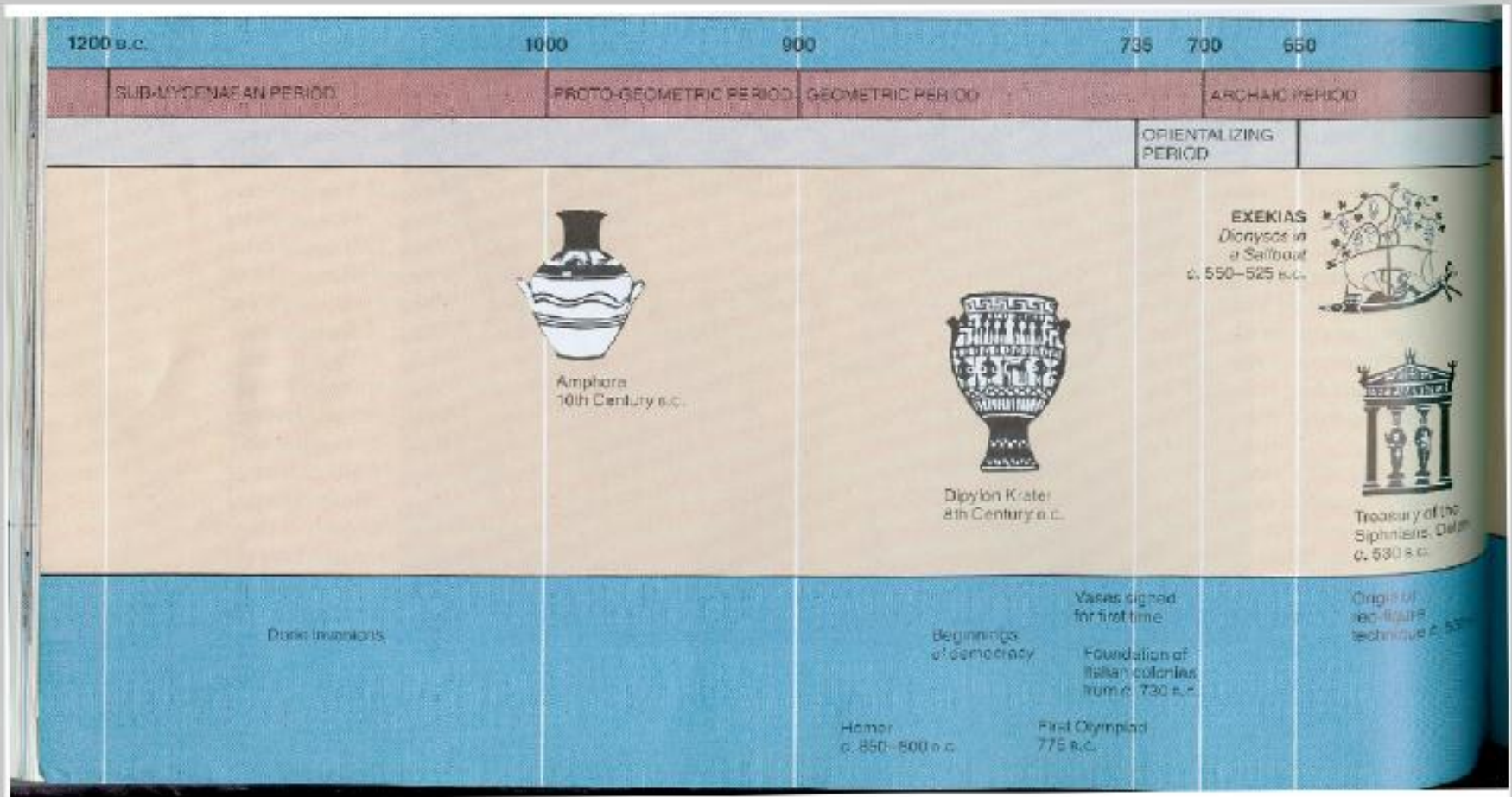
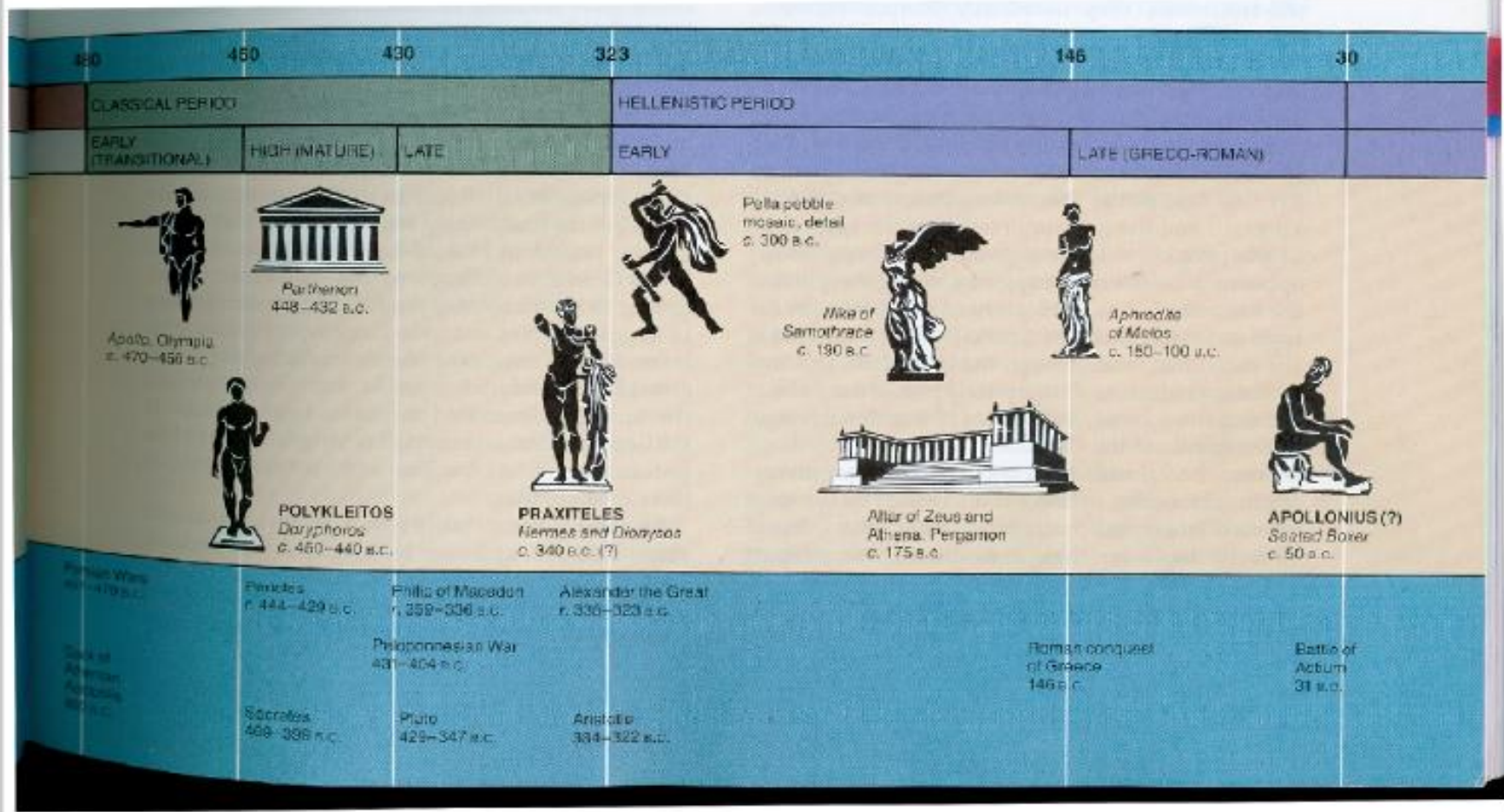


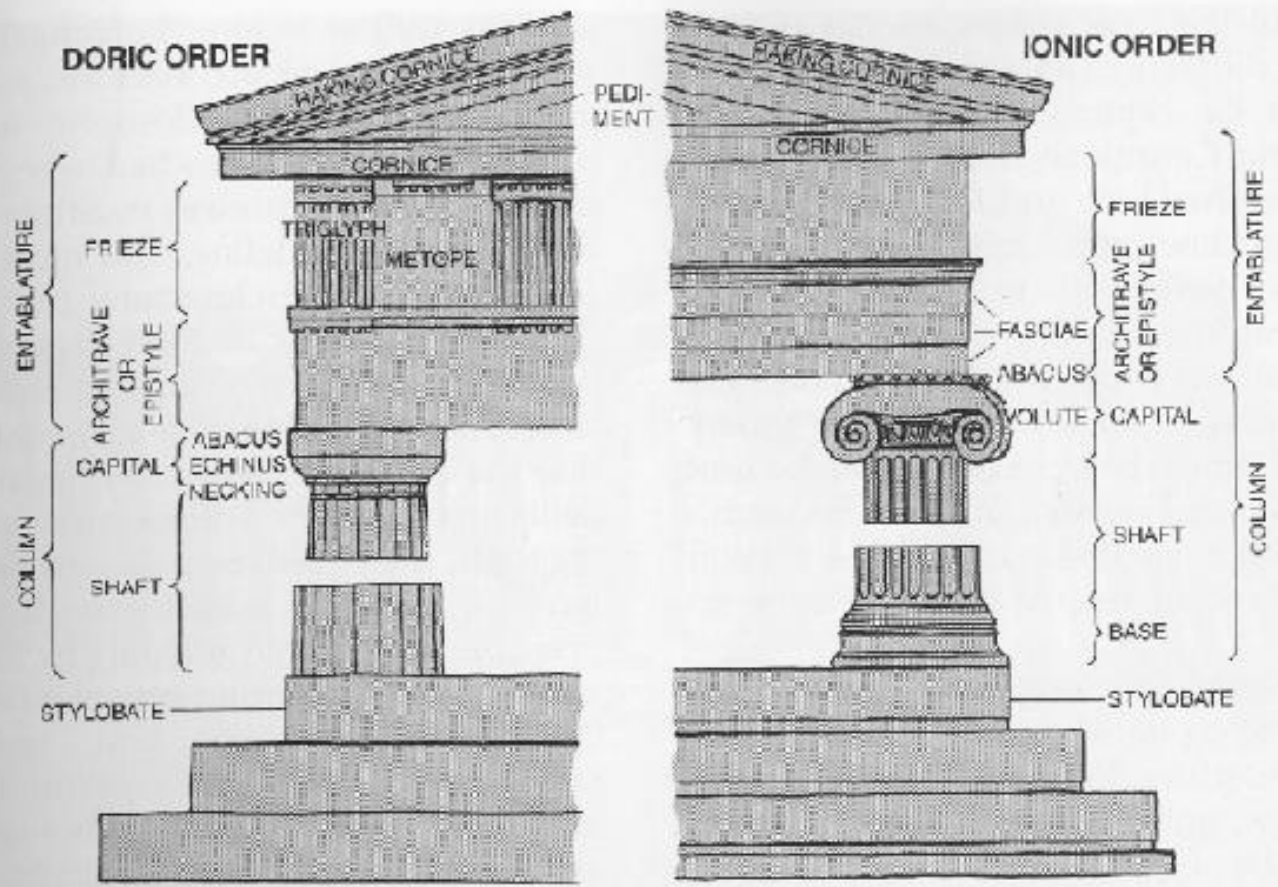
WELCOME TO ARCH 1121-HISTORY OF ARCHITECTURAL TECHNOLOGY

- 1.PLEASE TURN OFF CELL PHONES FOR ENTIRE DURATION OF CLASS
- 2.PLEASE TURN OFF ALL IPODS, WALKMANS, ETC.
- 3.PLEASE NO EATING OR DRINKING DURING CLASS
- 4.PLEASE BE CONSIDERATE OF OTHERS-RESPECT IS KEY TO YOUR PROFESSIONAL CAREERS & DAILY LIVES.

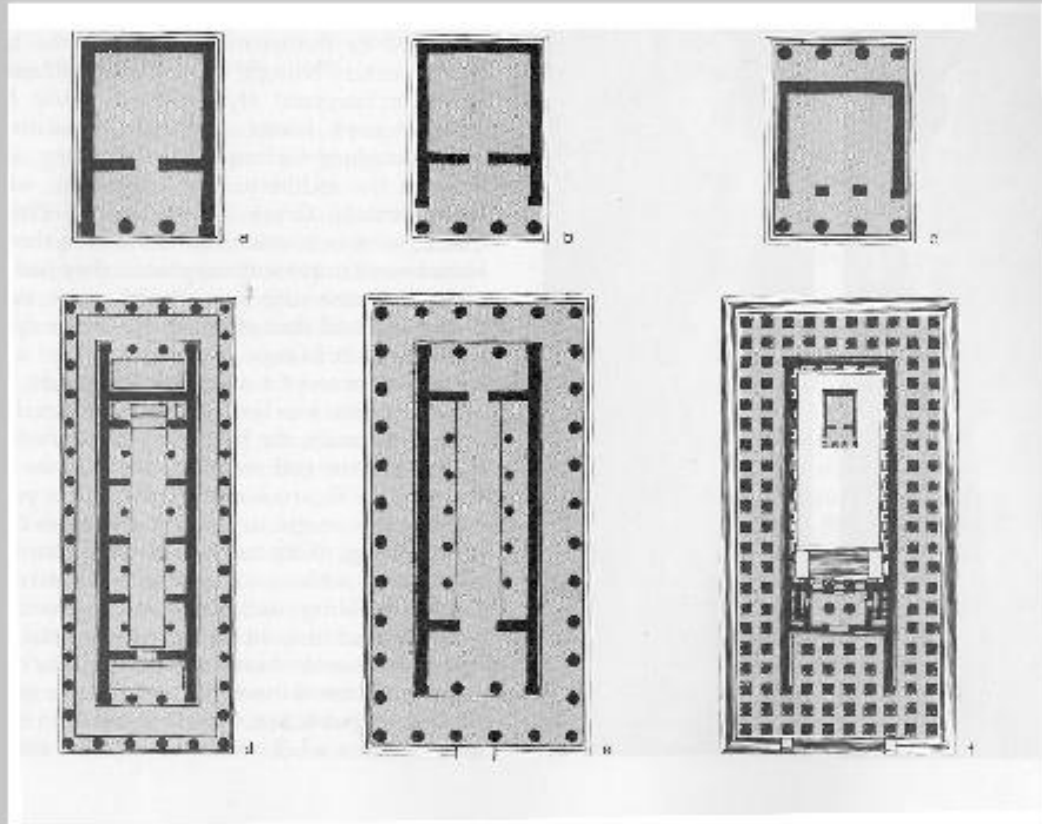




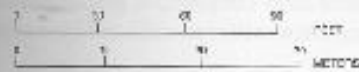
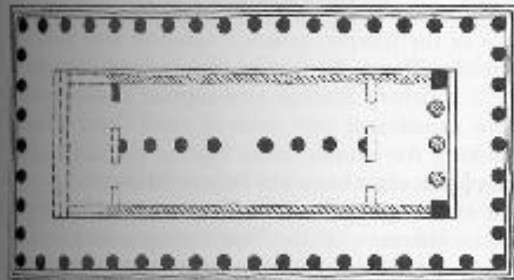




5-21 Doric and Ionic orders. (After I. H. Grinnell.)



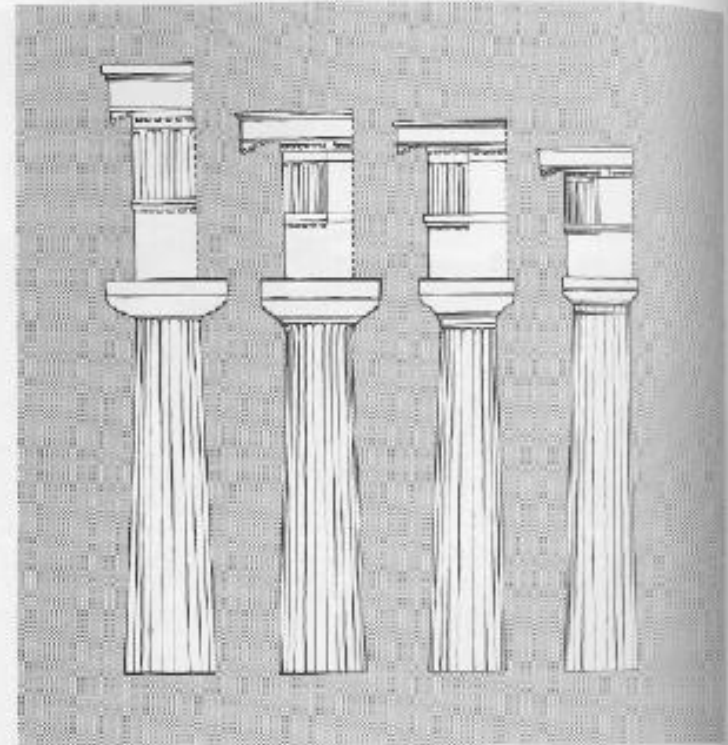
5-23 Plan of the "Basilica."



5-22 The "Basilica," Paestum, Italy, c. 550 B.C.



5-24 "Basilica" colonnade, with view of the Temple of Hera II beyond.



5-25 Evolution of Doric order proportions, Archaic to Classical. (Examples are not drawn to same scale.)

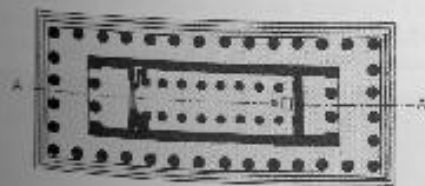


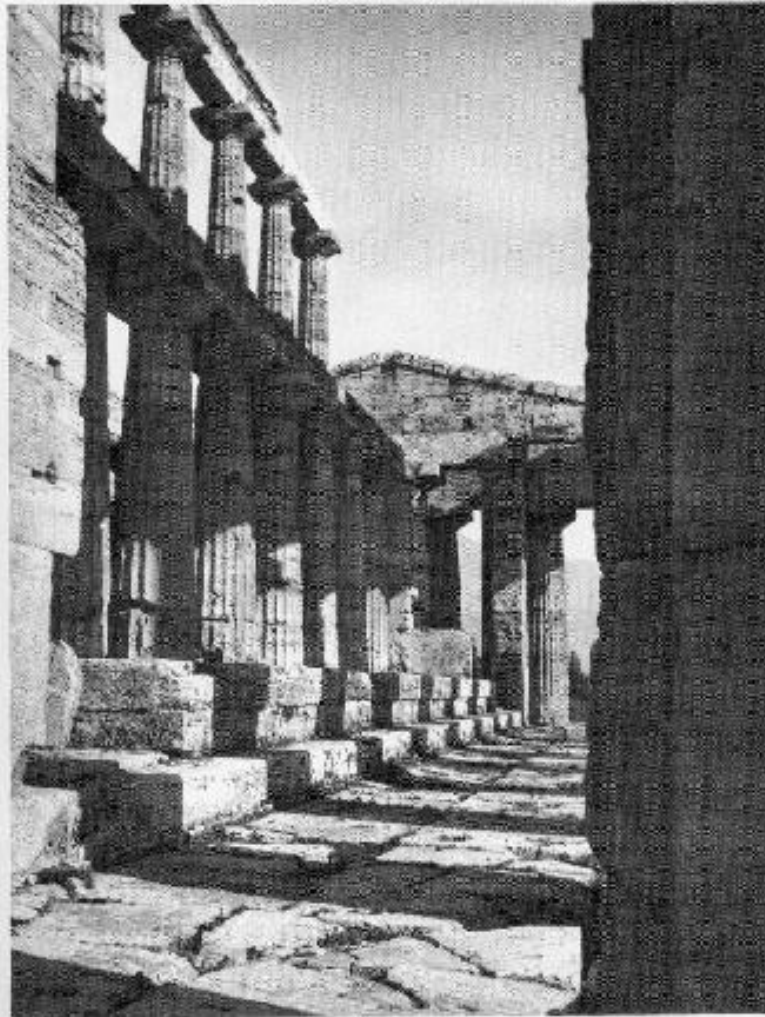
194. Center of the "Didyma" Temple, c. 500 B.C.



5-26 Temple of Hera II at Paestum, Italy, c. 460 B.C.

5-27 Plan (left) and section (right) of the Temple of Hera II at Paestum. (After Sir Banister Fletcher.)

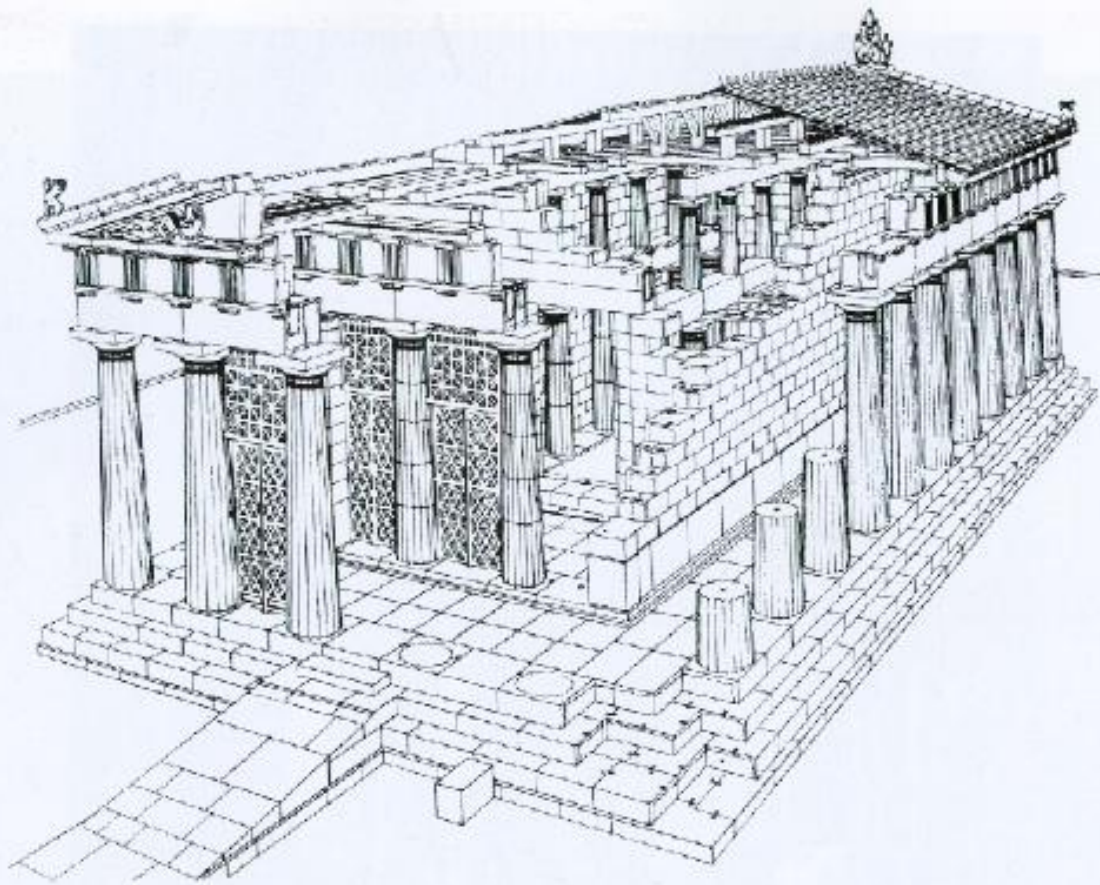




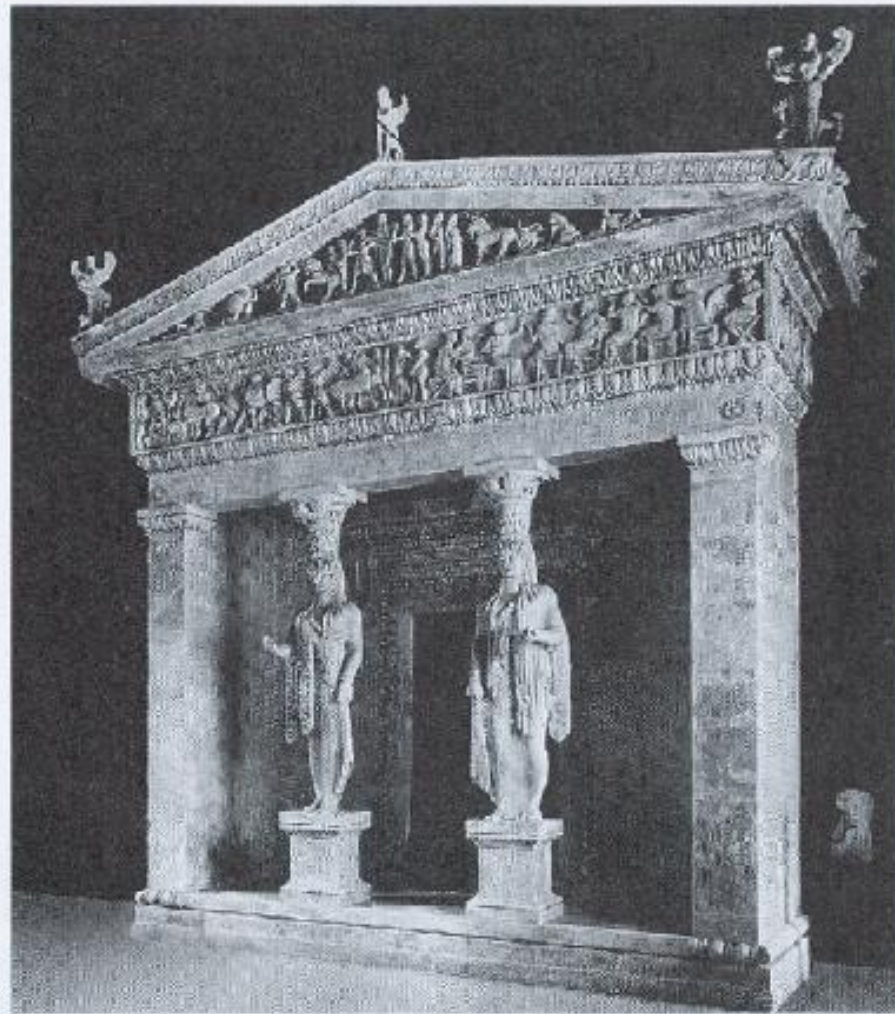
185. Interior. "Temple of Poseidon." Paestum, c. 460 B.C.



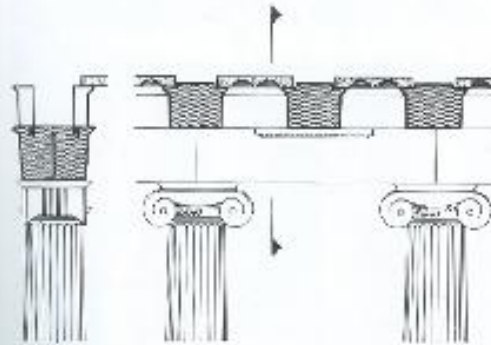
183. The "Basilica," c. 550 B.C.; and the "Temple of Poseidon," c. 460 B.C. Paestum, Italy



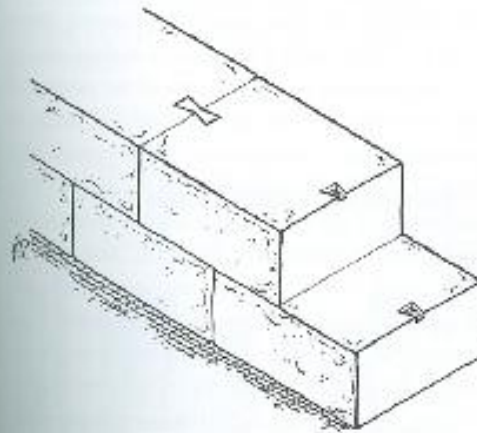
187. Sectional view (restored) of the Temple of Aphaia, Aegina



5-28 Treasury of the Siphnians from the Sanctuary of Apollo at Delphi, c. 530 B.C. Archeological Museum, Delphi. (Facade reconstructed.)



3.27 *Propylaea, Athens, ca. 432-437 B.C. Iron-bar insert in ceiling beam (after Coulton).*



3.29 *"Bow-tie" cramps employed in Greek temple construction (after Coulton).*

Greece: 480 - 431 BCE

480 BCE Persians destroyed many of the buildings

479 BCE ends the Persian invasion of Greece

450 BCE Pericles allocates defensive funds for rebuilding

Begins rebuilding the Acropolis



Acropolis (High Point in the City)

Complex Site

Commanding shape

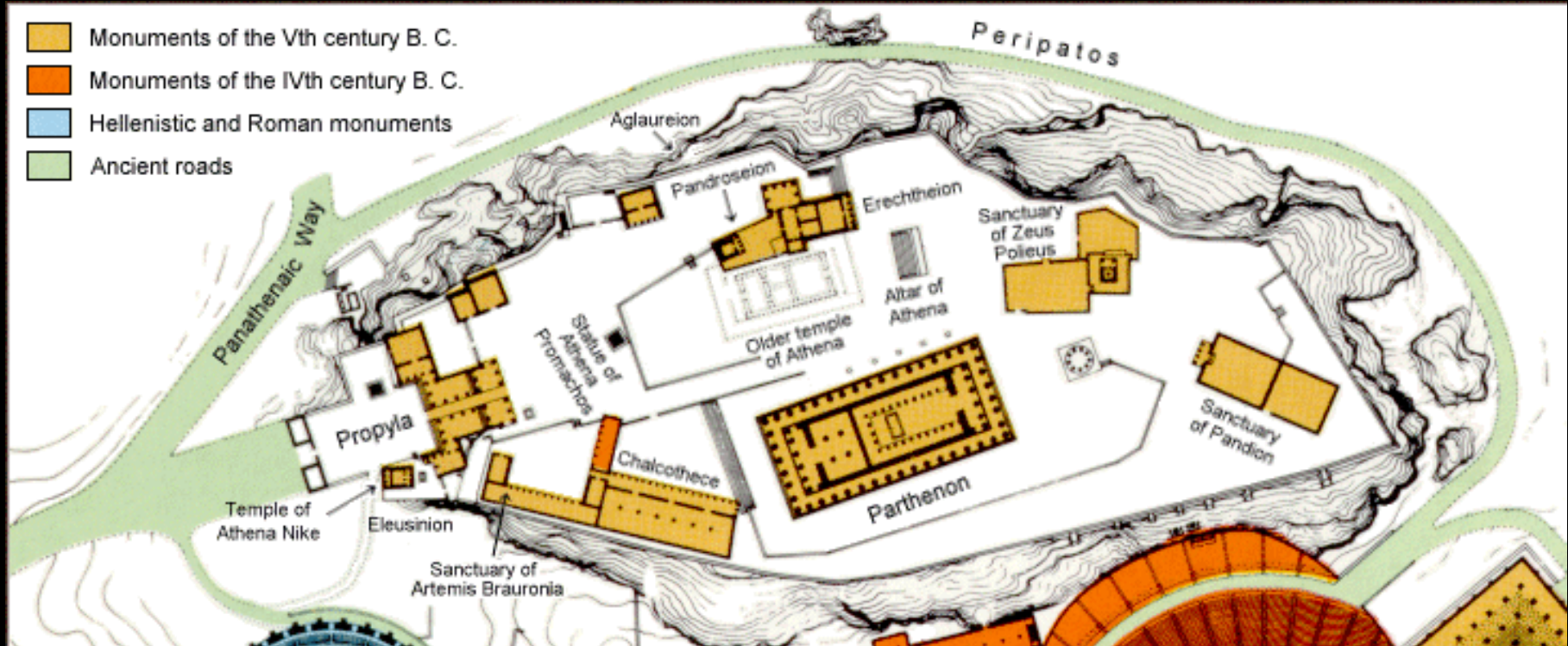
Highly defensible – surrounded by sheer cliffs except the west

Religious and Cultural Center

Built of marble - allowed fine detail (previously mainly limestone)



Acropolis (High Point in the City)



Site Planning:

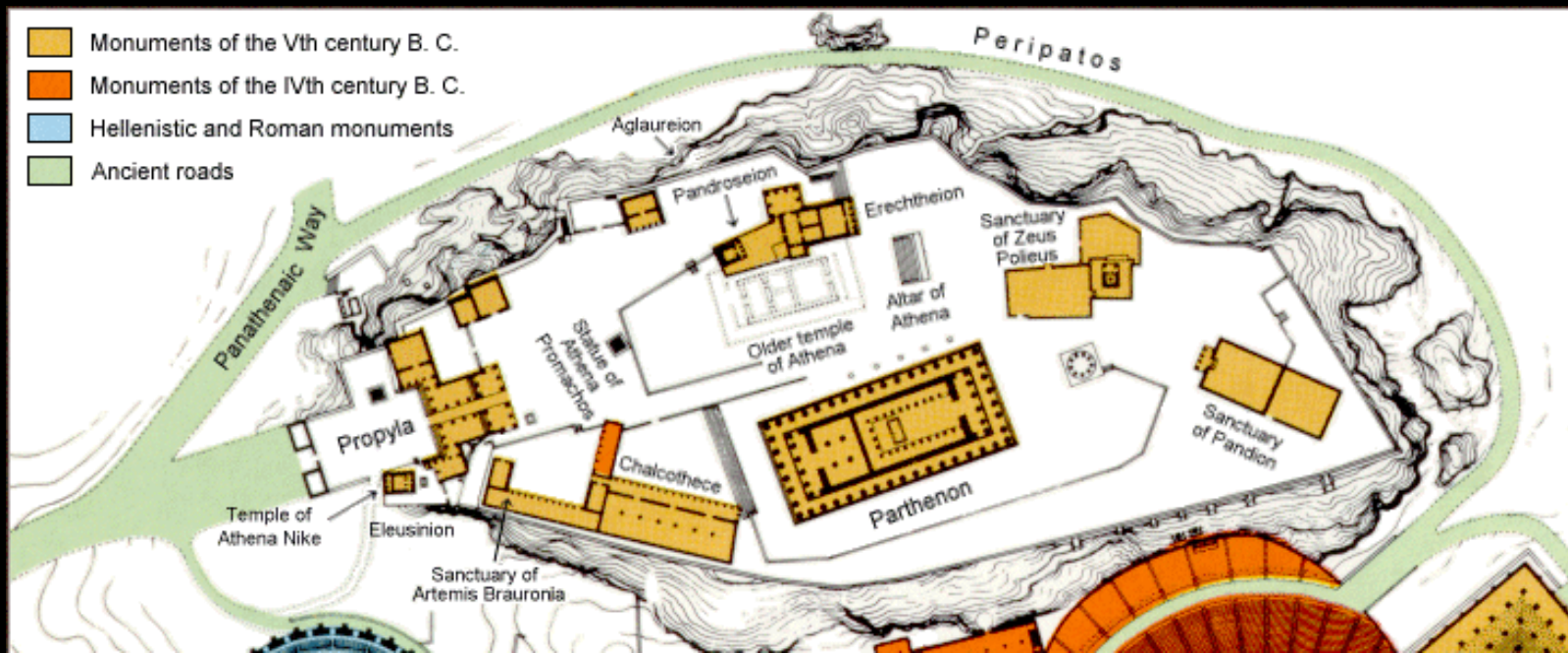
Each Building was sited and designed with others in mind

The observer went up a zigzag ramp – many glimpses

Avoid strictly frontal views of monuments (Unwritten Rule)

Symmetry in Buildings, not in Site Planning

Wanted observer to view buildings in 3-D not flat elevations



Parthenon: 447-438 BCE

Thought to be the worlds most perfect building

Doric Temple dedicated to Athena – Patron Goddess of Athens

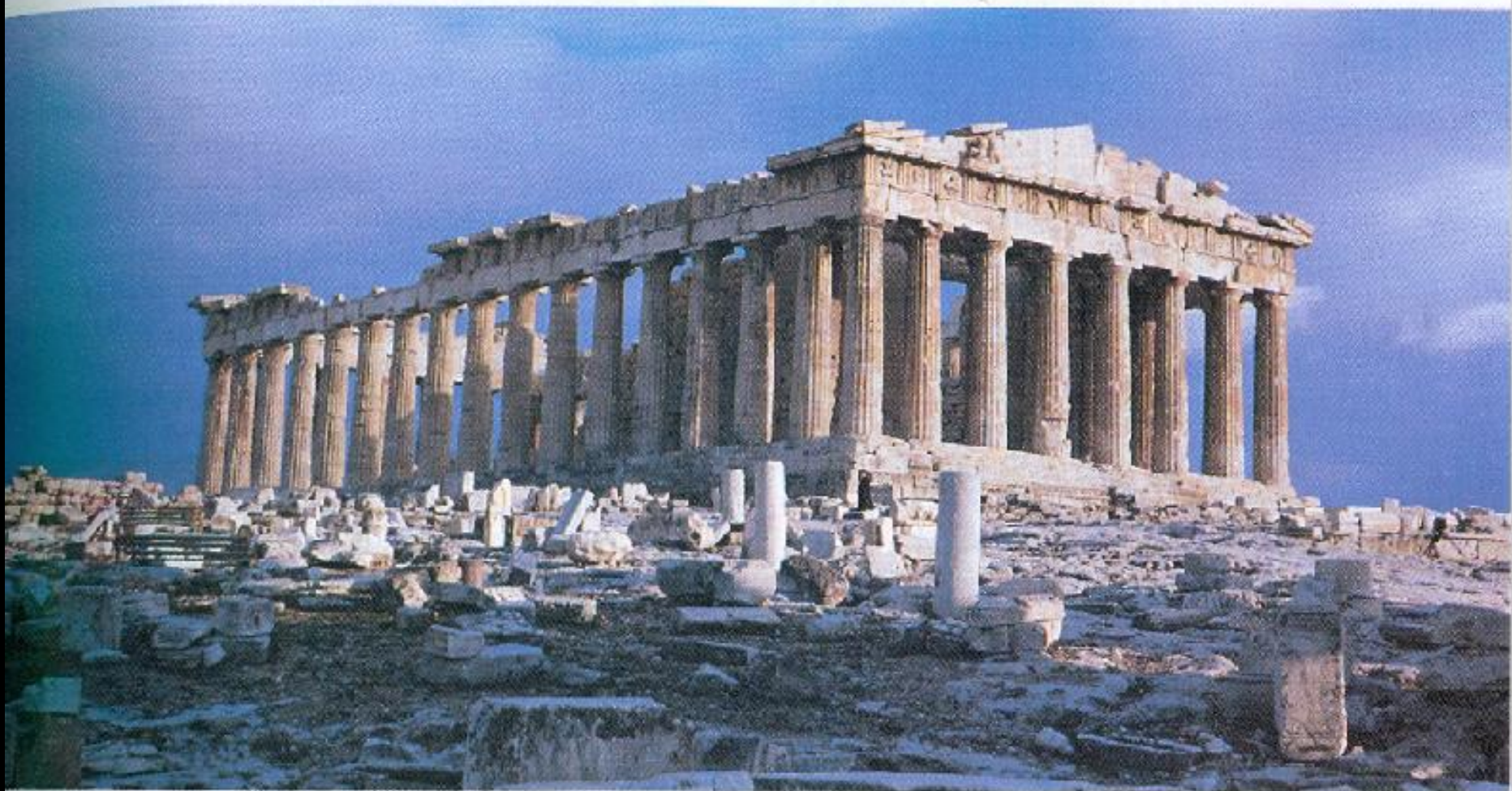
Highest Point of the Acropolis

20,000 Tons of Marble

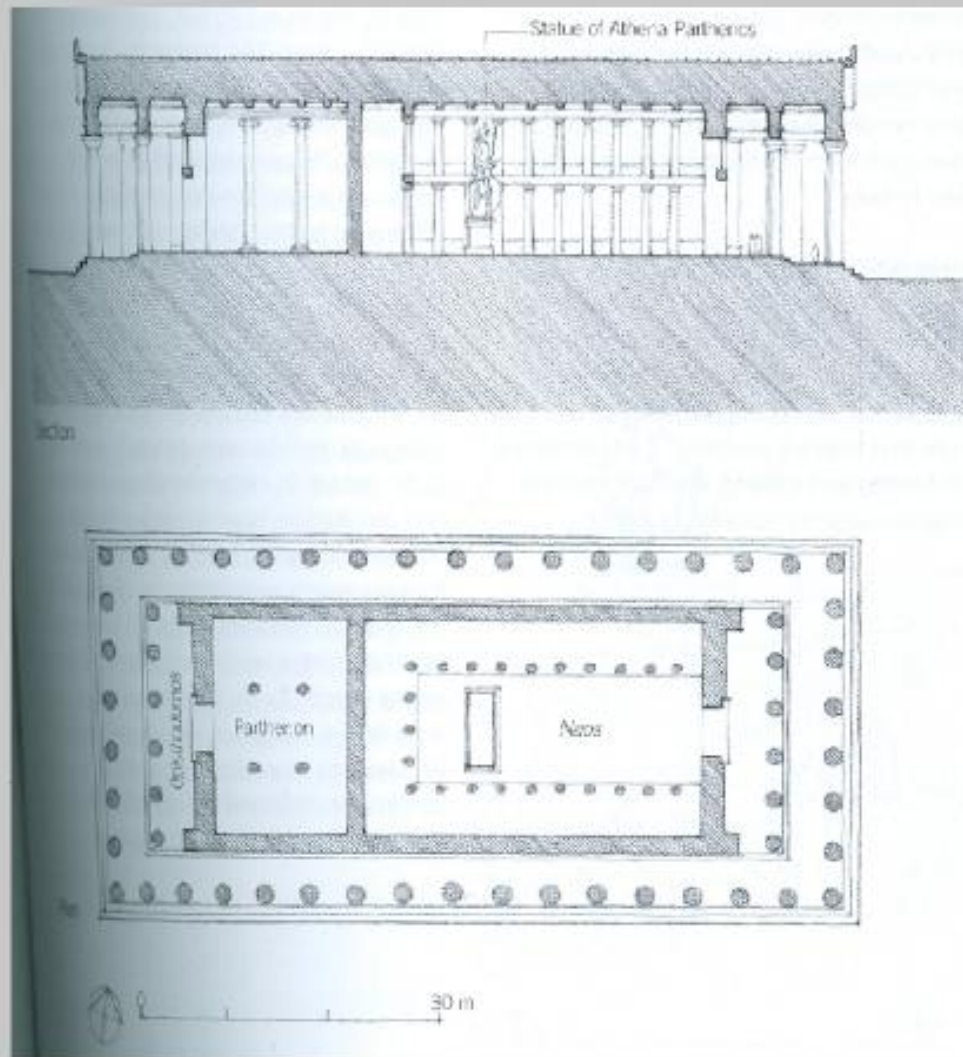
Designed by Iktinus & Kalikrates

Symbol of Architecture Refinement





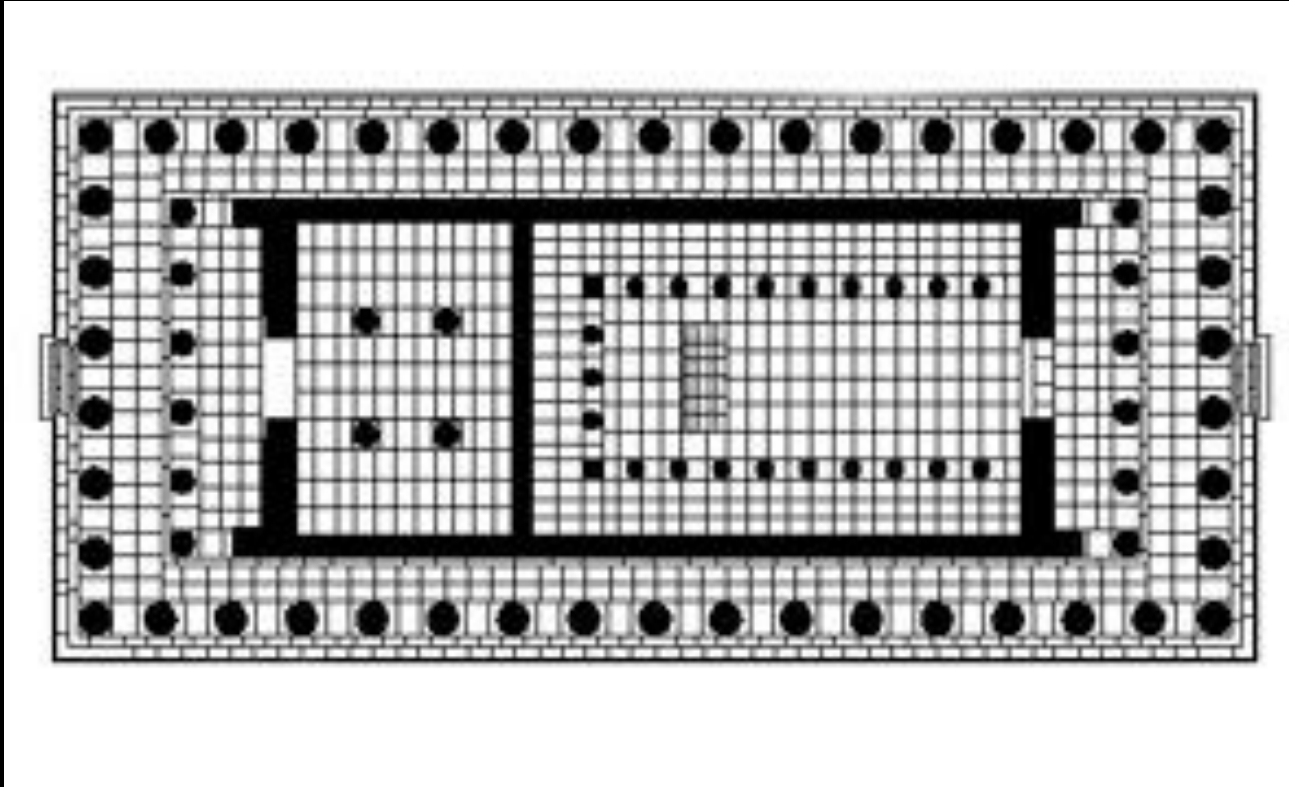
5-44 IKTINOS and KALLIKRATES, the Parthenon, Acropolis, Athens, 448-432 B.C. (view from the northwest).



Parthenon: 447-438 BCE

8 x 17 doric columns

6 Columns at front and rear entrances



Parthenon: 447-438 BCE

8 x 17 doric columns

6 Columns at front and rear entrances



[www. Odesseyadventures.com](http://www.Odesseyadventures.com)



[www. Greatbuildings.com](http://www.Greatbuildings.com)



[www. Academic.Reed.edu](http://www.Academic.Reed.edu)

Parthenon: 447-438

BCE

101' x 228'

8 x 17 doric columns

Columns: 6'2" wide and 34'3" tall

Ratio: 1 : 5-1/2

Three step around the Temple

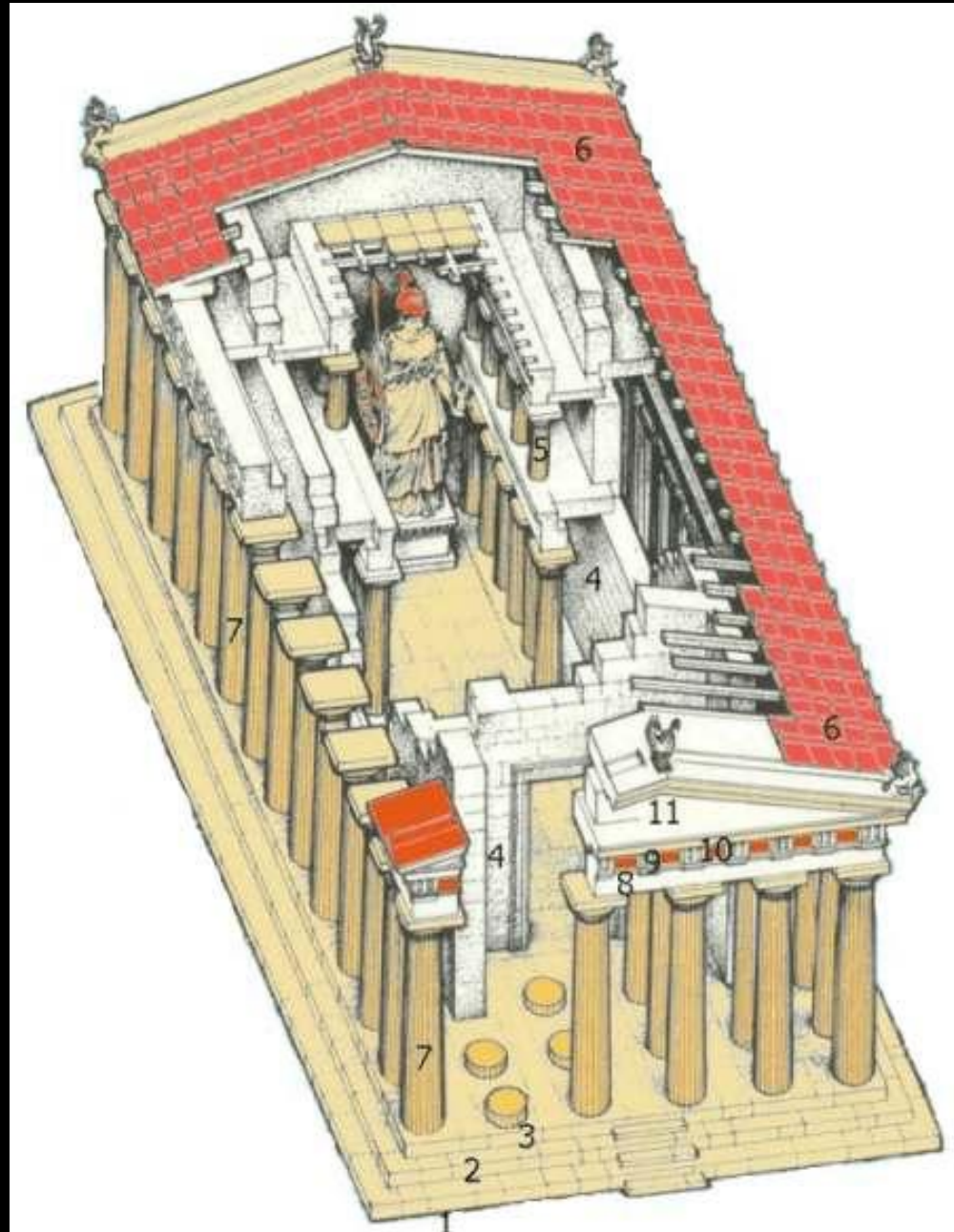
Statue of Athena – Fully Armed

Marble transported 16k from Mt. Penelicus

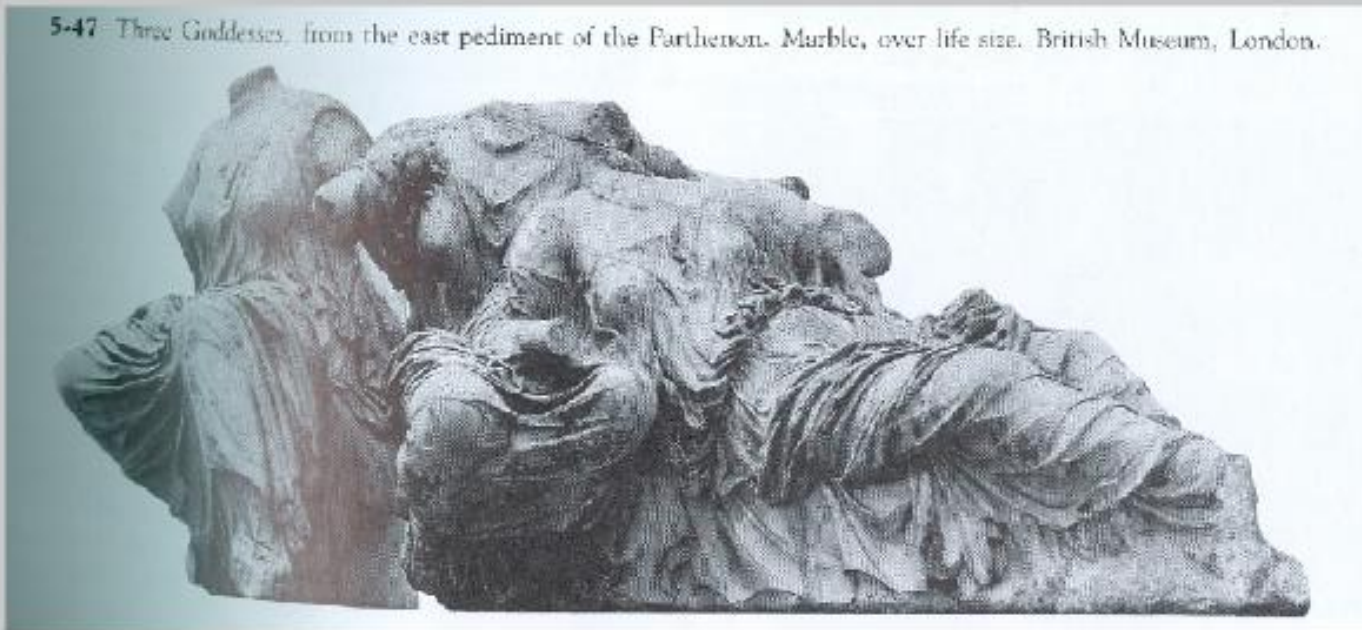
Remained intact until 1687 when a Venetian shell exploded destroying interior and roof

Many sculptures

Terracotta tiled roof



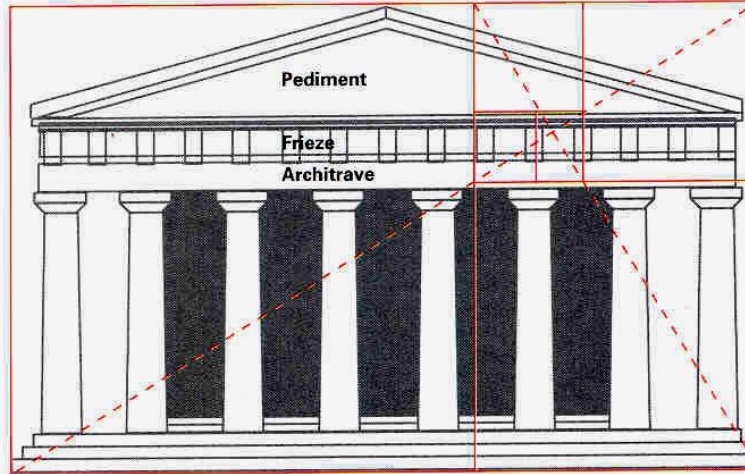
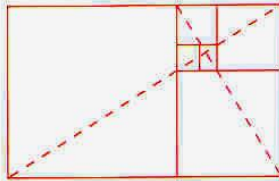
5-47 Three Goddesses, from the east pediment of the Parthenon. Marble, over life size. British Museum, London.



Parthenon: 447-438 BCE

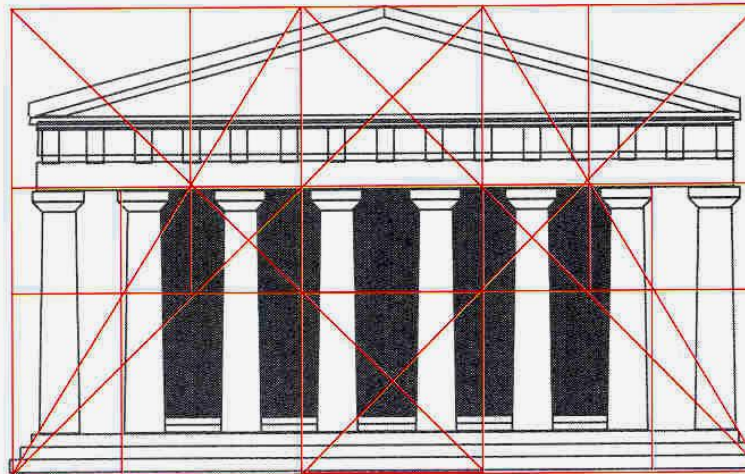
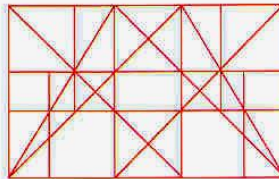
Drawing of the *Parthenon*, Athens, ca. 447–432 B.C., and the Architectural Relationship to the Golden Section

Analysis of golden section proportions according to the golden section construction diagram.



Golden Section Harmonic Analysis

Analysis of golden section proportions according to a diagram of a harmonic analysis of the golden section.



Propylaea: 437- 432 BCE

Gateway to the Acropolis

Designed by Mnesikles

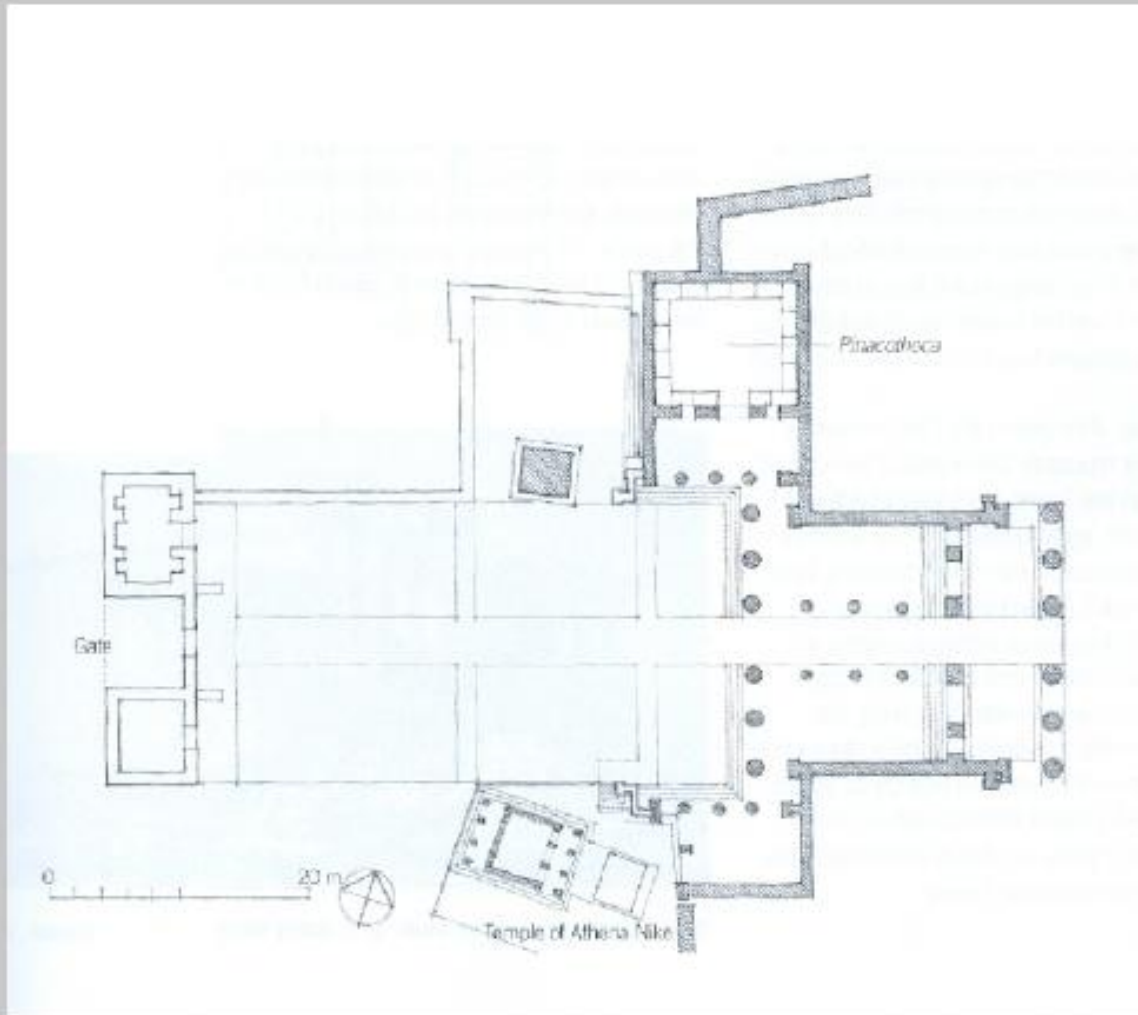
2 levels due to uneven ground

Gateway from Land of Humans to
The Land of Gods



5-51 MNESIKLES, the Propylaea, Acropolis, Athens, c. 437–432 B.C. (view from the east).





Temple of Nike:

427- 410 BCE

Goddess of Victory

Earliest Ionic Building at the
Acropolis

Columns: 11' high

Ratio: 1:7

Frieze: battle scenes depicting
Greeks versus Persians

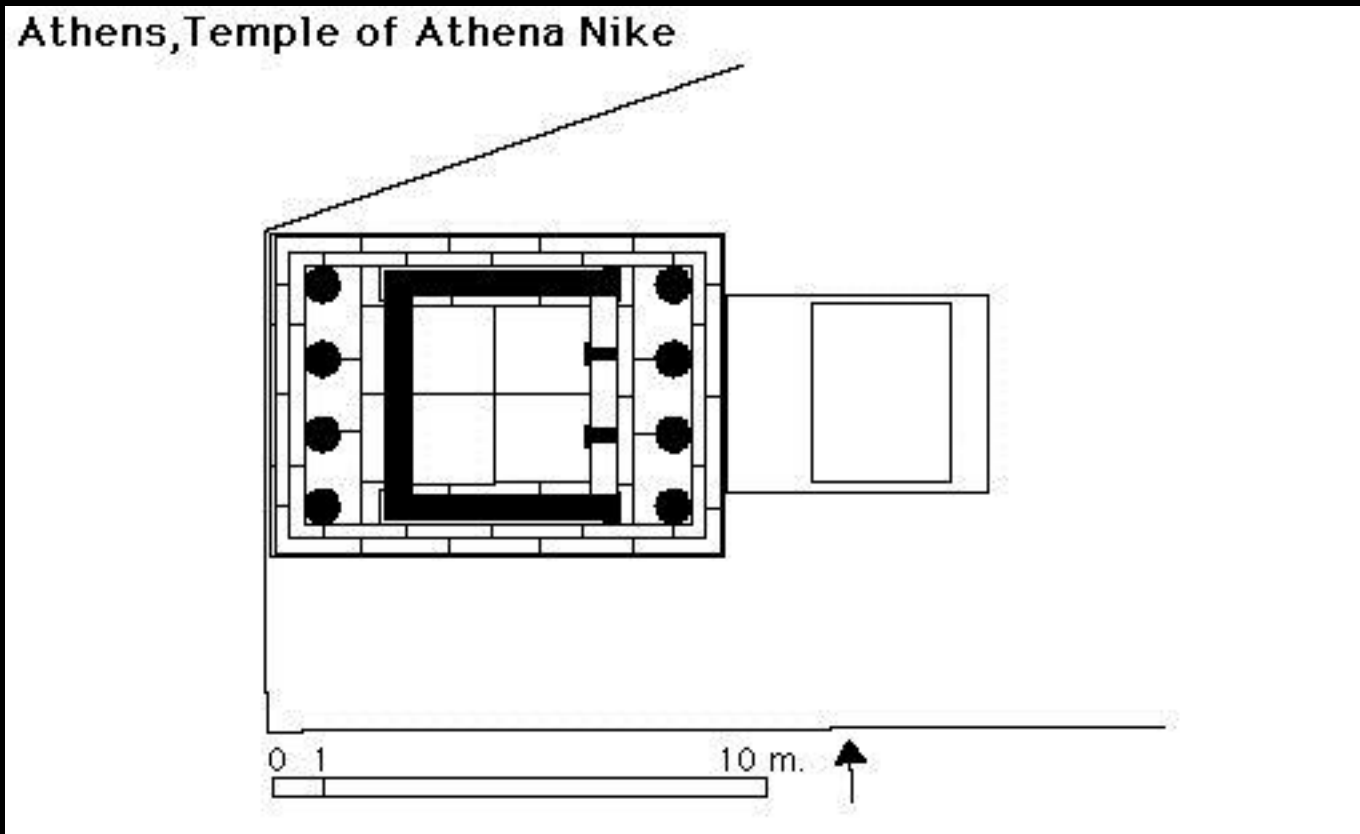
Set on 4 steps

Pediment decorated with winged
victories or Nike(s) created by
Callimachus



Temple of Nike: 427- 410 BCE

4 Column projecting Porches



The Erechtheion 421-405 BCE

Sloping site inspired split level design

Built at the Acropolis

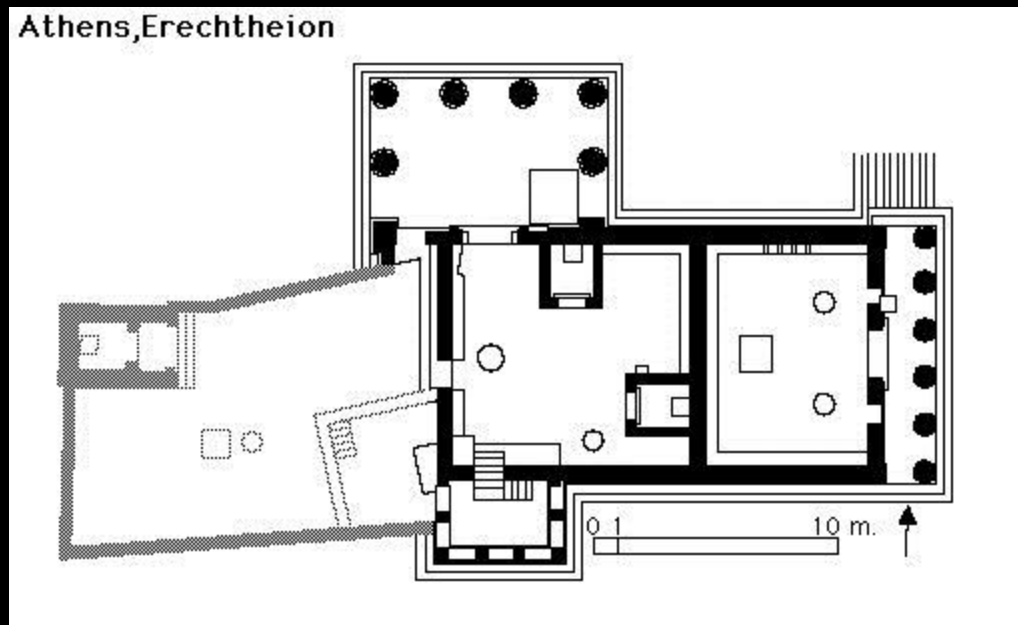
No continuous colonnade – 4 separate porticos

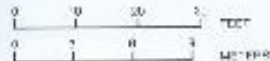
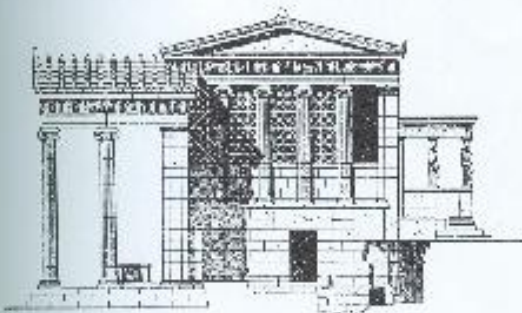
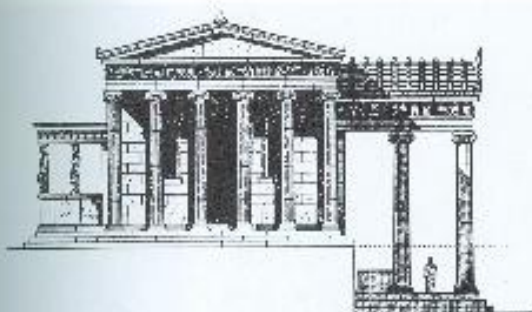
Accommodates diverse hallowed areas

Departs from traditional symmetry

Continuous frieze running above architrave

Abundance of sculpted ornament



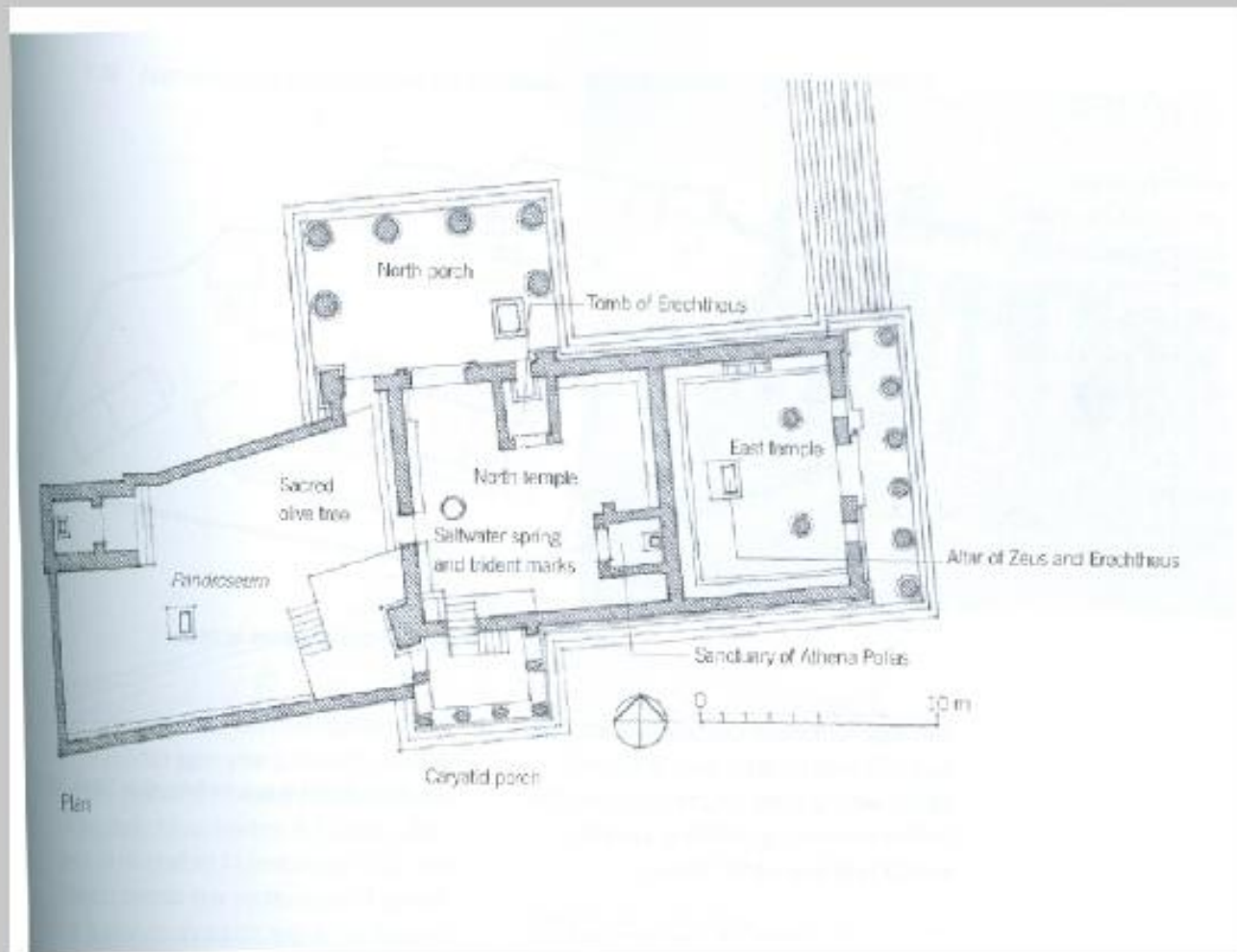


3-54. Reconstructed elevations of the east and west facades of the Erechtheion, Acropolis, Athens.

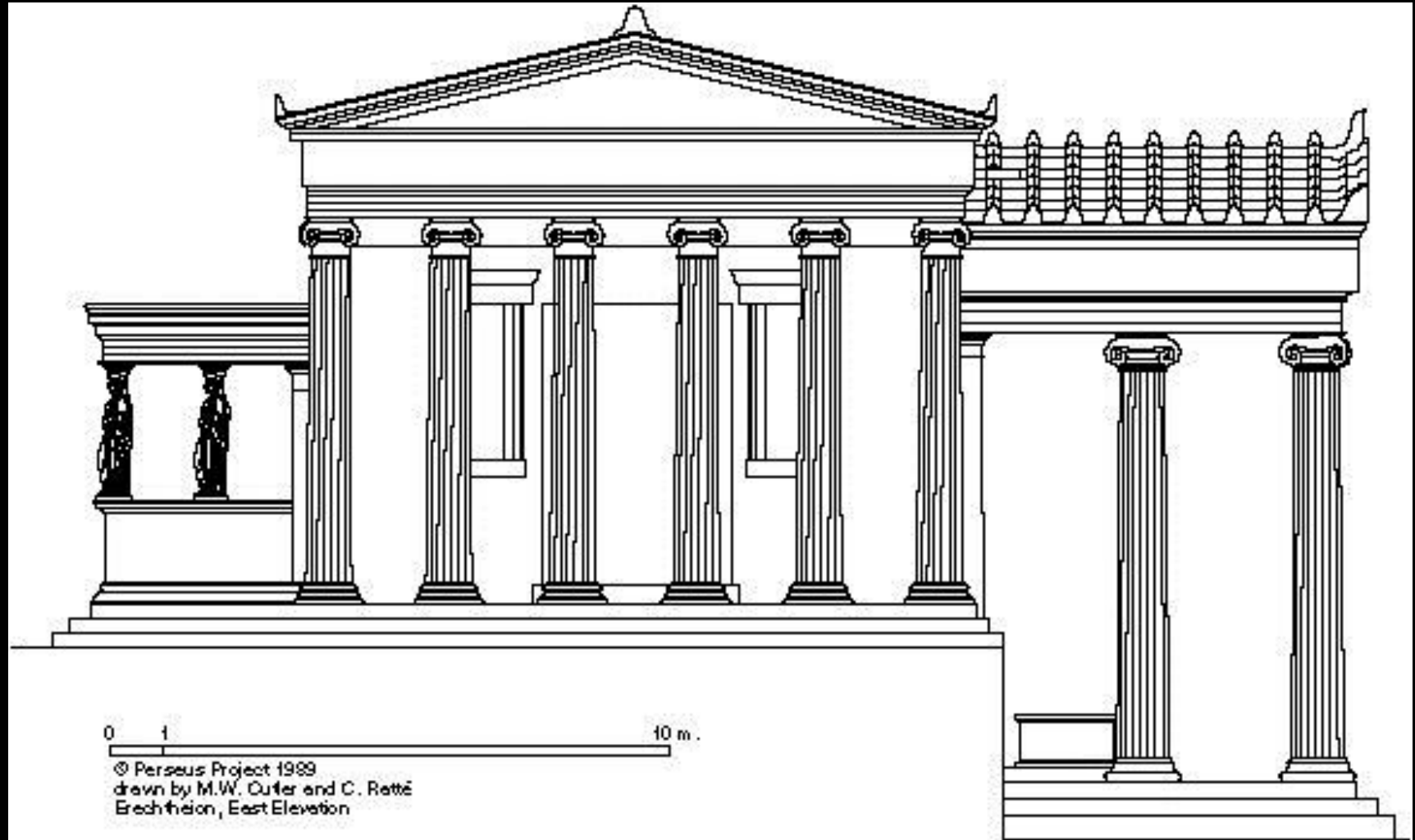
5-55. For J. of the Masters, the Erechtheion

5-53. The Erechtheion, Acropolis, Athens, 421-405 B.C. (view from the south).





The Erechtheion 421-405 BCE



The Erechtheion 421-405 BCE



The Erechtheion 421-405 BCE



The Erechtheion 421-405 BCE



431 BCE: Peloponnesian War: Greece loses to Sparta
democracy remains

336 BCE: Alexander the Great conquers Greece:
democracy survives, but its vitality was gone

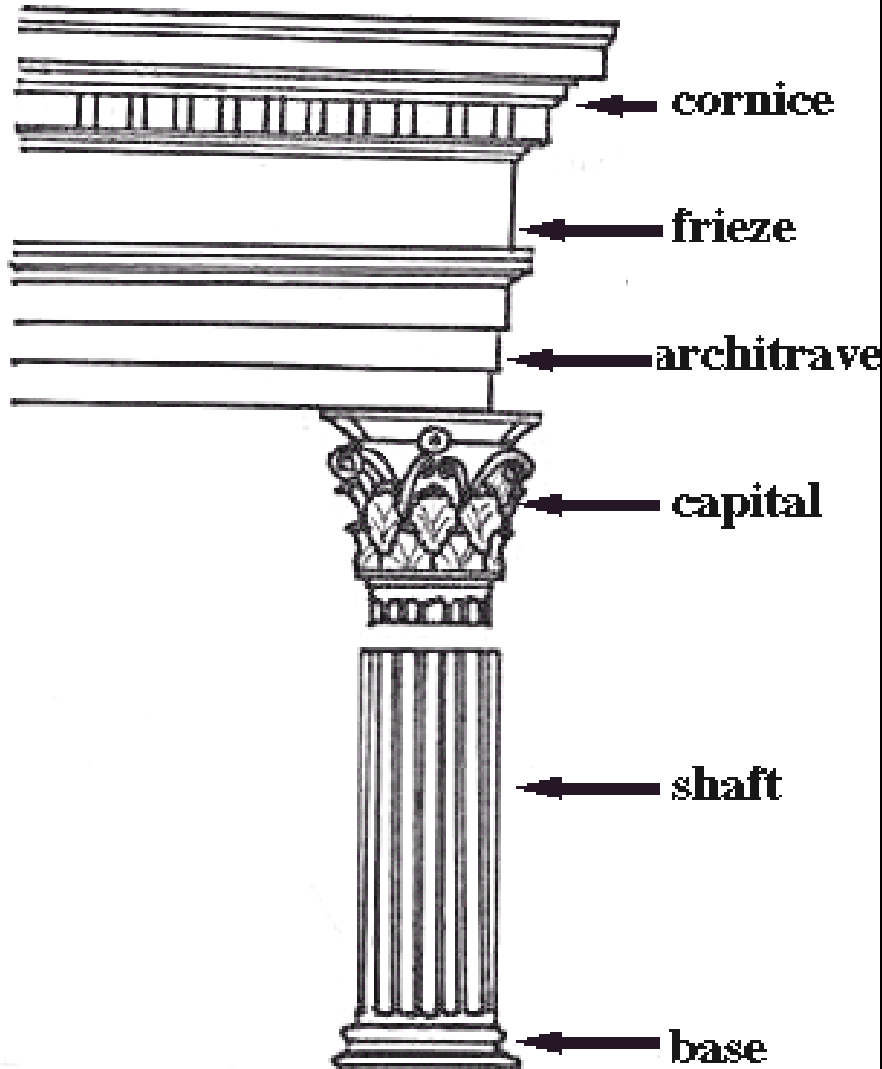
Hellenism began after the death of Alexander the Great

Change in the Greek citizen: specialized – not involved in all
aspects of public life (politically, military and economically)

Change in Architecture: greater freedom, shift in
Architectural style, introduction of the Corinthian Column

Corinthian:

Corinthian Order



Late 2nd Century BCE

Thin and decorative

Columns were 10 times taller than the diameter

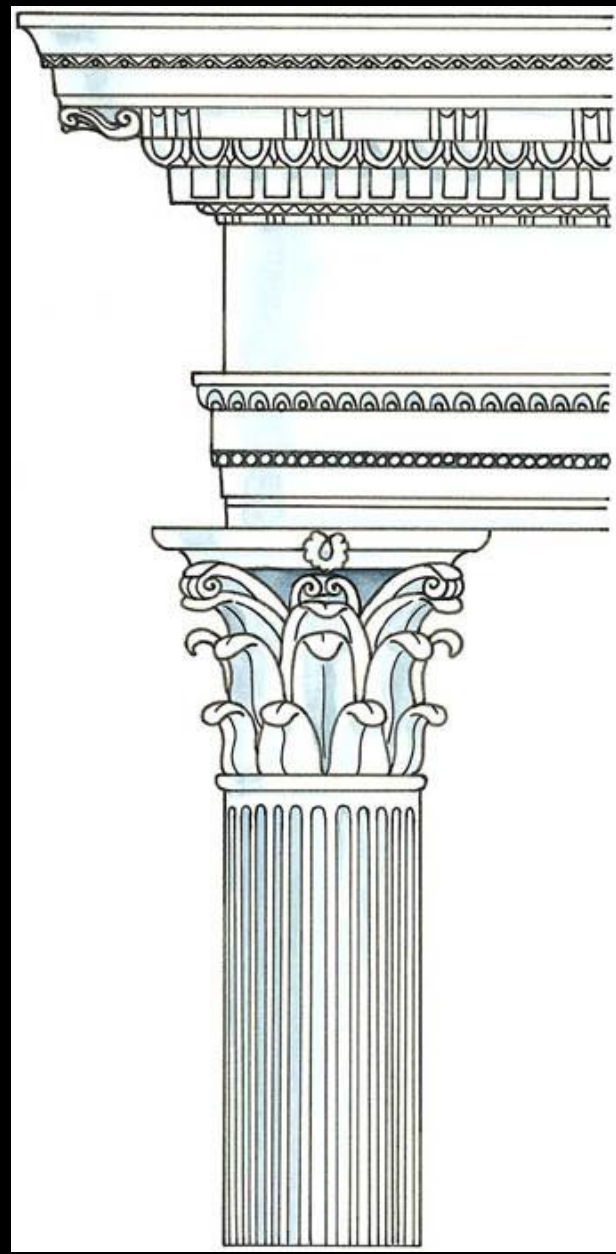
Designed by Callimachus combining a goblet and scrolls and acanthus leaves

There were 24 flutes

Corinthian:

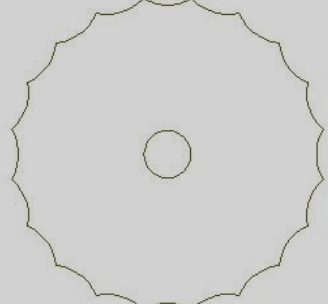
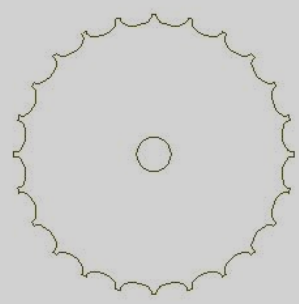


[/www.geocities.com](http://www.geocities.com)



Ionic and
Corinthian
fluting

Doric
fluting



[/www.geocities.com](http://www.geocities.com)

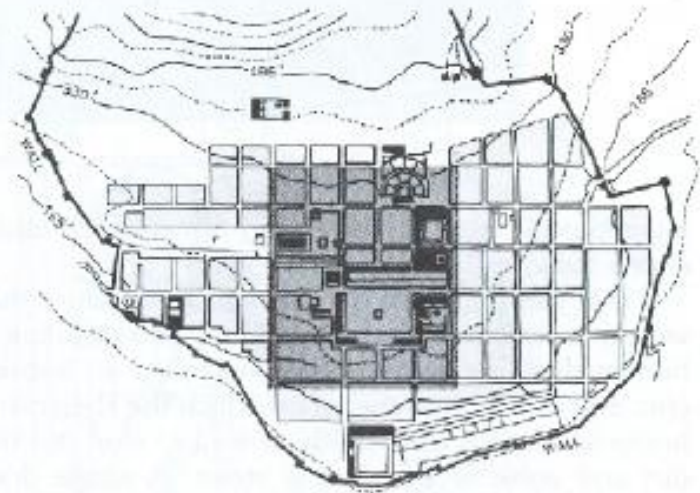
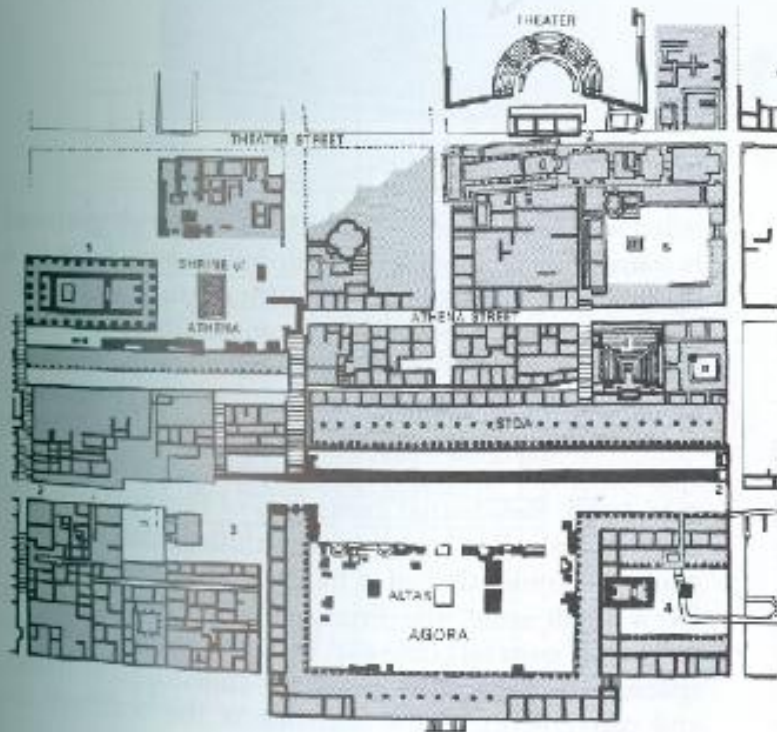


5-69 Corinthian capital from the tholos at Epidauros, c. 350 B.C. Museum, Epidauros.



5-70 The Monument of Lysikrates, Athens, 334 B.C.

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



Temple of Zeus Olympius, Athens: 170 BCE

Started in the 6th Century BCE with Ionic Columns, but abandoned

Construction began again in the 2nd Century BCE, but changed Order to Corinthian by Roman Architect, Cossutius



Temple of Zeus Olympius, Athens: 170 BCE

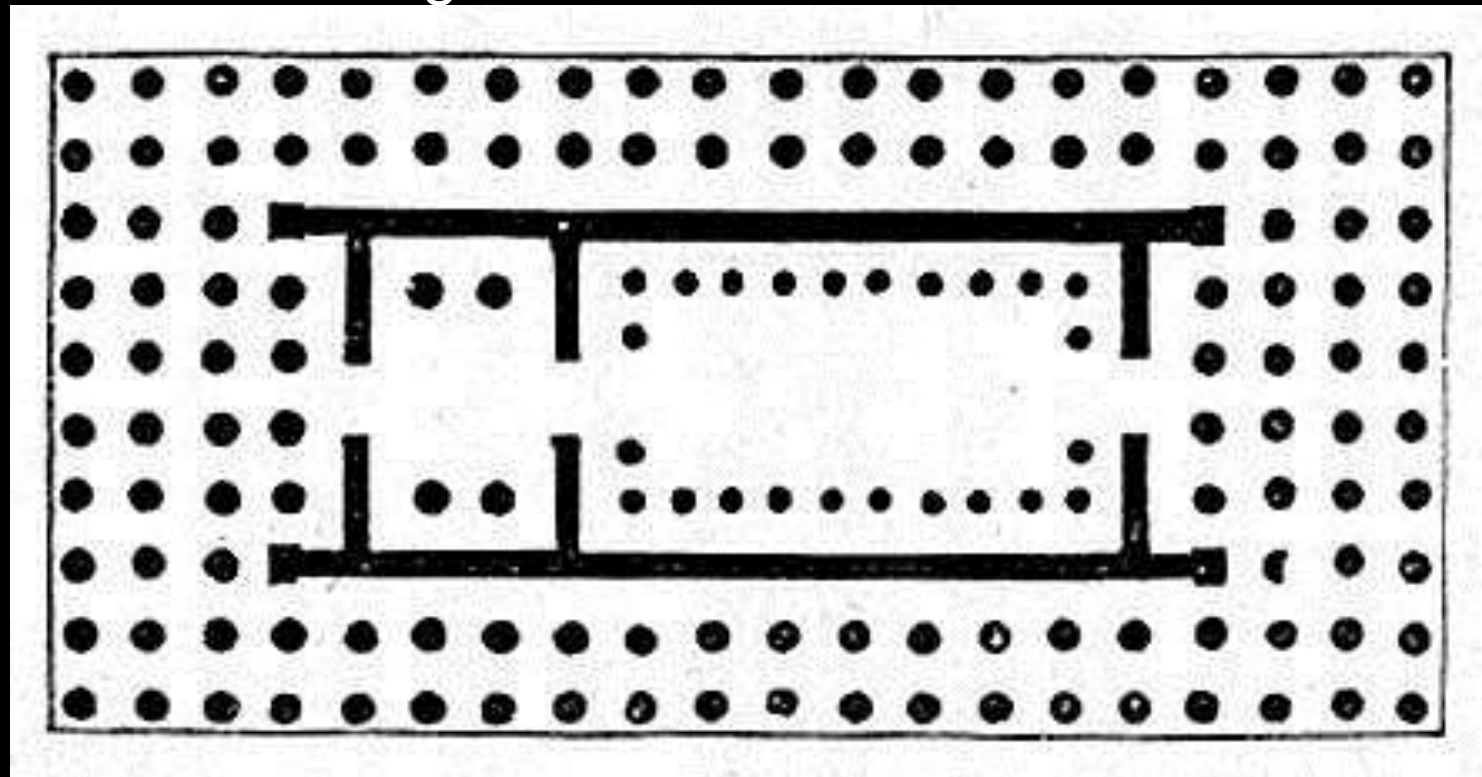


Temple of Zeus Olympius, Athens: 170 BCE

Located east of the Acropolis

Over 100 Columns, double rows of 20(N&S) and triple rows of 8 (E&W)

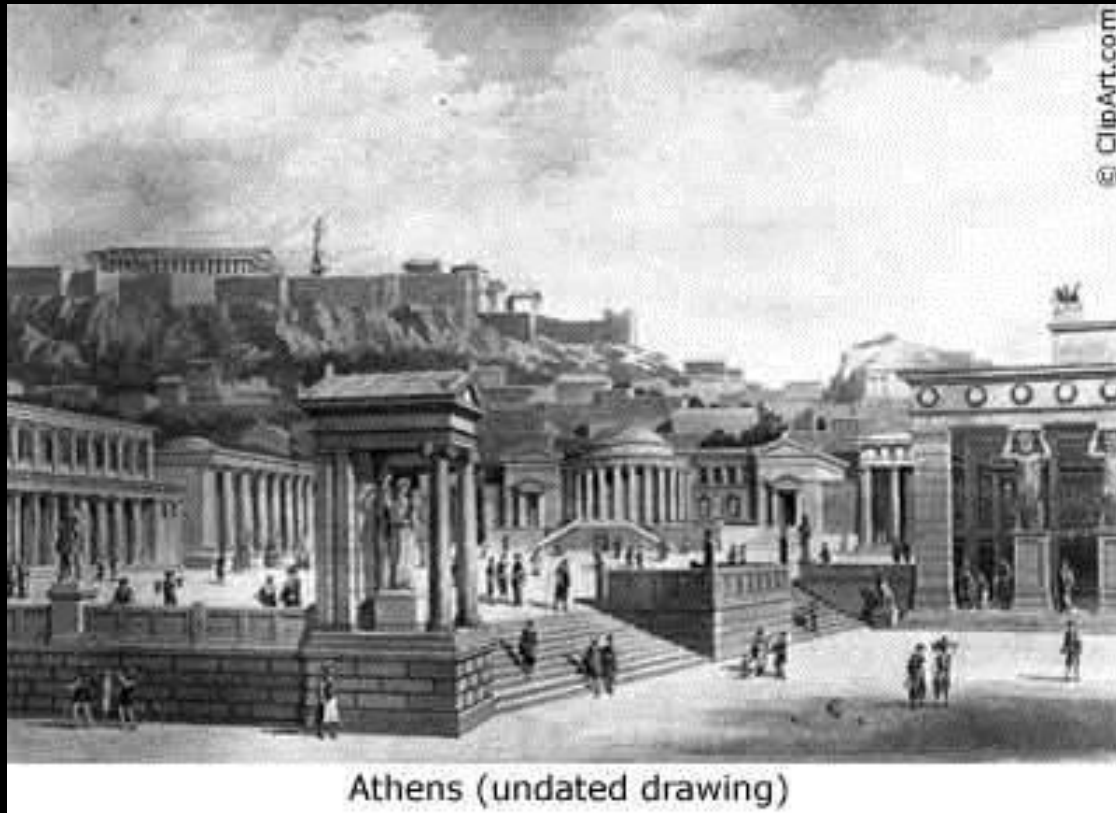
Columns: 56' high 5'6" wide



Civic Architecture

Agora:

Place of public assembly in a Greek city; the focus of political, commercial, administrative and social activity, the religious and cultural center, and the seat of justice



Athens (undated drawing)

Civic Architecture

Agora:



Athens: Agora

Civic Architecture

Agora:



Civic Architecture

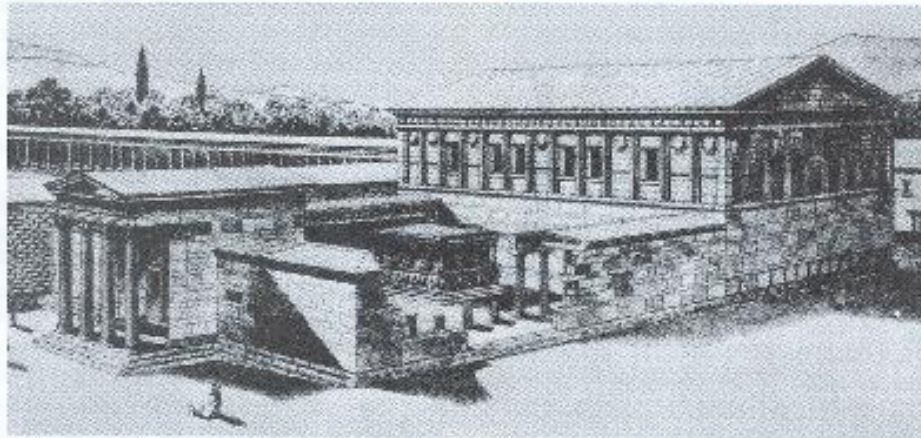
Agora:



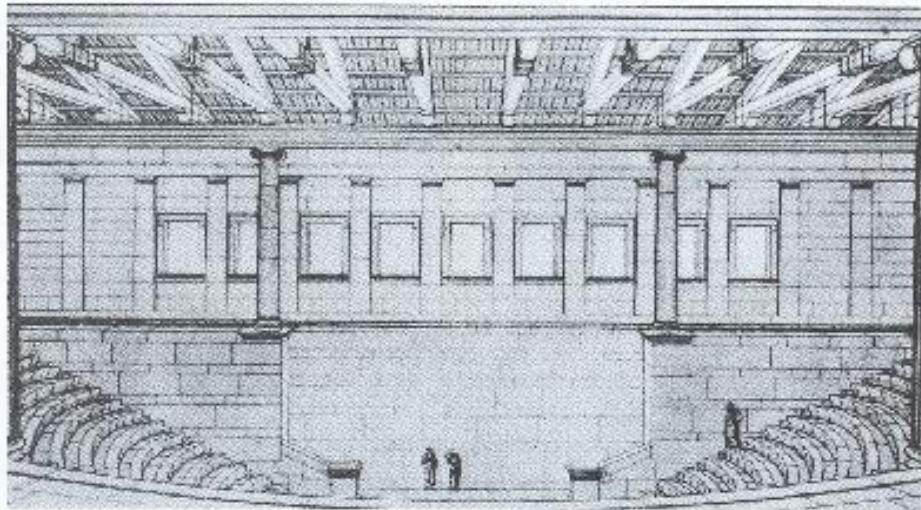
Bouleuterion 5th Century BCE

The Council of 500 (Boule) held its regular meetings here.
Had tiered seating.





5-89 Bouleuterion at Miletus, late third century B.C.



5-90 Reconstruction of council chamber, Bouleuterion at Miletus.

Metreon 2nd Century BCE

The building has an Ionic propylon

It accommodated both the sanctuary of the Mother of the Gods and the state archives, including the proceedings of the meetings of the Council of 500 and various official documents, protected by the goddess.



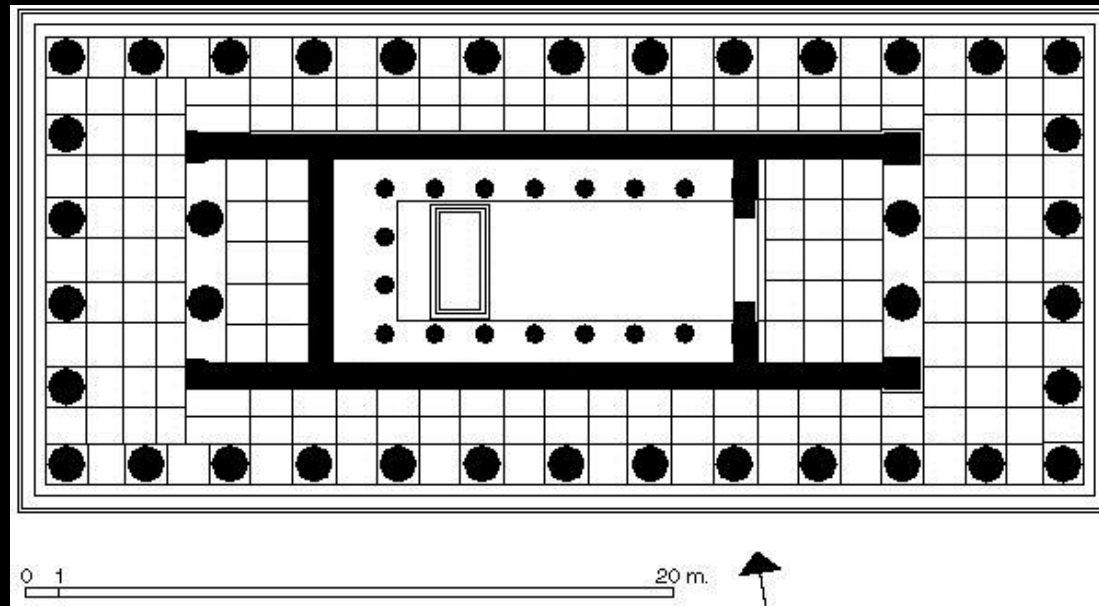
Temple of Hephaistos 449 BCE

Doric temple

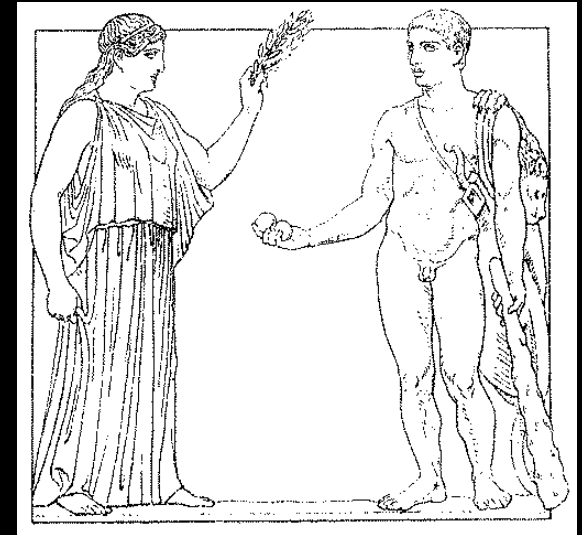
It is sited on the hill.

It is the most prominent and better preserved monument of the Agora.

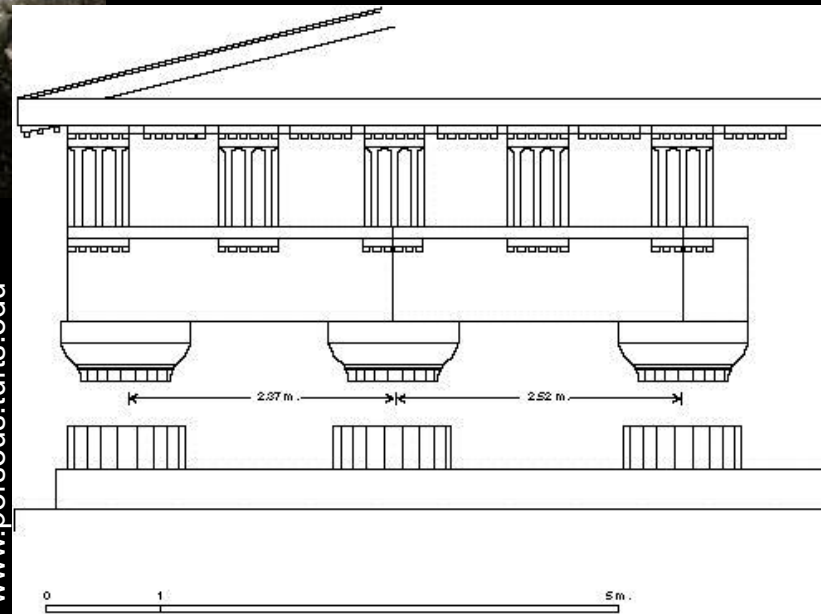
The temple was dedicated to two gods, Hephaistos and Athena, whose bronze cult statues stood in the interior.



Temple of Hephaistos 449 BCE



www.perseus.tufts.edu



www.perseus.tufts.edu

Tholos 460 BCE

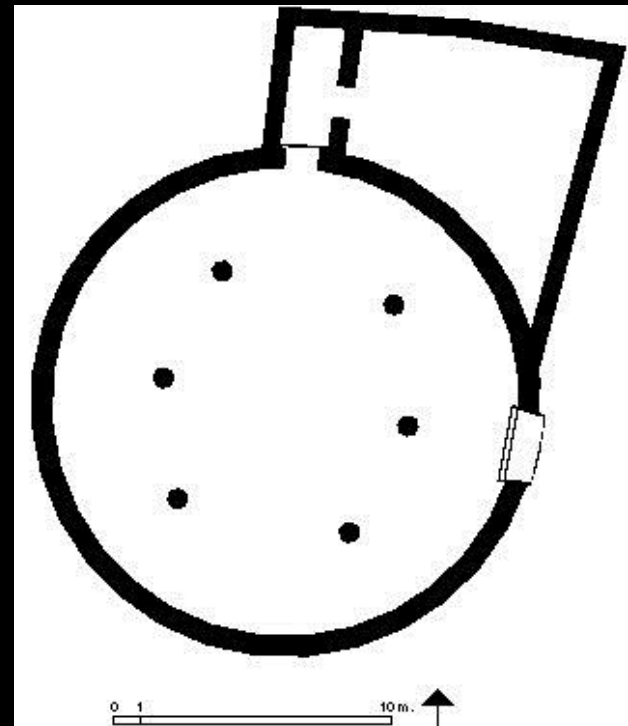
Circular building

The chairmen (prytaneis) of the Council of 500 (Boule) dined and spent the night in the Tholos so as to be available if necessary.

A set of standard weights and measures was also kept in the building.



www.perseus.tufts.edu



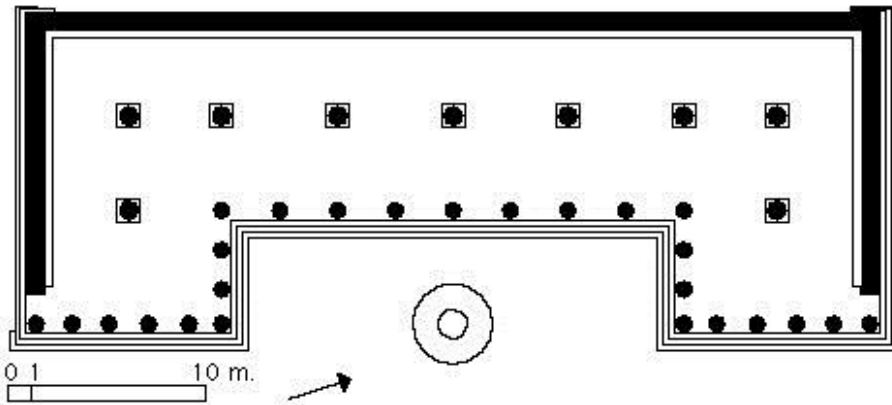
www.perseus.tufts.edu

Stoa of Zeus Eleutherios 5th Century BCE

The stoa was erected in honor of those who fought for the freedom and security of the city.

Socrates is said to have met his friends in this stoa.

Athens, Stoa of Zeus (Eleutherios)



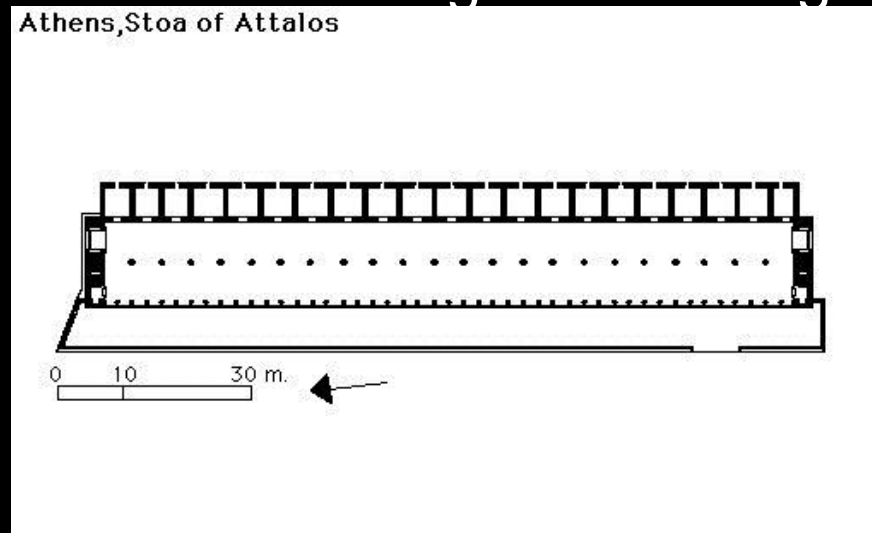
Stoa of Attalos 150 BCE

Two-story building, 381 ft x 63 ft 8 in,

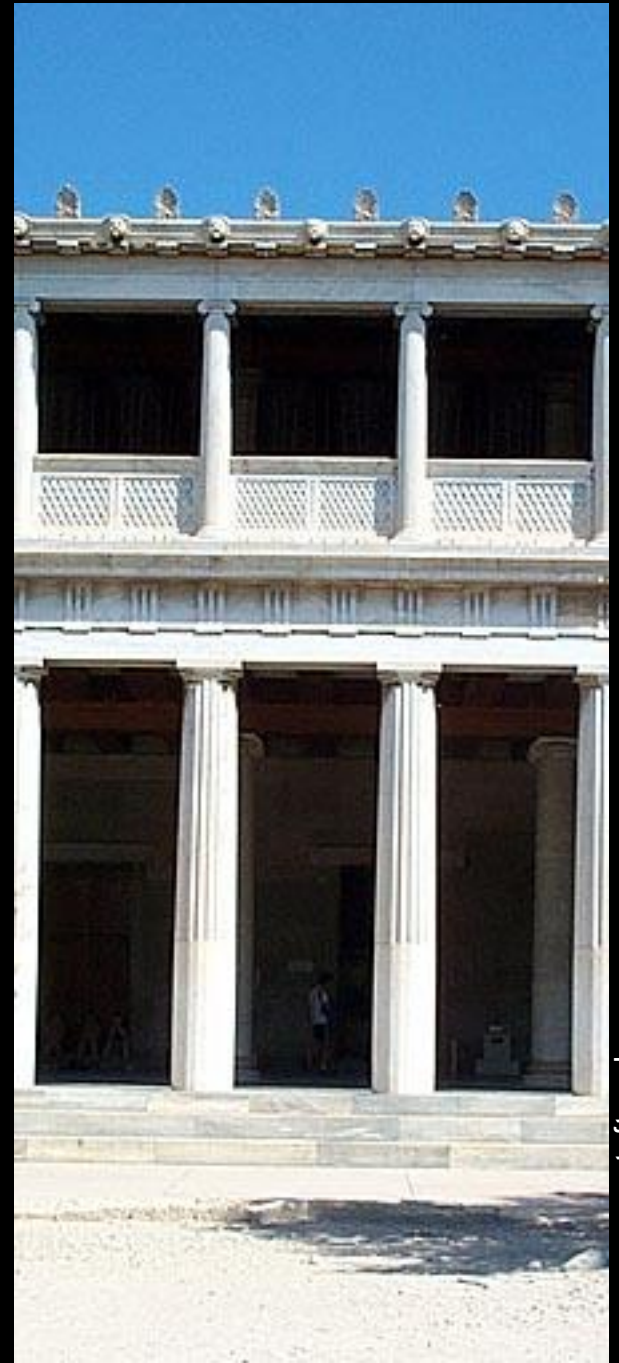
Doric colonnade on the ground floor, and an Ionic upper colonnade incorporating a balustrade.

More important is the way the stoas are used to close off the agora to a regular plan.

In 1953-56 it was reconstructed in order to house the finds from the excavations at the Agora - The Agora museum



Stoa of Attalos 150 BCE



Theater of Epidaurus 350 BCE

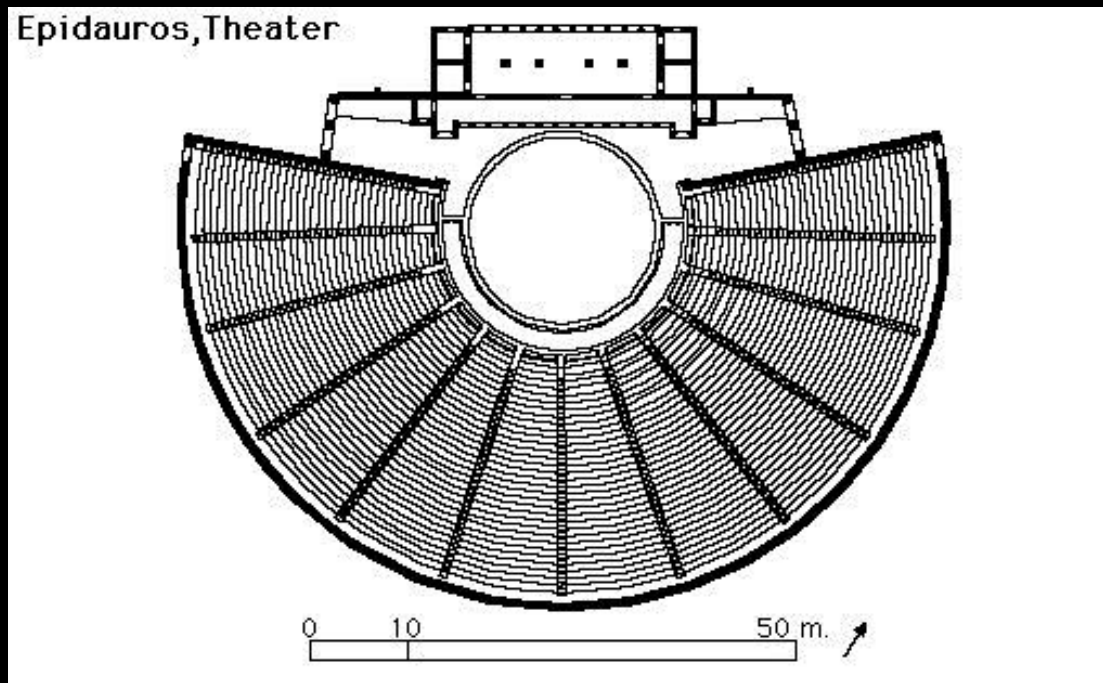
Semicircular outdoor theater

Consists of 55 tiers of steeply banked stone seats

Used for: Political assemblies, religious festivals and plays

Perfect acoustics

Seating extends more than half way around the orchestra



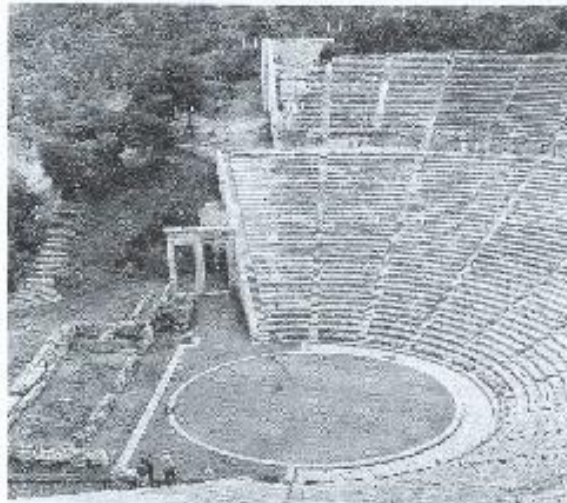
Theater of Epidaurus 350 BCE



www.perseus.tufts.edu



www.perseus.tufts.edu



5-71 POLYKLETOS THE YOUNGER. Theater at Epidauros.
Greece, c. 350 B.C.

5-72 Plan of the theater at Epidauros. (After E. Krischen.)

