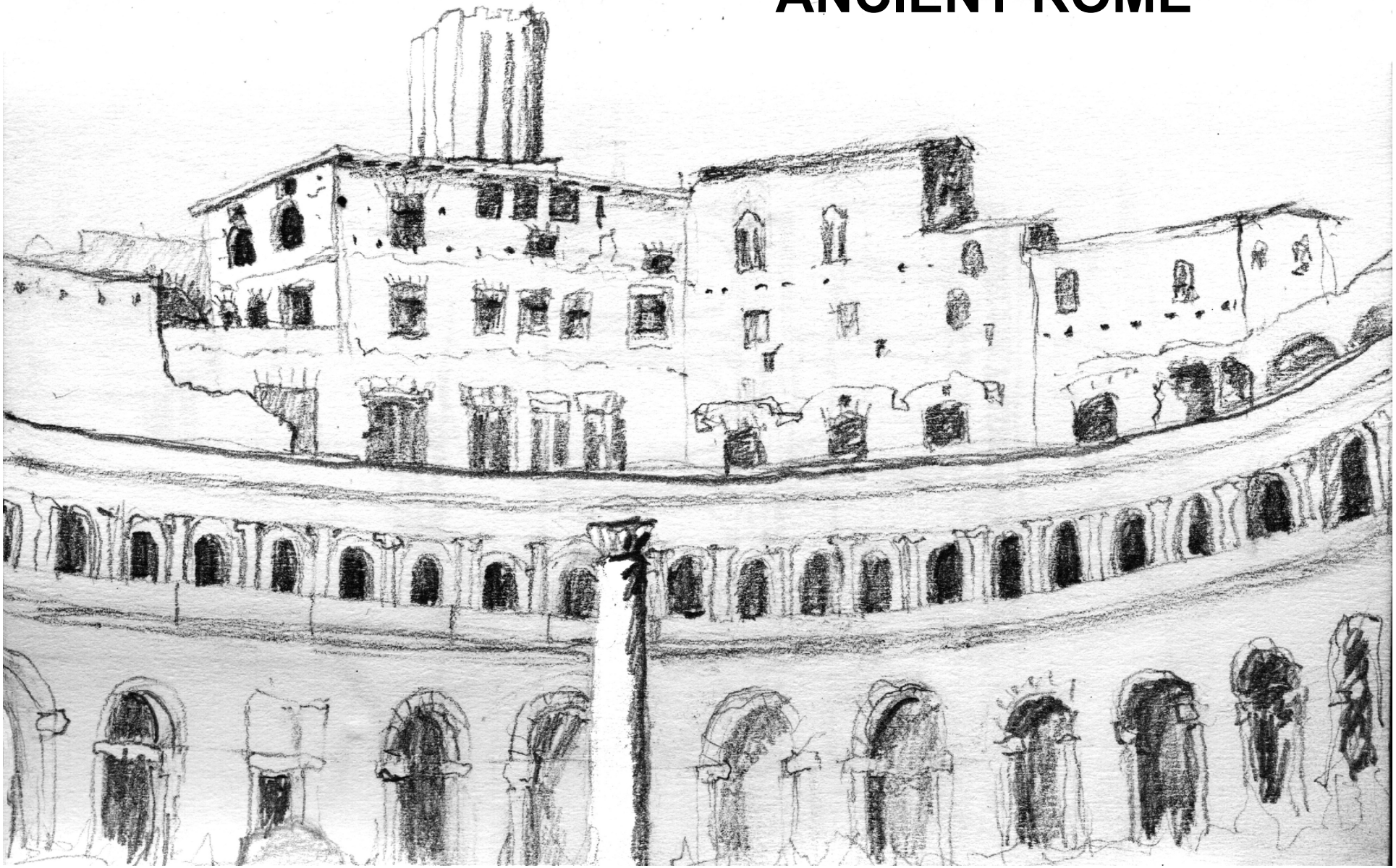
ANCIENT ROME



Trajan's Market
Alexander Aptekar

ARCH 1121 - HISTORY OF WORLD ARCHITECTURE TO 1900

Ancient Rome

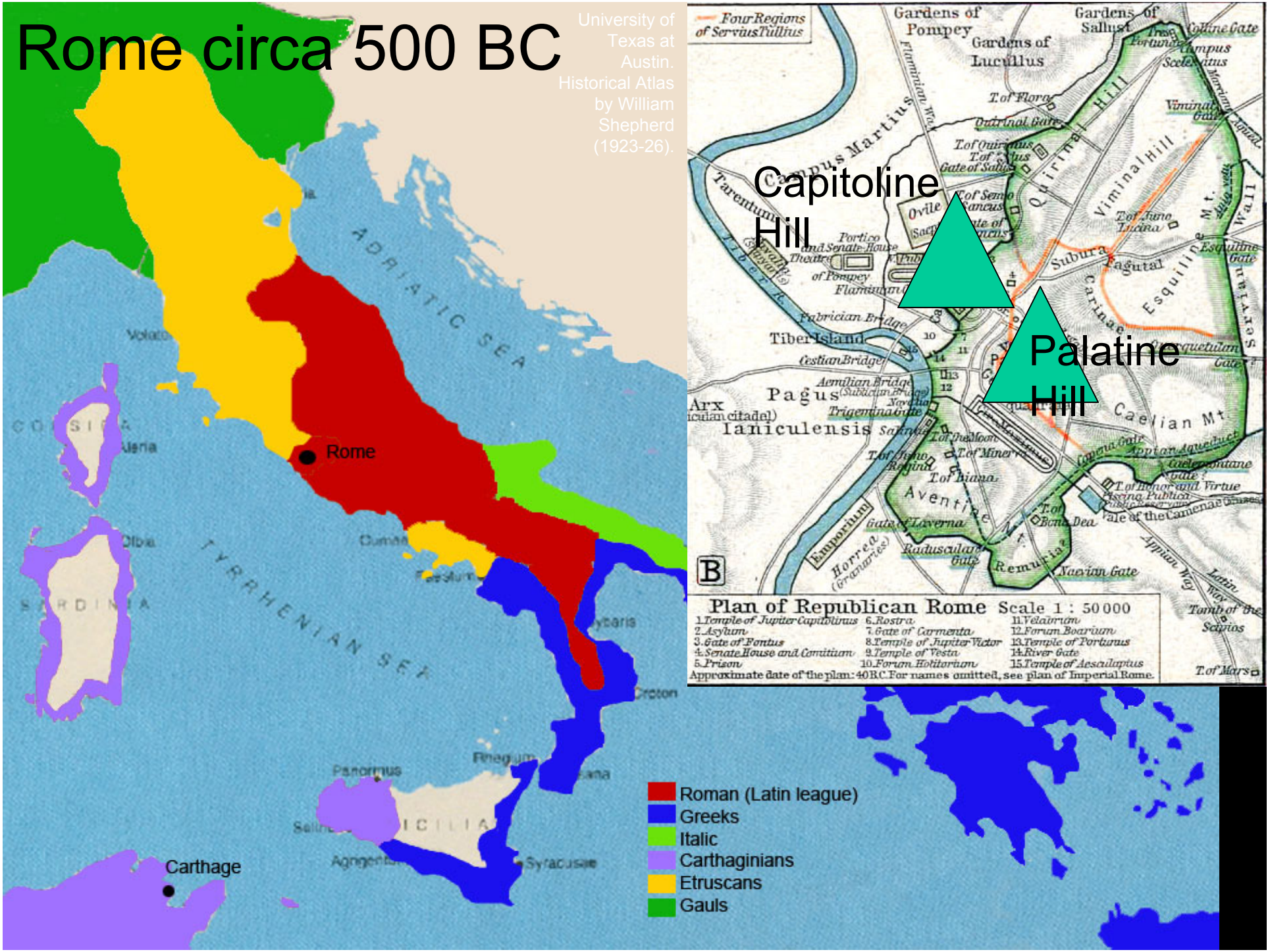
Professor: Shelley E Smith, PhD
email: ssmith@citytech.cuny.edu

Course Overview:

- What is architecture? What is history?
- Prehistoric, Mesopotamia, Egypt
- Early Aegean, Greece
- India & Southeast Asia, China & Japan
- Rome, Early Christian & Byzantine, Islamic
- Early Medieval, Romanesque, Gothic
- The Pre-Columbian Americas, Africa
- The Renaissance, Baroque, Rococo in Europe
- 18th Century & Neo-Classicism in Europe & America

Rome circa 500 BC

University of Texas at Austin. Historical Atlas by William Shepherd (1923-26).



Ancient Rome: the Master Builders

ARTstor Slide Gallery: Susan Silberberg-Peirce

Ancient Roman Architecture

Heavily influenced by Greek and Etruscan predecessors

- Greek Archaic & Classical Periods: 700-500 BCE & 479-323 BCE
- Etruscans: beginning c. 800 BCE, height of power c. 550 BCE

Dates in Roman History

founding of the city of Rome: 753 BCE

Roman monarchy: 753-509 BCE

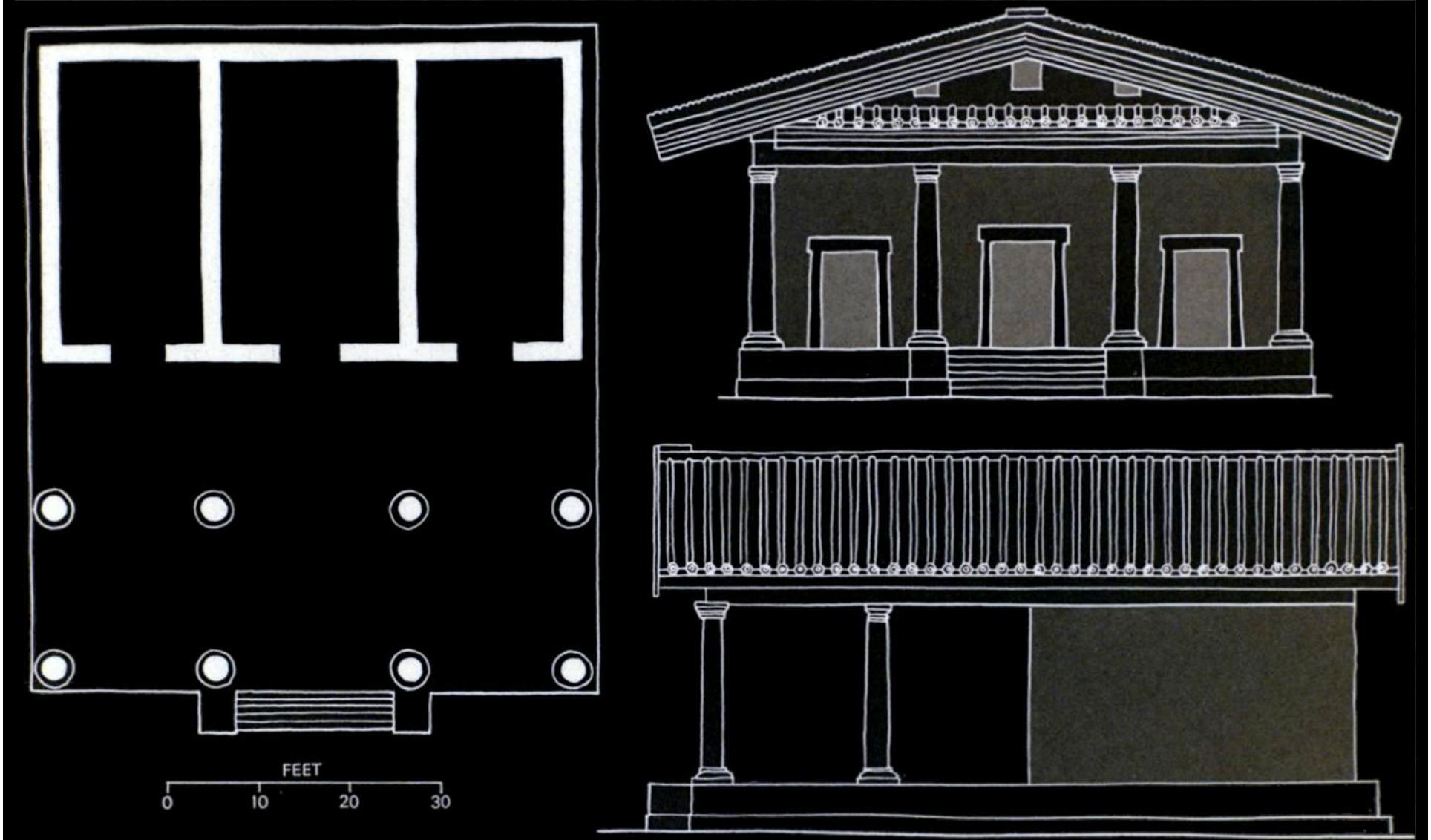
Roman Republic: 509-27 BCE

reign of Augustus Caesar: 27 BCE – 14 CE

Roman Empire: 27 BCE – 476 CE

Etruscan Temple: c. 500 BCE

[generalized plan and elevations after descriptions by Vitruvius]



Portonaccio Temple Model :

c. 500 BCE

Etruscan Necropolises of Cerveteri and Tarquinia 1st Century CE

whc.unesco.org

Burial Chamber, Tomb of the Bas-Reliefs: Cerveteri, Italy

By RedTony
Wikimedia Commons http://commons.wikimedia.org

Romans: Master Builders and Engineers

Bold and imaginative use of materials and construction techniques

- Highly developed use of concrete
- Extensive use of arches, vaults, domes

Public infrastructure

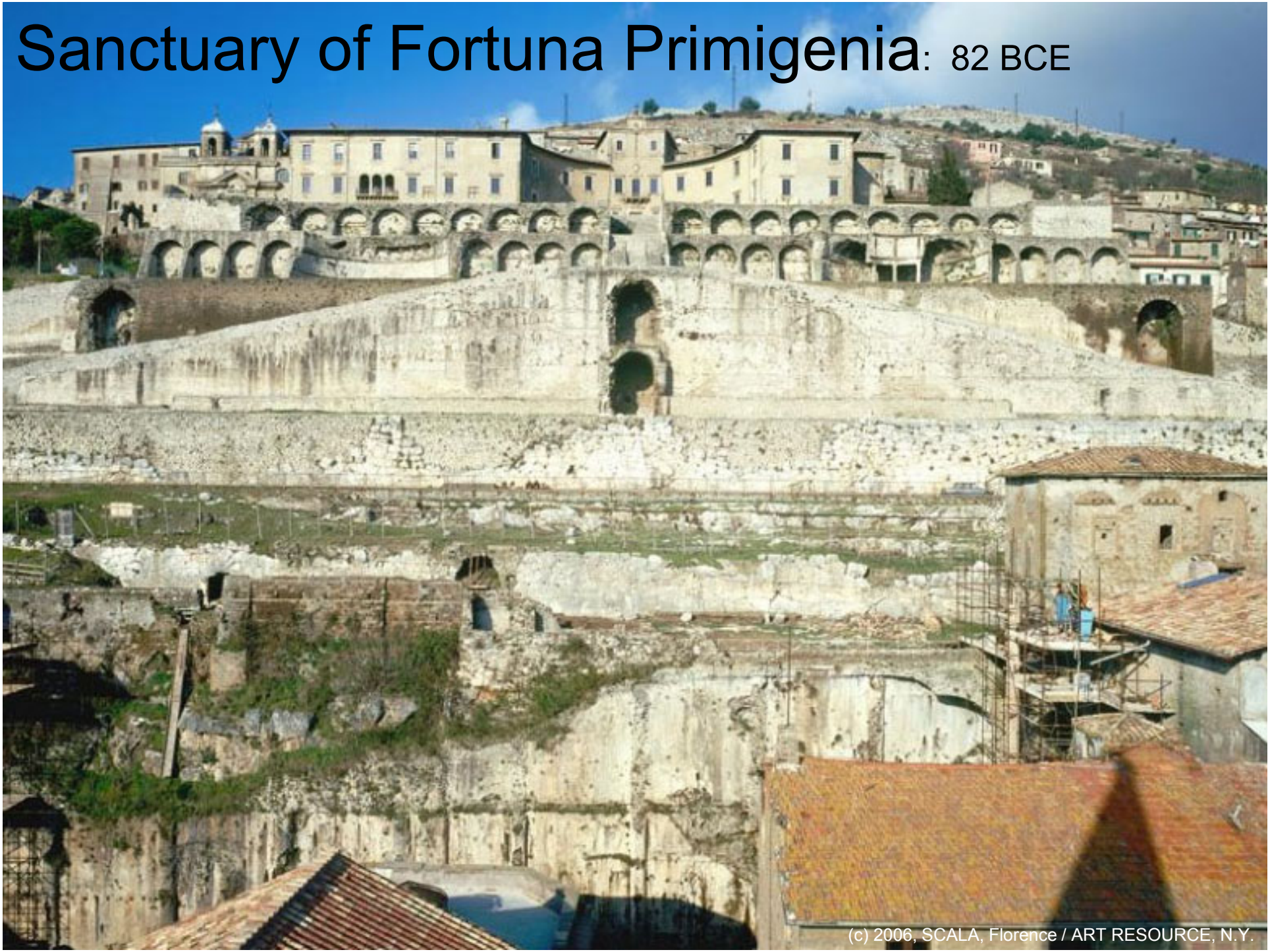
- Roads and bridges
- Aqueducts to provide water for plumbing

Large structures for diverse public uses in urban environments – fora, baths, theaters, basilicas, markets, triumphal arches, temples

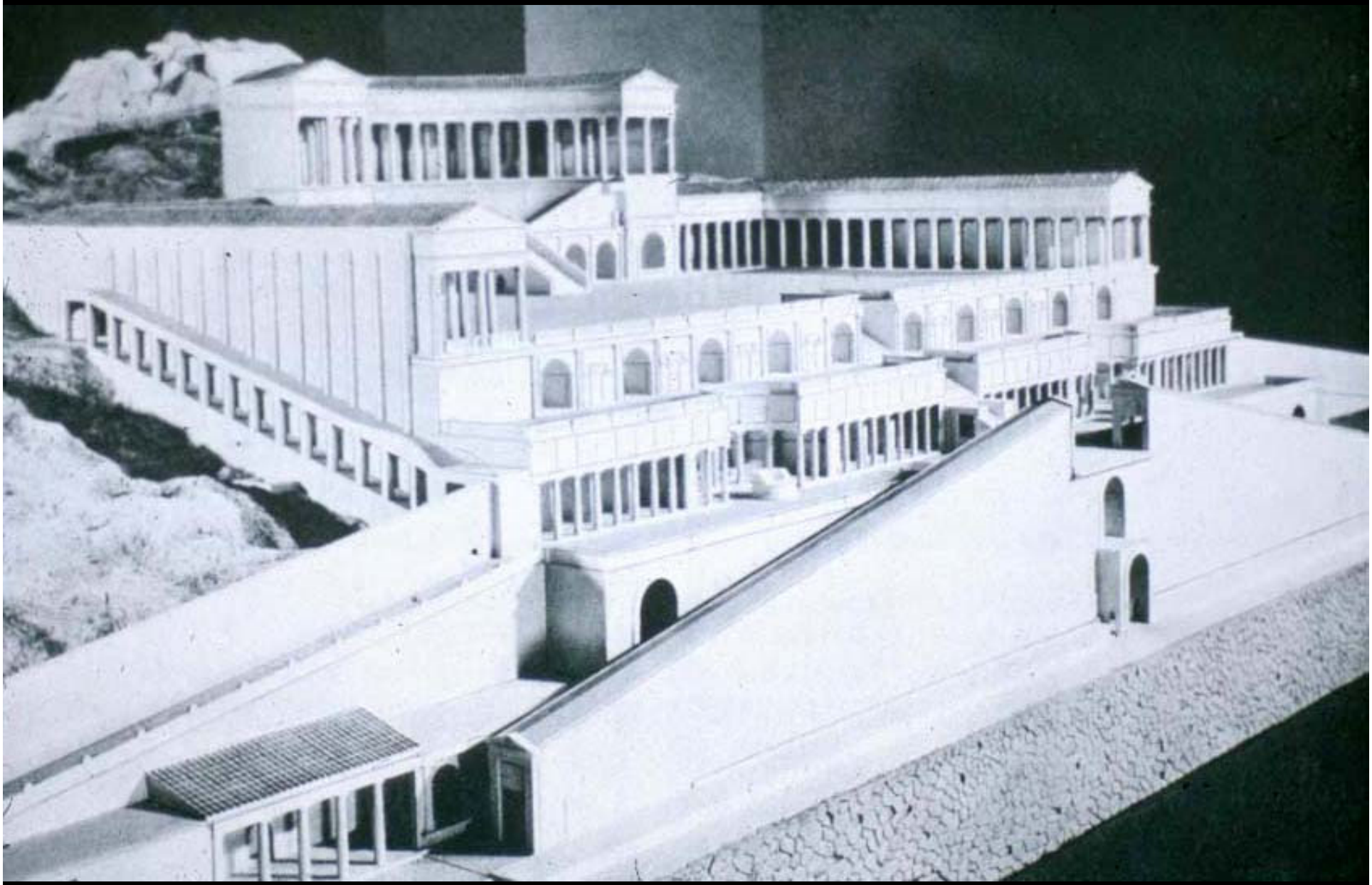
New orders – Composite and Tuscan; continued use of Corinthian; pilasters

Awe inspiring interior spaces

Sanctuary of Fortuna Primigenia: 82 BCE

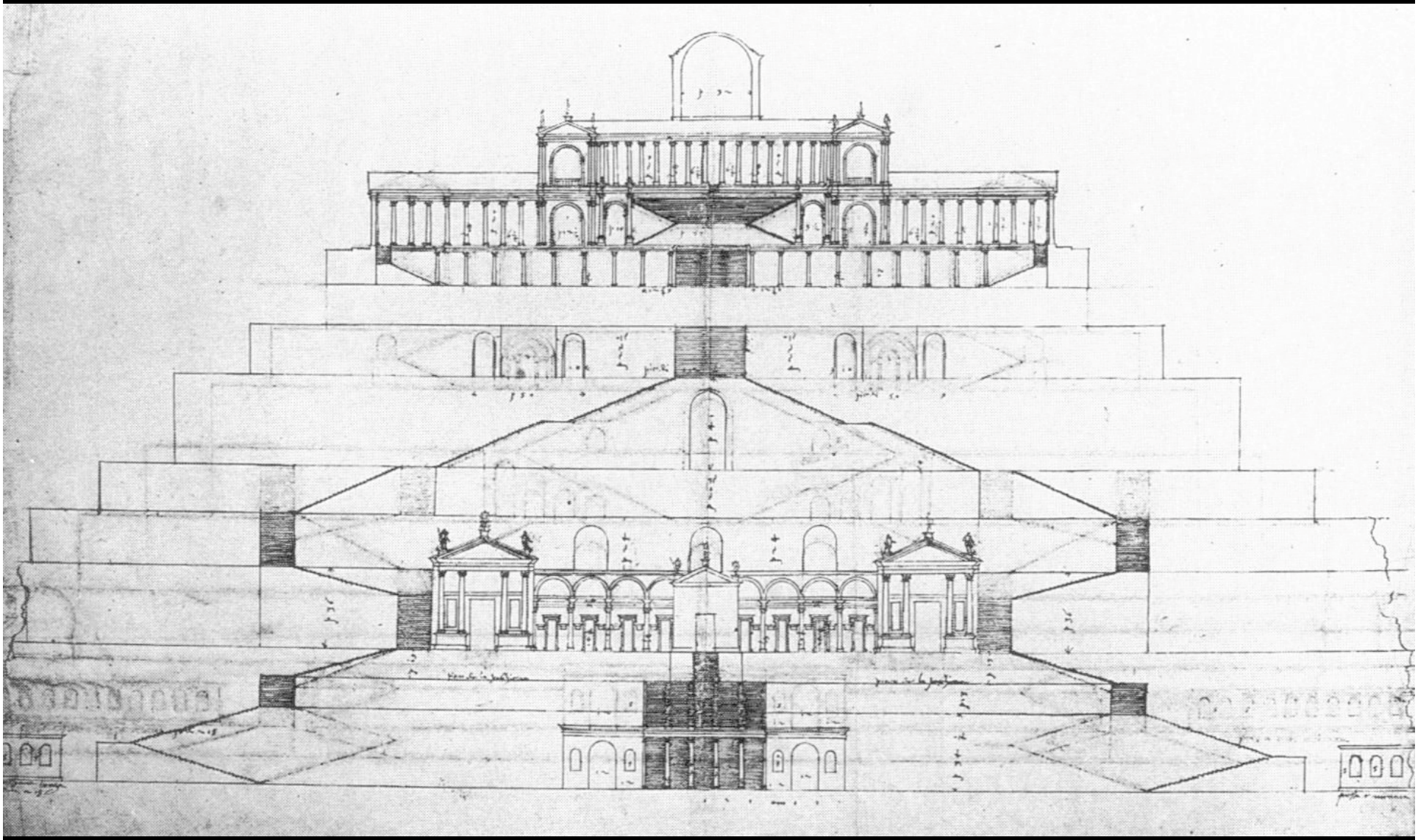


Sanctuary of Fortuna Primigenia: 82 BCE



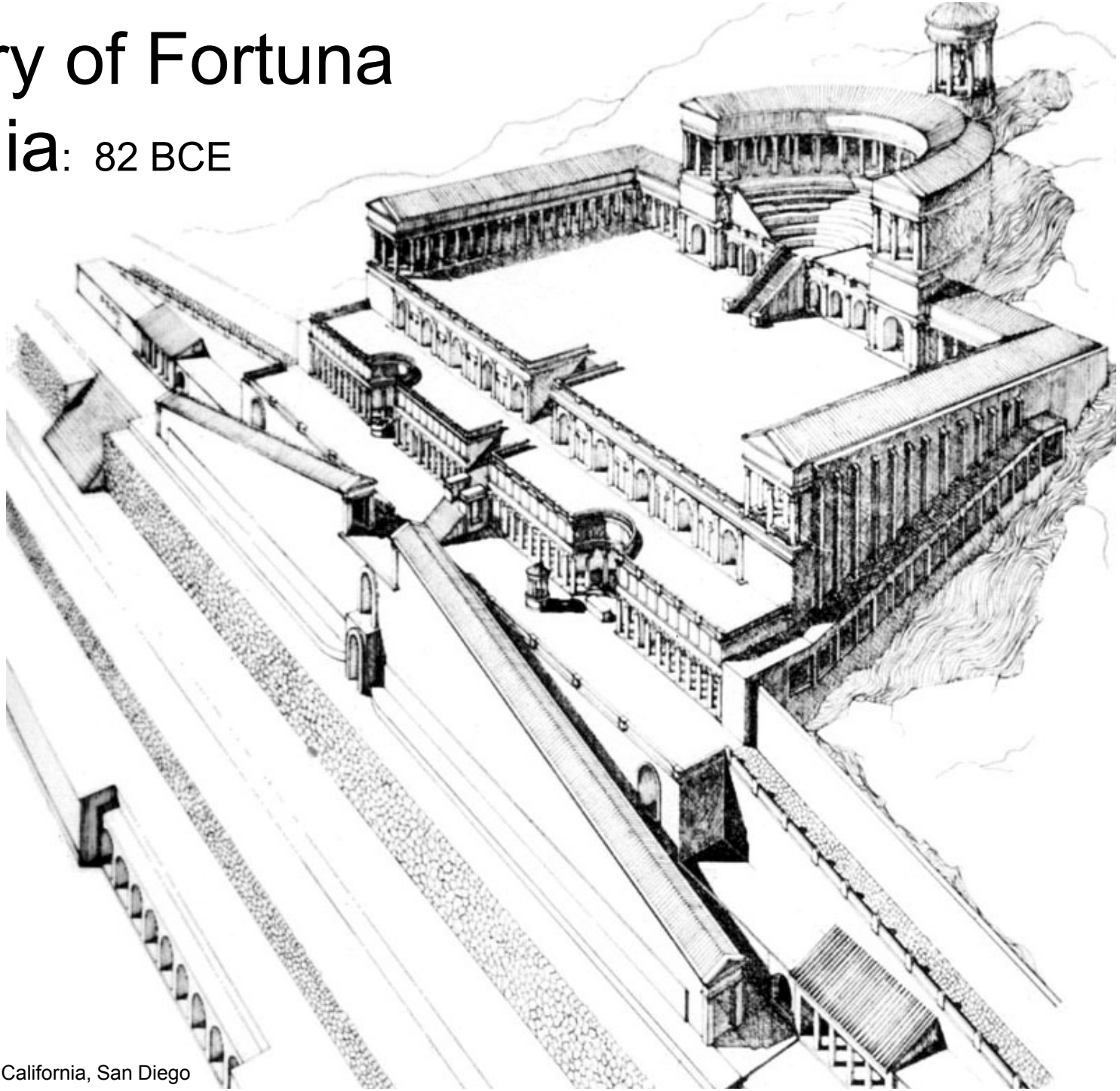
Gardner - *Art Through the Ages*

Sanctuary of Fortuna Primigenia: 82 BCE

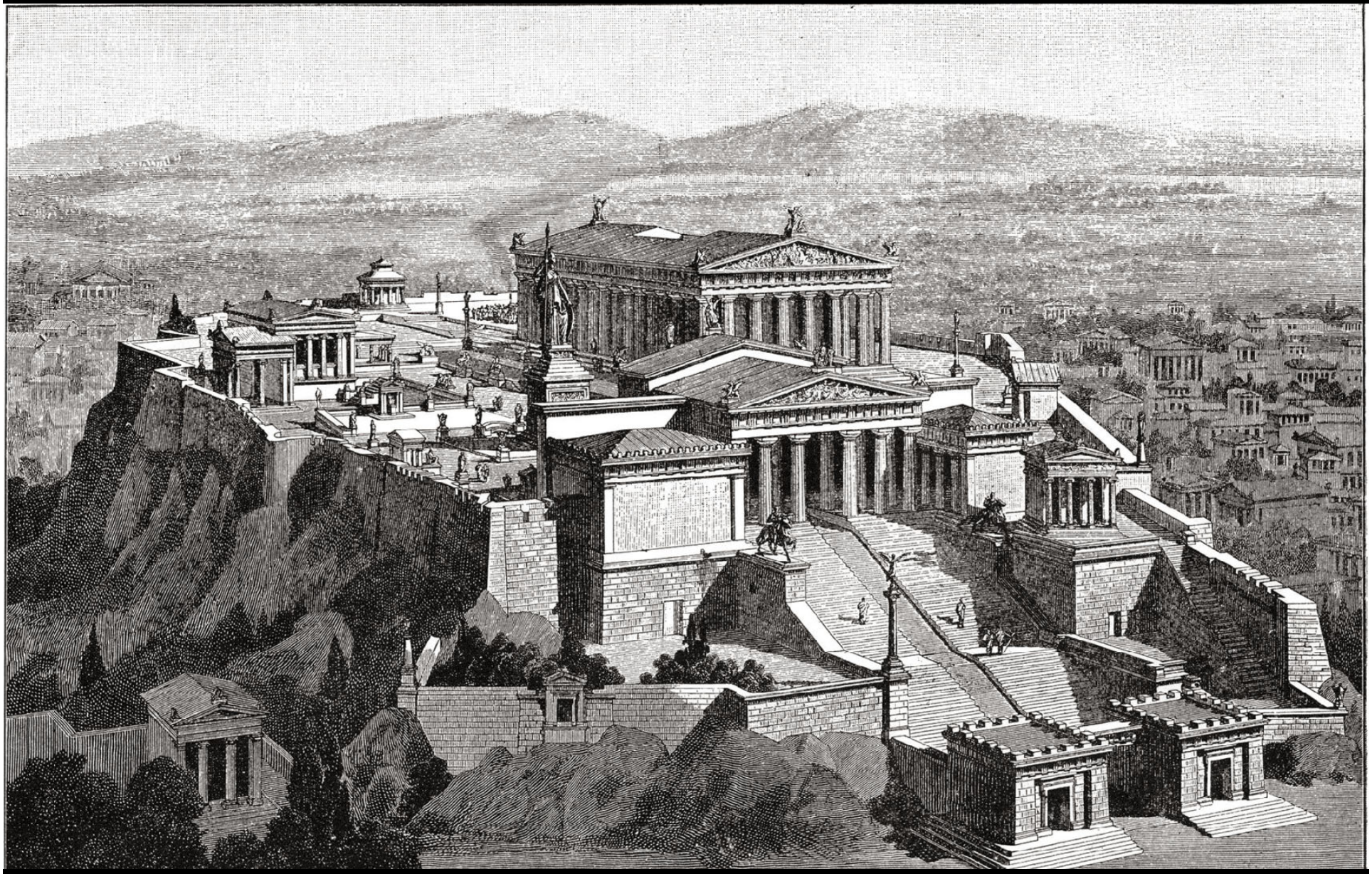


Reconstruction of the temple of the Fortuna Primigenia by Palladio.

Sanctuary of Fortuna Primigenia: 82 BCE



Acropolis, Athens Greece 5th century BCE

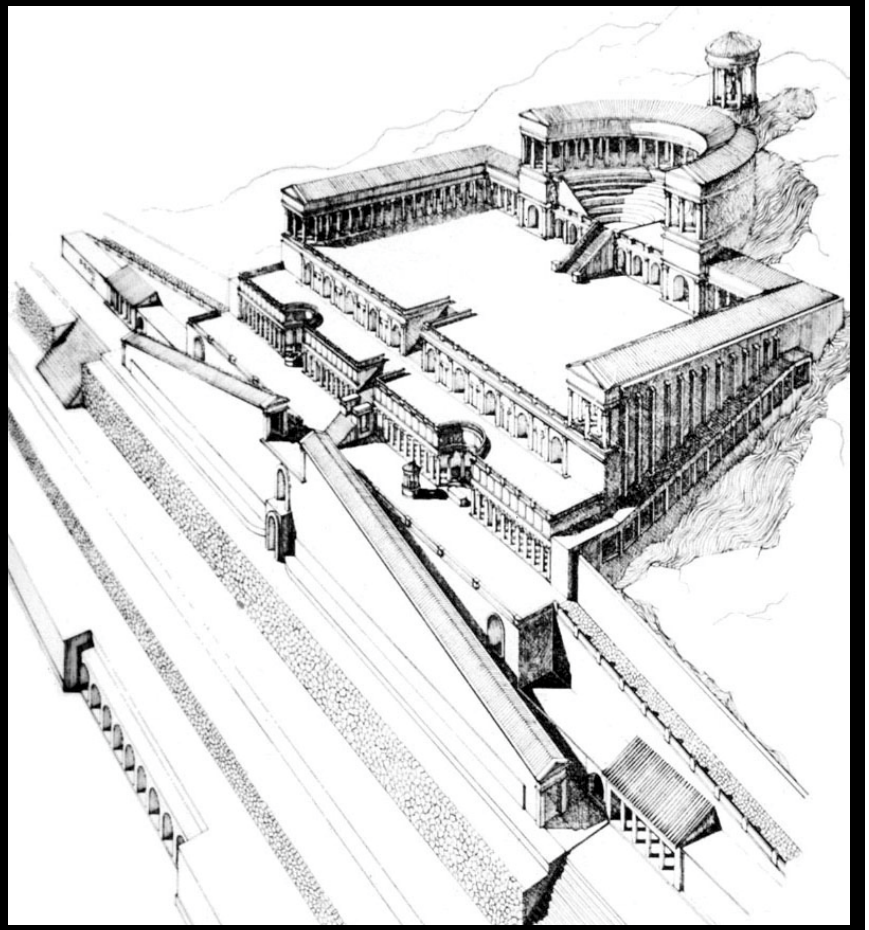


Giro P. Chastnaja i obwestvennaja zhizn' grekov. Petrograd. Izdanie t-va O. N. Popovoj, 1915, inset between pp. 384—385.

Acropolis, Athens Greece:
5th century BCE

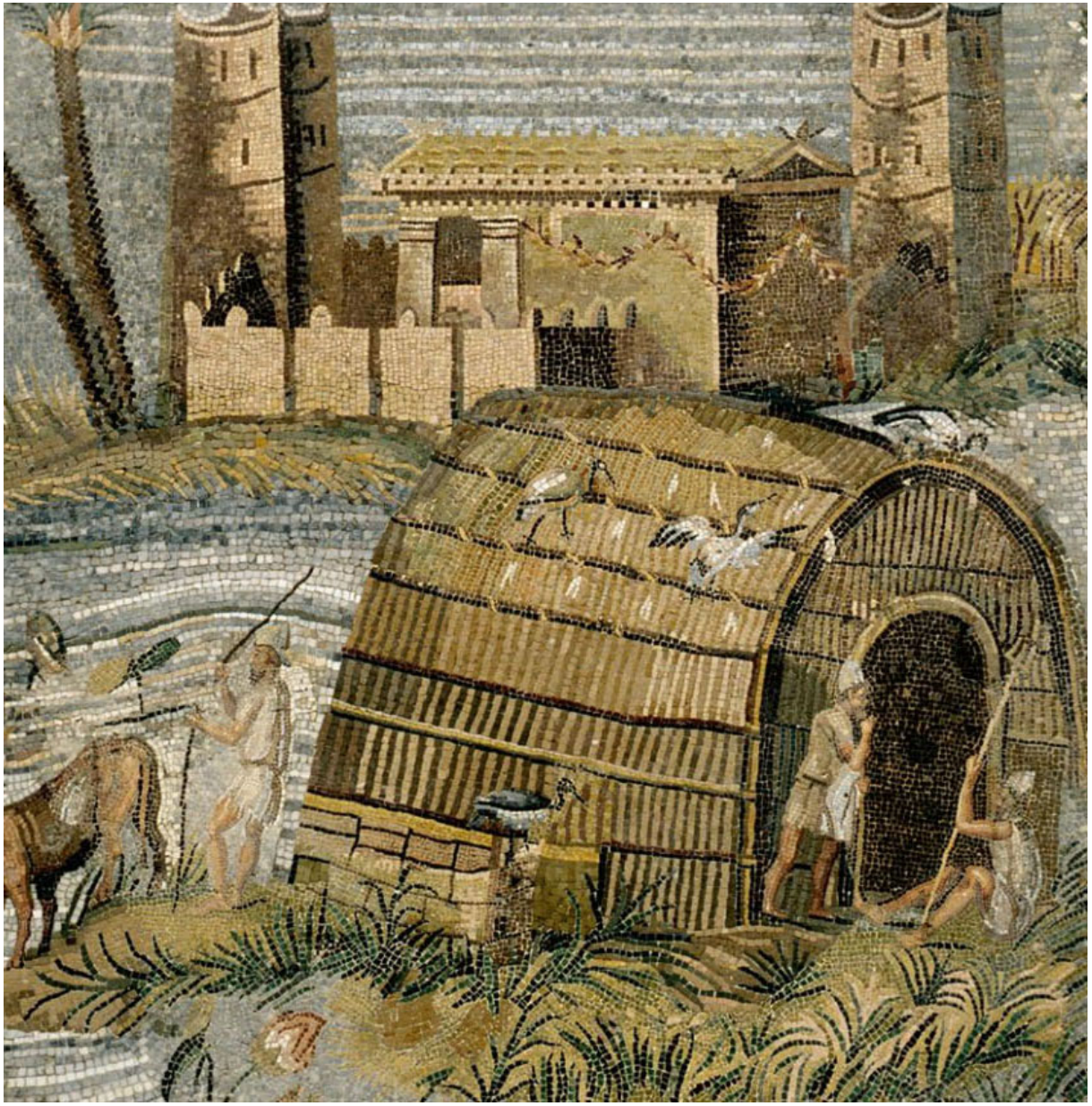
Giro P. Chastnaja i obwestvennaja zhizn' grekov. Petrograd. Izdanie t-va O. N. Popovoj, 1915, inset between pp. 384—385.

Sanctuary of Fortuna Primigenia: 82 BCE



ARTstor Collection: University of California, San Diego

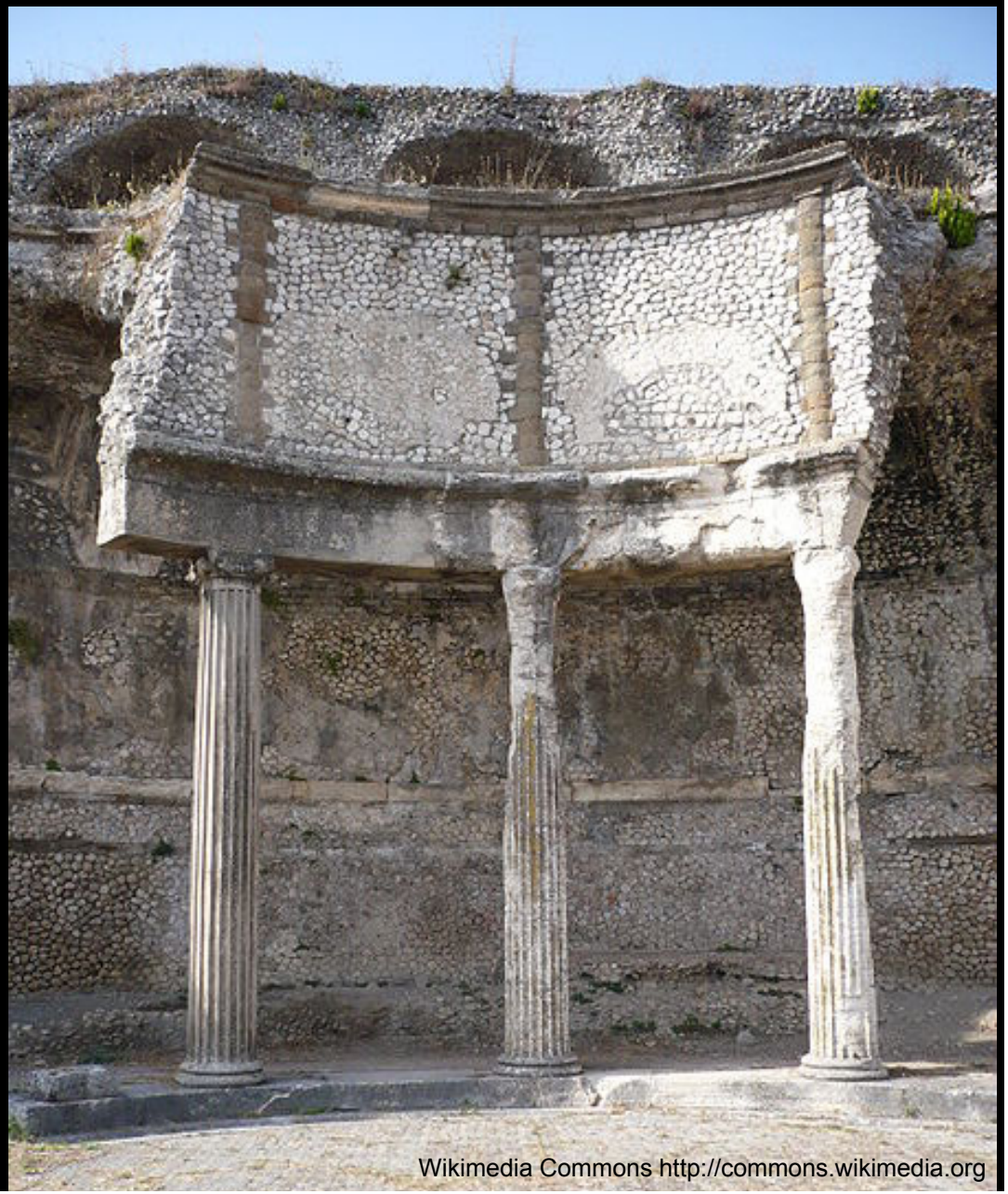
Sanctuary of Fortuna Primigenia: 82 BCE



ARTstor Collection: Susan Silberberg-Peirce, Canyonlights

Boschetti, Cristina. (2011). Vitreous Materials in Early Mosaics in Italy: Faience, Egyptian Blue, and Glass. Journal of Glass Studies. 53. 59-91.

Sanctuary of Fortuna Primigenia: 82 BCE



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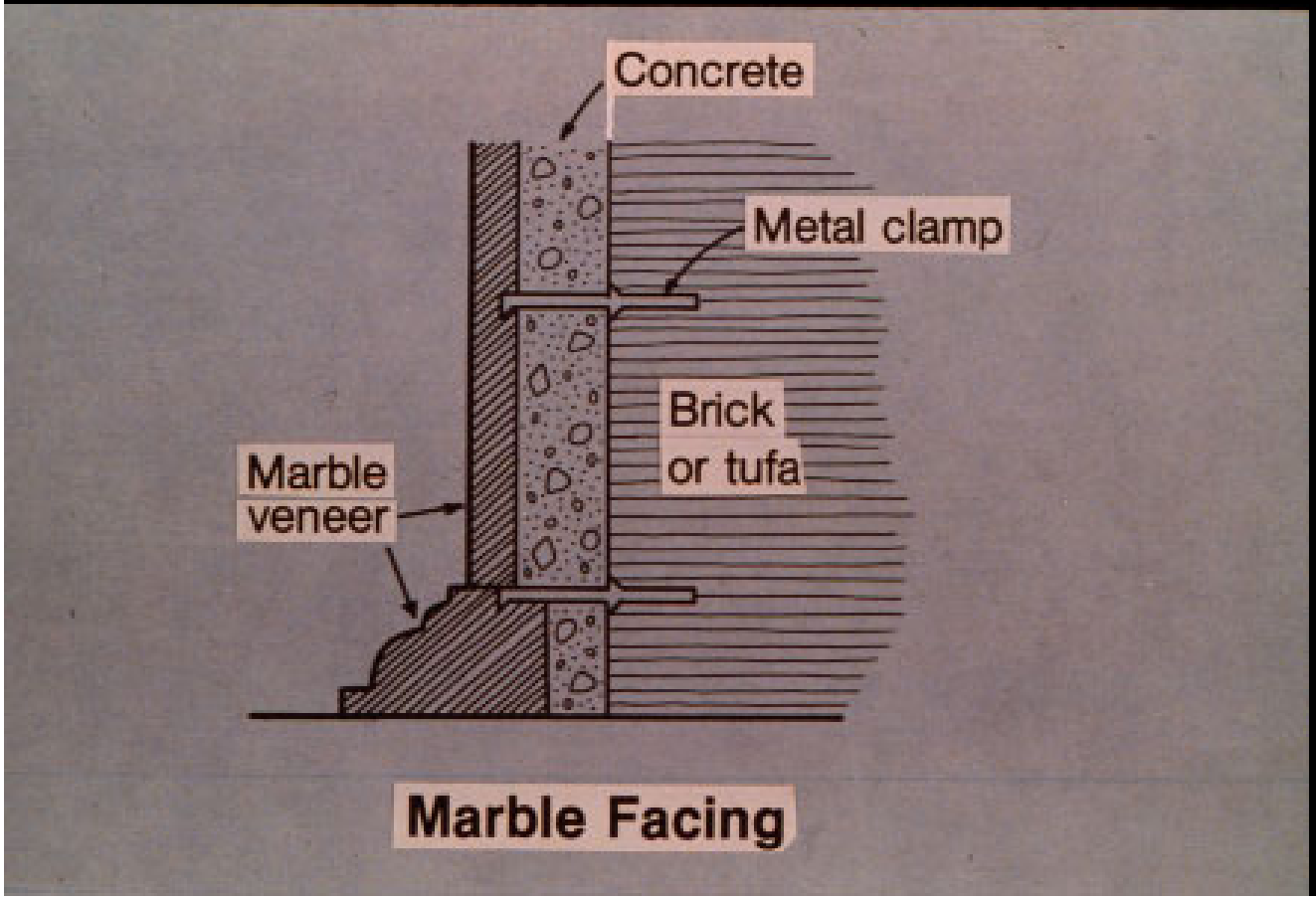
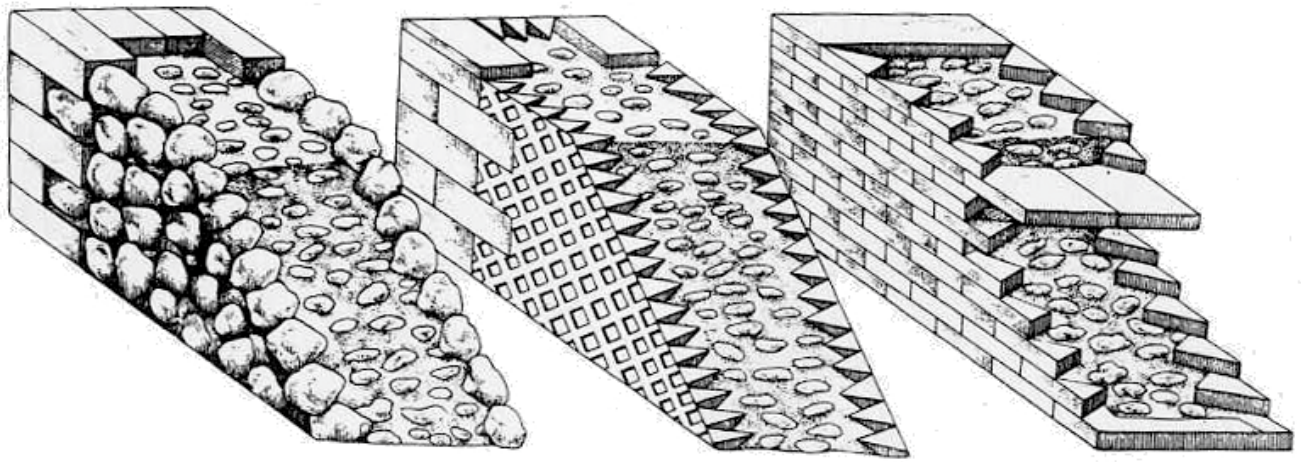
Concrete:

A stiff mixture of aggregate (sand, gravel), binder, and water

Poured into wood or brick forms –strong, waterproof, monolithic

Covered with brick or marble veneer, or a decorative stucco





1. Opus Caementicium

2.

3.

4.

Norwich - *Great Architecture of the World*

2. Opus Incertum

3.Opus Reticulatum

4. Opus Testaceum

Concrete: mix of aggregate, binder & water

- Aggregate is "filler" – can be sand, gravel, pieces of brick or stone, etc.
- Binder is a substance that "sets" (hardens) after being mixed with water – can be clay, lime, gypsum, Portland cement, pozzolana

Opus Caementicium = Roman concrete

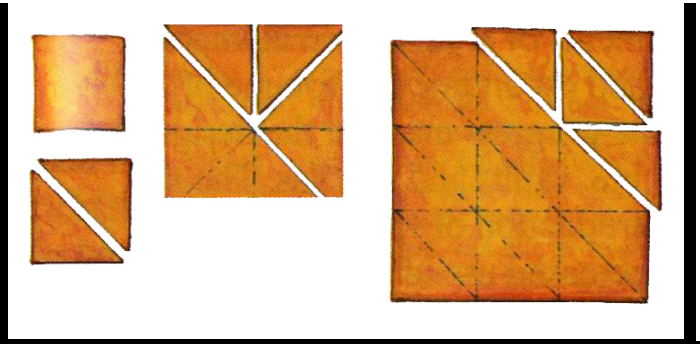
- Pozzolana, a type of volcanic ash found in central Italy
- Roman concrete used lime mixed with pozzolana as a binder; it set to an extremely hard concrete, even under water, and is resistant to cracking and durable even in salt water

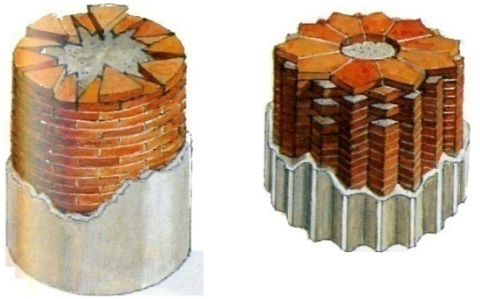
Opus Incertum = rough stones surrounding a concrete core

Opus Reticulatum = pyramidal stones with square faces surrounding a concrete core, smooth faces set in a diagonal pattern, with pyramid points imbedded in the concrete core

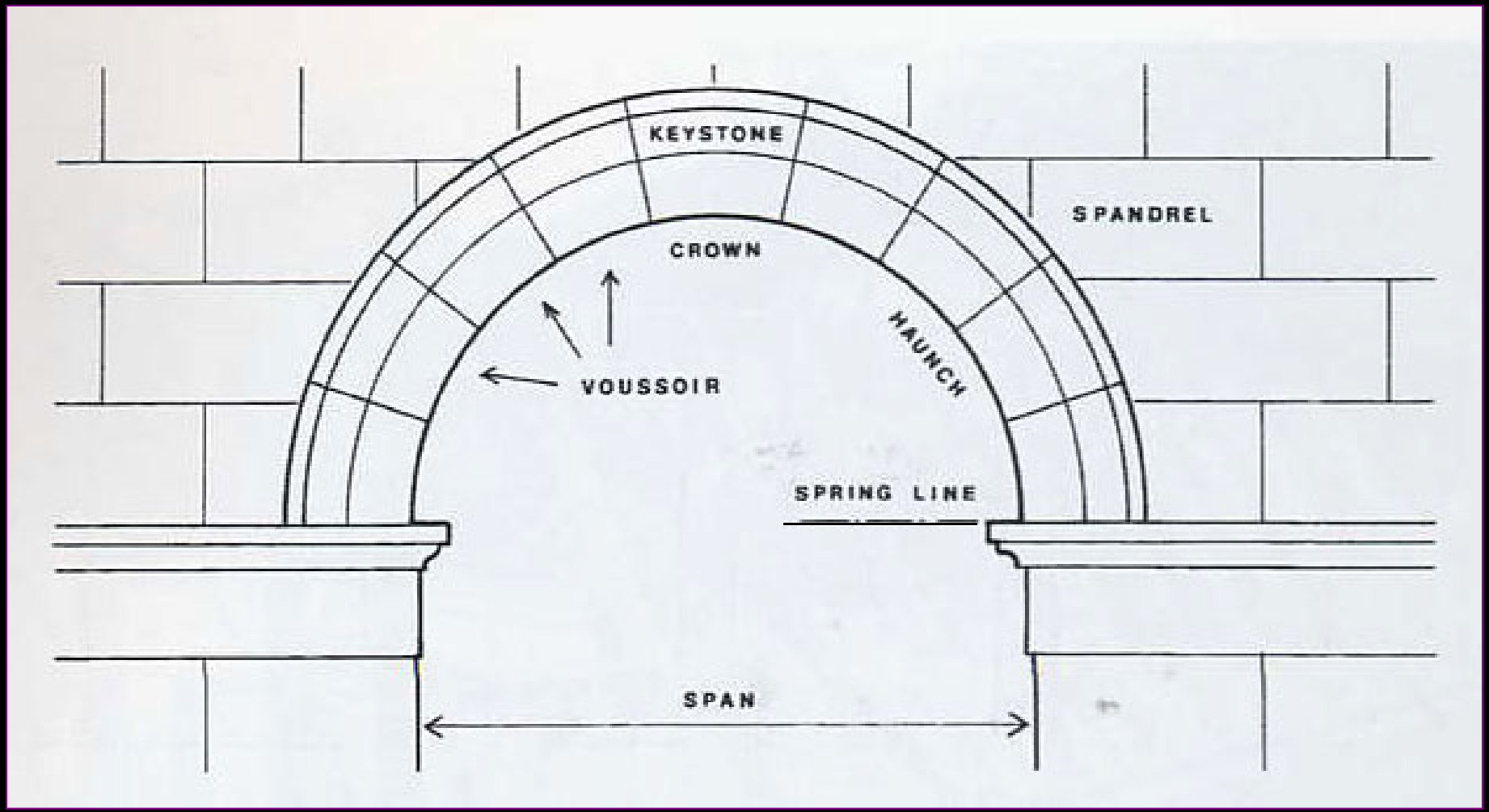
Opus Testaceum = triangular bricks surrounding a concrete core, laid flat with points imbedded in the concrete core

Opus Testaceum
triangular bricks surrounding a concrete core



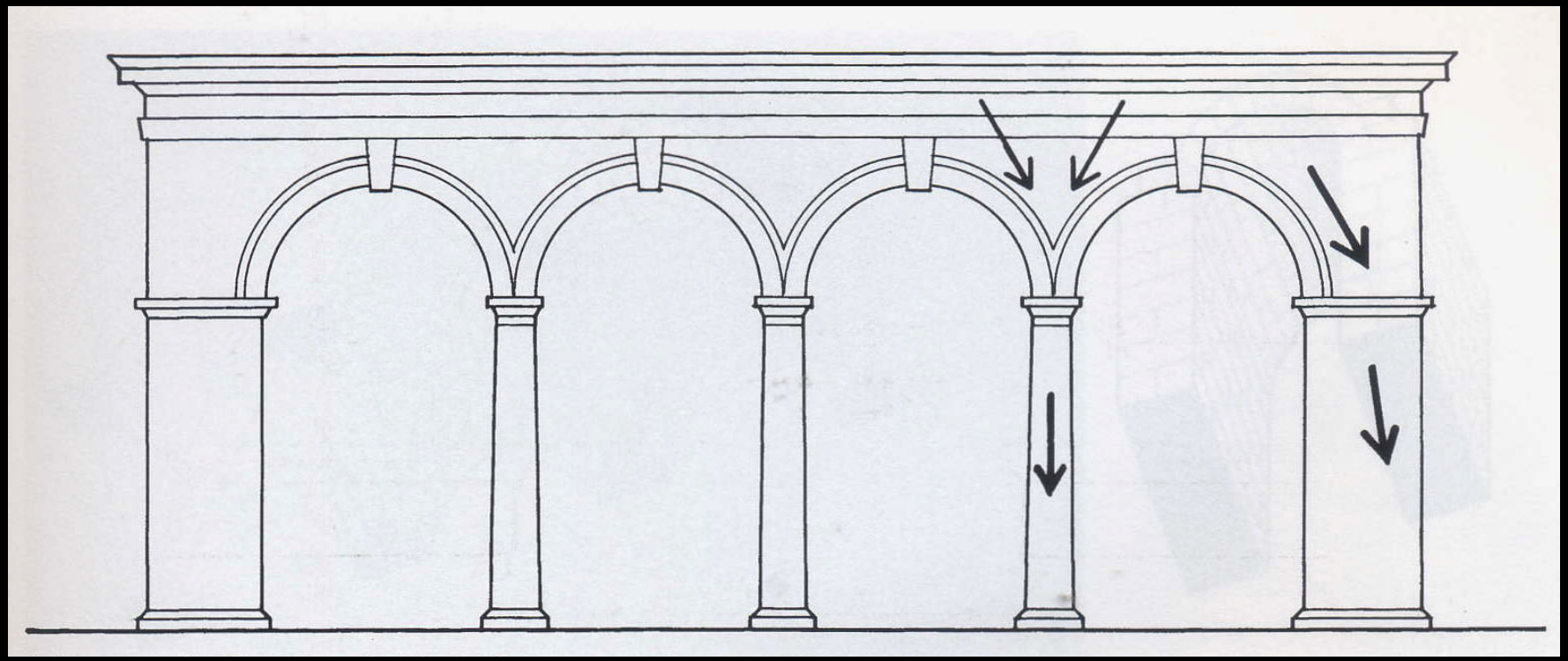


The Arch: Terminology

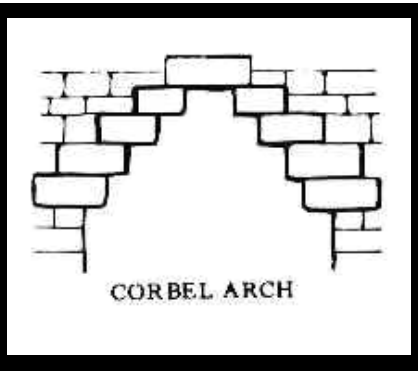


Roth, Leland M., Understanding Architecture, 2nd edition, Boulder, CO: Westview Press, 2007.

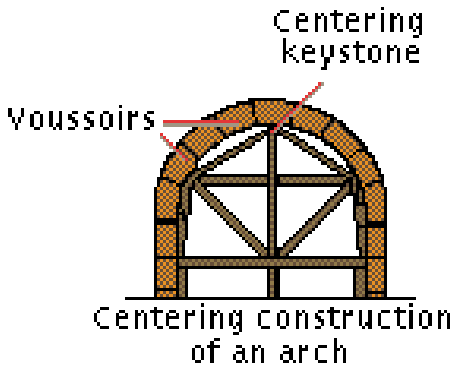
Arcade: A series of arches



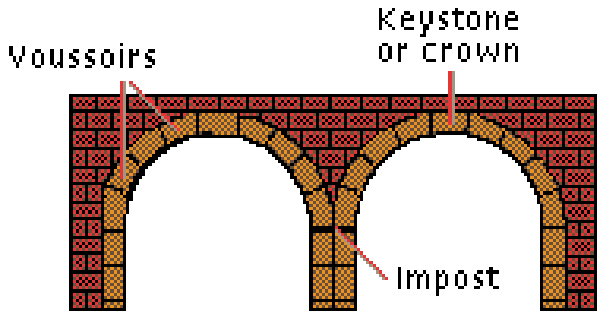
Roth, Leland M., Understanding Architecture, 2nd edition, Boulder, CO: Westview Press, 2007.



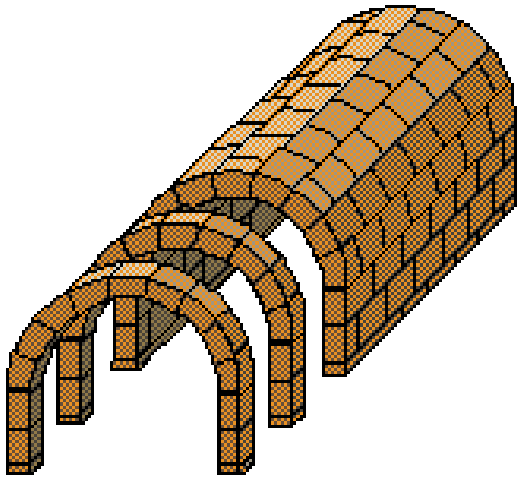
Forms of arches and vaults:



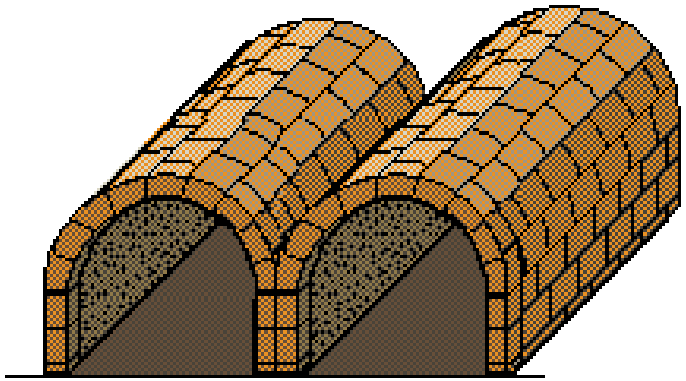
A.



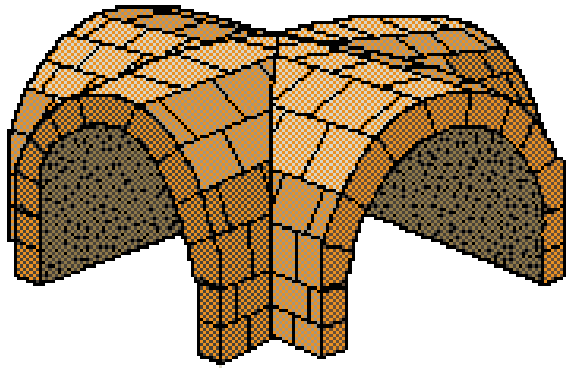
B.



C.



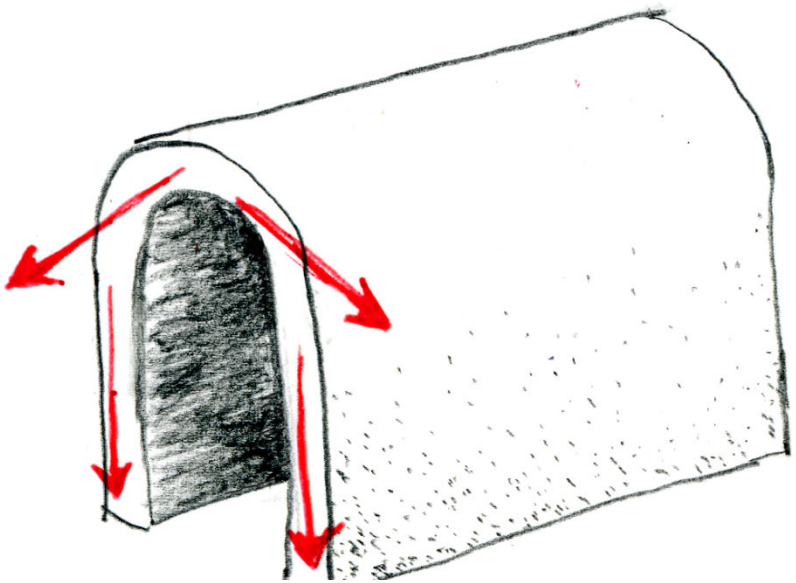
D. Barrel vault



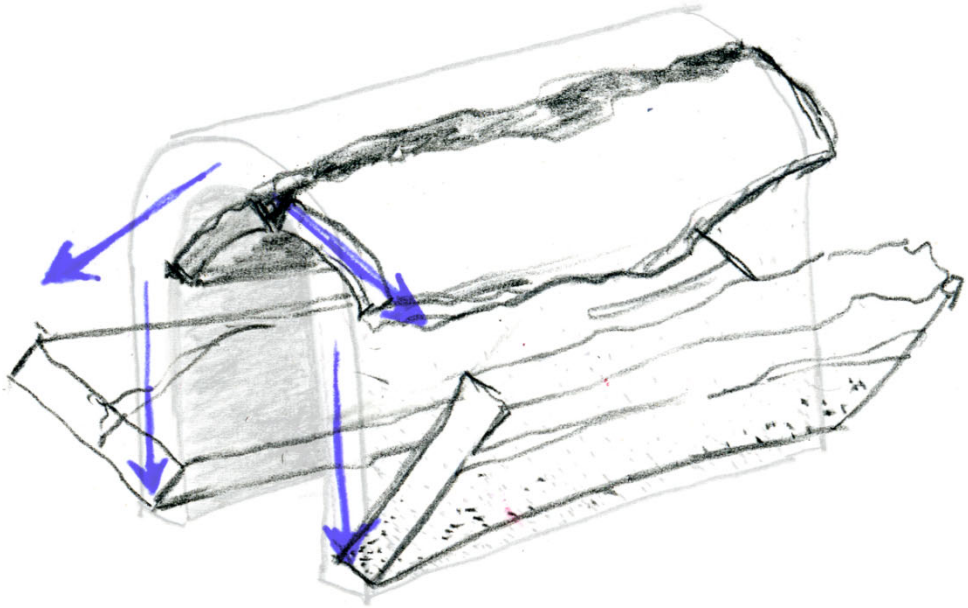
E. Cross (groin) vault

Barrel Vault

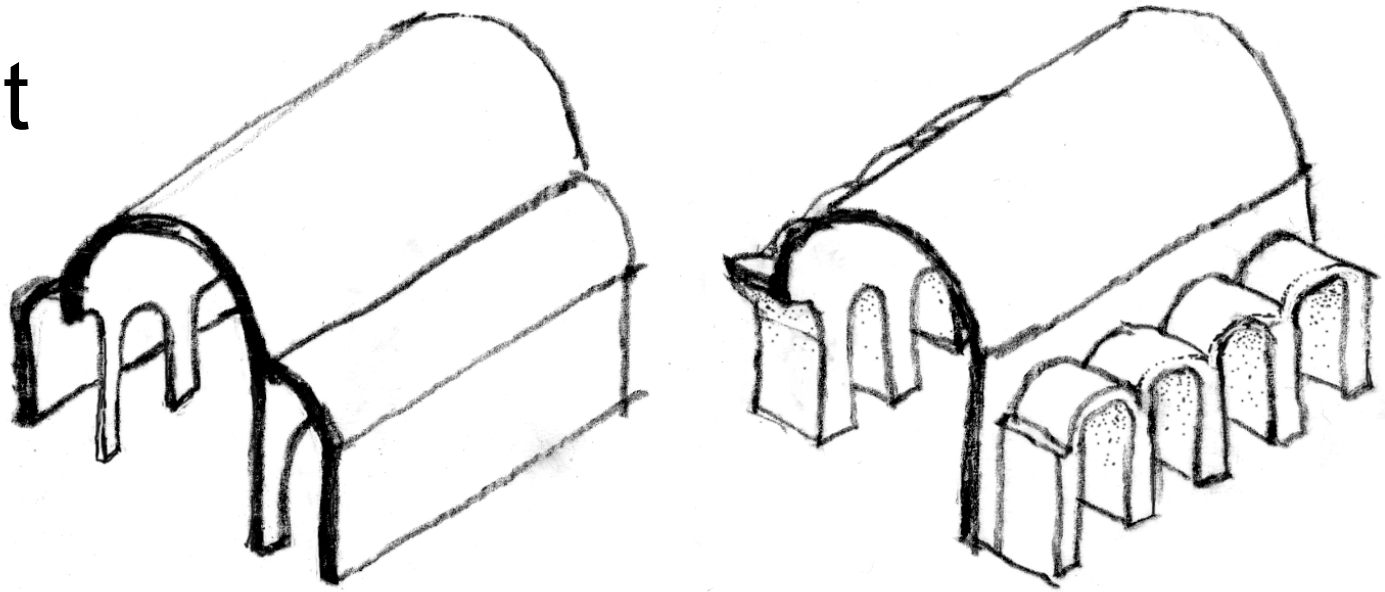
Lateral force diagram of a barrel vault



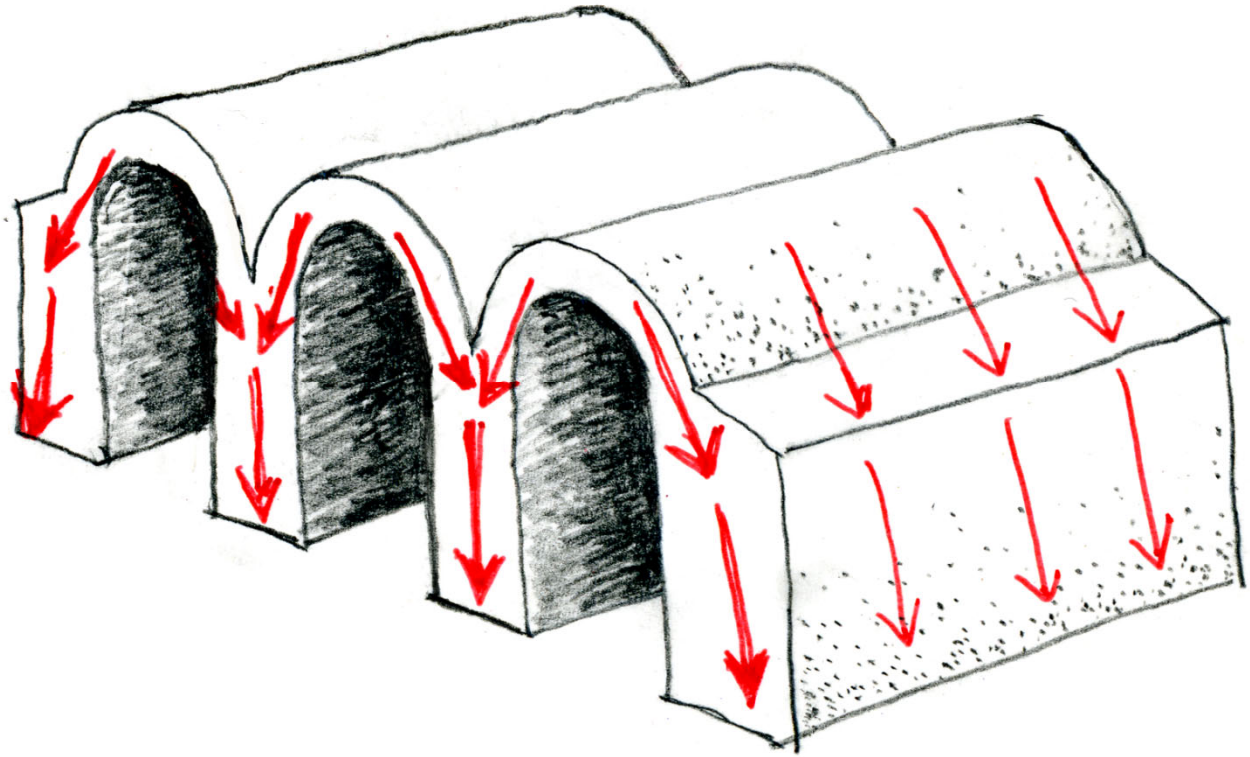
Lateral force diagram showing structural failure



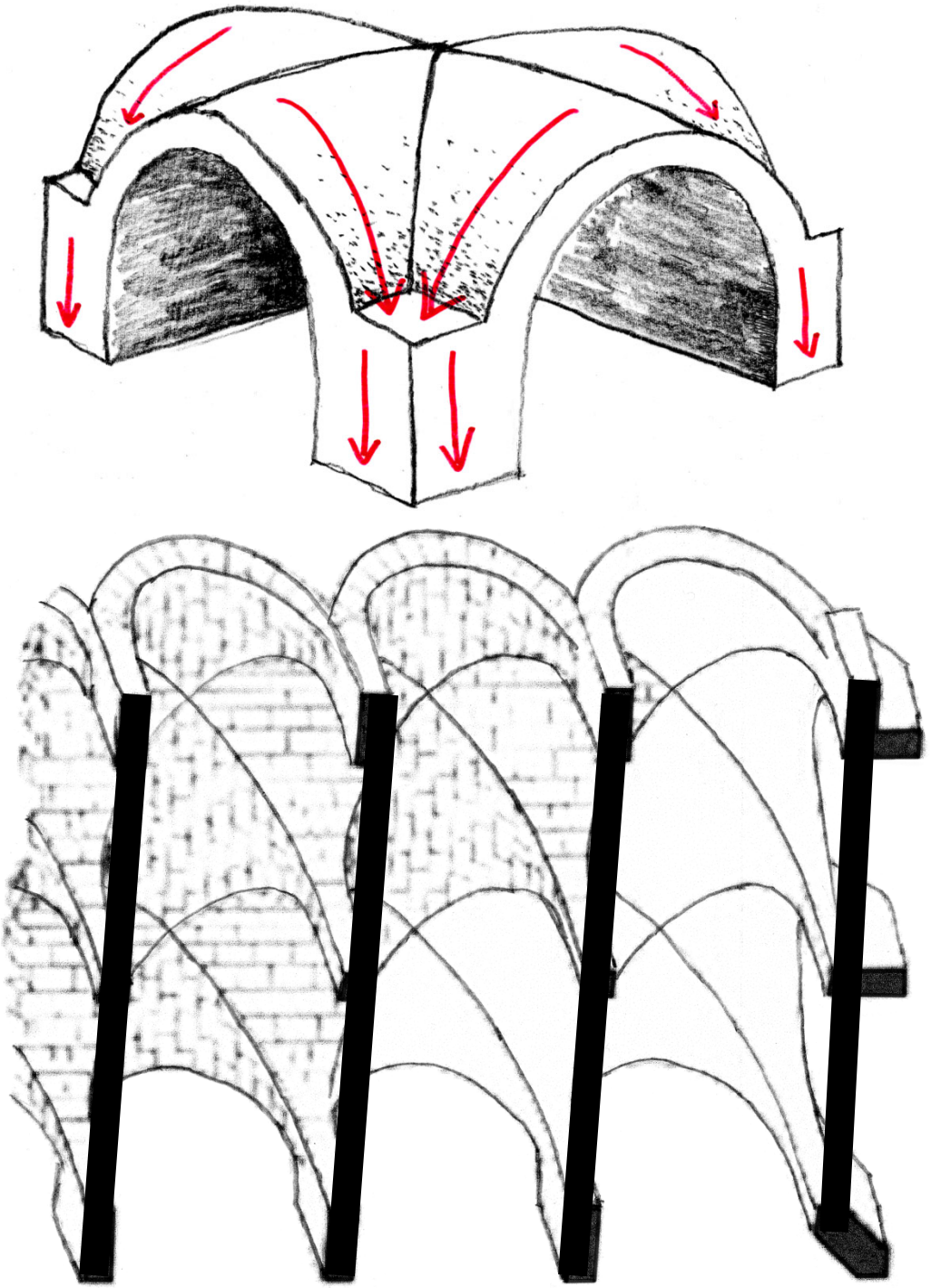
Barrel Vault



Lateral support options



Groin Vault



Aquaducts

Sloped to have water travel from source to city

Built first using wood frame-removed once keystone was placed

Pont du Gard at Nimes: 25 CE(AD)

Aquaduct – water supply

Three tiers of stone arches 160’ high bringing water from over 25miles away

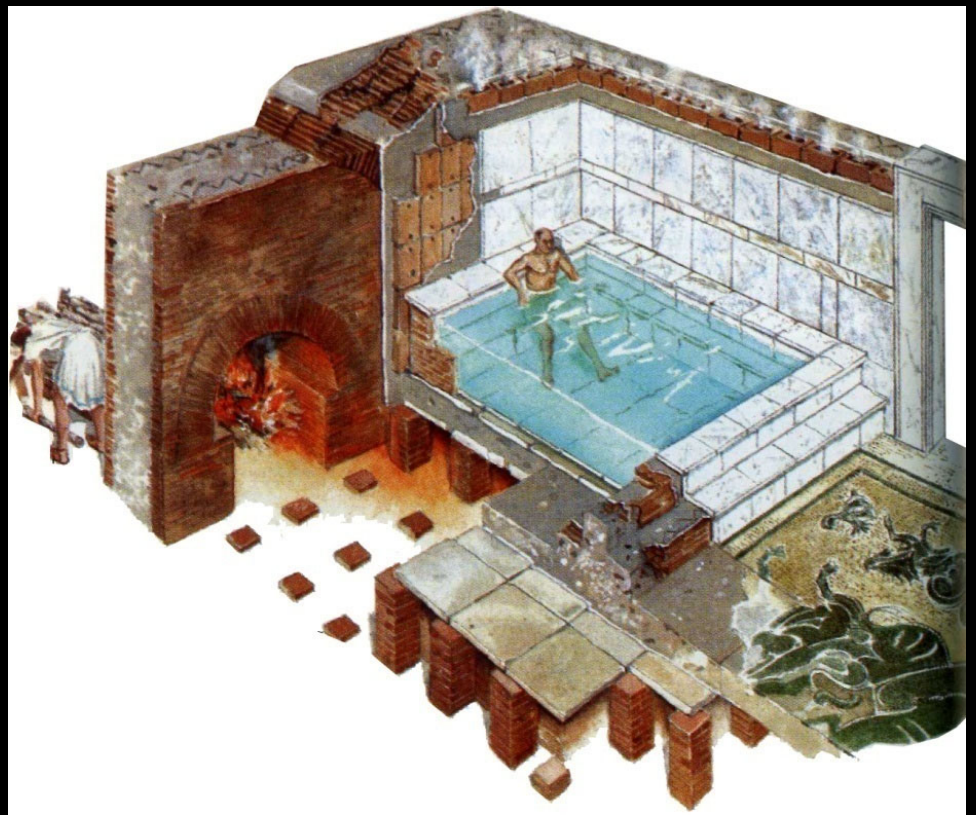
Patrick Clenet
Wikimedia Commons http://commons.wikimedia.org


Hedwig Storch
Wikimedia Commons http://commons.wikimedia.org


by Libär http://www.flickr.com

Roman Engineering Advances:

- Development of the wood roof truss and extensive use of concrete allowed spanning of huge volumes of interior space
- Aqueducts and sewers served indoor plumbing for public baths and private houses, creating a highly developed urban infrastructure



Rome Everyman Guide

Roman Engineering Advances:

- Extensive use of arches, vaults, and domes characterizes Roman architecture.
- Well-engineered, paved roads and bridges were built across the Empire, some of which are still in use today.

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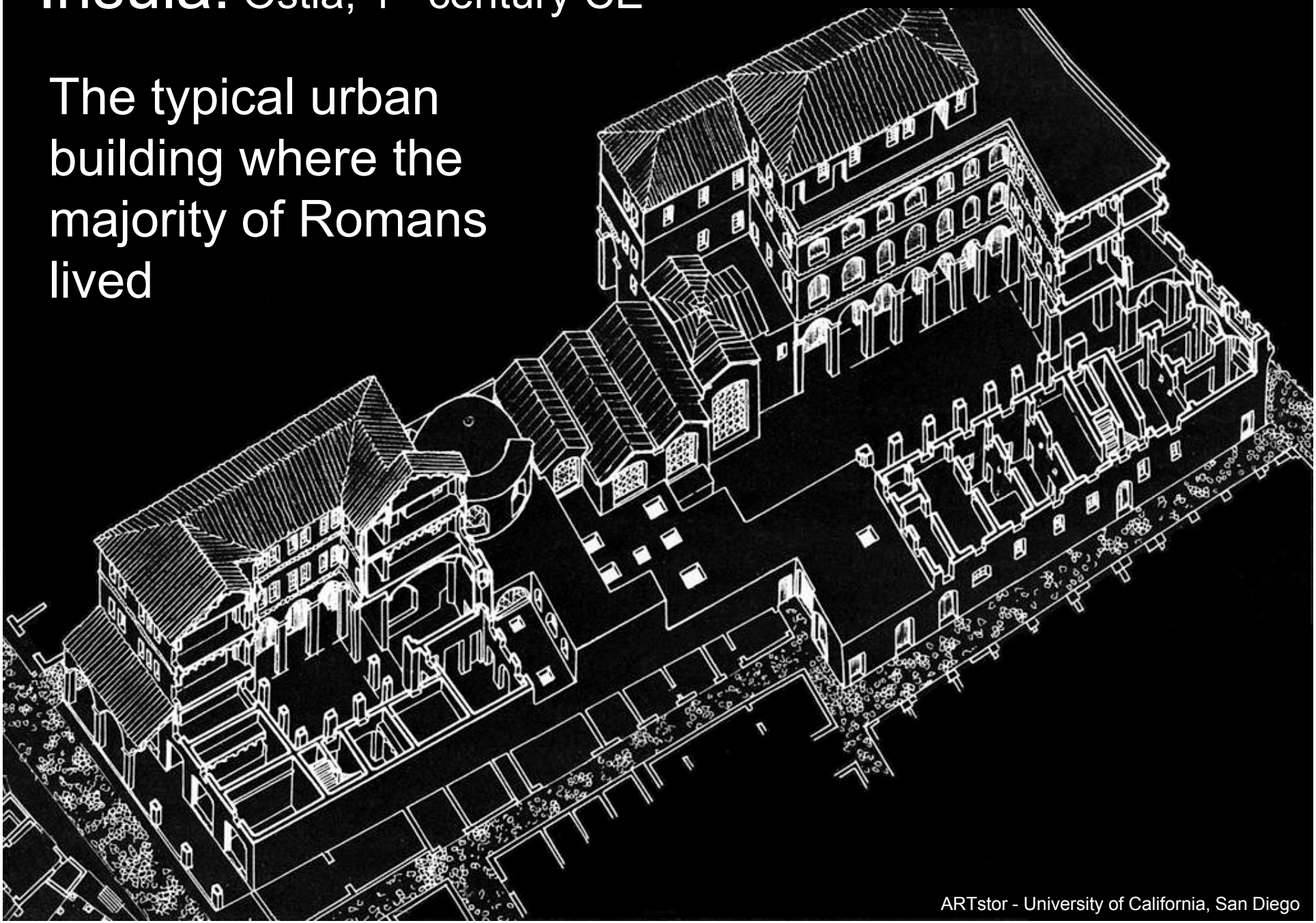
Roman Architectural Innovations:

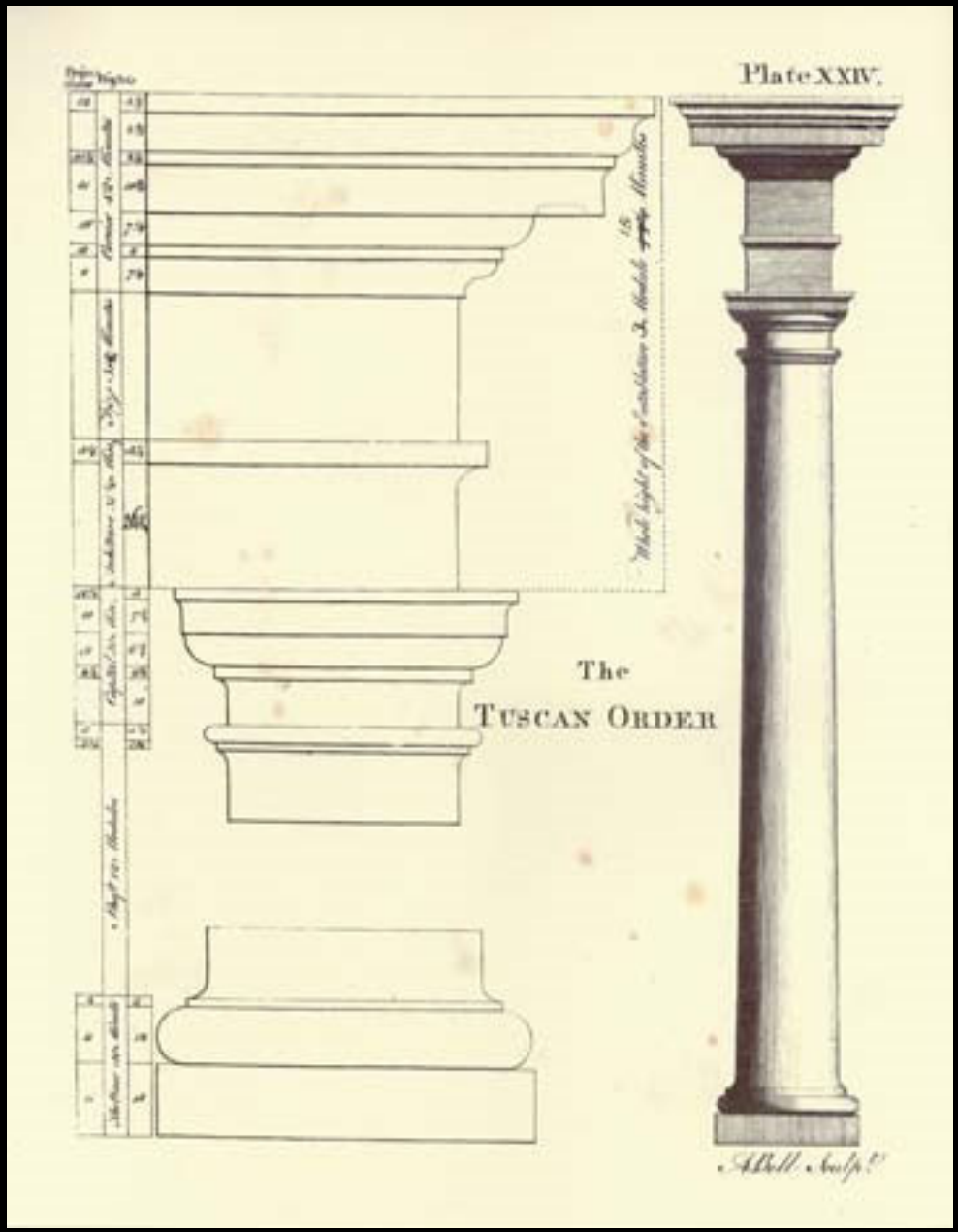
In addition to Roman engineering advances, architecture and city planning developments included:

- Forum (similar to the Greek Agora) – large open urban space generally surrounded by arcades, the civic center of a city incorporating temples, basilicas, and markets
- Insulae – blocks of apartments using concrete, rising six stories high.
- Triumphal arches and triumphal columns
- Development of the classical orders:
    - Use of pilasters and engaged columns – rectangular columns or half-round columns that were embedded as part of the wall
    - Use of Tuscan and Composite orders

Insula: Ostia, 1st century CE

The typical urban building where the majority of Romans lived

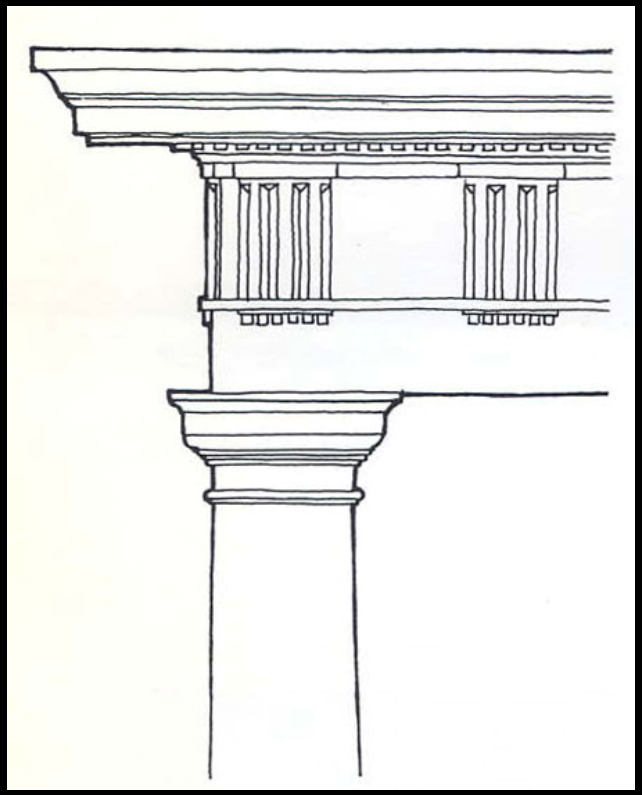




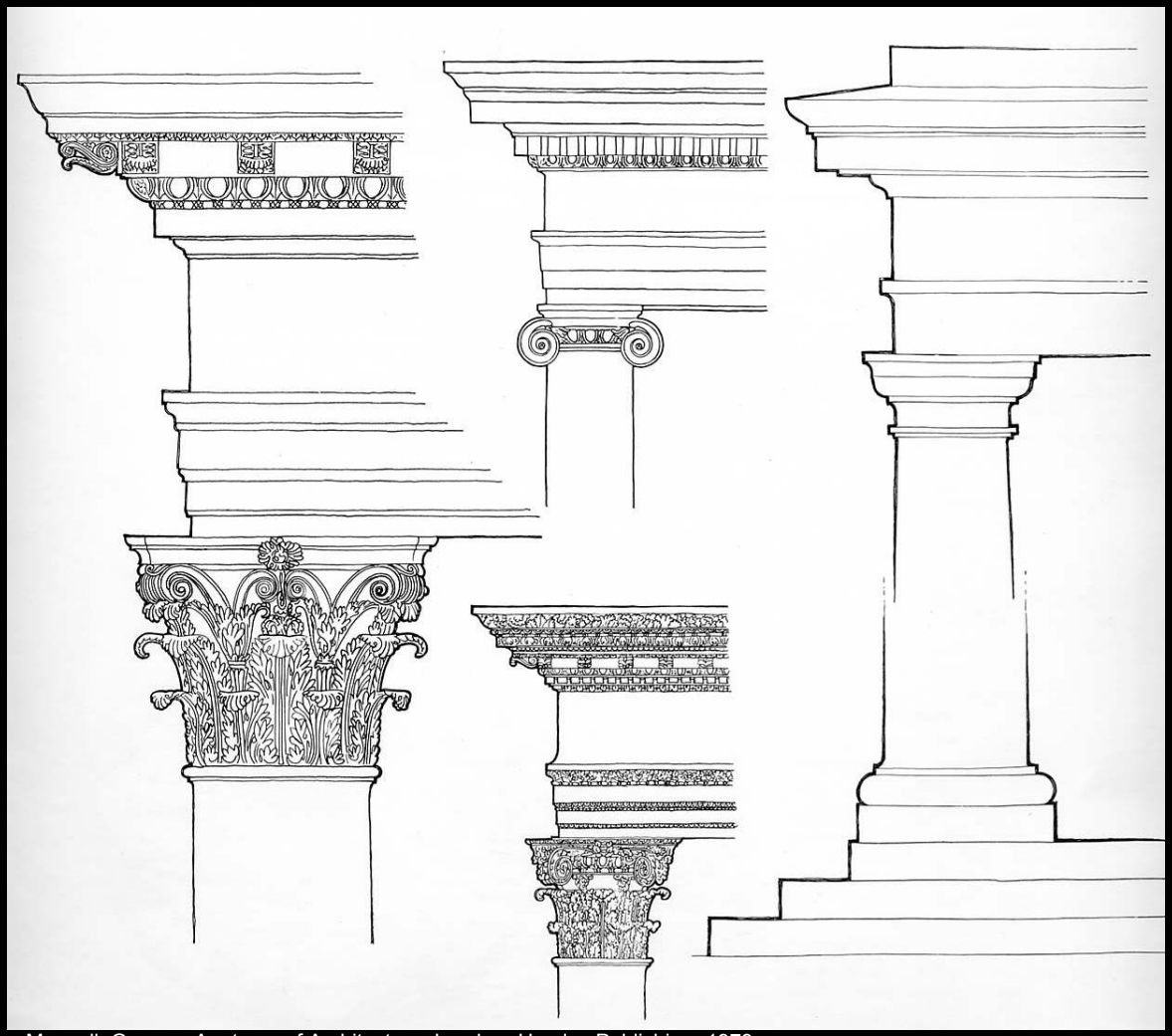
Tuscan Order

Roman Orders

Tuscan

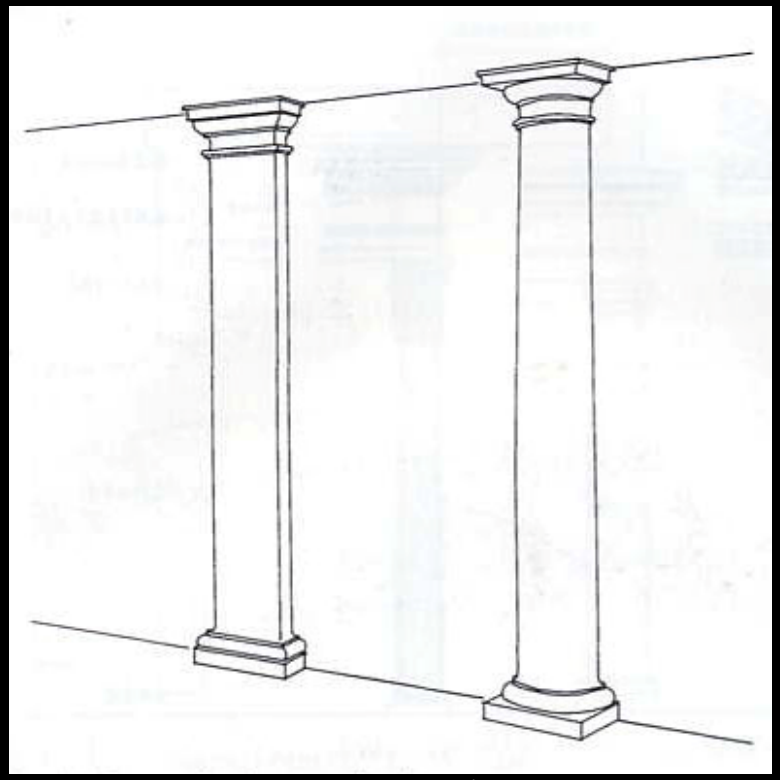


Corinthian Ionic Composite Doric



Mansell, George, Anatomy of Architecture, London: Hamlyn Publishing, 1979.

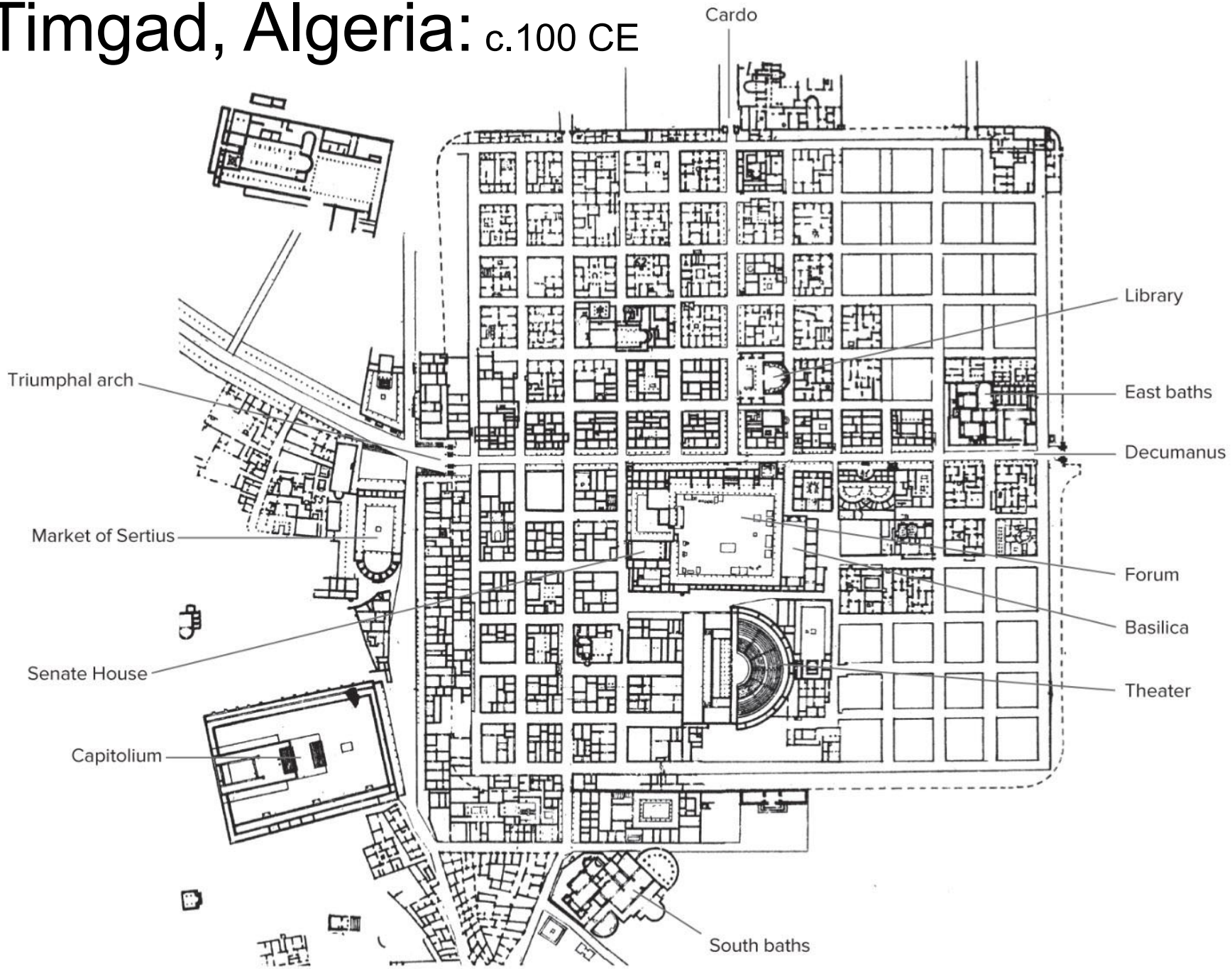
Pilasters and Engaged Columns



Roth, Leland M., Understanding Architecture, 2nd edition, Boulder, CO: Westview Press, 2007.

Timgad, Algeria: c.100 CE

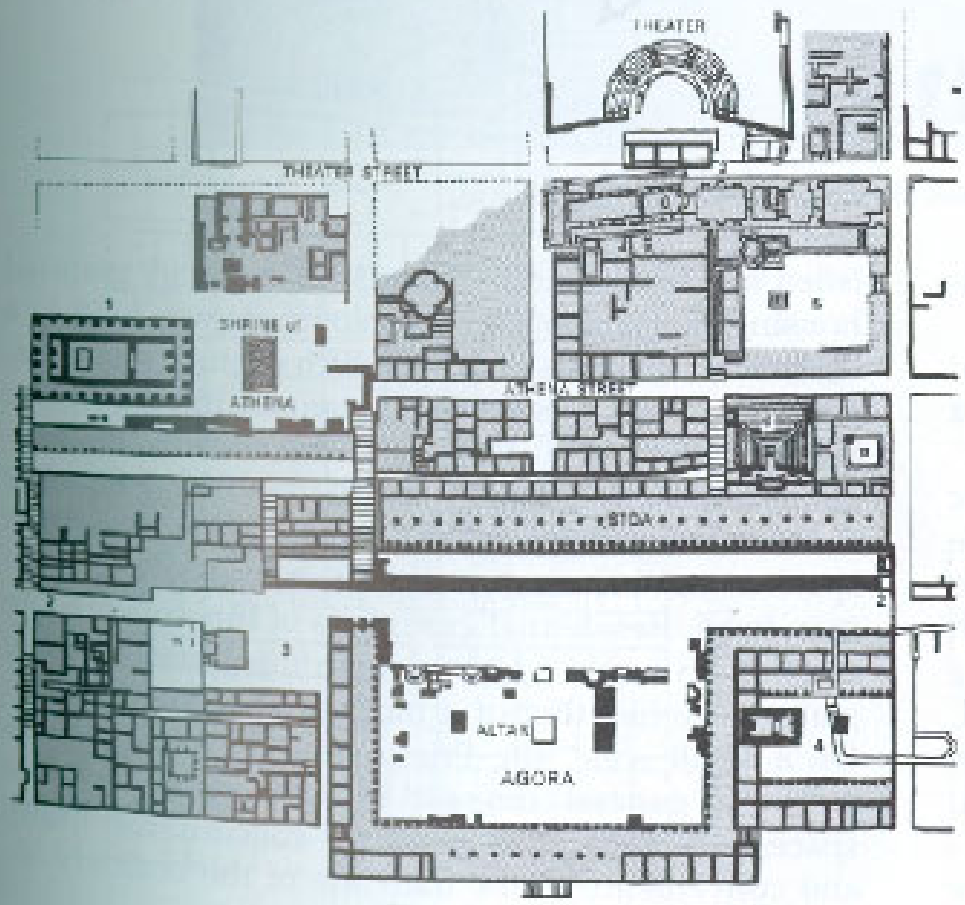
Timgad, Algeria: c.100 CE

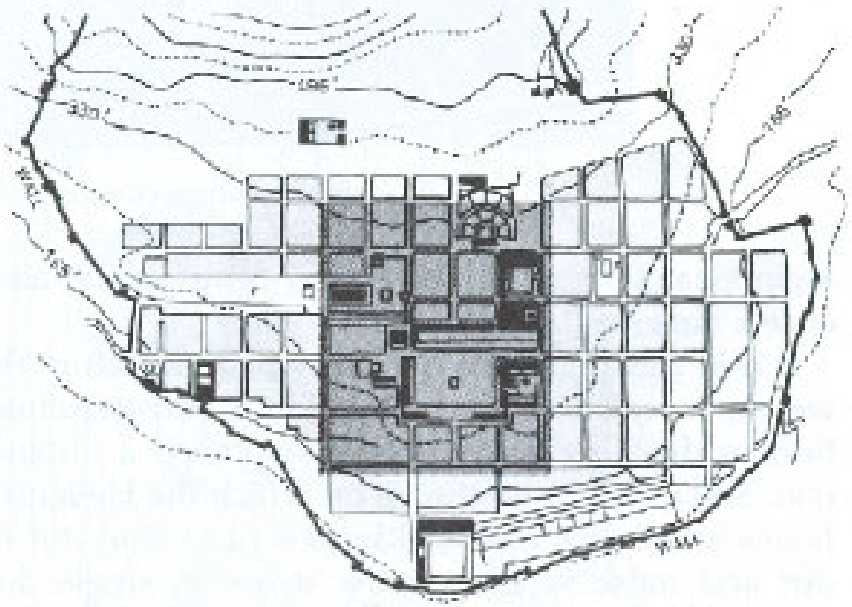


Fazio, Moffett, Wodhouse (2019) fig. 5-11)

Priene 350 BCE – Lessons from Greek colonial town planning

5-88 City of Priene, fourth century B.C. *Right:* Simplified ground plan. Shaded rectangle indicates area shown in detail at *left*.





1. Temple ruins
2. Wells
3. Fish and meat market
4. Sanctuary of Olympian Zeus
5. Gymnasium
6. Bouleuterion

Gardner - *Art Through the Ages*

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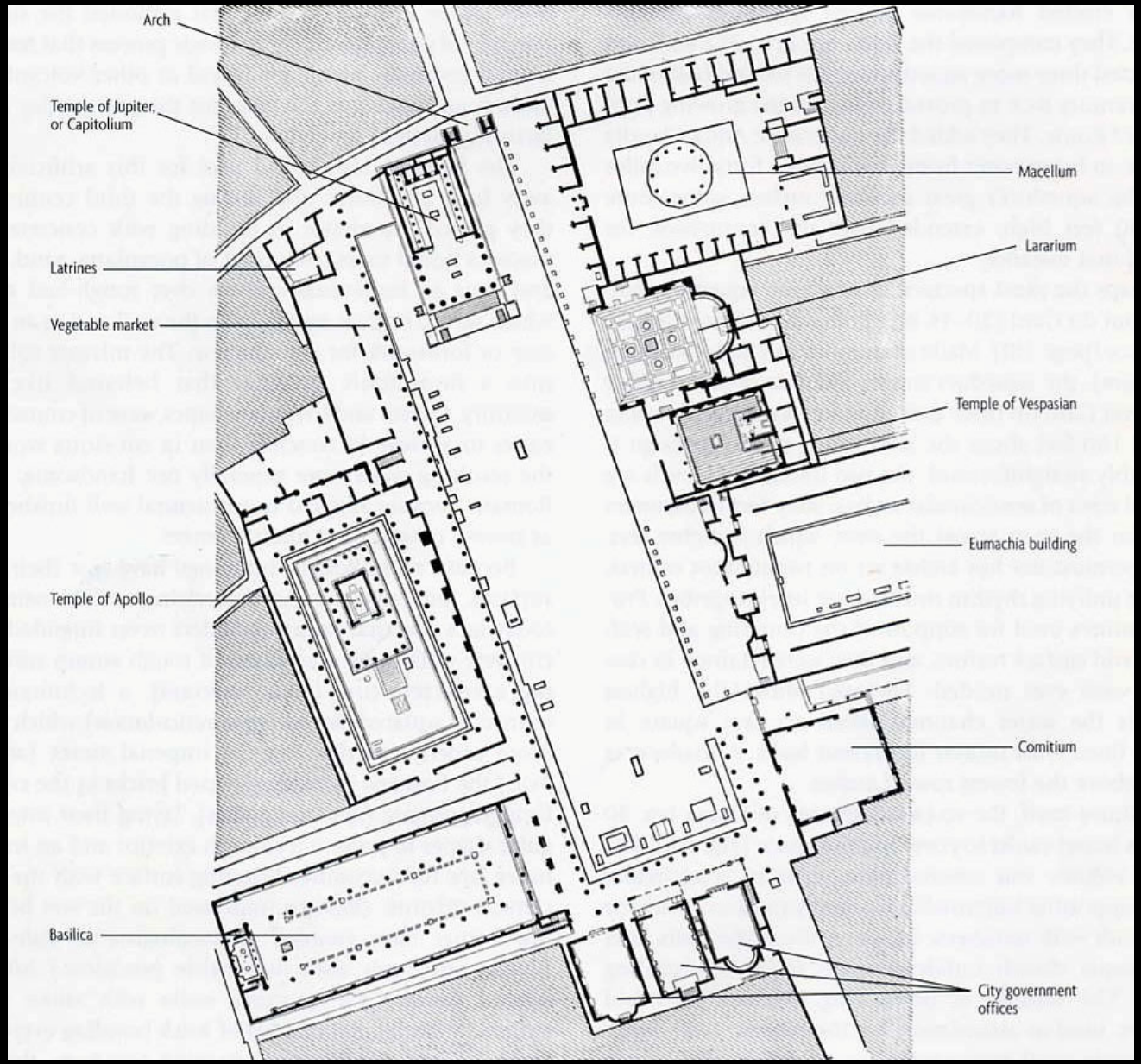
Roman architectural developments

- New building types and forms
  - forums
  - triumphal arches
  - basilica
  - baths
  - theaters
  - amphitheaters / stadiums
  - temples

The Forum at Pompeii



Fazio et al, A World History of Architecture, New York: McGraw Hill, 2008, p 111.

Andrews, Ian, Pompeii, Cambridge: Cambridge University Press, 1985.

The Forum Romanum

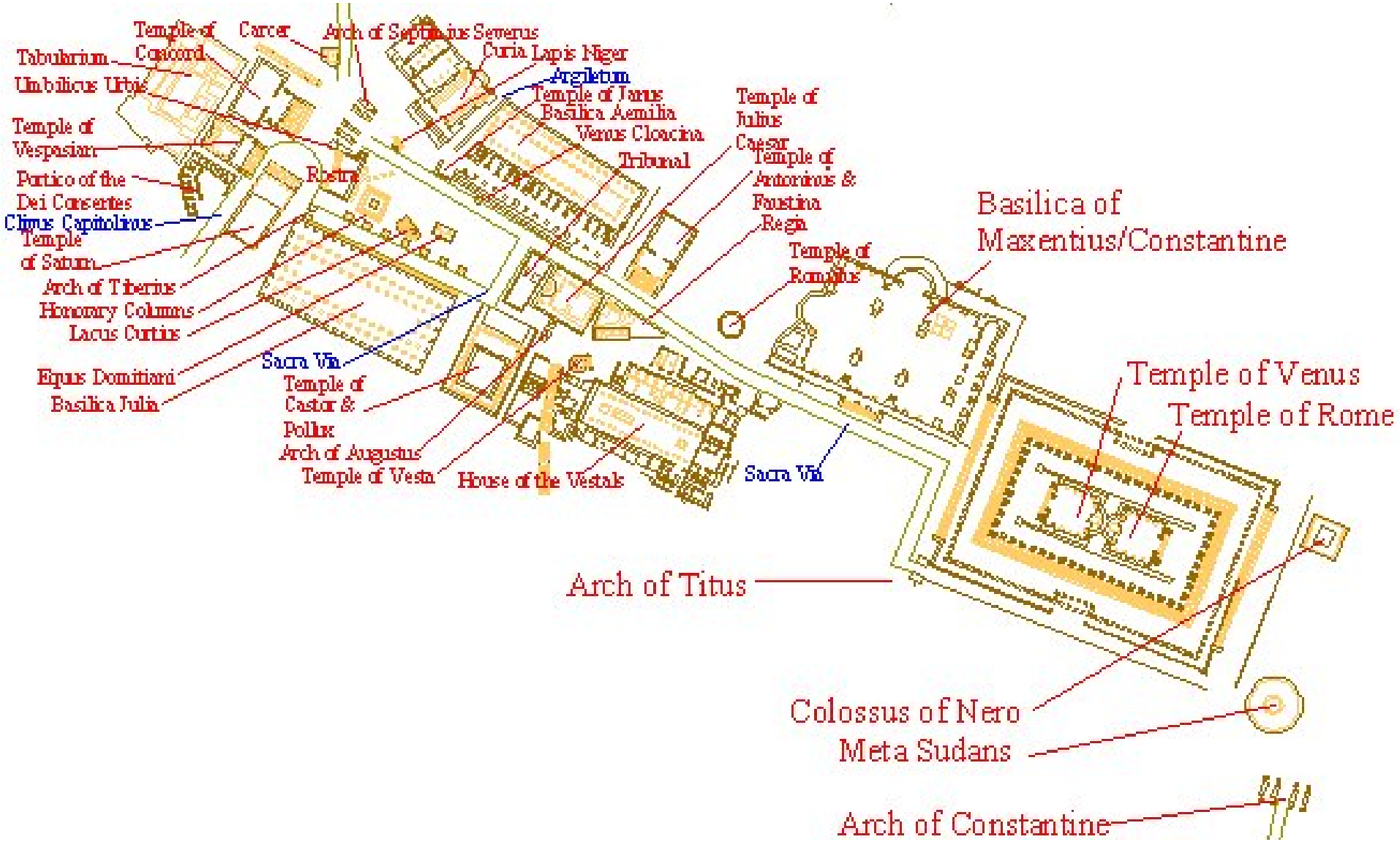
The original Roman Forum, 8th – 1st centuries BCE

Grew up from the period of the Roman monarchy through the period of the Roman Republic

Collection of temples, government and commercial buildings, memorials and statues

Stefan Bauer,
Wikimedia Commons http://commons.wikimedia.org

Forum Romanum 8th – 1st century BCE



Forum Romanum 8th – 1st century BCE

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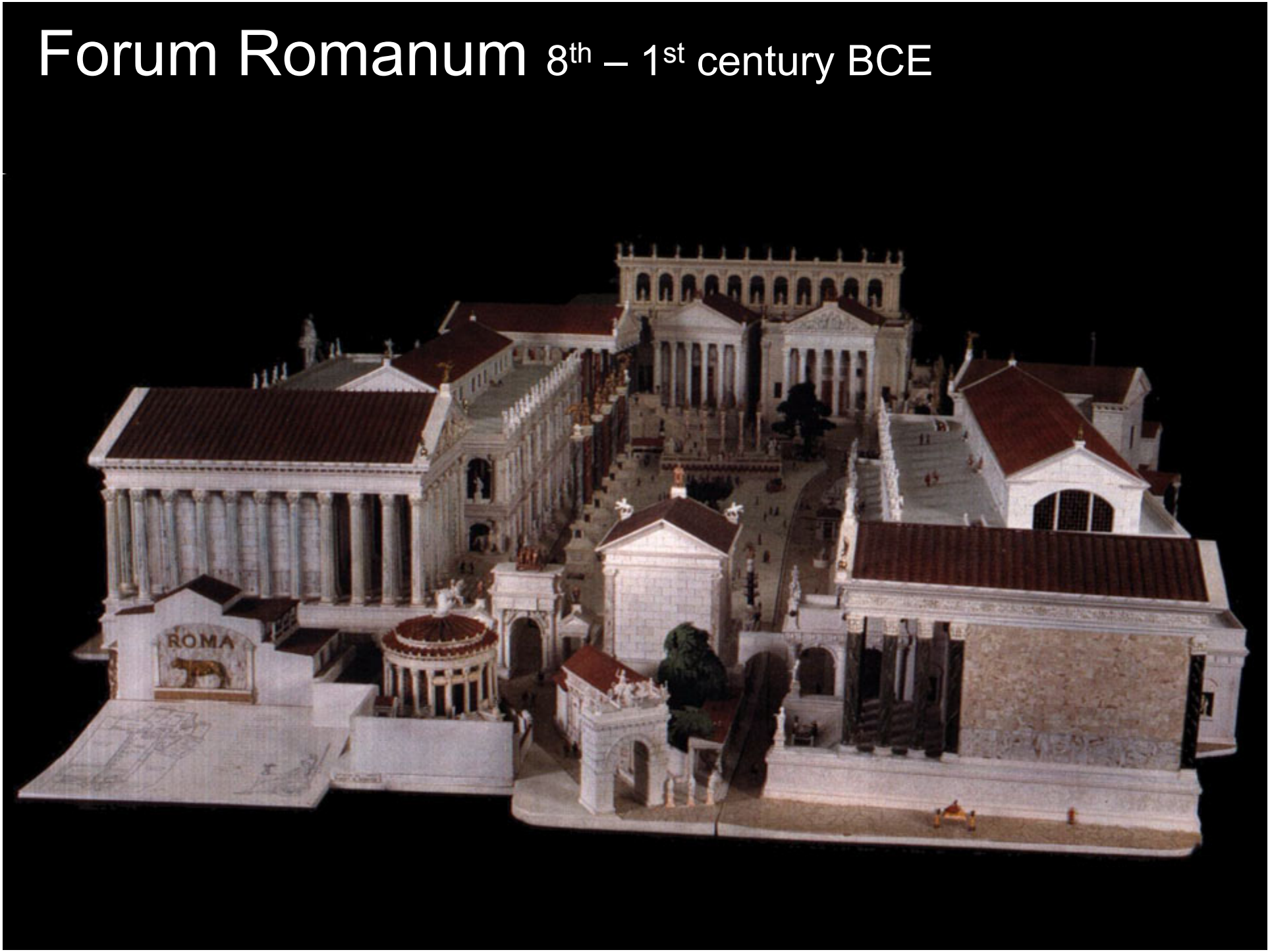
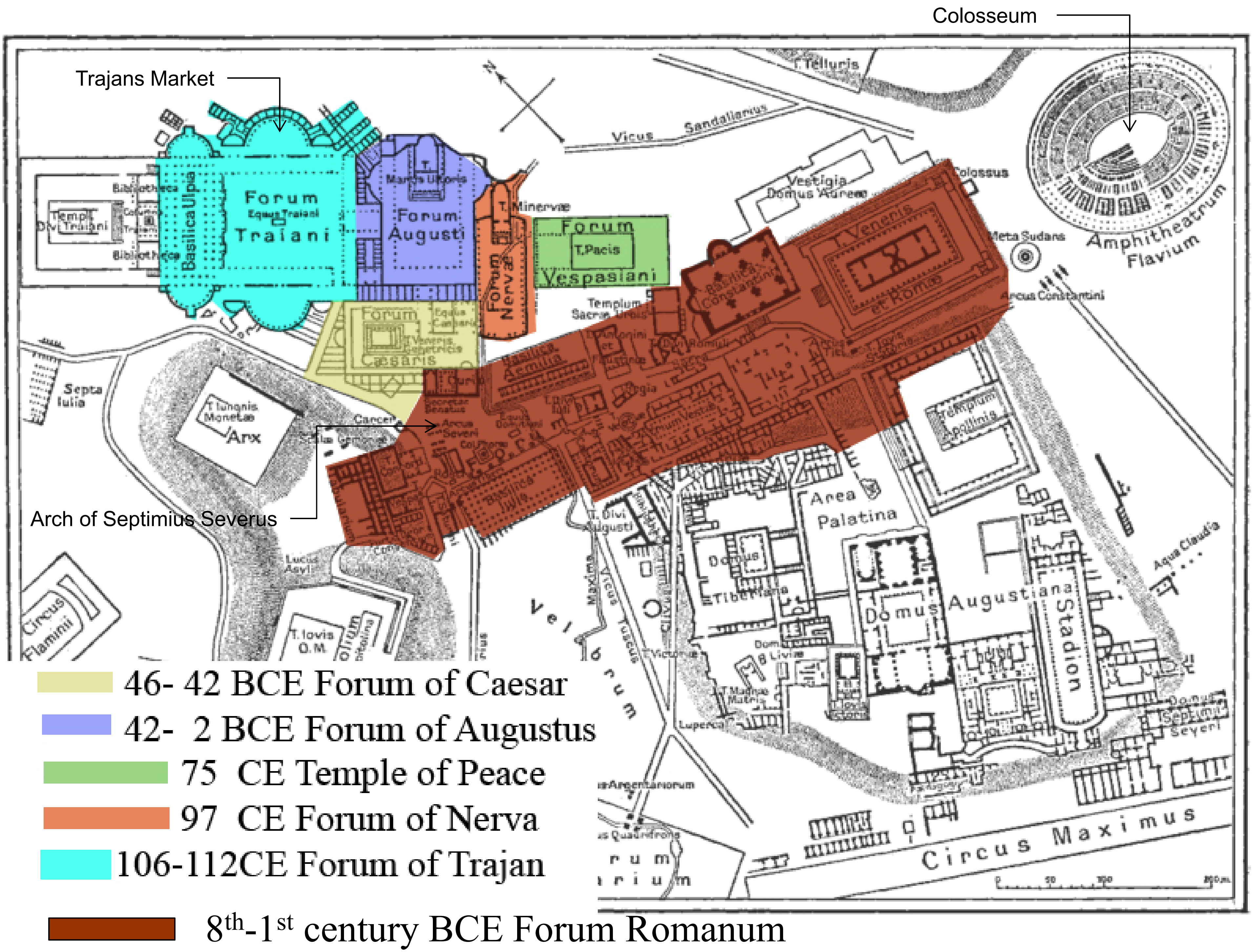
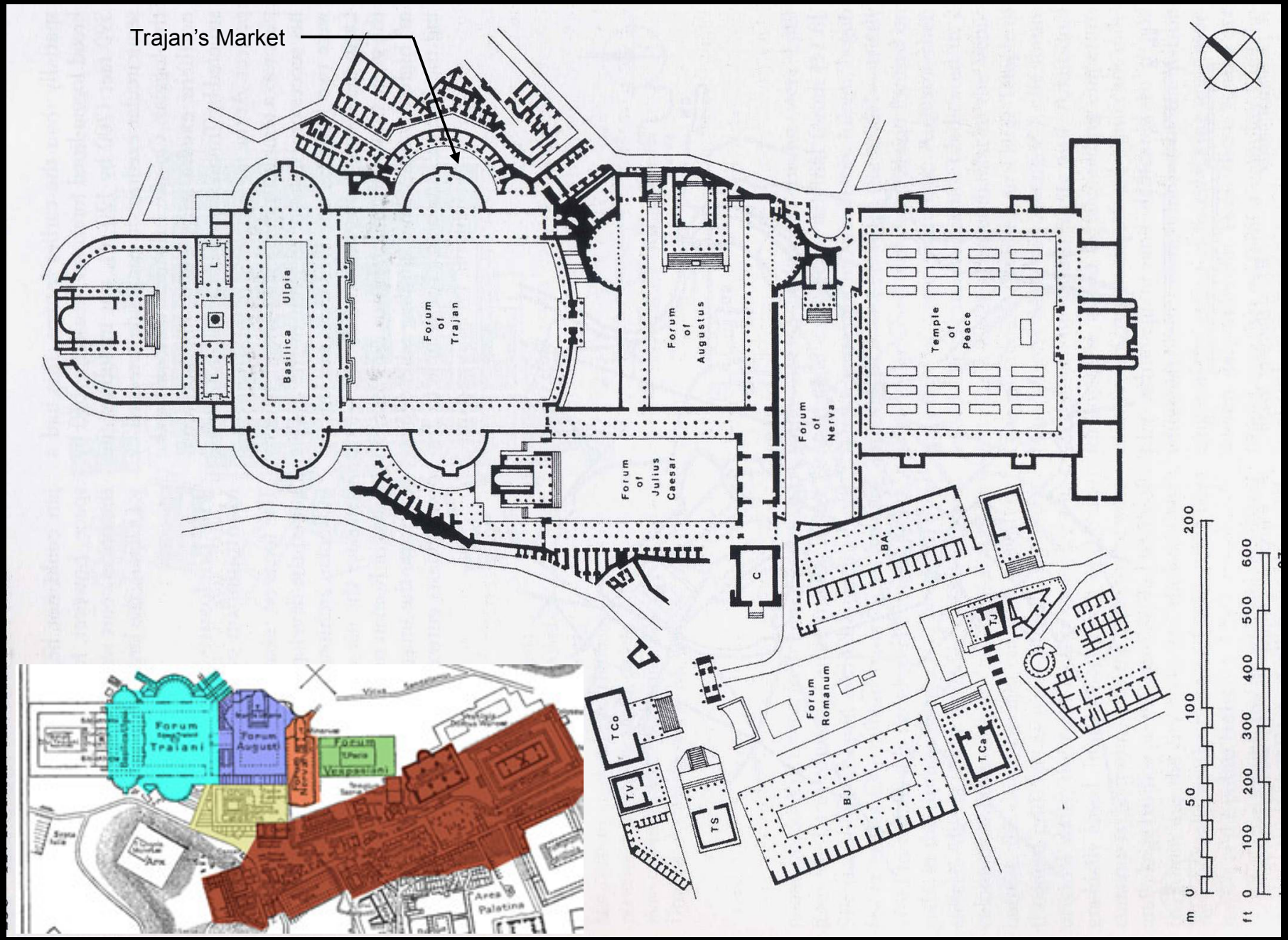



Colosseum
Trajans Market
Arch of Septimius Severus
Forum Traiani
Basilica Ulpia
Forum Augusti
Forum Nervae
T. Minervae
Forum Vespasiani
T. Pacis
Forum Caesaris
Basilica Constantini
T. Veneris et Romae
Amphitheatrum Flavium
Meta Sudans
Arcus Constantini
Vestigia Domus Aureae
Vicus Sandaliarius
Colossus
Area Palatina
Domus Augustiana
Stadion
Domus Tiberiana
Velabrum
Circus Maximus
Circus Flaminii
Septa Iulia
Arx
Basilica Iulia
Basilica Aemilia
Curia
Carcer
46- 42 BCE Forum of Caesar
42- 2 BCE Forum of Augustus
75 CE Temple of Peace
97 CE Forum of Nerva
106-112CE Forum of Trajan
8th-1st century BCE Forum Romanum



Fazio et al, A World History of Architecture, New York: McGraw Hill, 2008, p. 114.

Trajan's Market, 100-114 CE

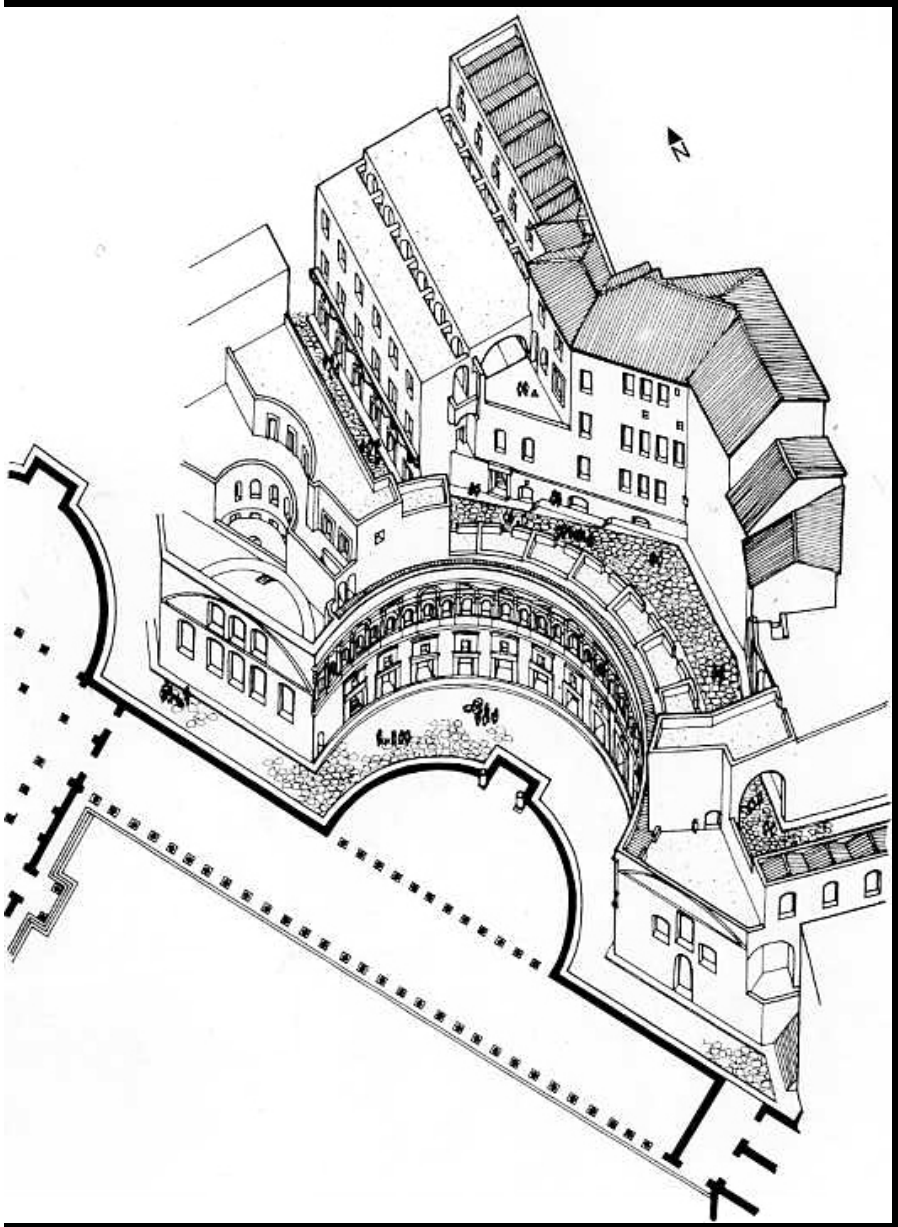
Located on the hills behind the Forum

Streets of Shops

Includes a covered market

www. Harpy.ucc.edu

Trajans Market, 100-114 CE



Moffett - *A world history of architecture*

by sonofgroucho
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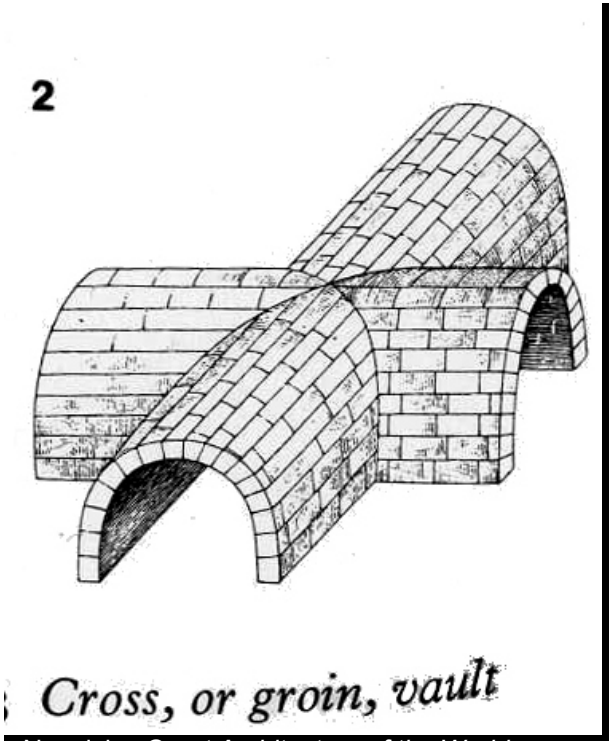
Wikimedia Commons http://commons.wikimedia.org

Trajan’s Market, 100-114 CE

by jan voorhaar (http://www.panoramio.com/photo/)



Norwich - *Great Architecture of the World*

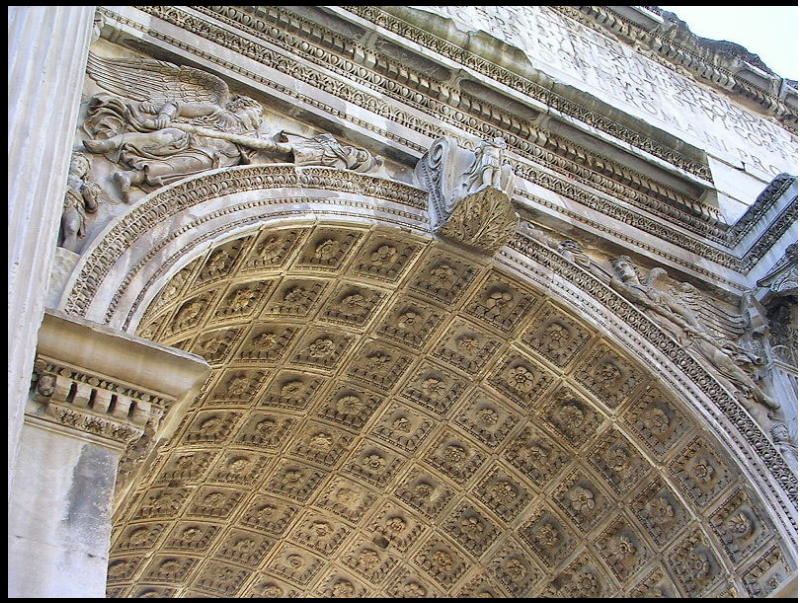
Chris 's Public Gallery
http://picasaweb.google.com/

Gardner - *Art Through the Ages*

Triumphal Arch of Septimius Severus 203 CE (AD)

- Built of brick and travertine, clad with marble slabs
- Celebrated the military victories of Emperor Septimius Serverus and his sons

www. Seindal.dk



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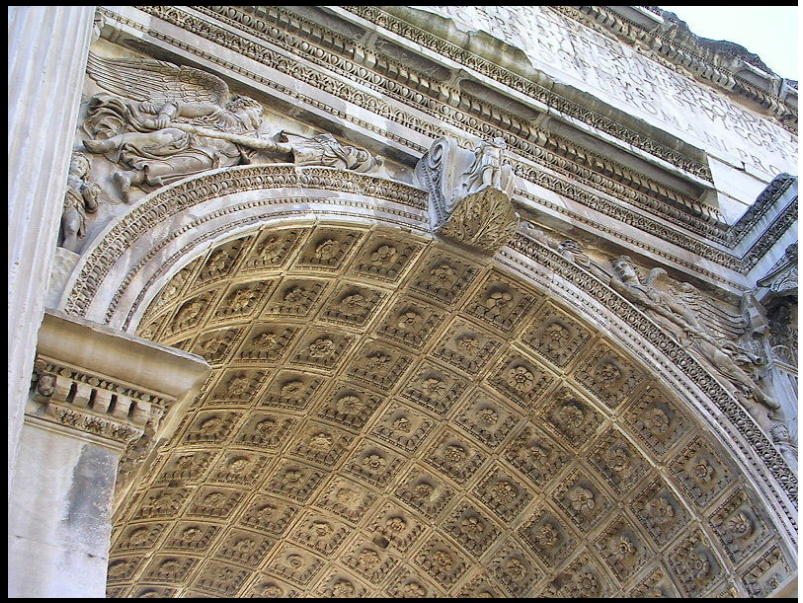
Triumphal Arch of Septimius Severus 203 CE (AD)

Triumphal Arch of Septimius Severus 203 CE (AD)

It is build out of brick and travertine, clad with marble slabs

Built to celebrate the victories of emperor Septimius Serverus and his sons

www. Seindal.dk



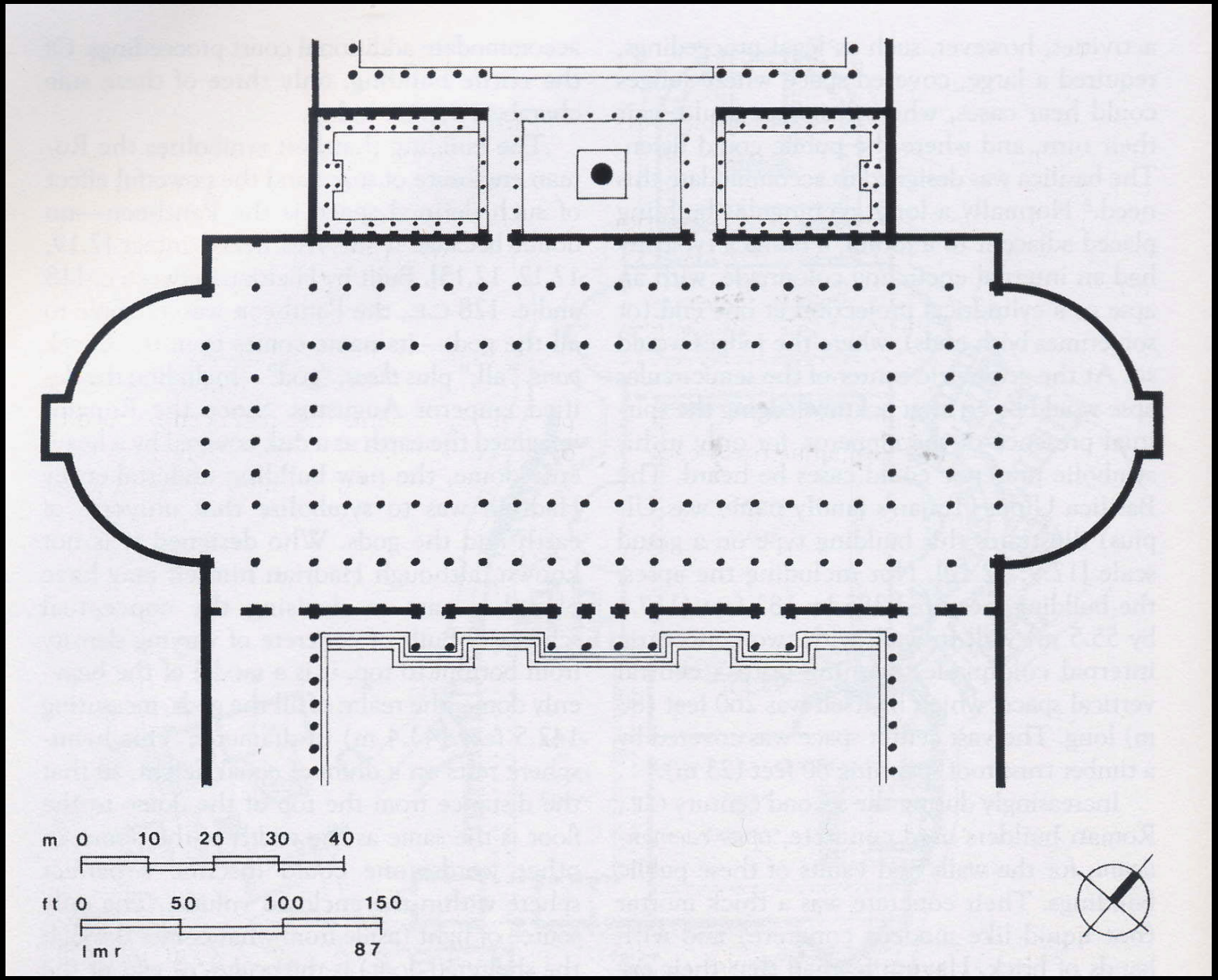
Wikimedia Commons http://commons.wikimedia.org

Basilica Ulpia:
112 CE (AD)

In Forum of Trajan
A civic building 385’ x 182’
A prototype for the layout
of the Christian churches

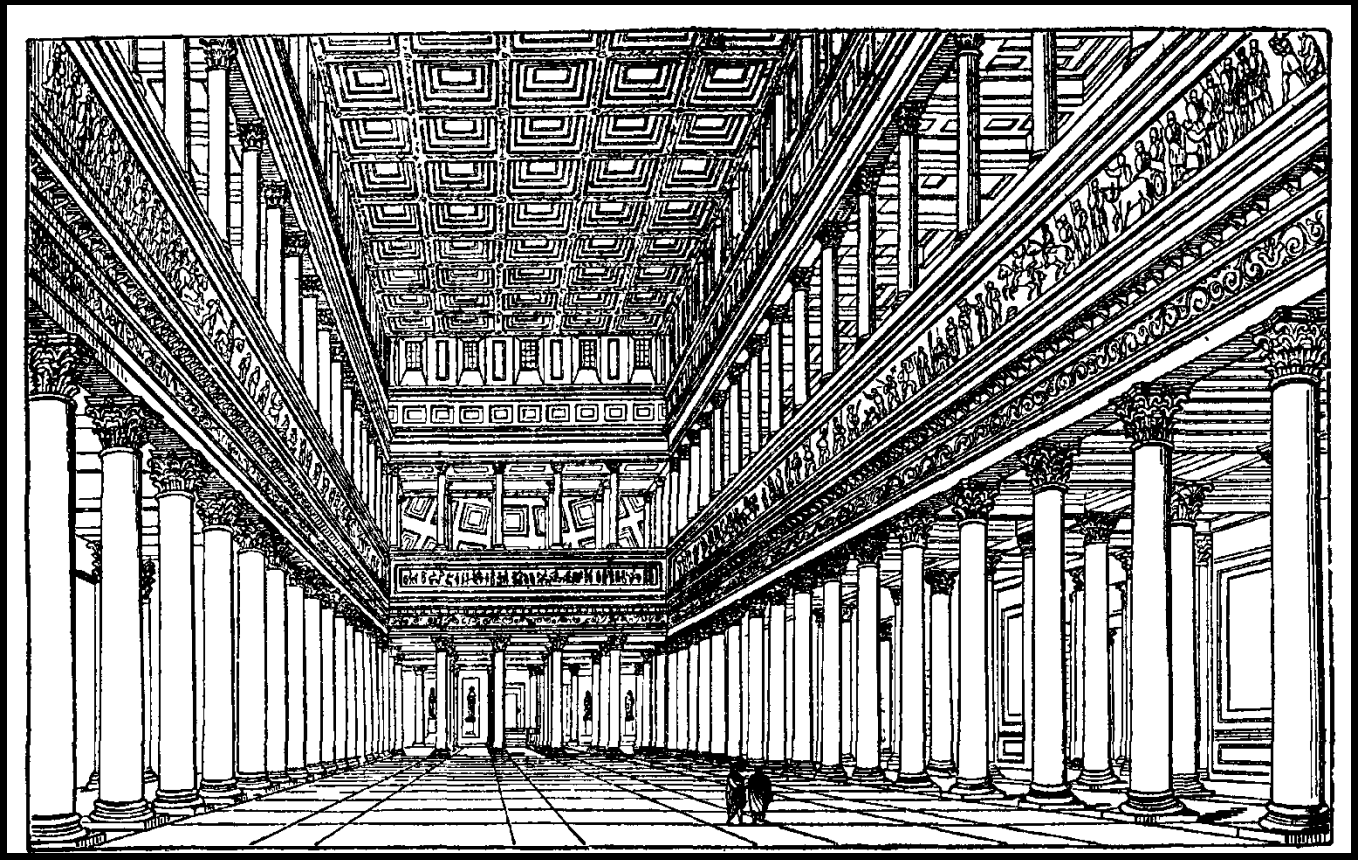
Wikimedia Commons http://commons.wikimedia.org

Basilica Ulpia: 112 CE



Roth, Leland M., Understanding Architecture, 2nd edition, Boulder, CO: Westview Press, 2007, p. 258.

Basilica Ulpia: 112 CE



Wikimedia Commons http://commons.wikimedia.org

Baths of Diocletian: 302 CE (AD)

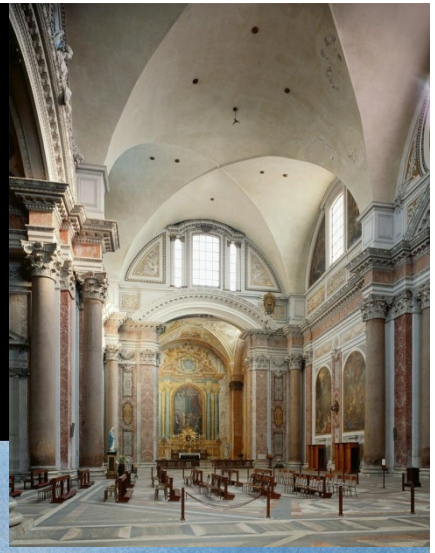
Largest and most sumptuous of the imperial baths

Remained in use until the aqueducts that fed them were cut by the Goths in CE (AD) 537.

Barrel vaults, groin vaults and domes

Baths of Diocletian: 302 CE (AD)

Santa Maria degli Angeli e dei Martiri
Was built inside the frigidarium of the Baths



ARTstor:
SCALA, Florence/ART RESOURCE, N.Y.

Norwich, John - *The world Atlas of architecture*

Basilica of Maxentius & Constantine (Nova)

4th century CE (AD)

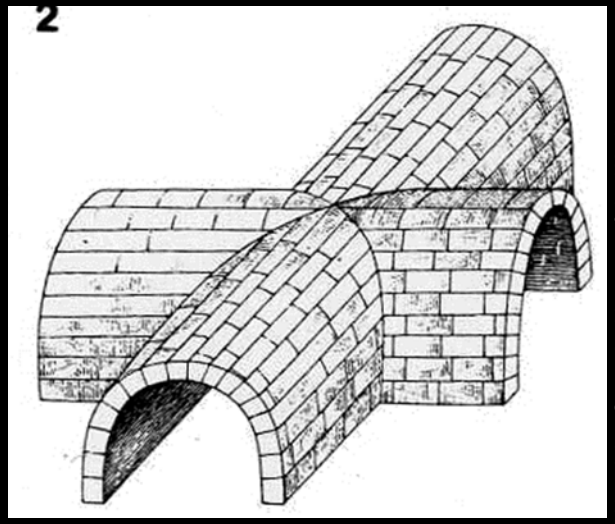
Very large, vast interior – 280’ x 88’ x 120’ high

Destined for commercial and administrative activities

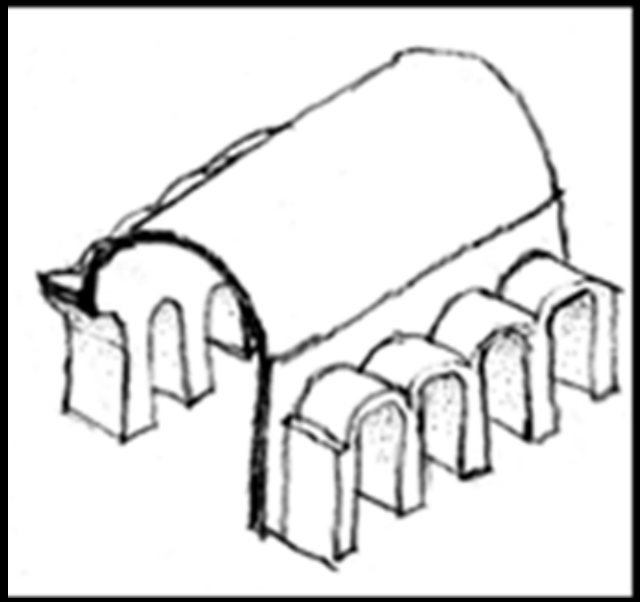
Covered with vaults, not the typical flat roof as most basilicas

Basilica of Maxentius & Constantine (Nova)

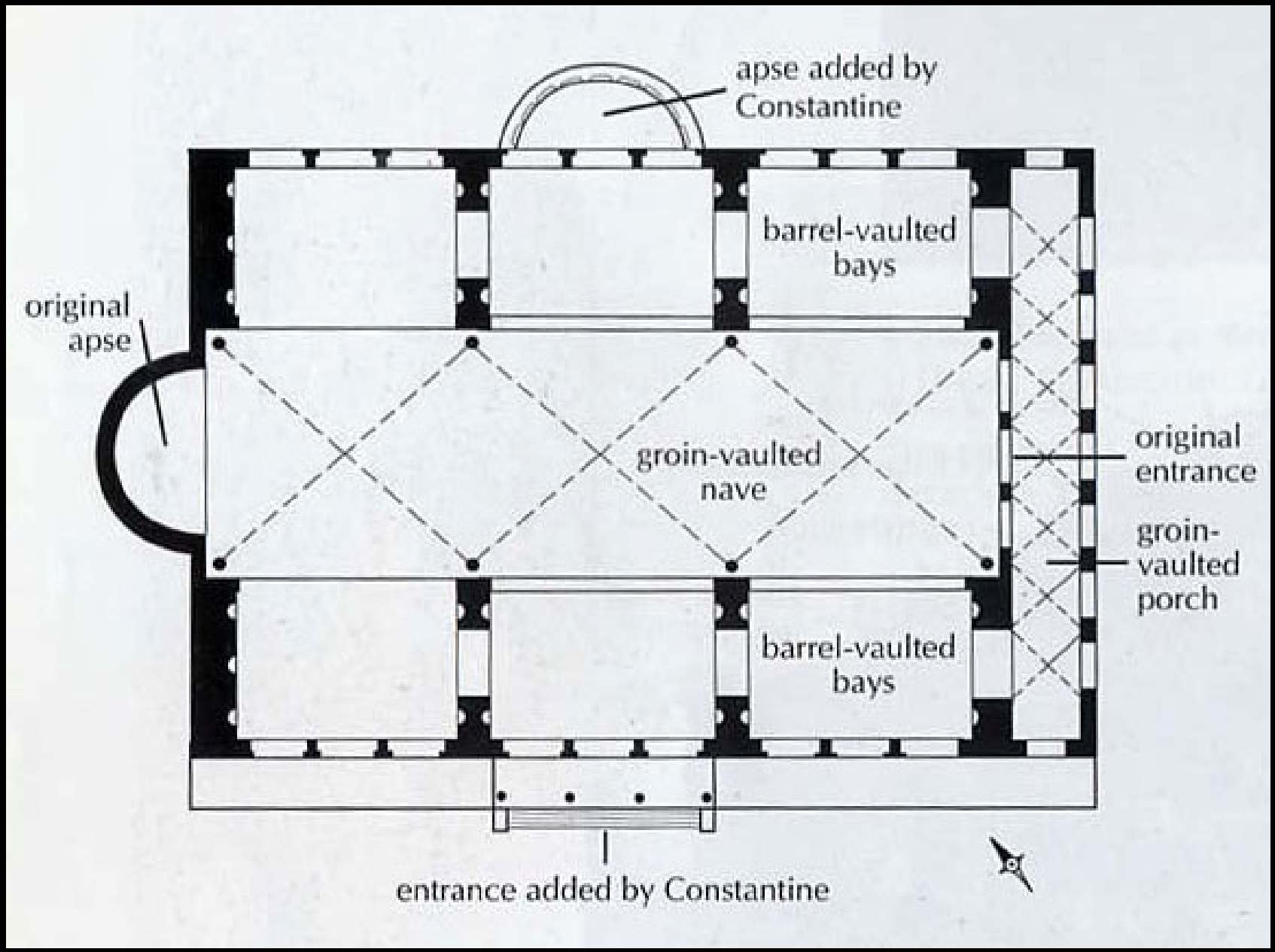
Covered by 3 groin vaults (two intersecting vaults with ribbed intersection) and butressed by barrel vaults

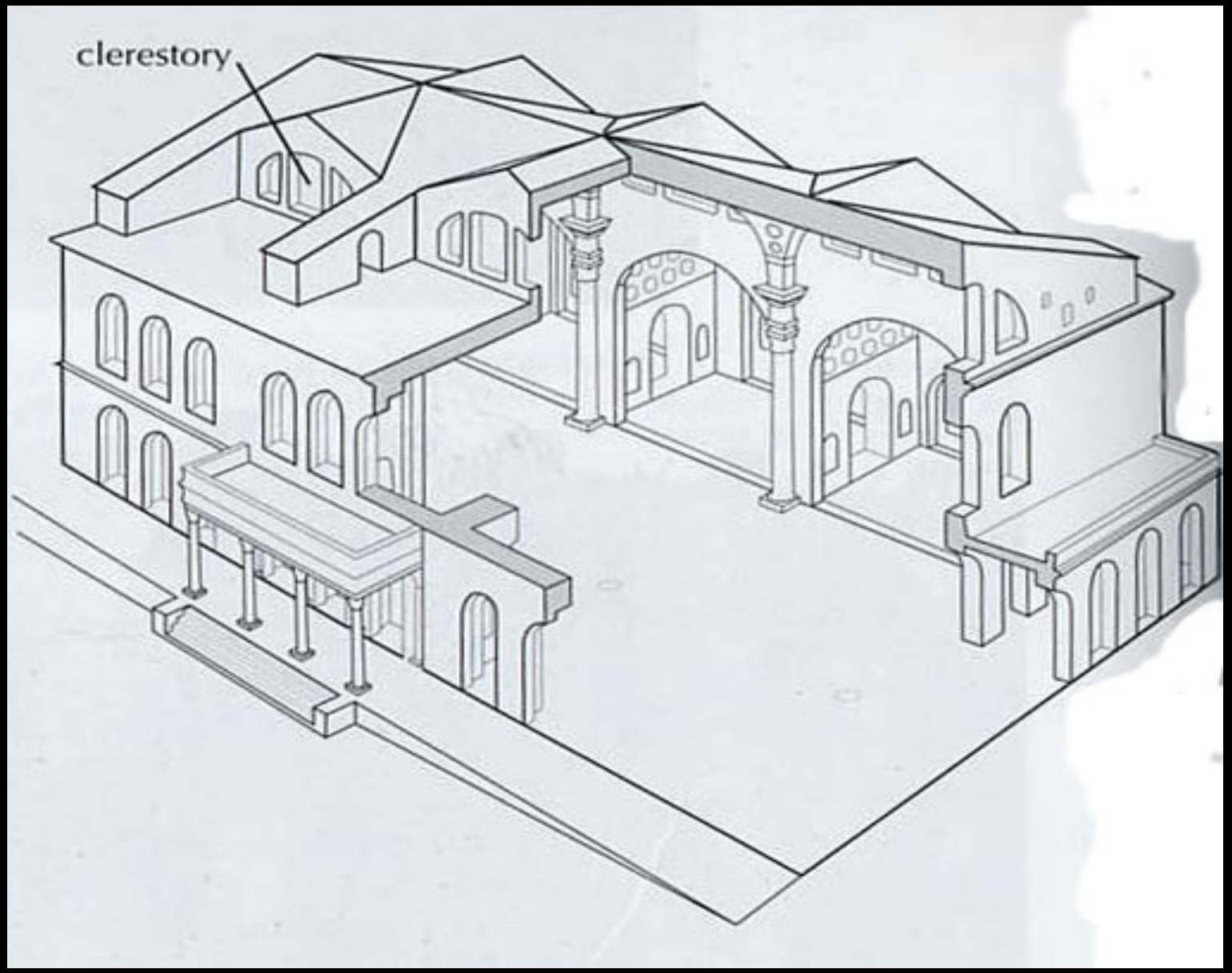


Norwich - *Great Architecture of the World*



www. Harpy.ucc.edu

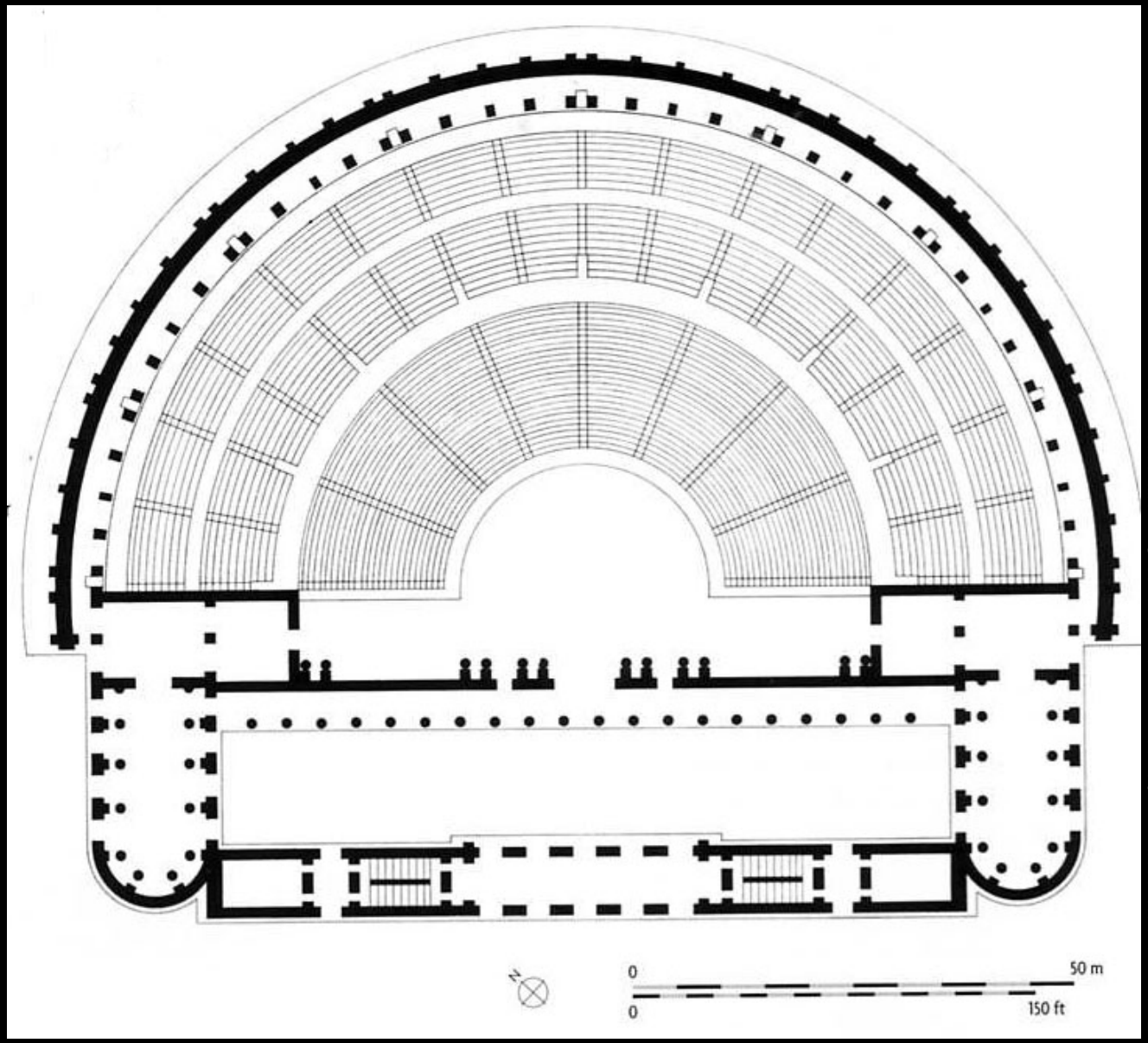

apse added by Constantine
barrel-vaulted bays
original apse
groin-vaulted nave
original entrance
groin-vaulted porch
barrel-vaulted bays
entrance added by Constantine


clerestory

Basilica of Maxentius & Constantine (Nova)

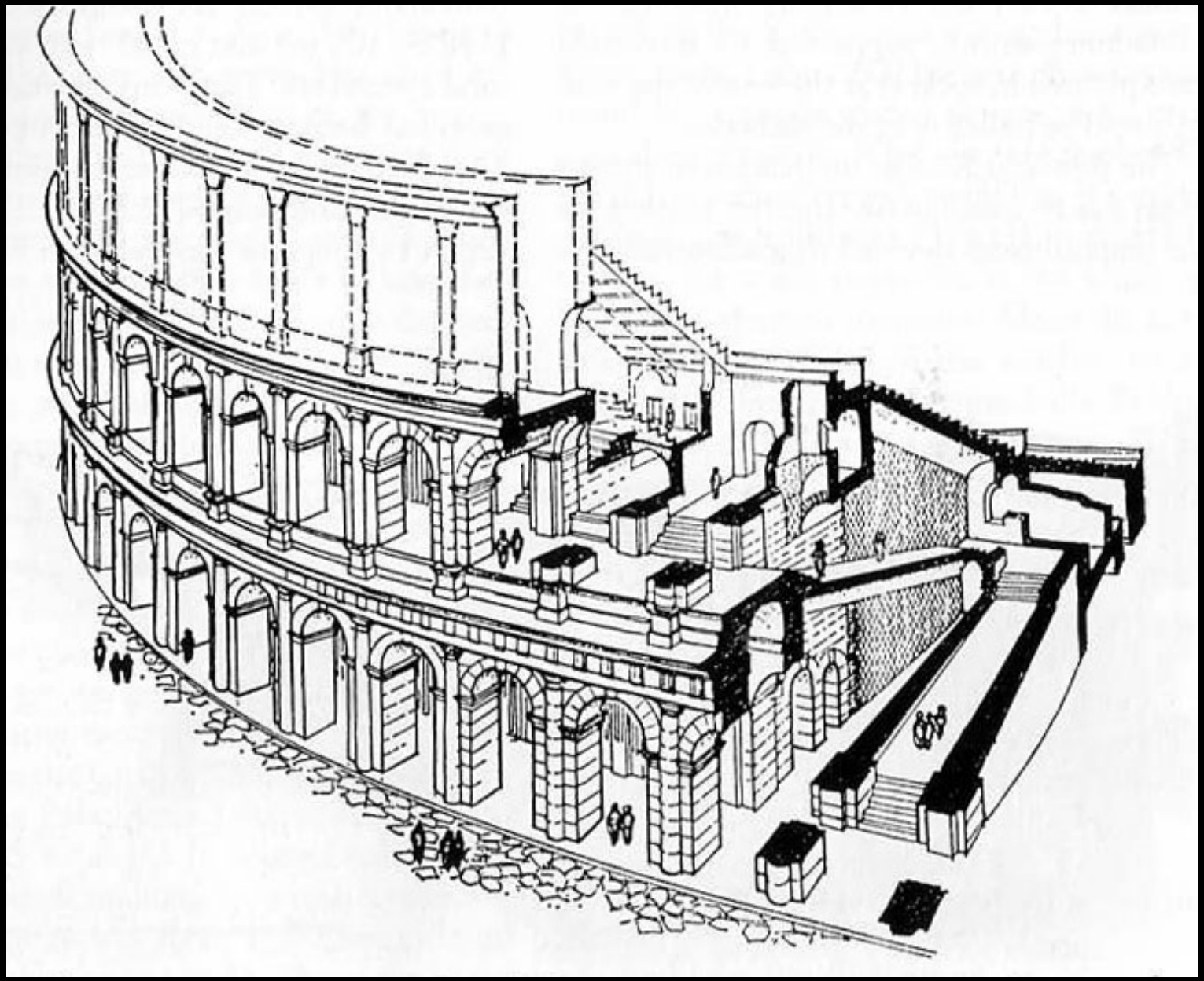
Mark, Robert – *Architectural Technology*

Theater of Marcellus, Rome 13-11 BCE



Fazio et al, A World History of Architecture, New York: McGraw Hill, 2008, p 124.

Theater of Marcellus, Rome 13-11 BCE



Fazio et al, A World History of Architecture, New York: McGraw Hill, 2008, p 124.

Andrews, Ian, Pompeii, Cambridge: Cambridge University Press, 1985.

Colosseum (Flavian Amphitheater): 80CE (AD)

Largest Roman Amphitheater (could seat 50,000)

6 tiers of seats supported by a structural brick and concrete façade of 80 arches on four levels – 600’ end to end

www. Harpy.ucc.edu

www. Harpy.ucc.edu

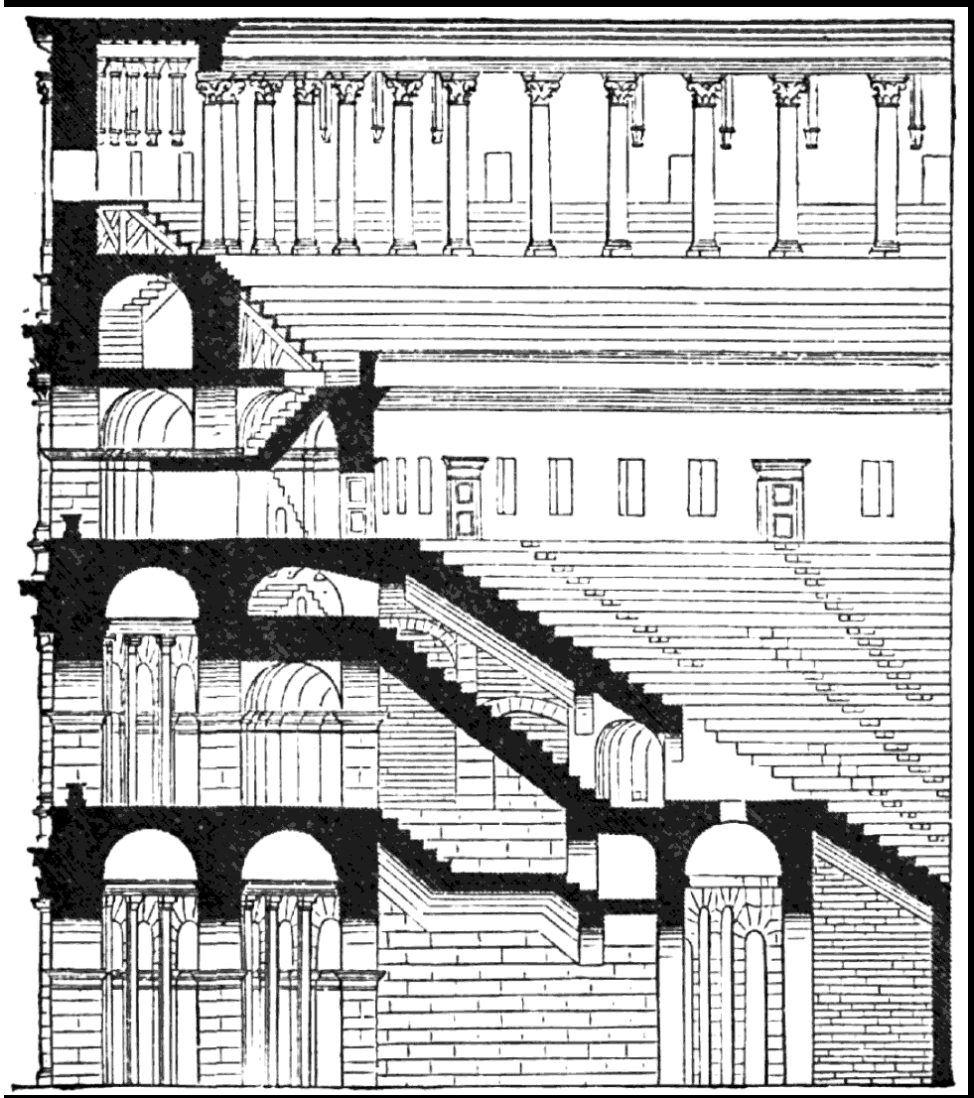
Colosseum (Flavian Amphitheater): 80CE (AD)

- Begun by Vespasian on Nero's Lake of his Golden House
- 2 complete passageways encircling it with ramps from seating areas – allowed for handling of large audiences

www. Harpy.ucc.edu

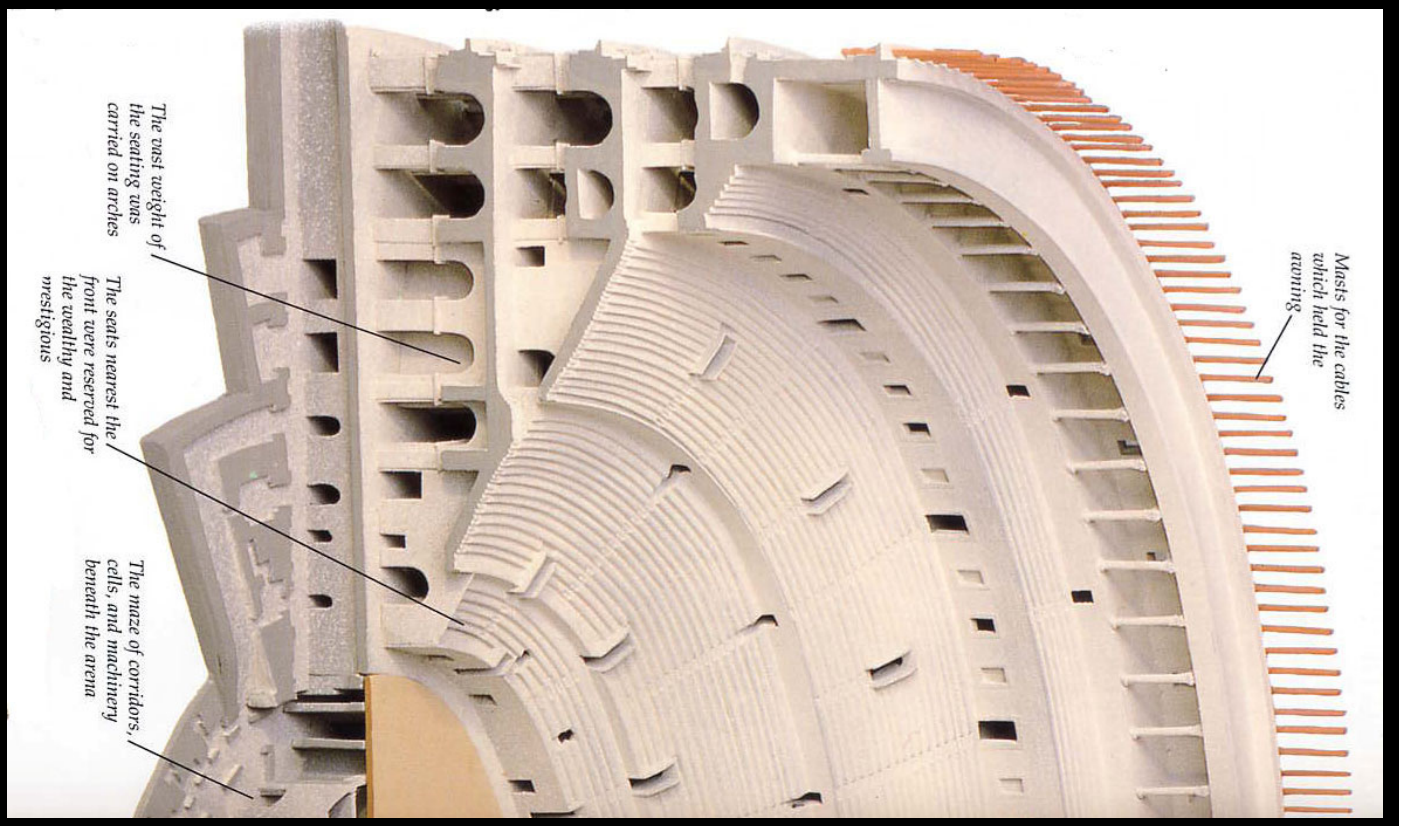
Colosseum (Flavian Amphitheater): 80CE (AD)

- Used as late as 523 CE (AD)

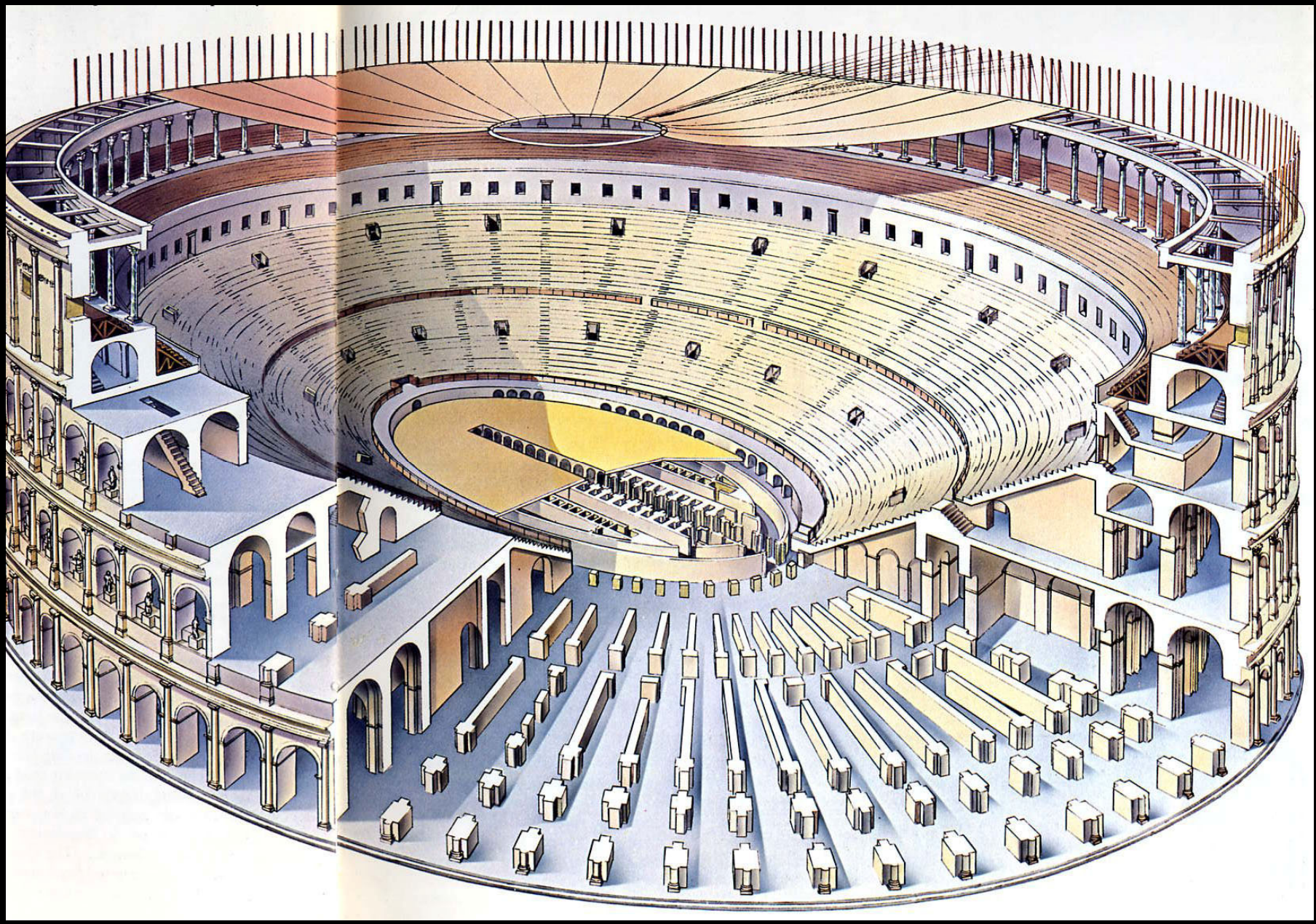


Wikimedia Commons http://commons.wikimedia.org

Gardener & Trachtenberg/Hyman



James, Simon, Eyewitness Books: Ancient Rome, New York: Alfred A. Knopf, 1990, p28.



Mansell, George, Anatomy of Architecture, London: Hamlyn Publishing, 1979, p 31.

Temples:

Often for 3 Gods – individual chambers (Cellas)

Divine accommodations were pushed back on high podium

Viewed from only one viewpoint – the front

Ideal position was at the end of the open space / axis

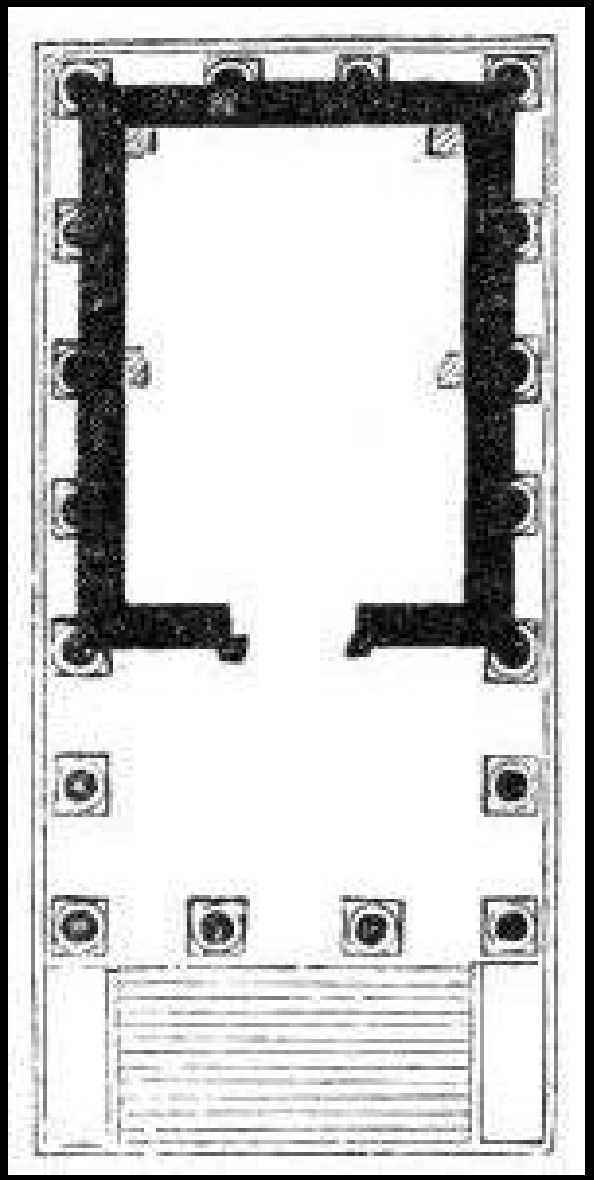
Flat, frontal view

1st Century Augustus and Tiberius rebuilt most of the temples in Rome – Retained base, but changed the exterior to meet current Hellenistic and Roman style

Temple of Fortuna Virilis
c. 75 BCE

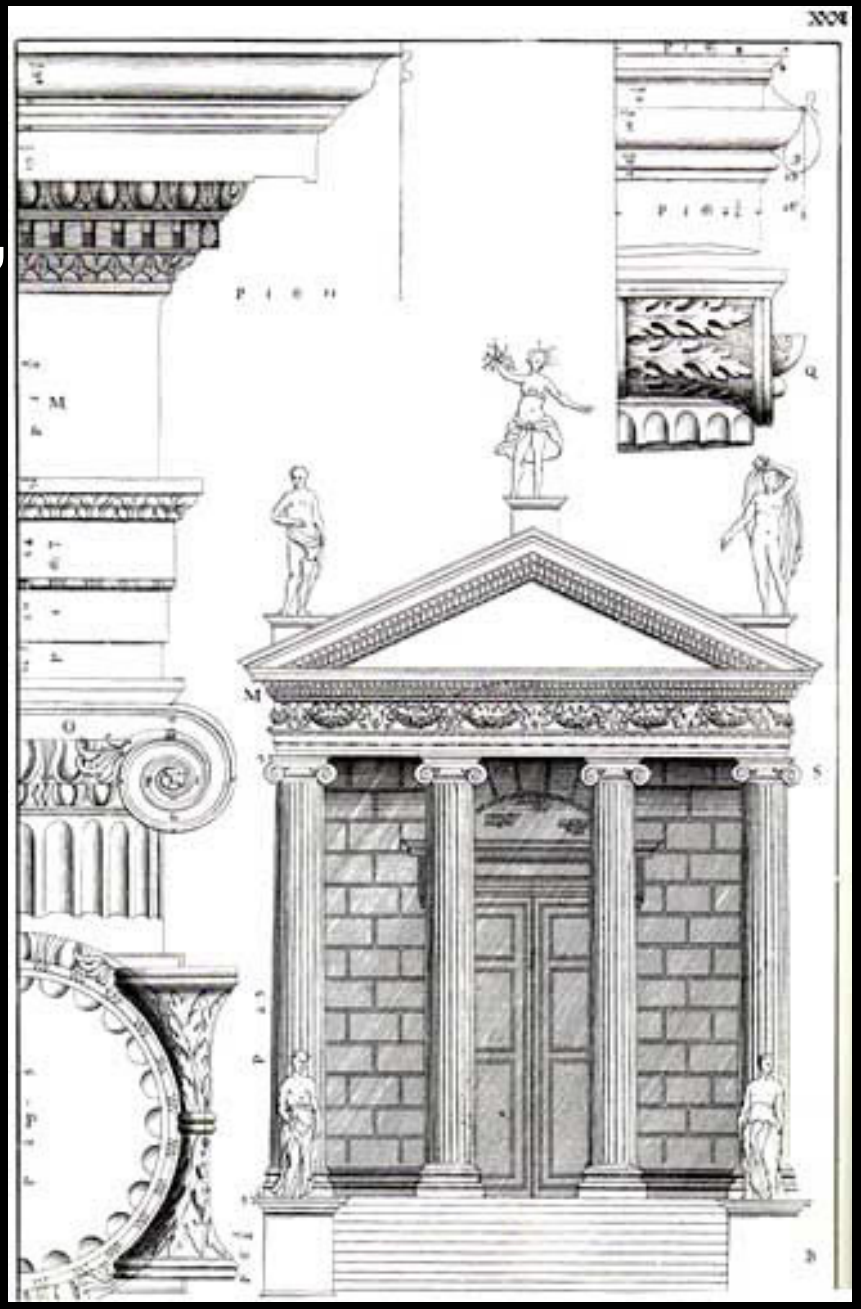
Wikimedia Commons http://commons.wikimedia.org

Temple of Fortuna Virilis, Rome c. 75 BCE



Wikimedia Commons http://commons.wikimedia.org

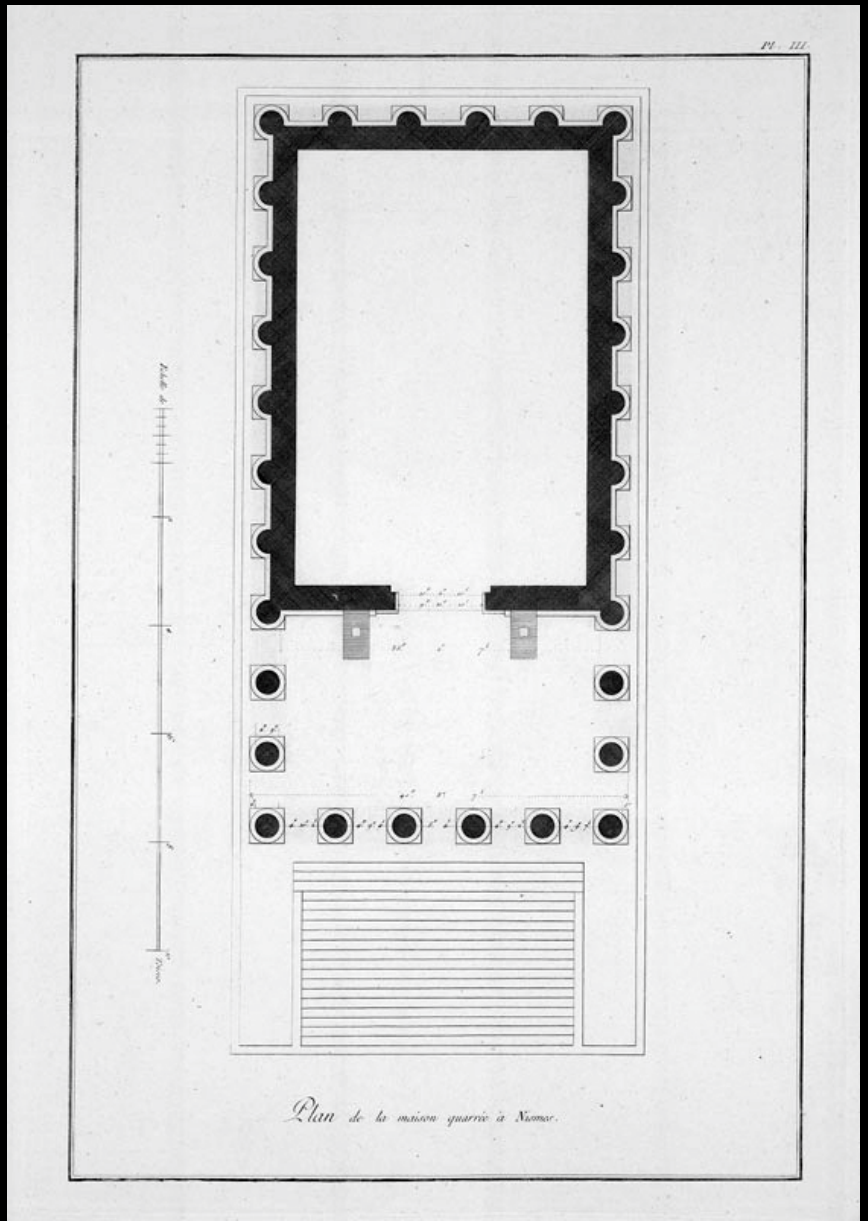
Temple of Fortuna Virilis, Rome c. 75 BCE



Maison Carree: 16 BCE Nimes

Perfect example of classic Vitruvian architecture.

Wikimedia Commons http://commons.wikimedia.org



"The Maison Carrée" from Antiquités de la France. Charles-Louis Clérisseau. Paris. Bound volume. Library of Virginia.


Maison Carree: 16 BCE Nimes
Wikimedia Commons http://commons.wikimedia.org

Pantheon: 25 BCE -213 CE (AD)

One of the last great Pagan Temples

Portico: Corinthian granite columns by Agrippa (25 BCE)

120-124AD Hadrian built the rotunda, with an occulus at the highest point, an opening through which the sun shines

www. Harpy.ucc.edu

Gardener & Trachtenberg/Hyman

Pantheon: 25 BCE -213 CE

- 142’ spherical rotunda with a 30’ oculus
- Height of dome equals diameter of the floor plan (in theory could hold a sphere).
- Coffered ceiling: once embellished with stucco

Pantheon dome

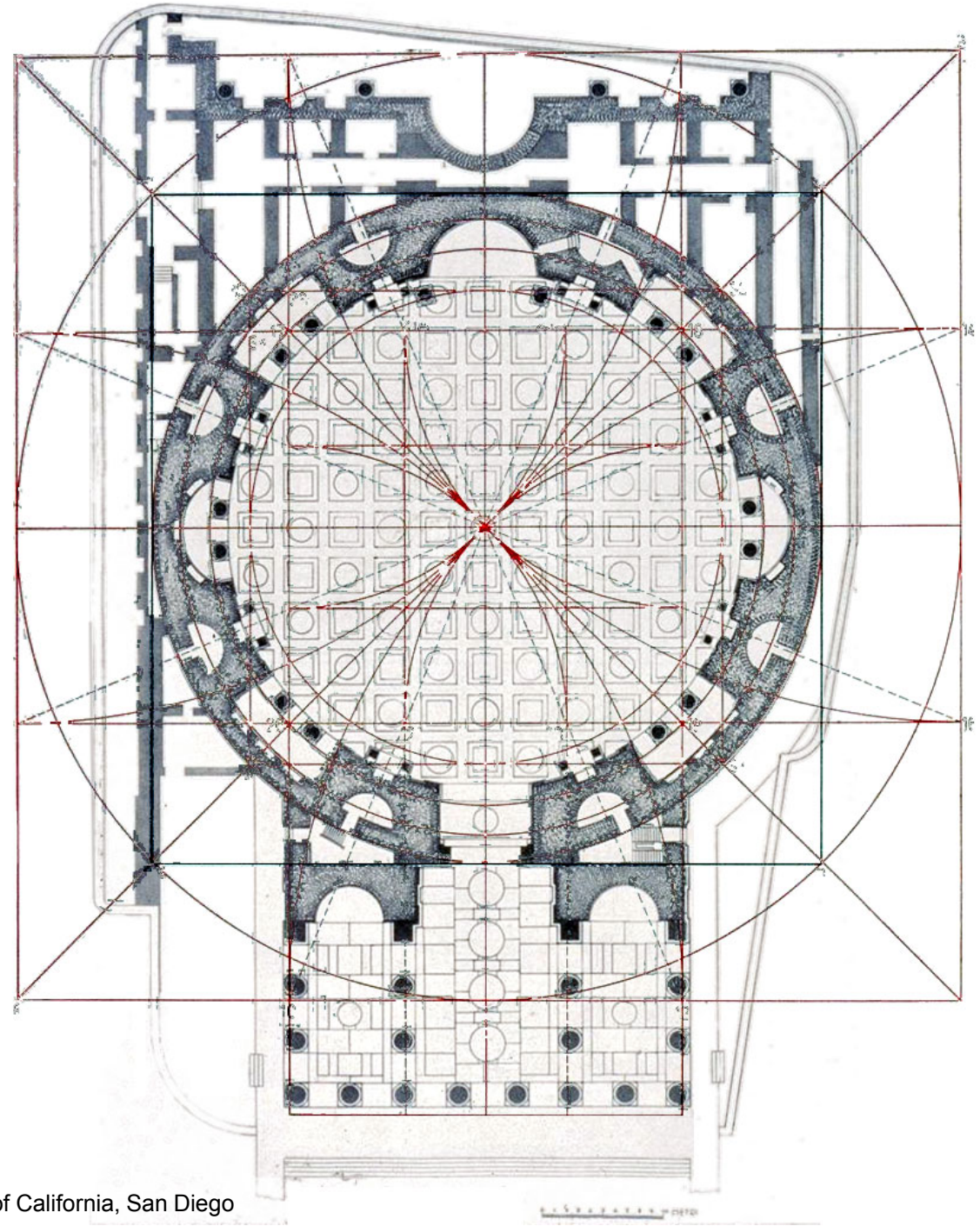
By féileacán
www.flickr.com

By irene
www.flickr.com

Pantheon:

25 BCE -213 CE

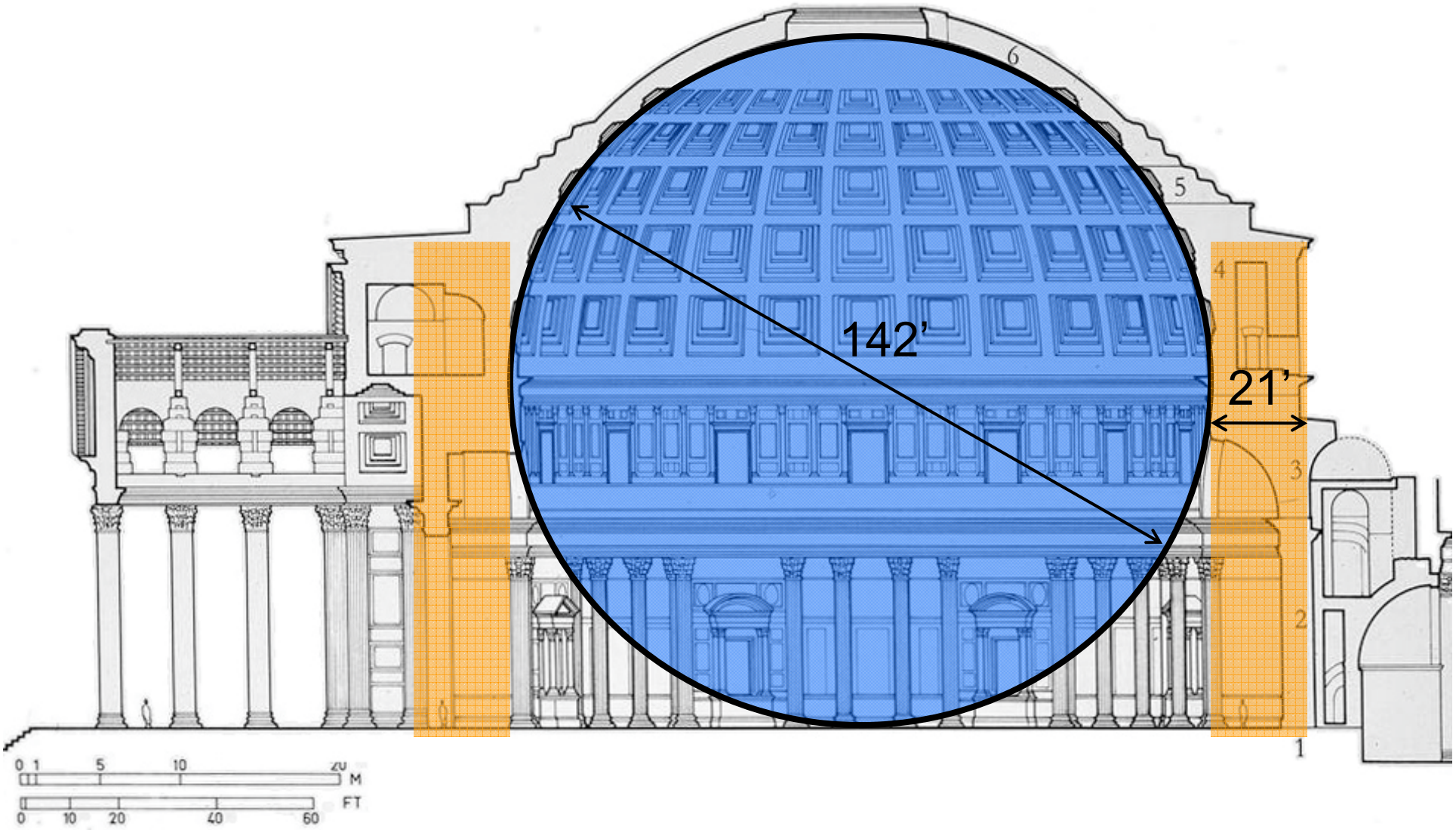
ARTstor - ARTstor - University of California, San Diego

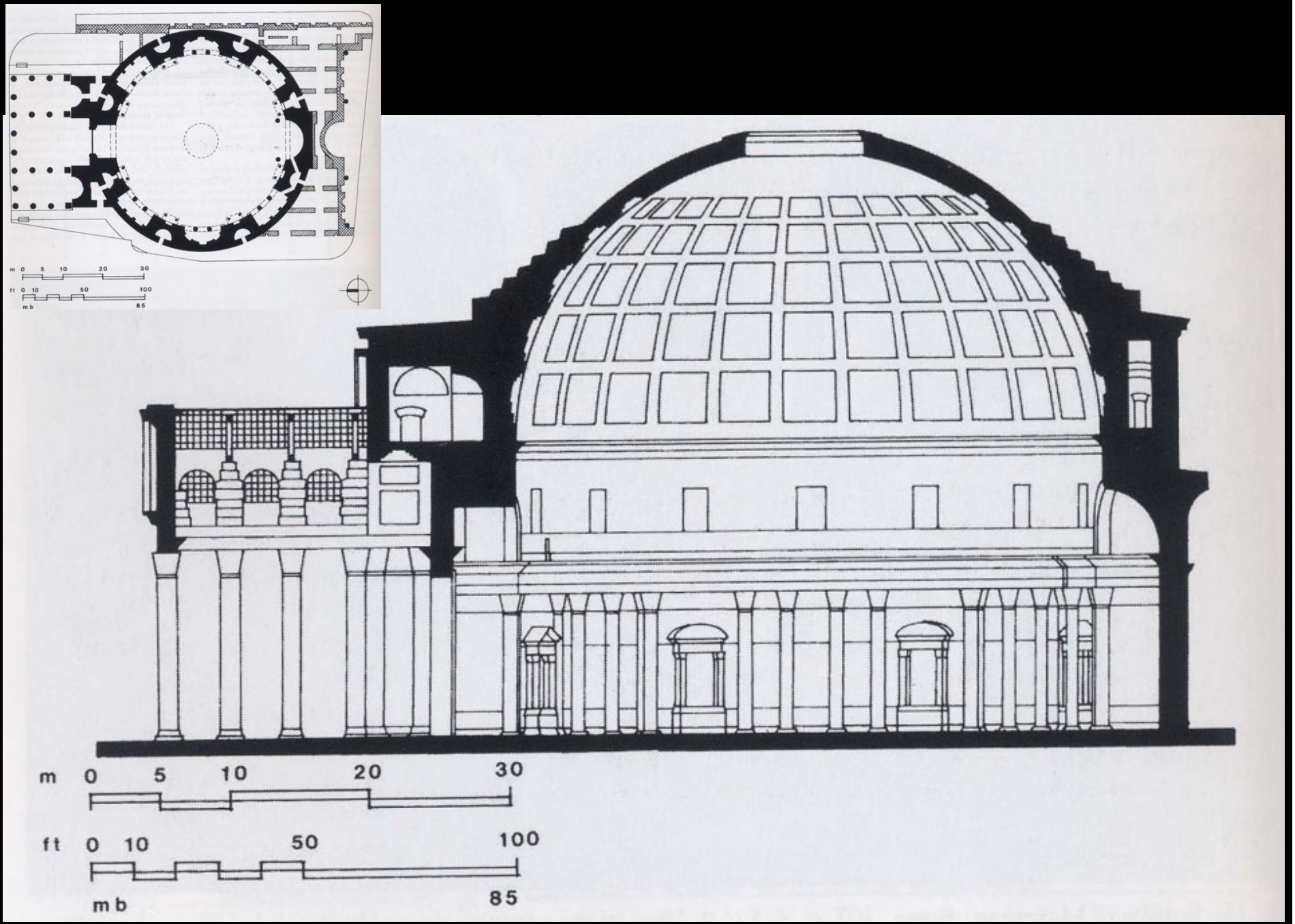


ARTstor - University of California, San Diego

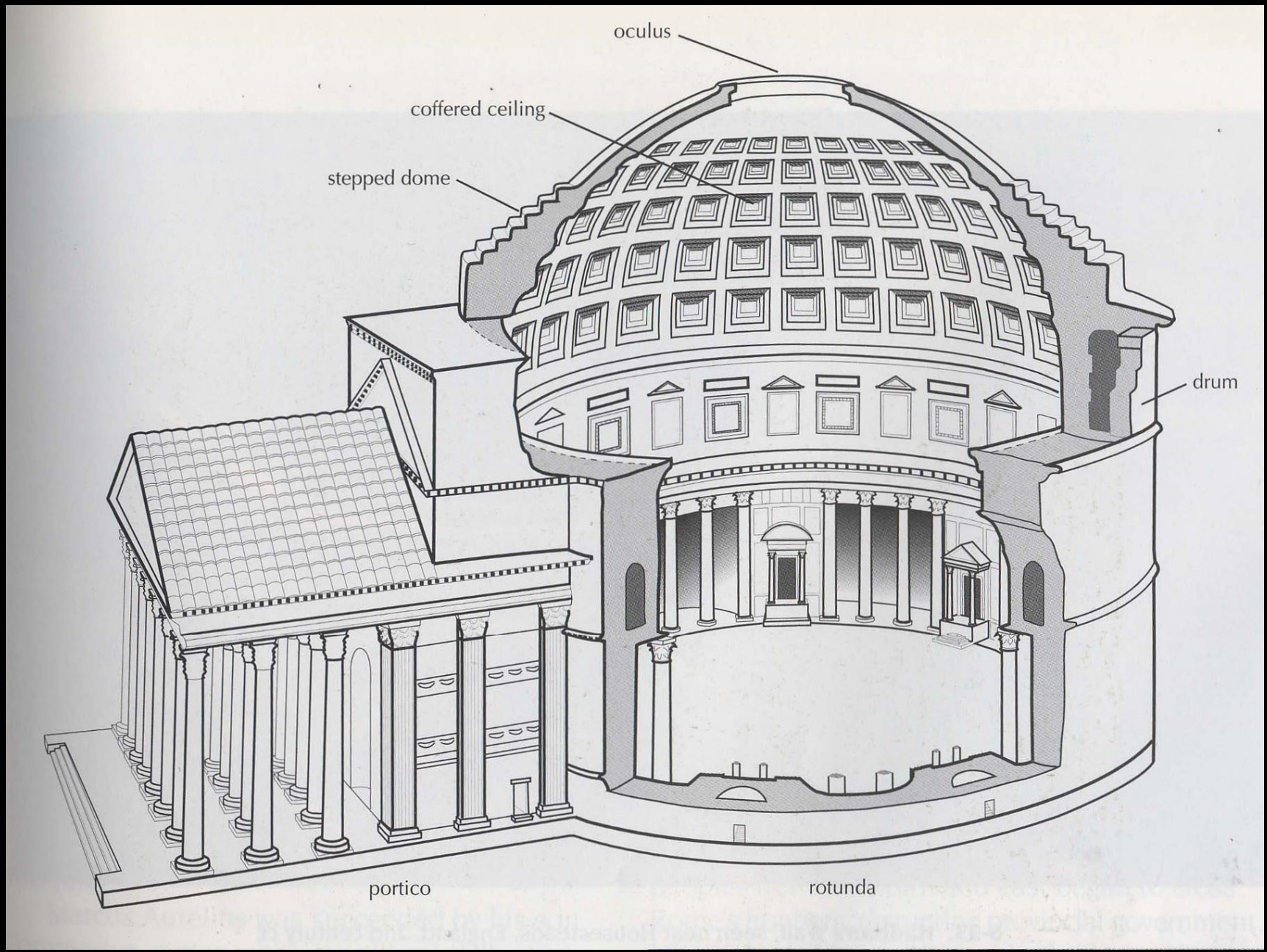
Pantheon: 25 BCE -213 CE

21’ walls built of concrete sandwiched between layers of brick, sheathed in marble veneer

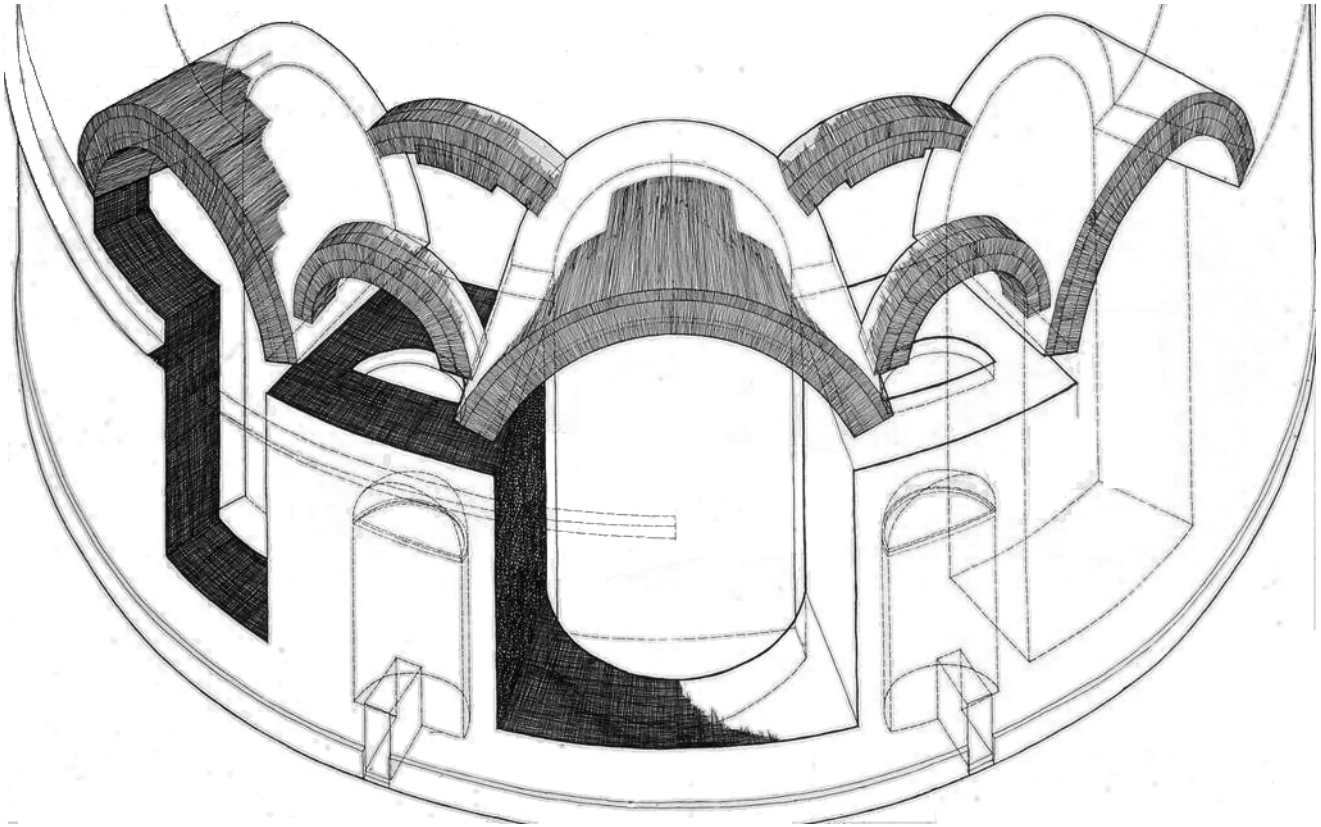




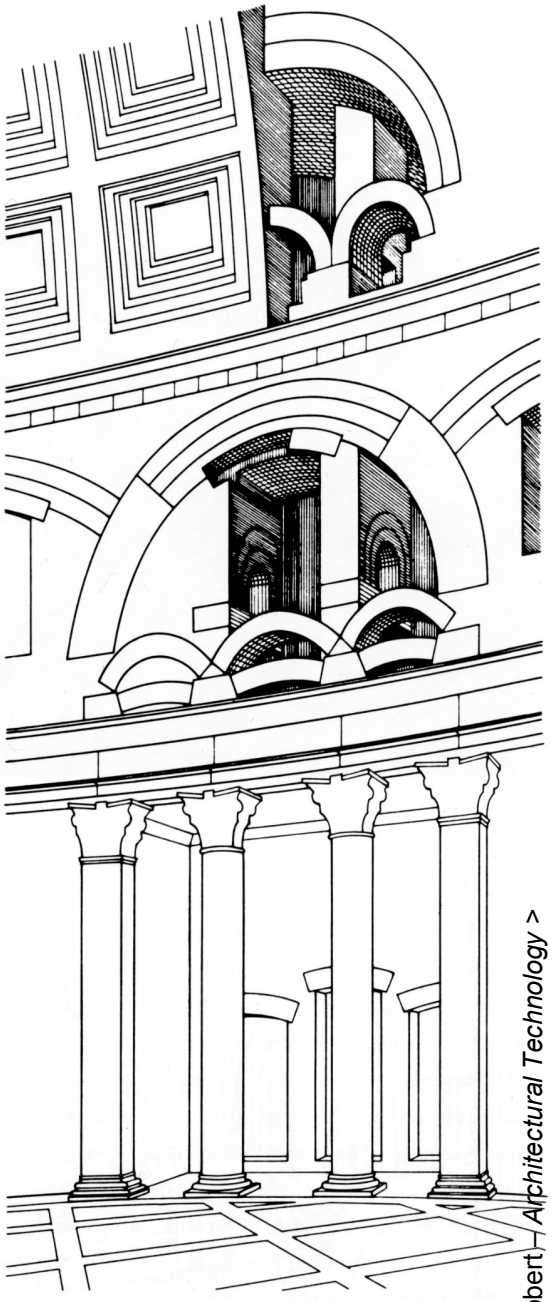
Roth, Leland M., Understanding Architecture, Boulder, CO: Westview Press, 2007.


oculus
coffered ceiling
stepped dome
drum
portico
rotunda

Pantheon: 25 BCE -213 CE



ARTstor - University of California, San Diego

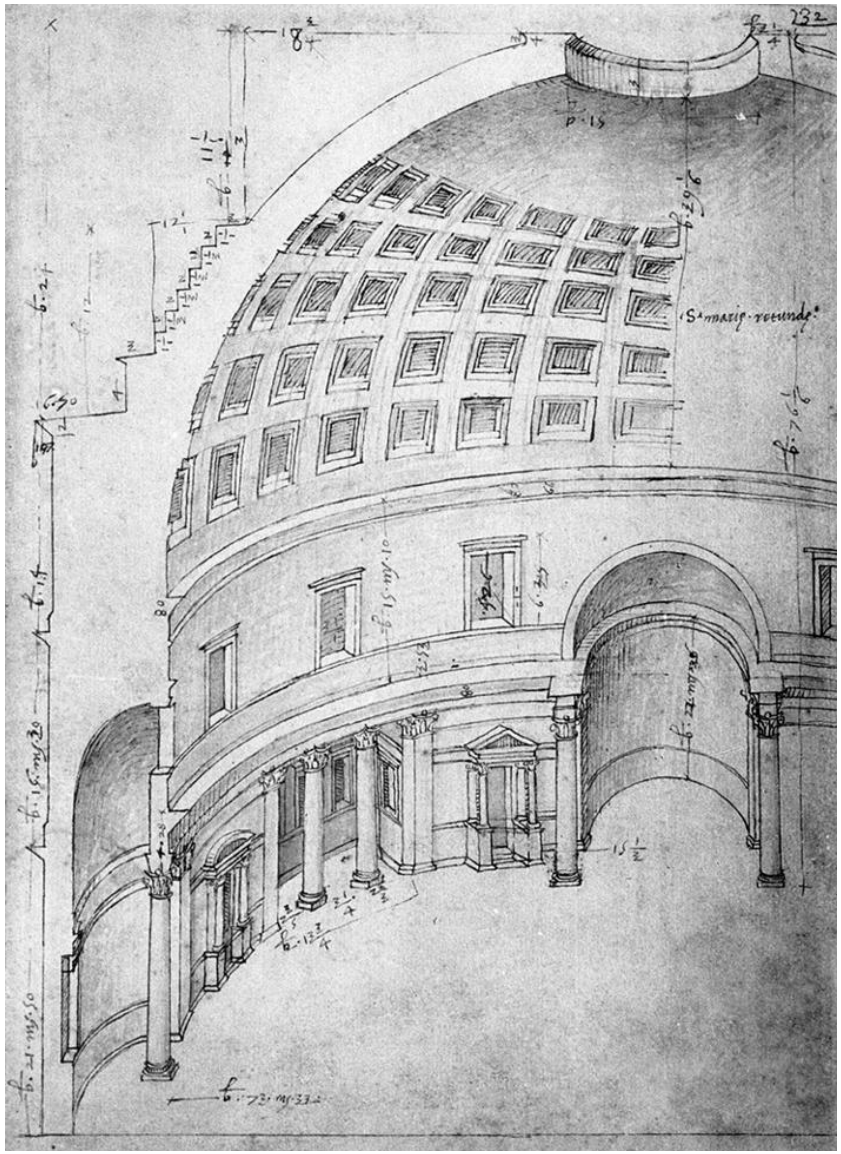


3.37 *Pantheon: relieving arches in the wall (MacDonald).*

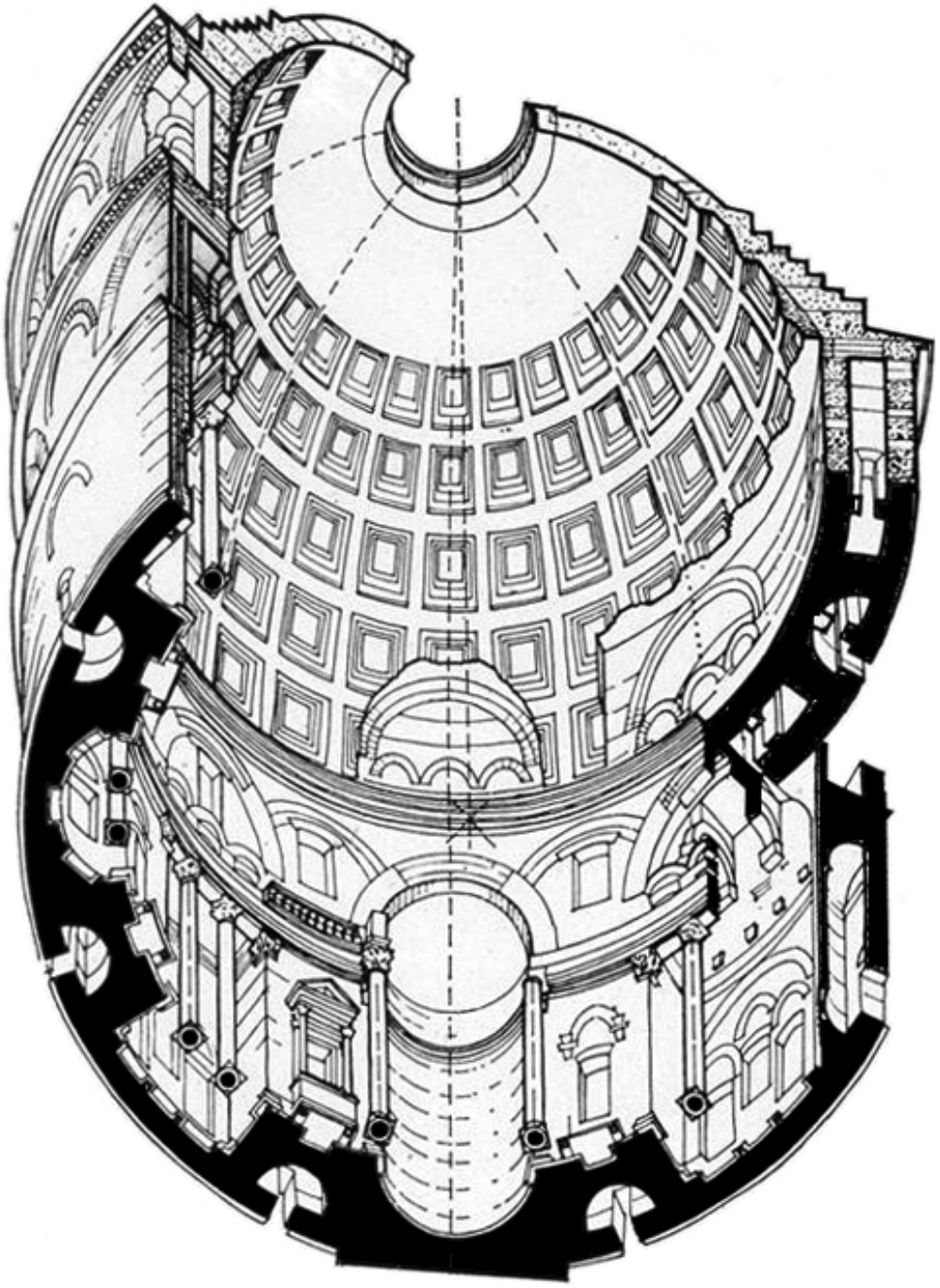
Mark, Robert, *Architectural Technology >*

Pantheon:

25 BCE -213 CE



ARTstor - London, Sir John Soane's Museum



ARTstor - Boëthius, A. Etruscan and Roman Architecture. ^

Pantheon:
25 BCE -213 CE

Built with 8 great recesses
- 7 for major gods
- 1 for the entrance

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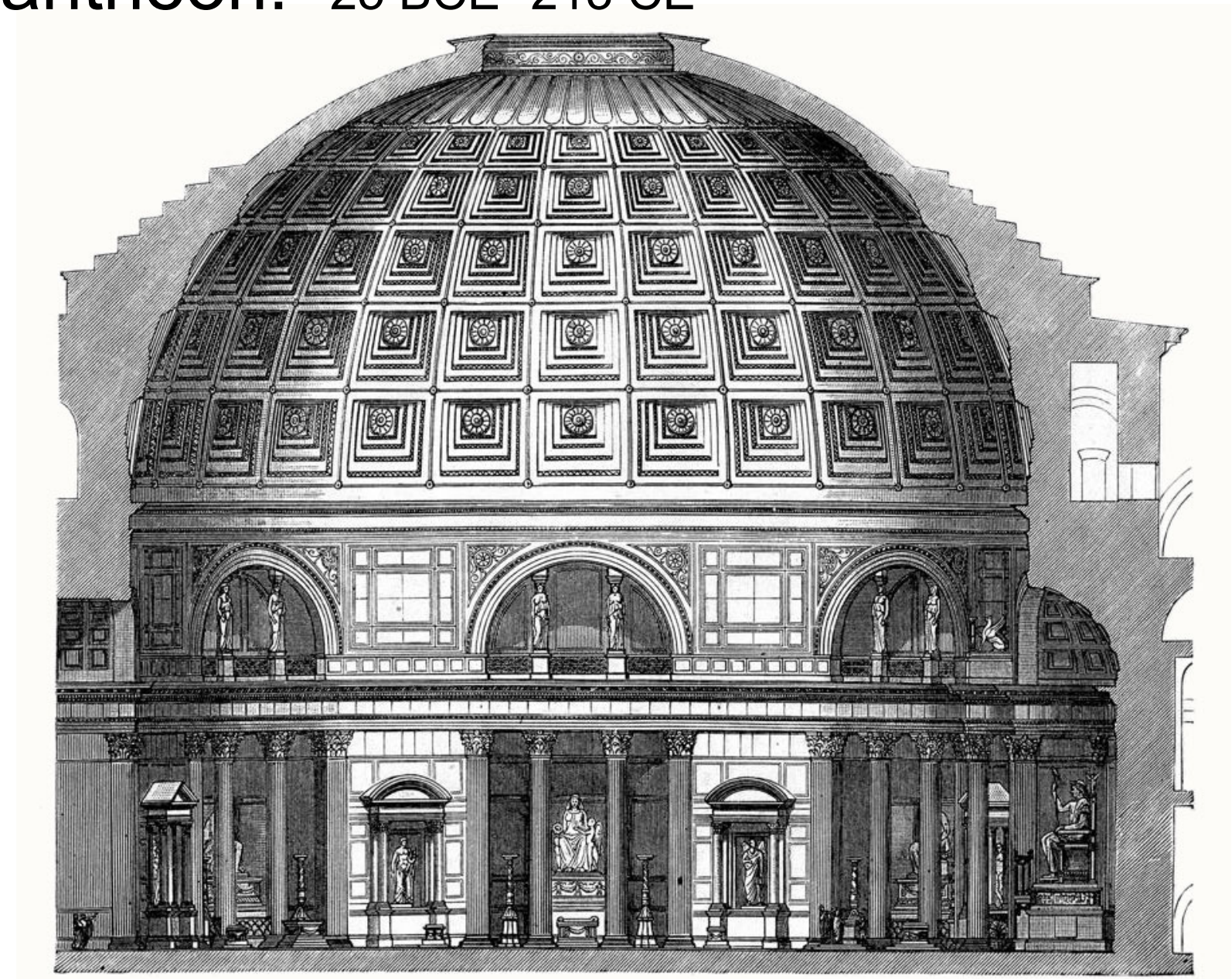
Pantheon: 25 BCE -213 CE



14. Section of the Pantheon. Original disposition. (According to Adler.)

Pantheon: 25 BCE -213 CE: Its monumental size is unparalleled by any other masonry structure up to now

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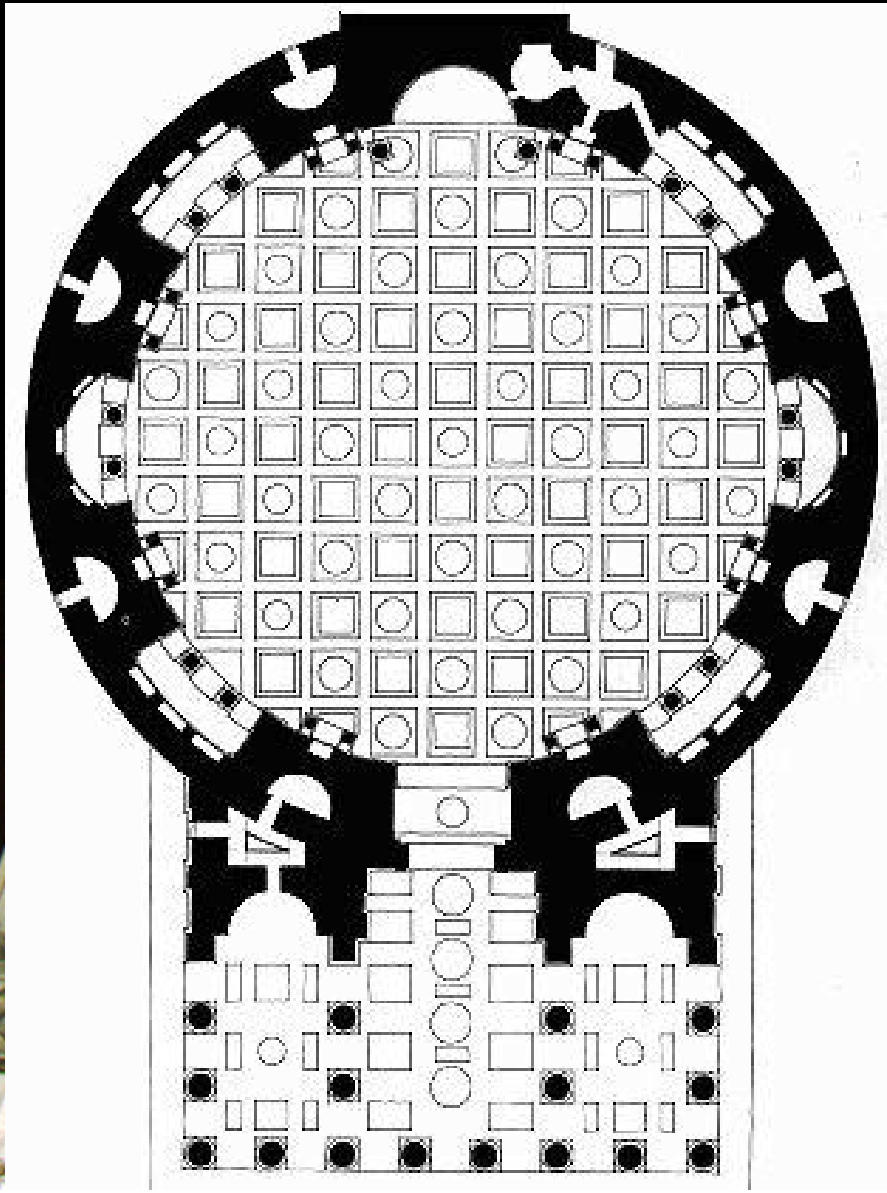
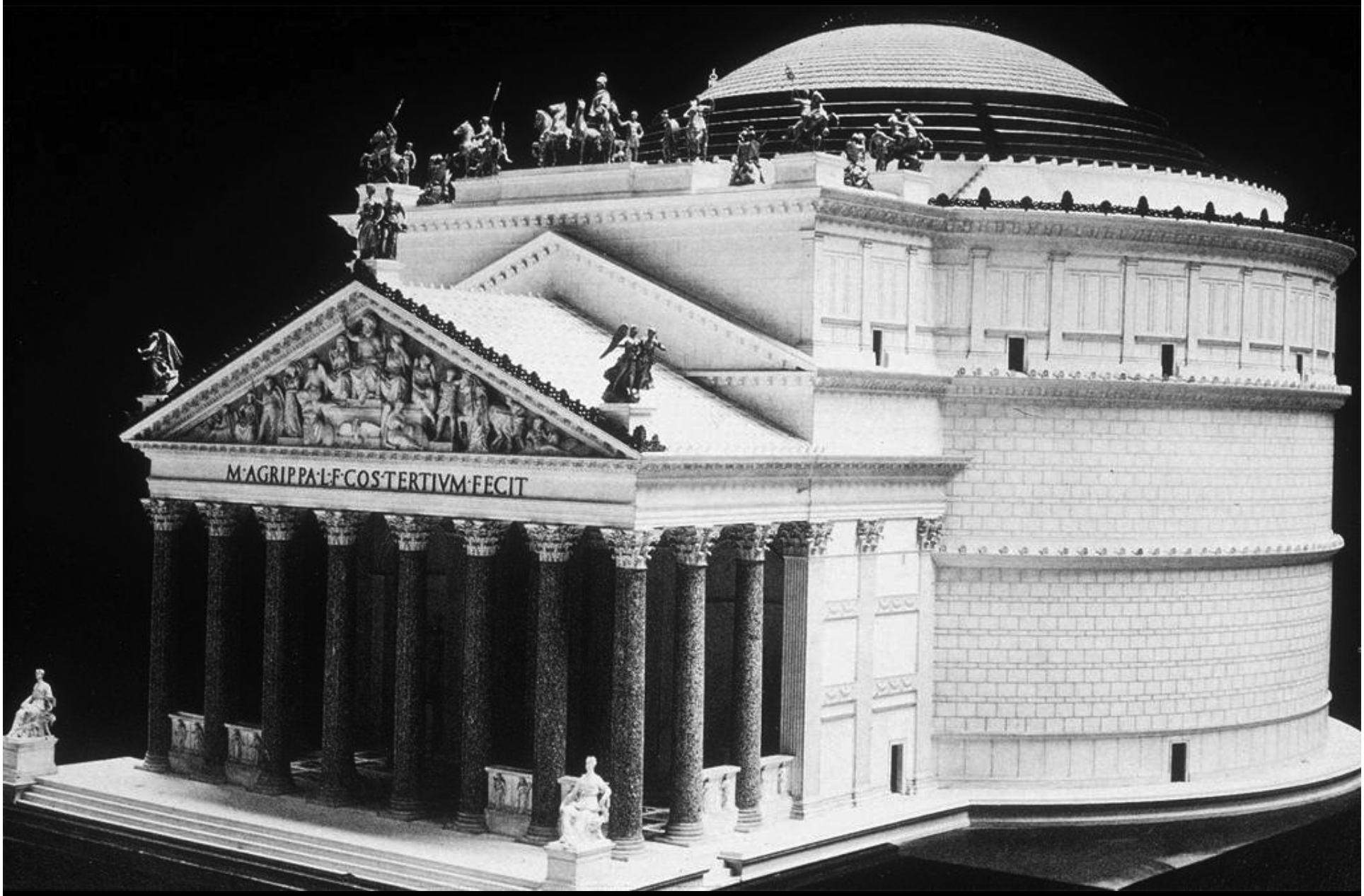


Pantheon: 25 BCE -213 CE



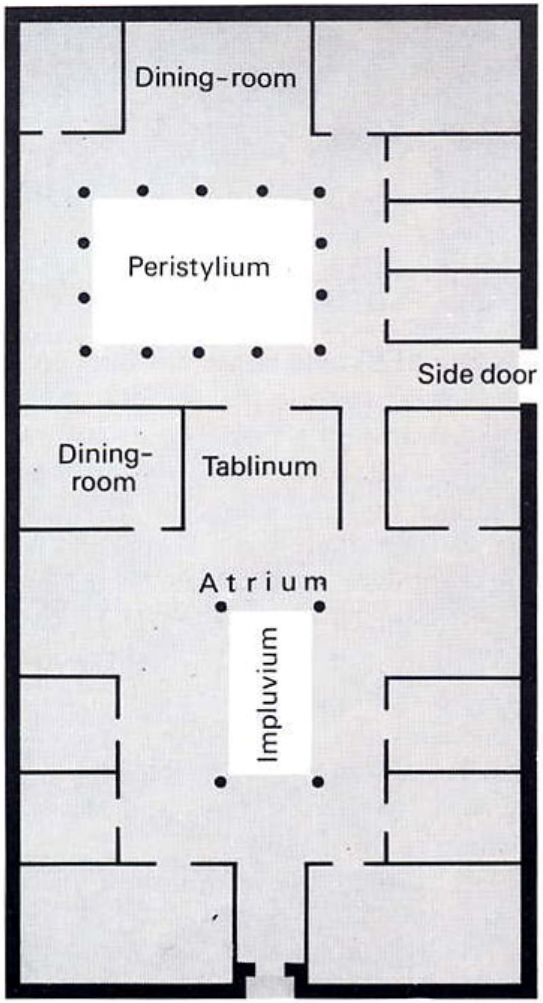
Pantheon

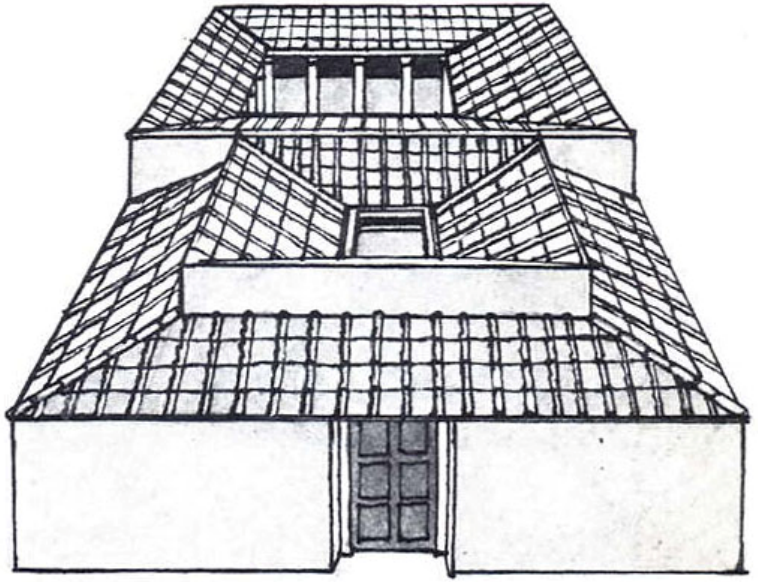
Roman Residential Forms

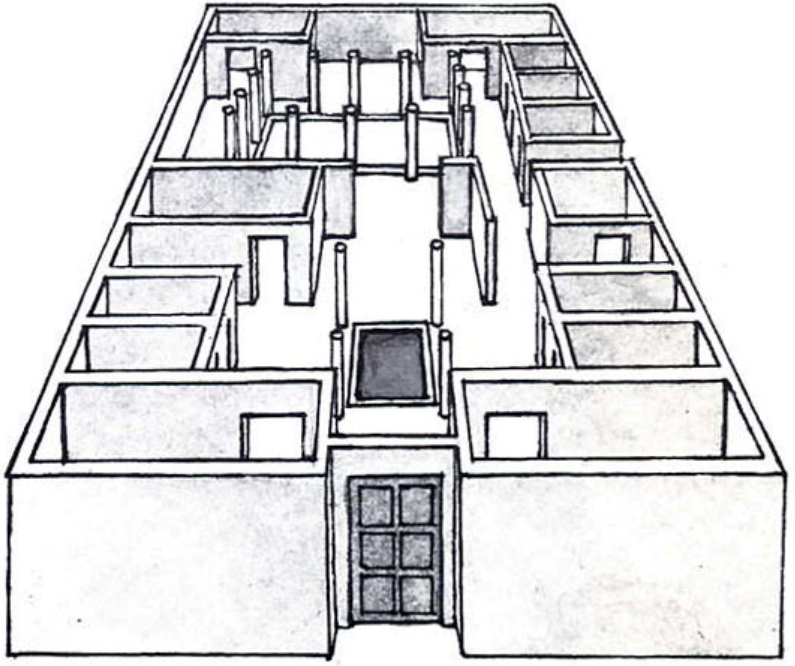
Insula: tenement (multi-family) buildings
- common after 64 CE when there was a disastrous fire
- could be 6 stories high
- central courtyard
- shops on ground floor; cooking facilities on roof

Urban Houses:
- Atrium plan: rooms open on courtyards for access to light and air
- Blank walls to street; could include shops
- Center door = axial symmetry
- Vestibule
- Atrium: covered colonnade, open above impluvium (water basin)
- Tablinum: main reception area
- Triclinium: dining room
- Peristyle: another covered colonnade, around a garden

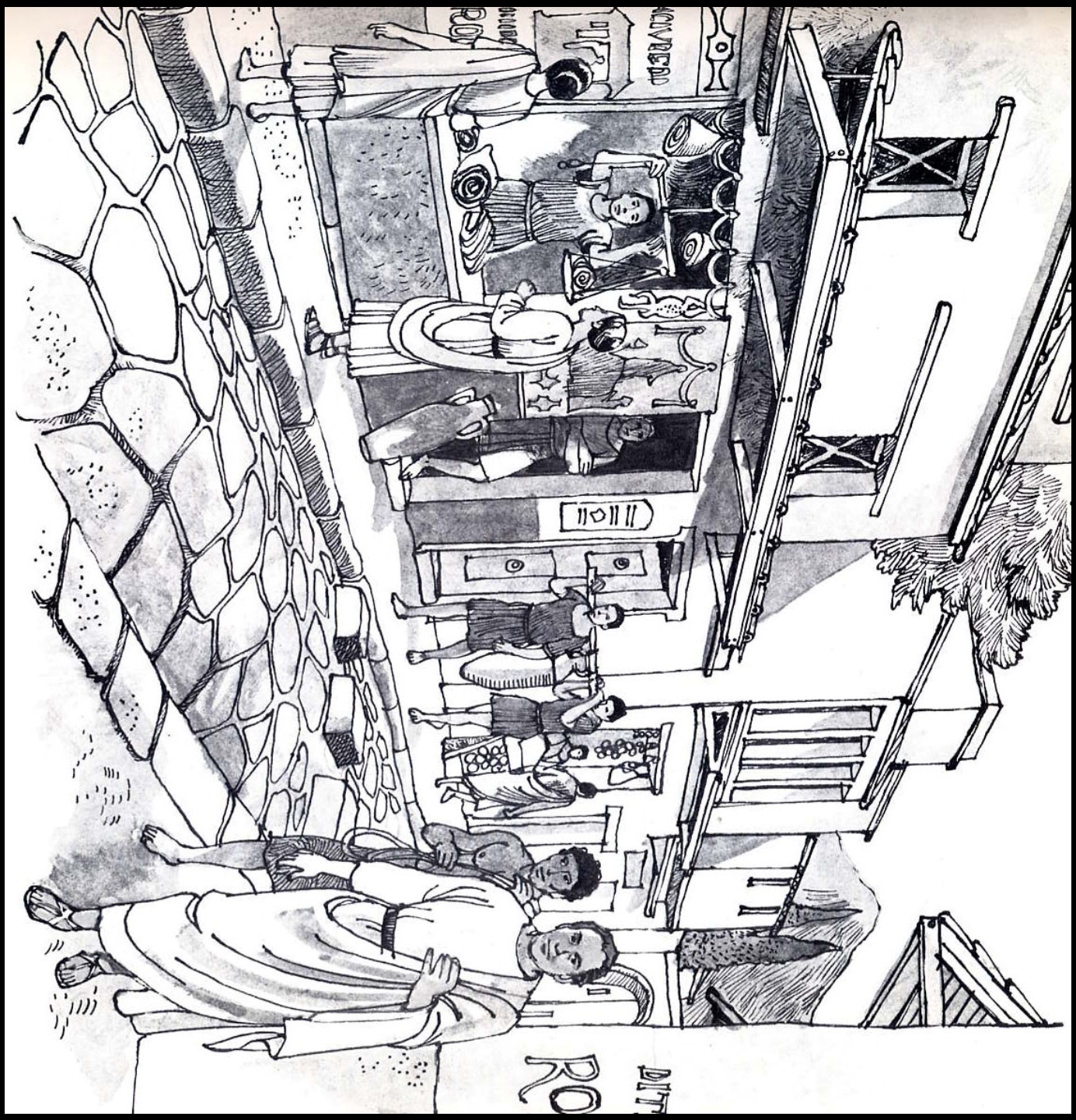
Villas (country houses) and Urban Palaces
- similar features, rooms, and axial arrangements
- some rooms opening to exterior gardens and the landscape



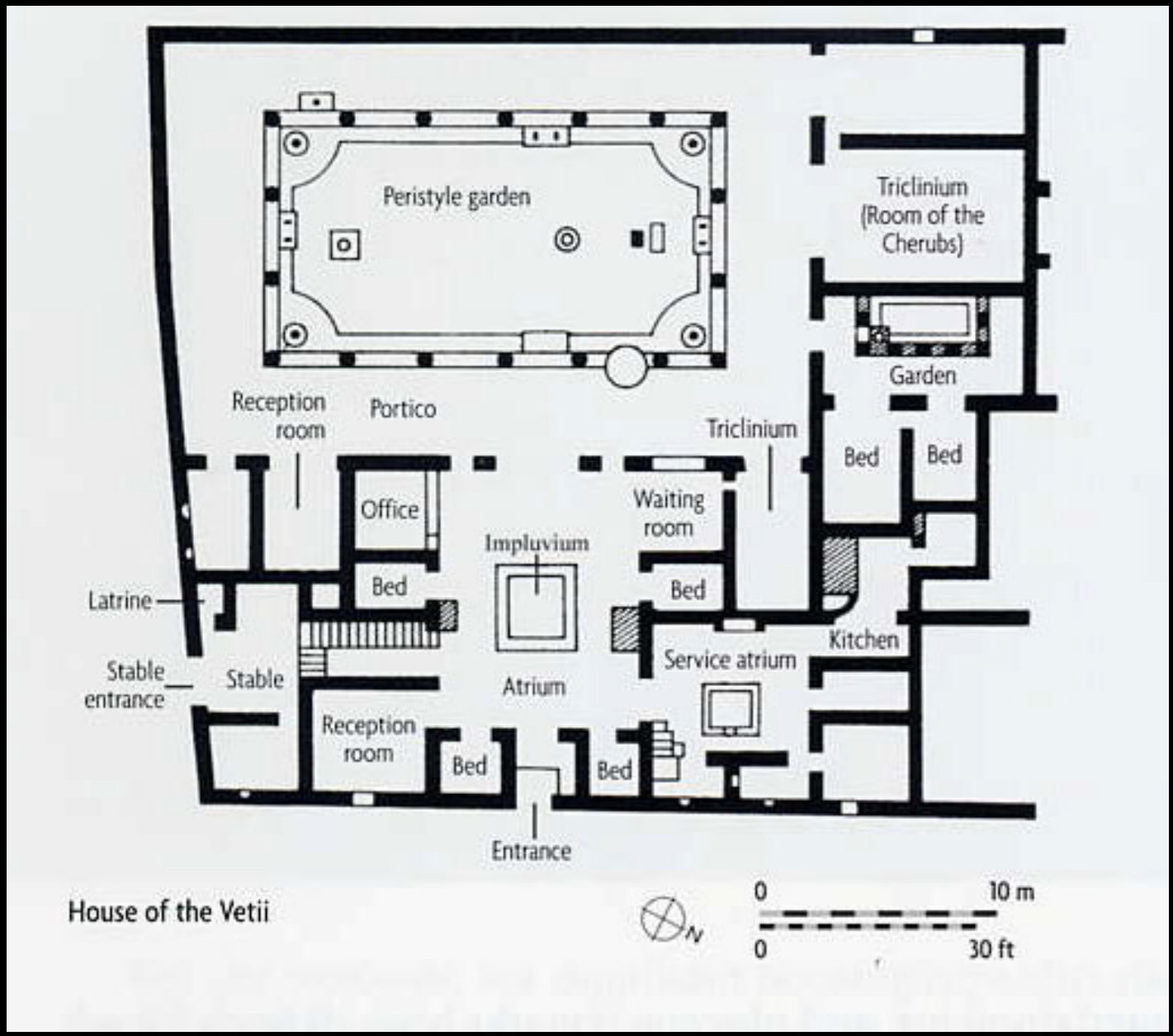




Andrews, Ian, Pompeii, Cambridge: Cambridge University Press, 1985.



Andrews, Ian, Pompeii, Cambridge: Cambridge University Press, 1985.


Peristyle garden
Triclinium
(Room of the
Cherubs)
Garden
Reception
room
Portico
Triclinium
Bed
Bed
Office
Waiting
room
Impluvium
Bed
Bed
Latrine
Kitchen
Service atrium
Stable
entrance
Stable
Atrium
Reception
room
Bed
Bed
Entrance
House of the Vetii
N
0
10 m
0
30 ft

Peristyle and garden, House of the Vettii, Pompeii, 1st century CE

Fazio, Moffett, Wodhouse (2019) fig. 5-36)

Atrium and Impluvium, House of the Cellii, Pompeii, 1st century CE

Fazio, Moffett, Wodhouse (2019) fig. 5-34)

Reading: **Fazio, Moffet & Wodehouse**
A World History of Architecture* or *Buildings Across Time
Chapter 5

Photo: Maud Aptekar © 2009

Review of Residential Forms

Urban houses and palaces in antiquity:

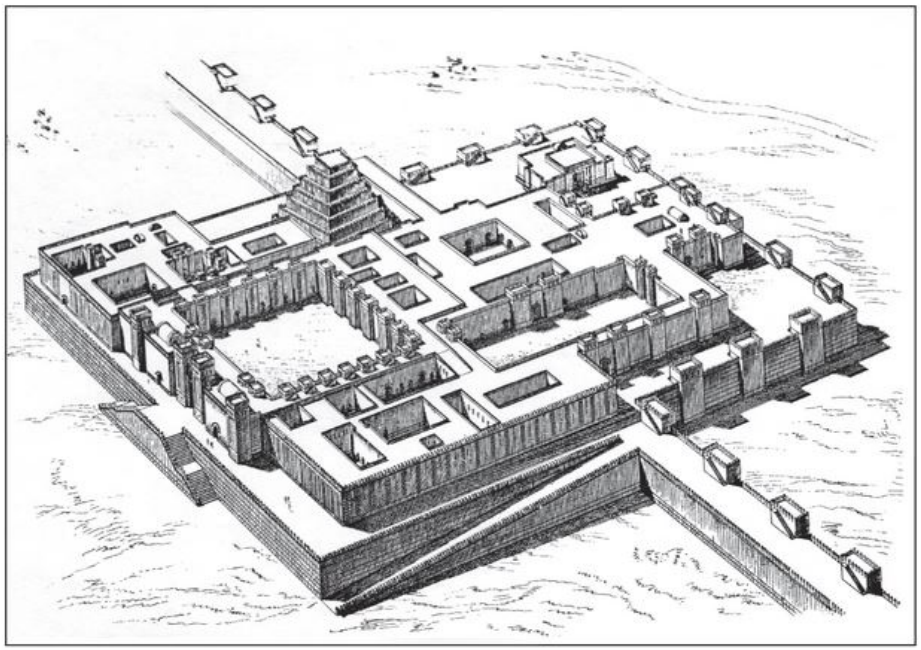
- Catal Höyük Assyrian
- Egyptian
- Minoan
- Mycenean
- Greek
- Harapan (Indus Valley)
- Chinese

Catal Huyuk, Anatolia

6000-5900 BCE

http://www.illustrato.de/mappe.html by Jochen Stuhrmann

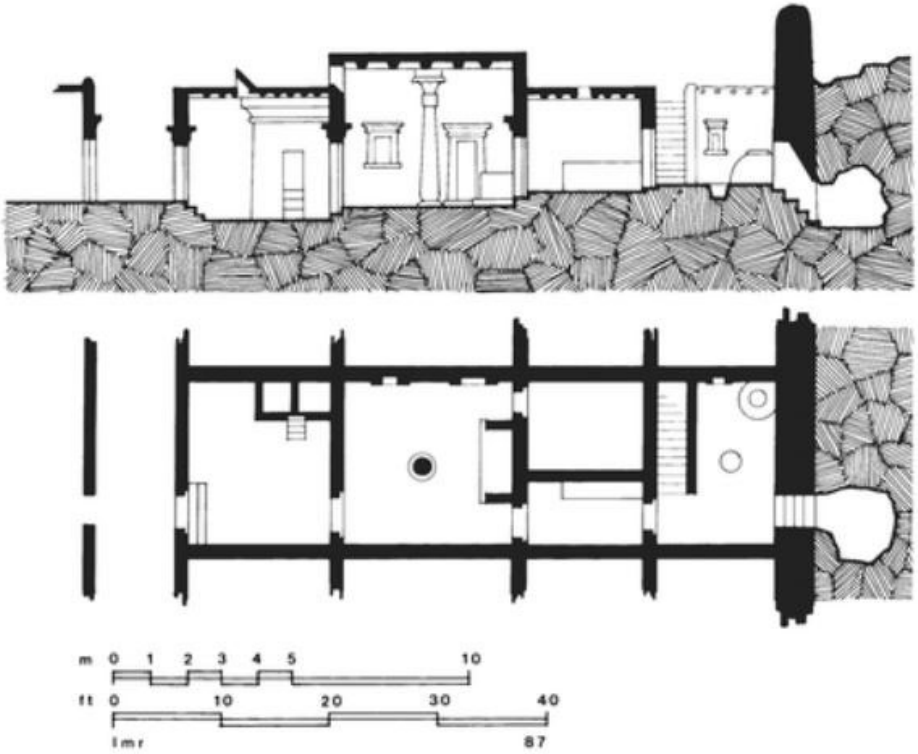
Weimar (Thuringia). Museum for Prehistory in Thuringia: Model of Catal Höyük (7300 BC) .
Wolfgang Sauber (Wikimedia Commons)



Assyrians
Palace at Khorsabad,
Assyria (Iraq), by Sargon II:
c. 720 BCE

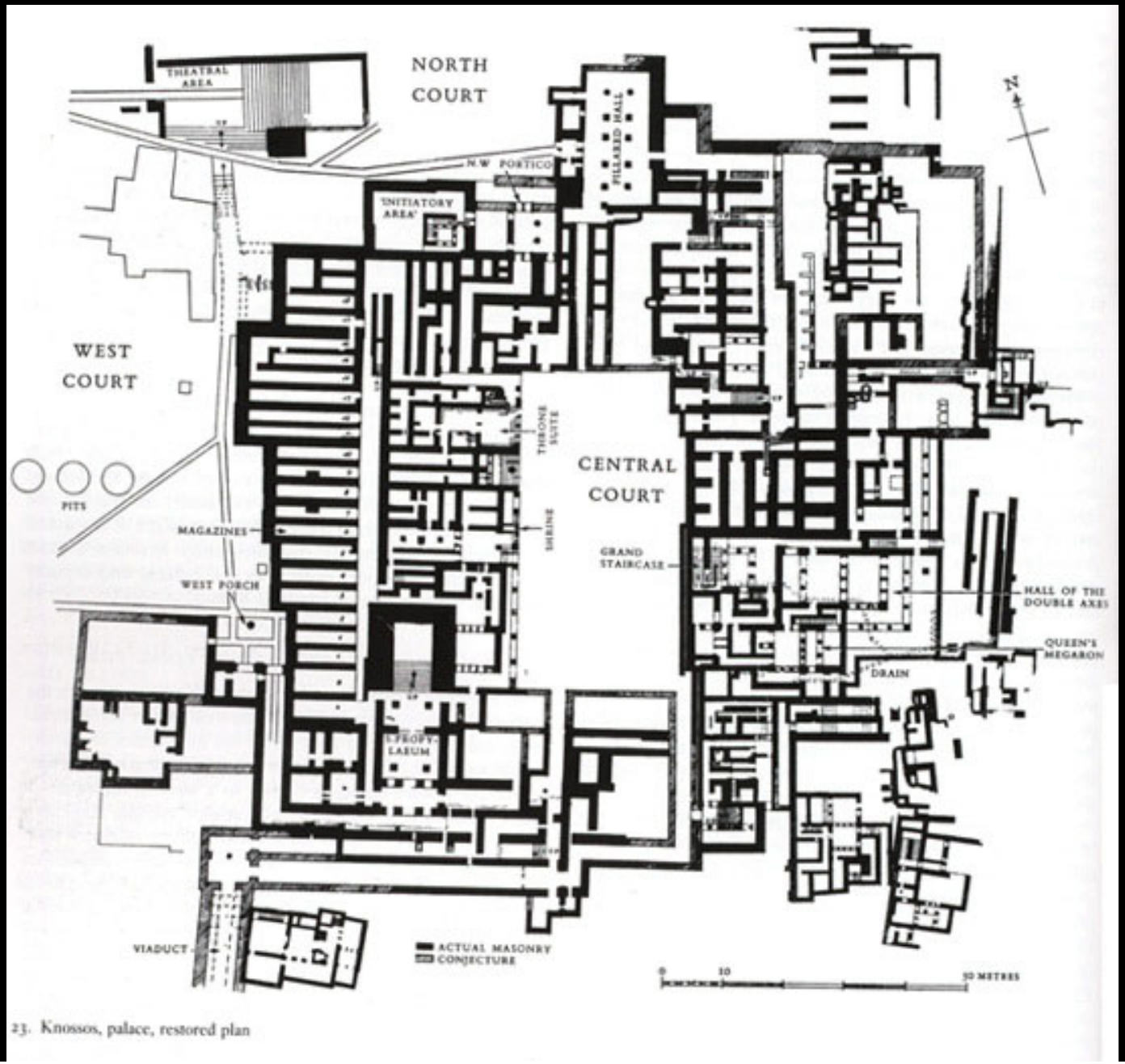
1.15b Plan of the palace, Khorsabad, Assyria (Iraq), ca. 720 BCE.

Fazio, Moffett & Wodehouse (2019)



10.26. One of the artisans' houses at Deir el-Medina. Plan and section. Drawing: L. M. Roth, after James, Introduction to Ancient Egypt *(New York, 1989).*

Palace of Knossos: Evolved organically around a central courtyard



23. Knossos, palace, restored plan

www.uark.edu

ABACUS

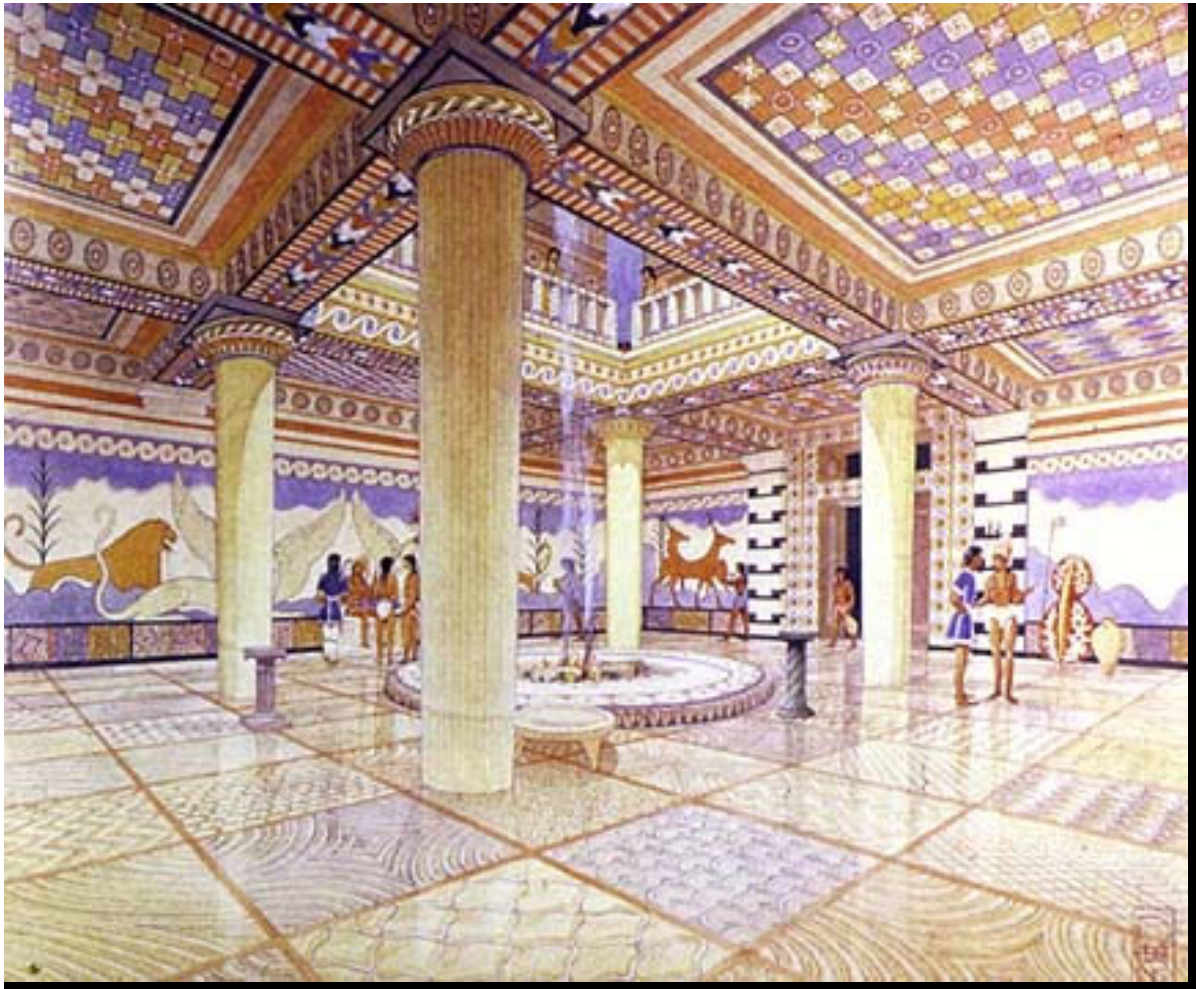
TORUS RING

TAPERED COLUMN

Restored light well, directly above the “Throne Room”

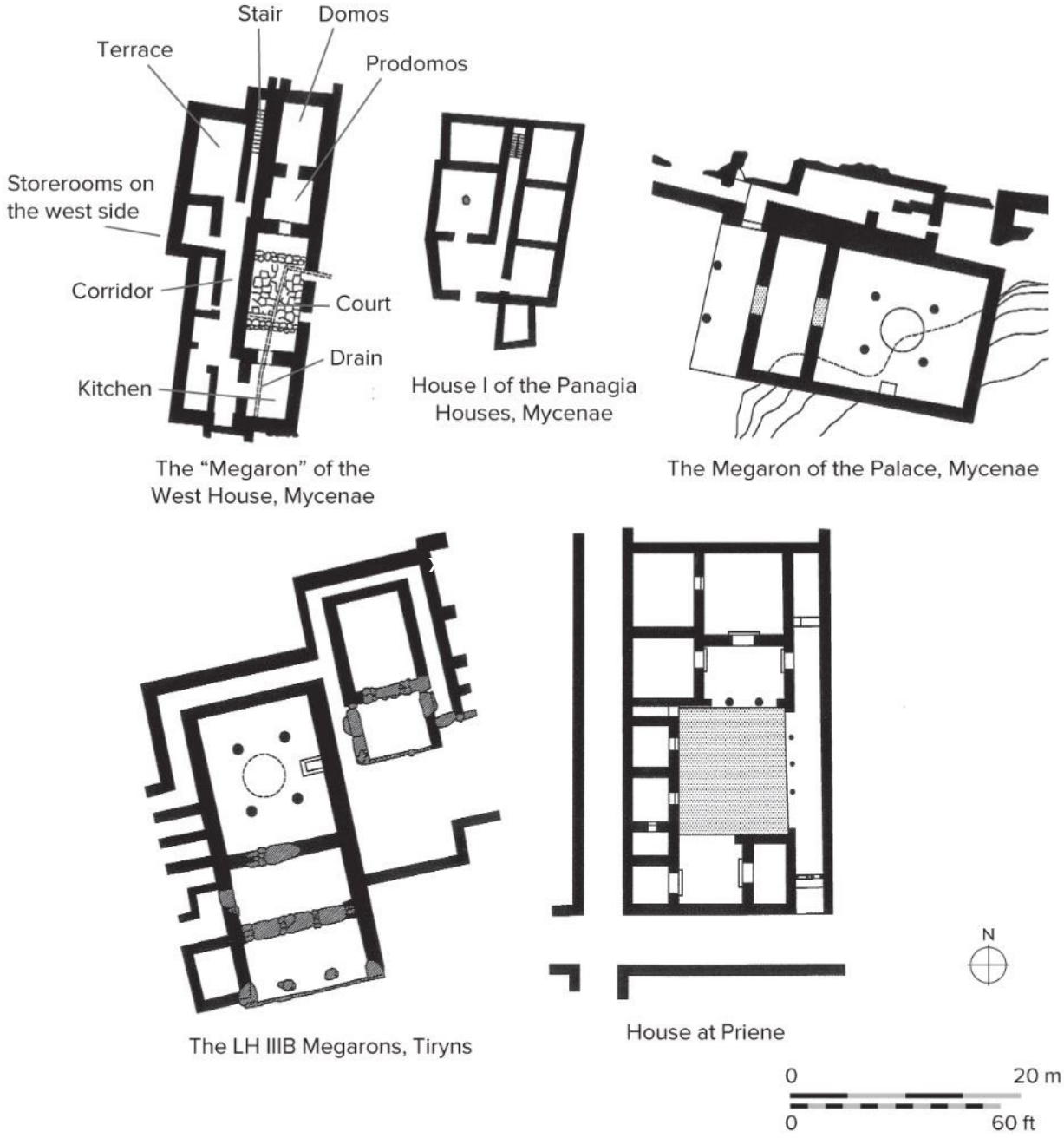
Bathing tub in the “Queen’s Megron”

Knossos, trône royal. Photo prise par Harriéta171 le 28/01/06



Reconstruction of the large megaron at Pylos

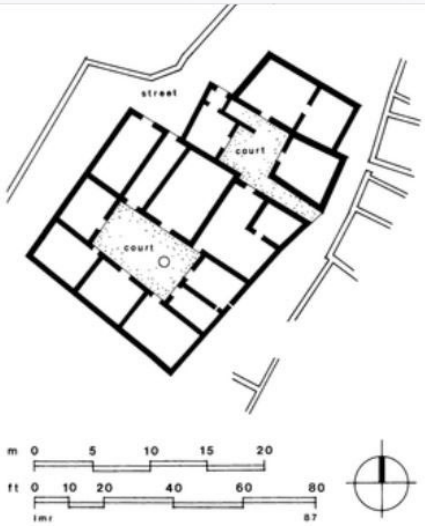
Palaima & Wright 1985



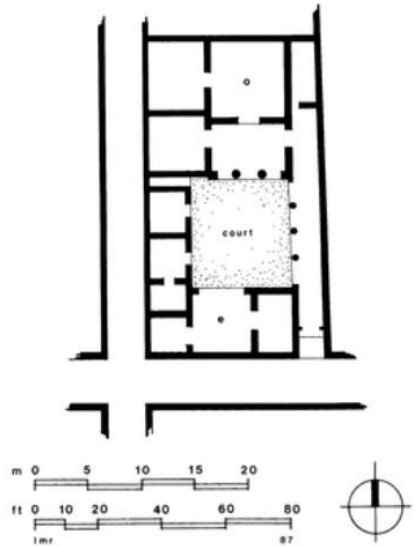
2.12 Plans of the megarons at Mycenae and elsewhere.

The West House, located just outside the walls at Mycenae, combines a courtyard porch, antechamber, and megaron. The palace megarons at Mycenae and Tiryns are considerably larger, both with remains of the four column bases that supported the roof around a central hearth.

Fazio 2019, fig. 2-12

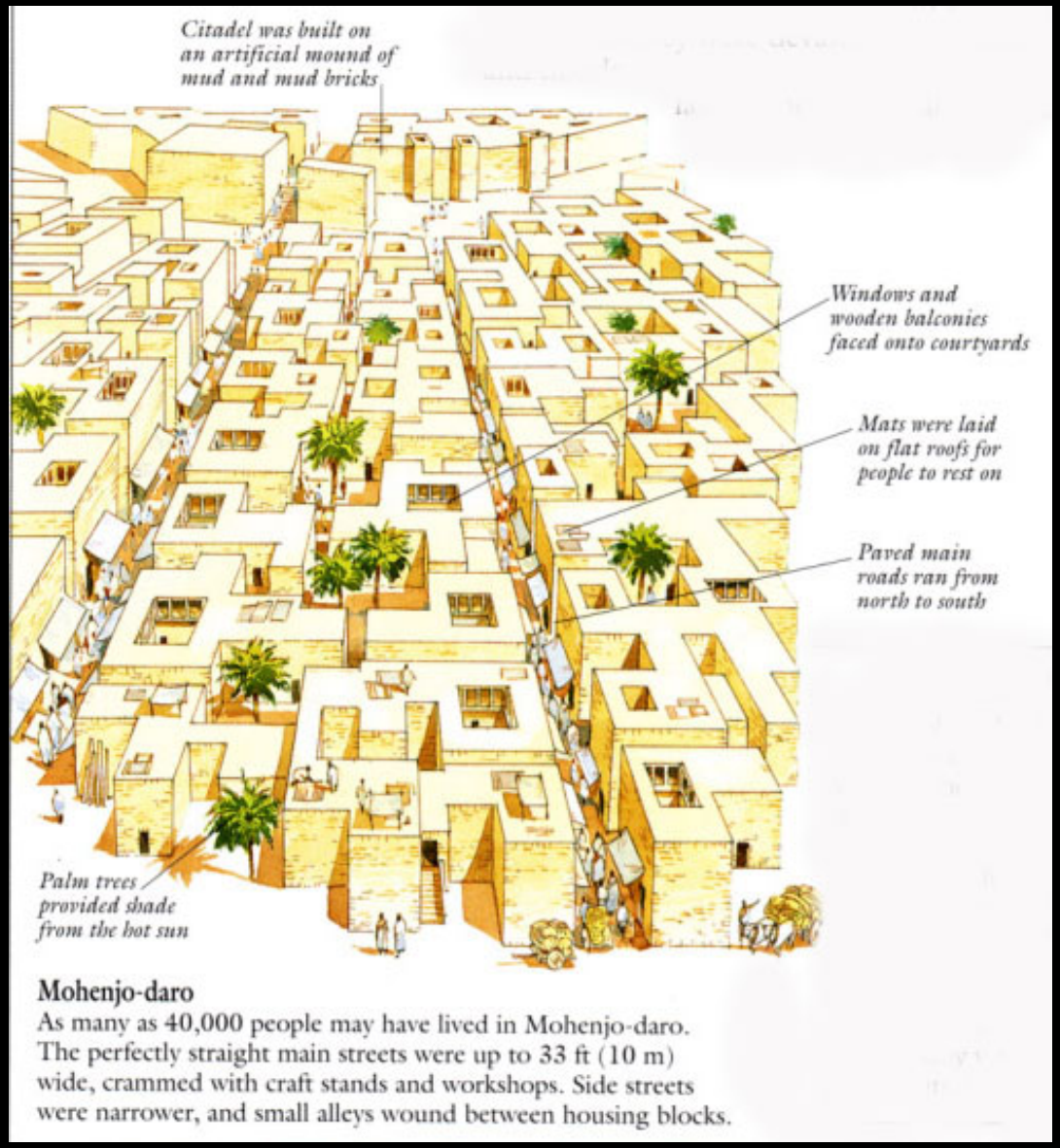


11.11. *Artisans' houses near the Agora, Athens, Greece, c. 350 BCE. In Athens private houses were fitted into the irregular street pattern. Drawing: L. M. Roth, after Travlos,* Pictorial Dictionary of Ancient Athens *(London, 1971).*



11.12. *House, Priene, Asia Minor, c. 450 BCE. In planned cities such as Priene, private houses had more regular plans. At the south edge of the open central court was the* exedra *(e), and off the court was the principal public room, the* oikos *(o). Drawing: L. M. Roth.*

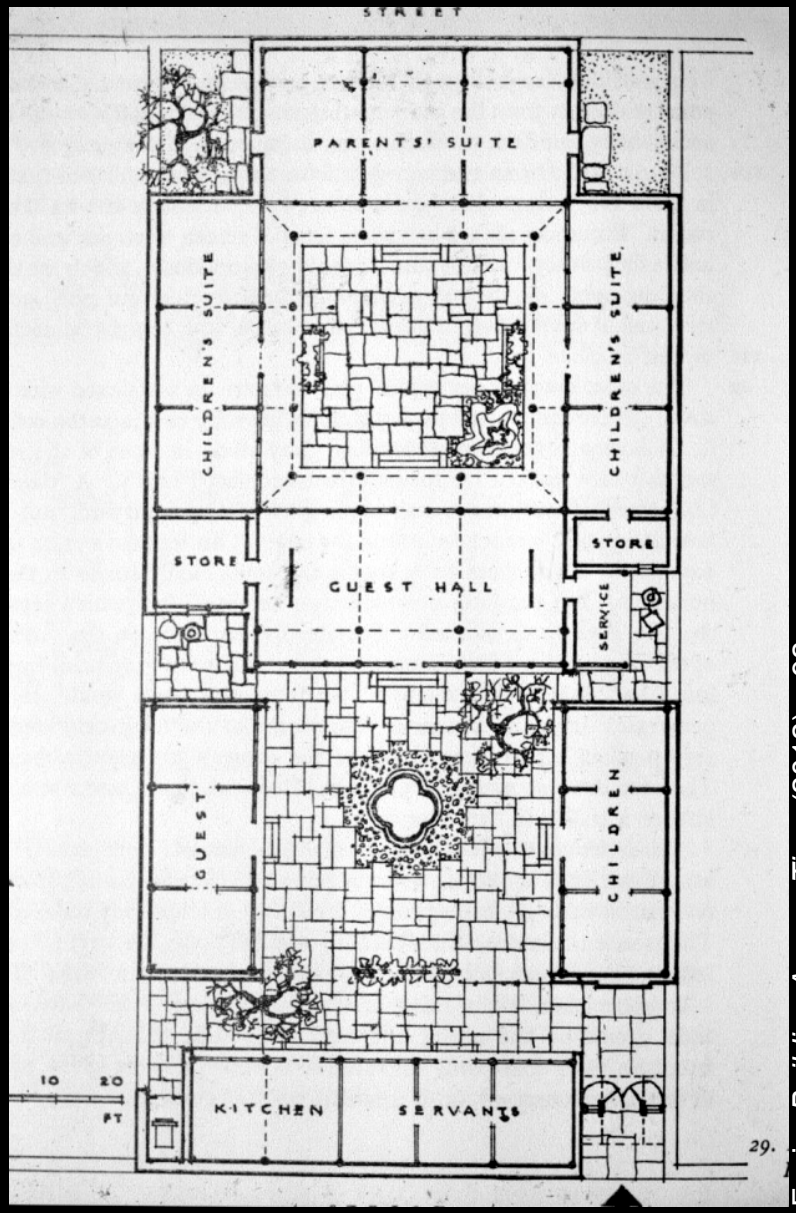
Mohenjo Daro, Pakistan, c. 2400 - 2000 BCE



Source: Platagenet Sommerset Fry, *History of the World*, 2005

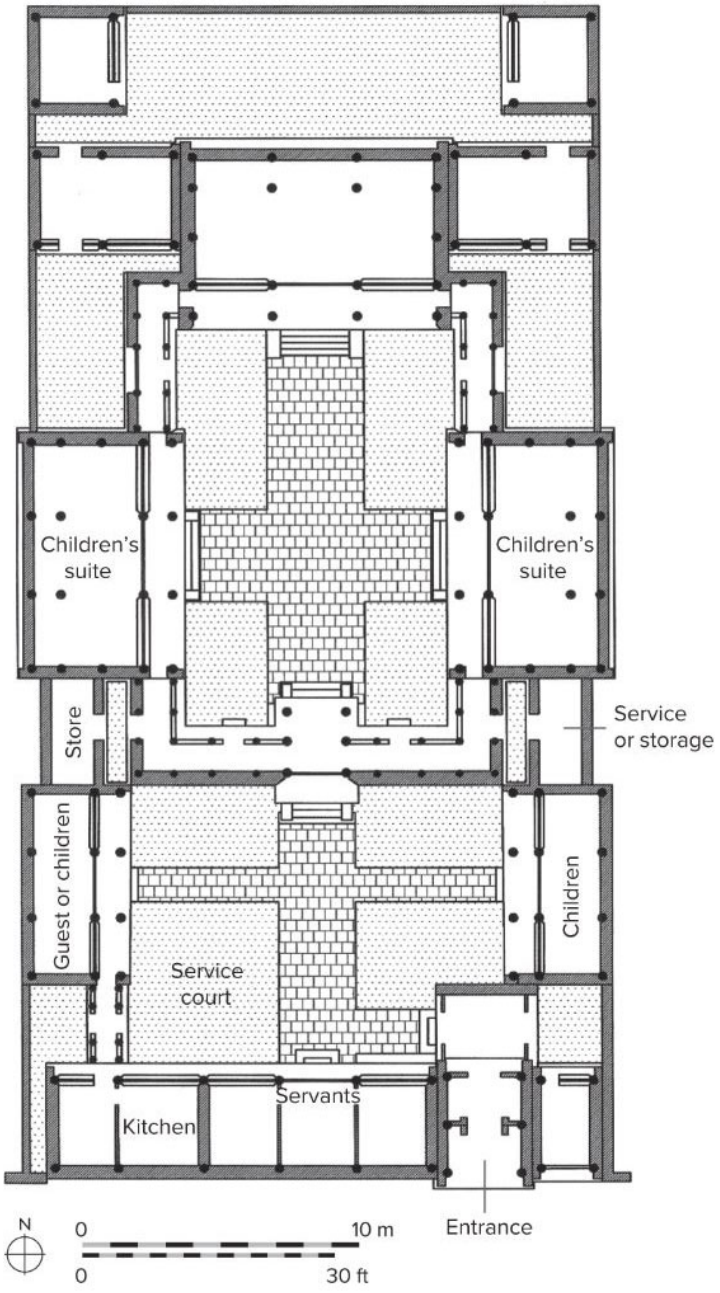
- Best preserved of the ancient Harappen cities of the Indus Valley
- Orderly, well planned cities constructed of uniformly sized fired brick
- 40,000 inhabitants
- Citadel with a large storehouse & a great bath
- No evidence of temples, tombs, or palaces
- Sophisticated plumbing system with fresh water and waste piping

Houses and Gardens



Fazio, *Building Across Time* (2012) p.92

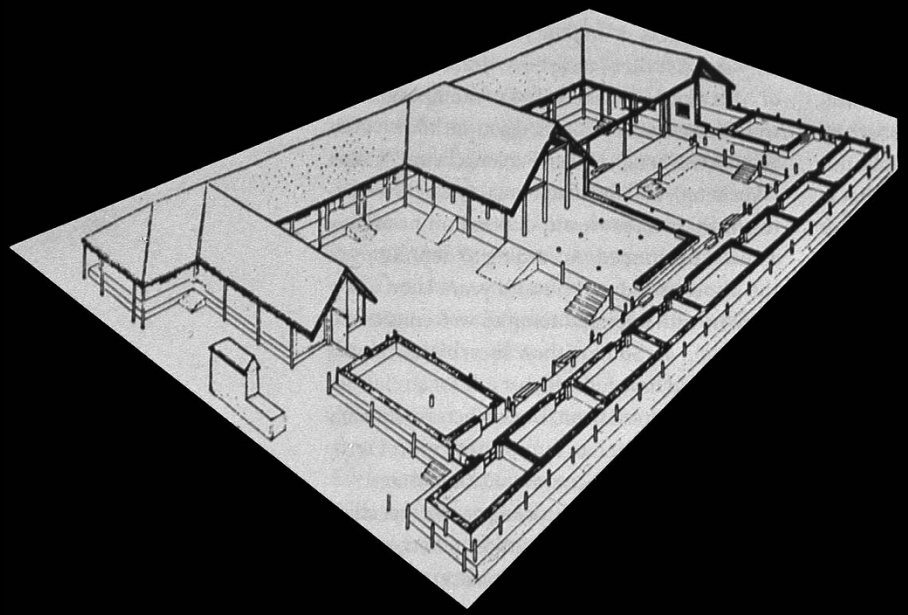
Plans of Chinese courtyard houses



4.17 Plan of a typical house, Beijing, 15th century.
This extended plan shows how the independent pavilions are organized around courts. Note that the entrance from the street is off axis, thus preventing those who called at the gate from intruding on family privacy. (Also see Fig. 4.4.)

Fazio, *World History of Architecture* (2019)

Reconstruction of Temple-Palace Structure and Courtyard, Fengchu, Shaanxi Province, ca. 11th c. BCE (Cheng)



△ Beijing, typical residential blocks, Ming and

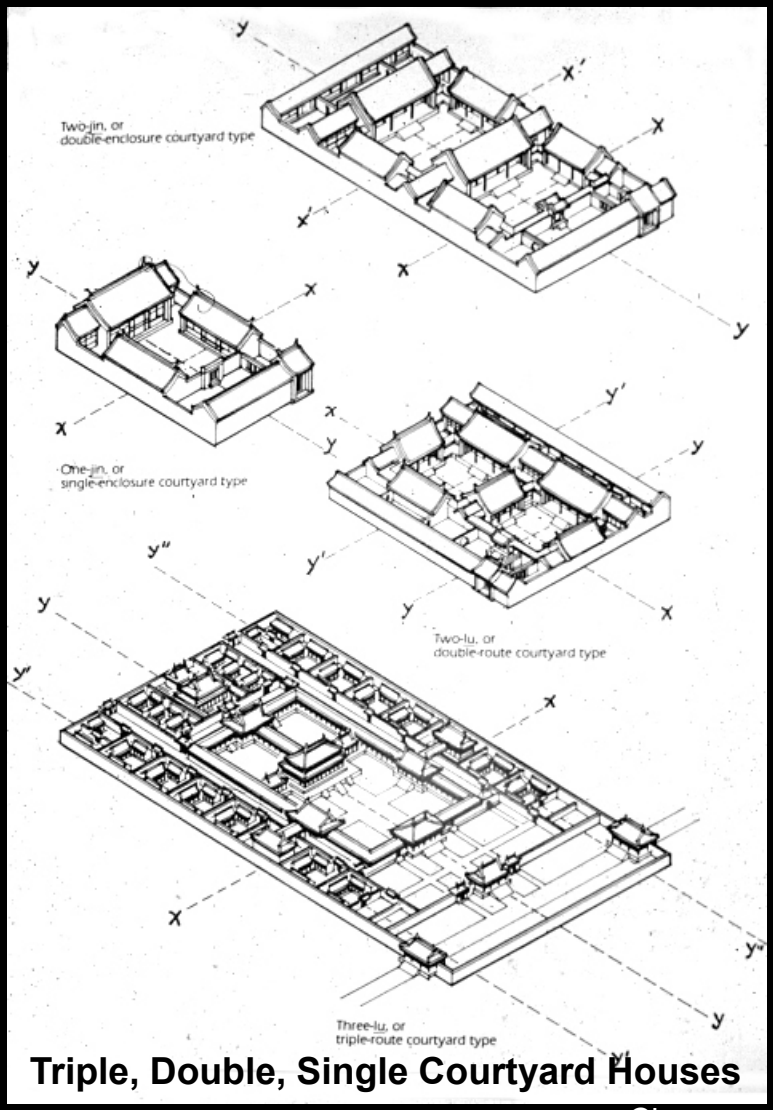
Chinese Architecture

The Chinese courtyard house is organized similar to the Chinese temple and city

Detail of Ming dynasty *Carpenter's Manual*

Carpentry and Building

Chinese Architecture

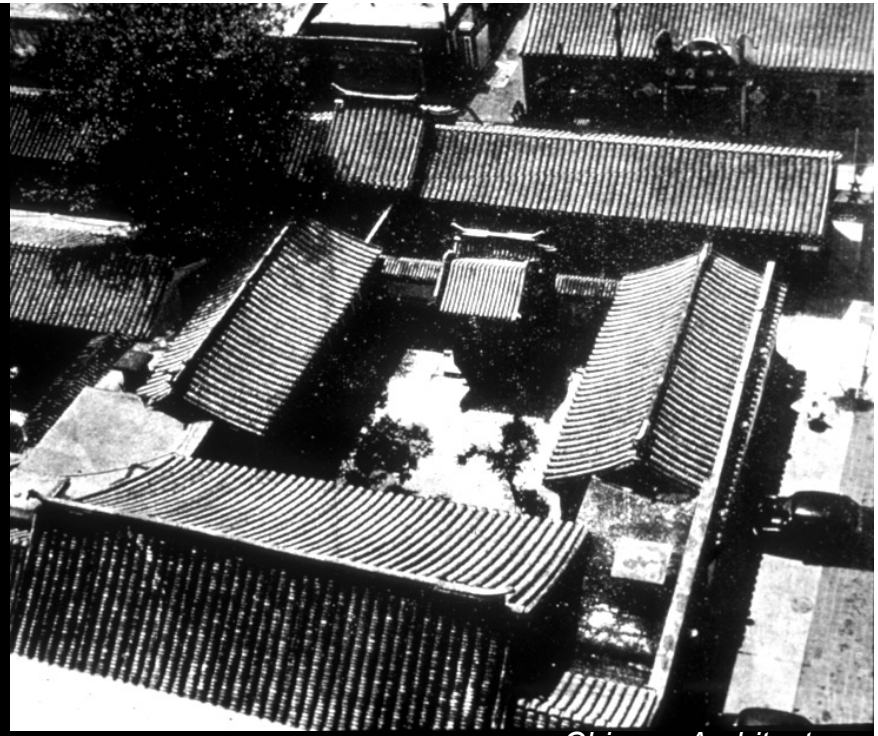


Triple, Double, Single Courtyard Houses

Chaz.org

"If there is a rock resembling a wine jar, the house changes into a 'site of fullness.' The family will be rich and as soon as a wish is pronounced, gold and silver will come pouring out."

Huppert/ Way GAHTC



Chinese Architecture

Courtyard House:

walled on the street

courtyard is used for light and air in the house -- no windows look out to street

courtyard serves as a private outdoor room

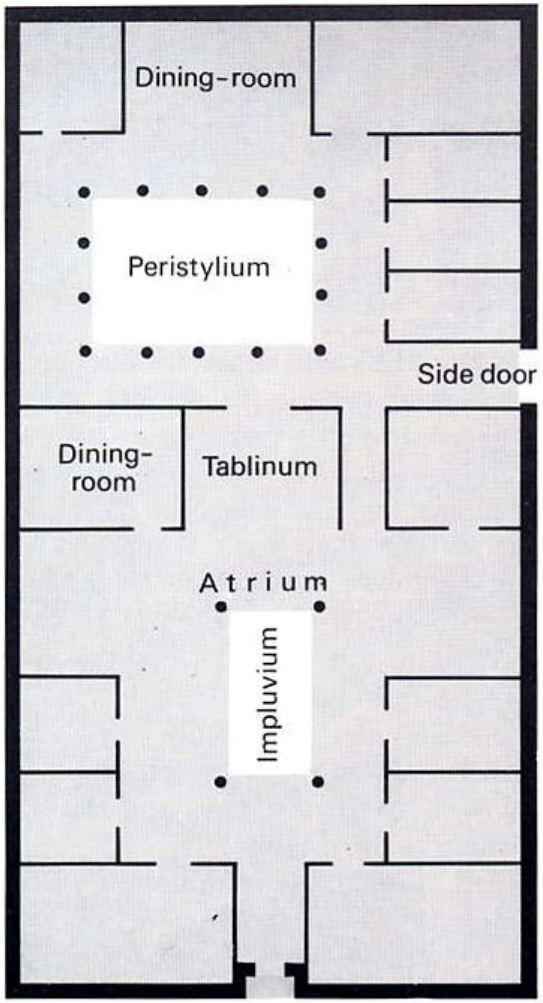

Huppert/ Way GAHTC

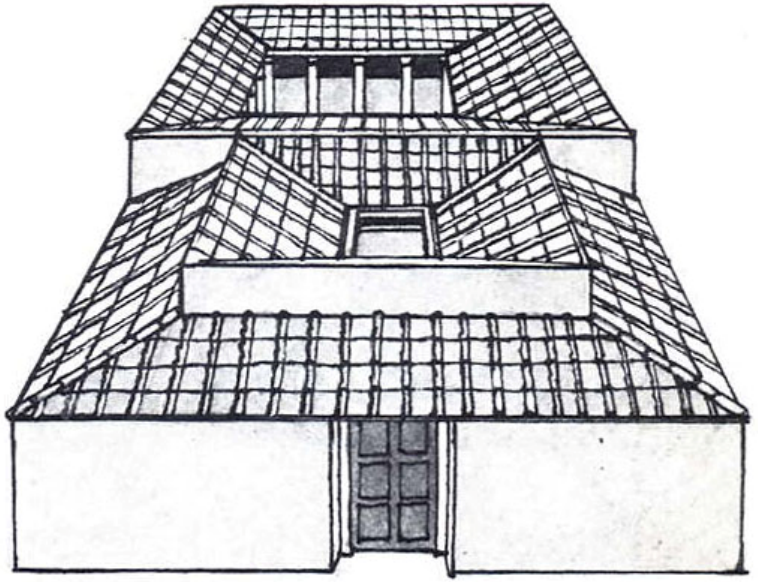
Roman Residential Forms

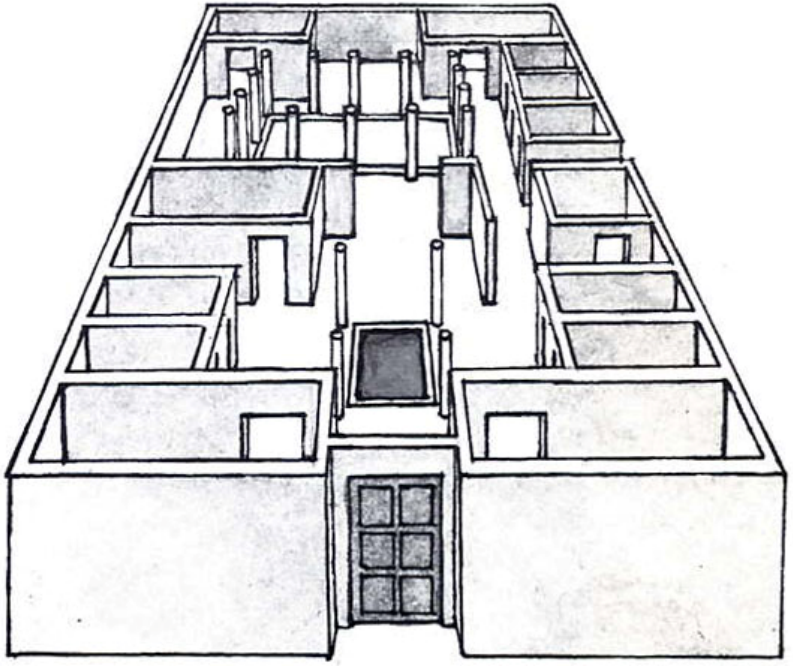
Insula: tenement (multi-family) buildings
- common after 64 CE when there was a disastrous fire
- could be 6 stories high
- central courtyard
- shops on ground floor; cooking facilities on roof

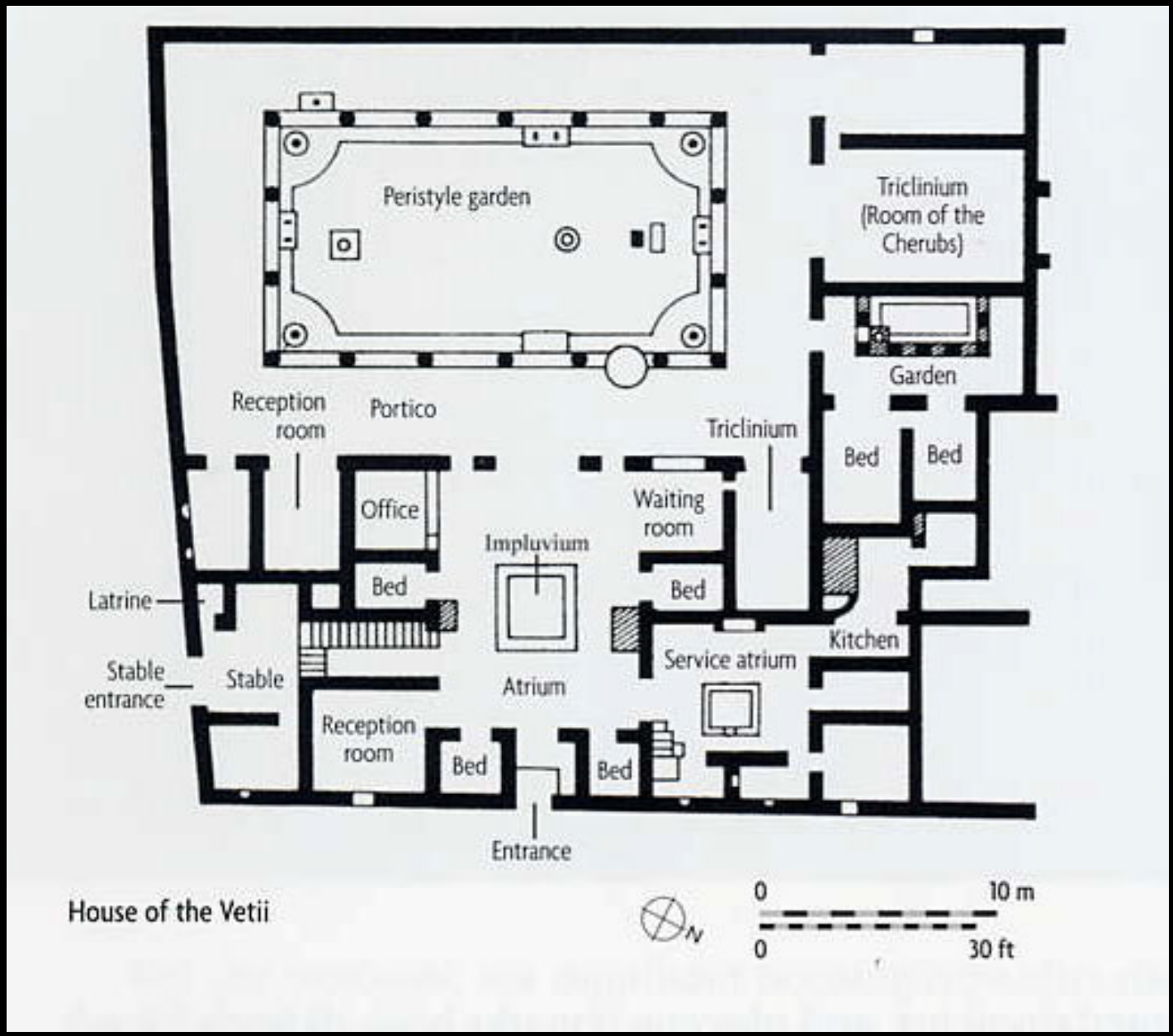
Urban Houses:
- Atrium plan: rooms open on courtyards for access to light and air
- Blank walls to street; could include shops
- Center door = axial symmetry
- Vestibule
- Atrium: covered colonnade, open above impluvium (water basin)
- Tablinum: main reception area
- Triclinium: dining room
- Peristyle: another covered colonnade, around a garden

Villas (country houses) and Urban Palaces
- similar features, rooms, and axial arrangements
- some rooms opening to exterior gardens and the landscape


Dining-room
Peristylium
Side door
Dining-room
Tablinum
Atrium
Impluvium






Peristyle garden
Triclinium
(Room of the
Cherubs)
Garden
Reception
room
Portico
Triclinium
Bed
Bed
Office
Waiting
room
Impluvium
Bed
Bed
Latrine
Kitchen
Service atrium
Stable
entrance
Stable
Atrium
Reception
room
Bed
Bed
Entrance
House of the Vetii
N
0
10 m
0
30 ft

Fazio, Moffett, Wodhouse (2019) fig. 5-36)

Fazio, Moffett, Wodhouse (2019) fig. 5-34)