christ

Temple of Jupiter at Damascus ca. 14 CE

Colosseum ca. 72 - 80 CE

Architect Apollodorus of Damascus responsible for many public works under Trajan ca. 98 - 117 CE

Forum of Trajan, Rome ca. 105 CE

Pantheon ca. 125 CE

Hadrian's Villa ca. 118 - 134 CE

Temple of Jupiter at Baalbek Begun ca. 10 CE

Bouleuterion Theatre, Ephesus ca. 147 - 151 CE

Bath of Caracalla, Rome ca. 212 - 216 CE

Bath of Diocletian ca. 298 - 306 CE

Foundation of Constantinople ca. 324 CE

Basilica St. Peter ca. 330 CE

St. Maria Maggiore ca. 432 CE

Church of the Prophets ca. 465 CE

SS. Sergius and Bacchus ca. 525 - 530 CE

Hagia Sophia ca. 532 - 537 CE

St. Hripsime Church ca. the 7th Century CE

Umayyad Mosque ca. 706 - 715 CE

Major Roman and Byzantine Architecture

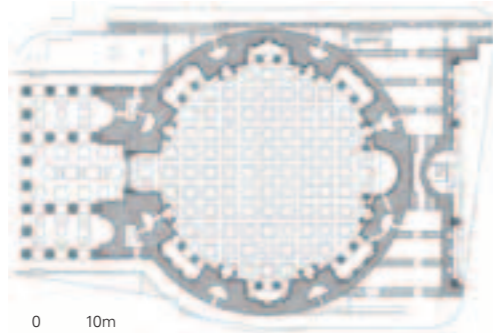
Roman and Byzantine Architecture

ARCHITECTURE TYPOLOGIES AND ELEMENTS

BUILDING TYPOLOGIES

Temple

Pantheon Rome
ca. 125 CE

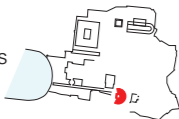


0 10m



Theatre

Bouleuterion Ephesus
147-151 CE



0 10m



Ampitheatre

Colosseum Rome
72 - 80 CE

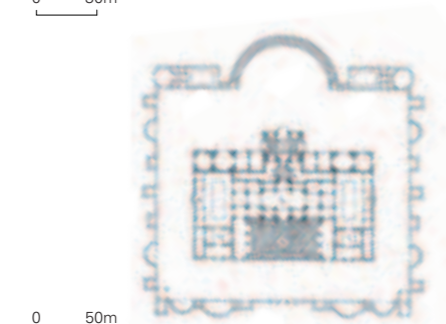


0 30m



Baths

Baths of Diocletian
Rome
298-306 CE



0 50m



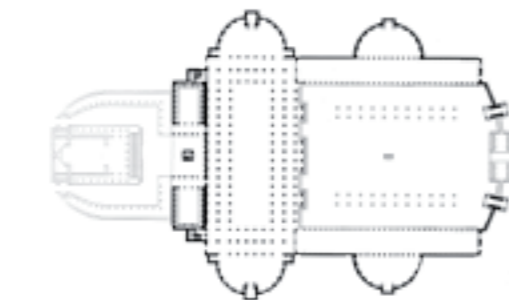
Forum

Basilica

Market

Trajan Forum Rome
105 CE

Architect: Hippodamus of Damascus

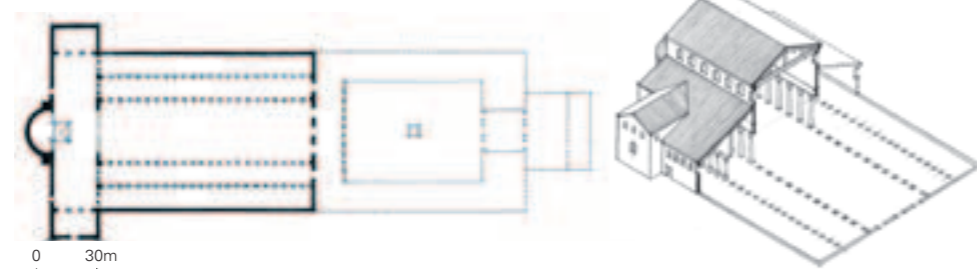


0 30m



Church

St Peters Rome
333 CE



0 30m

SYSTEMS

Structural Innovation

The use of concrete allowed the Roman builders to develop the Arch, the Vault and Dome.

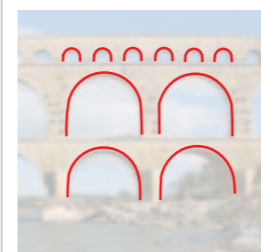
They achieved this with the use of complex formwork, and coffered domes to reduce weight



Formwork for a vault



Coffered Dome



The Arch
-made of Voussoirs, wedged-shaped stones



The Groin Vault
- An intersecting Barrel vault



The Dome

Wall articulation

With the onset of the arch as a more efficient structural concept to the post-and-beam, the Roman builders continued to articulate the wall combining the arch with the orders of the columns



Arch of Nero Rome
55 CE



Colosseum Rome
72 - 80 CE

Eastern Influences to Roman Architecture

Stylistic variations to Roman architecture began to appear in the Eastern cities of the Empire, as an appropriation to the culture and climate of the region. The most prominent of these is the Syrian arch



Standard entablature



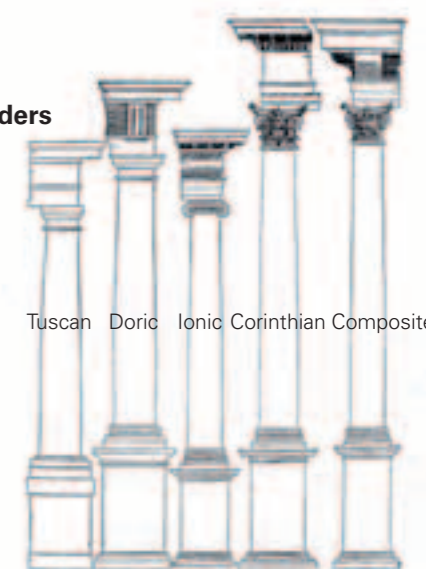
Entablature pierced by a central arch, known as the Syrian Arch

The great covered colonnaded axes where an idea of local eastern inspiration, combining prestige with the practical purpose of protecting shoppers and vendors from the sun



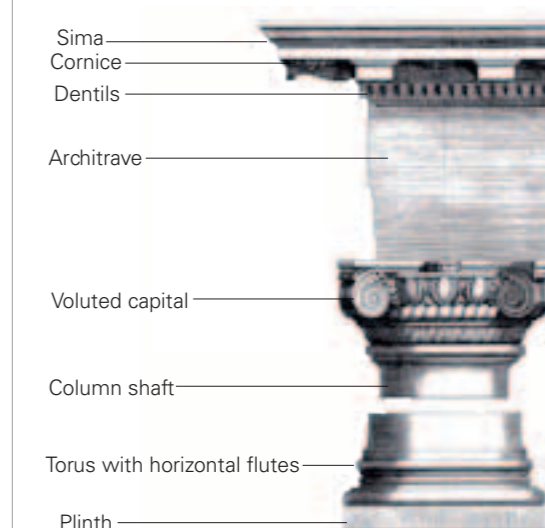
DETAILS

Classical Orders



Tuscan Doric Ionic Corinthian Composite

Ionic Order notation



Byzantine variations of the Composite Capital



SS. Sergius and Bacchus



St. Vitale



Basilica Eufrasiana



Salonica