

The Aegean

(Bronze Age)

Crete – Minoan

Mainland Greece – Mycenaean

The Aegean



Minoan Architecture

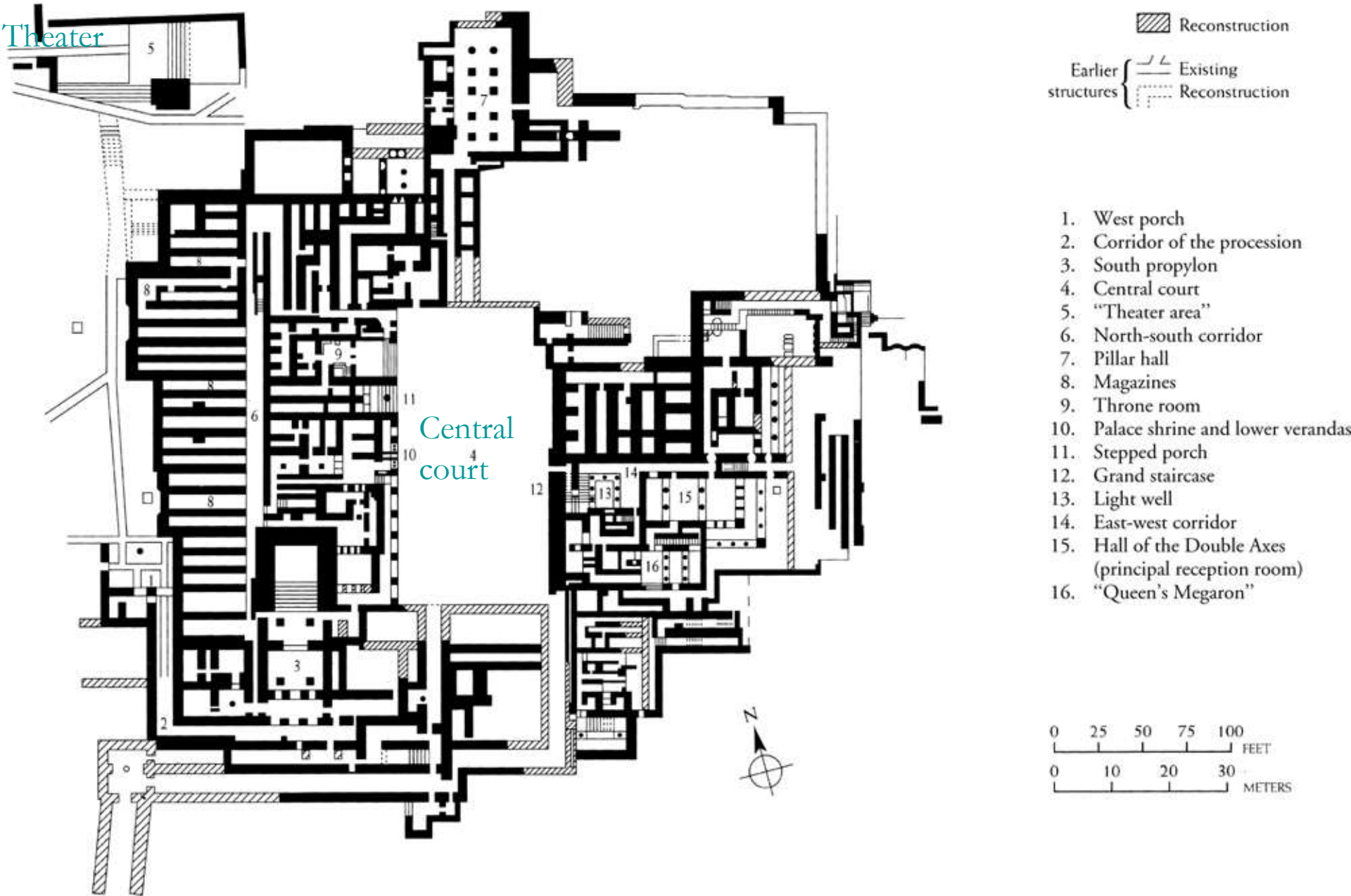
Minoan Civilization

Non-Indo-European people who flourished (3000-1100) on the island of Crete during the Bronze Age. The sea was the basis of their economy and power. Their sophisticated culture, based at Knossos, was named for the legendary King Minos. Minoan culture was noted for its cities and palaces, extended trade contacts, and use of writing (Linear A and Linear B).



Palace at Knossos. Aerial view. (Crete), Greece, ca. 1700–1400 BCE

Theater



Palace at Knossos. Plan. (Crete), Greece, ca. 1700–1400 BCE



Restored Pithoi Jars from the Palace of Minos.



Palace at Knossos. Stairwell in the residential quarter. (Crete), Greece, ca. 1700–1400 BCE.

Mycenaean Architecture

1450 - 1375 BCE: Mycenaean Greeks of the mainland invaded and took control of Crete.

The Homeric "long-haired Achaeans" would have been a part of the Mycenaean civilization that dominated Greece during the time of the Trojan War



1300-1200 BCE - Trojan War (?)

750-700 BCE - Homer writes the *Iliad* and the *Odyssey*



Heinrich Schliemann
1822-1890



Trojan Horse. Reconstruction.



**Sophie Schliemann wearing
"Jewels of Helen" from
Troy**



**Heinrich Schliemann
1822-1890**

The couple had two children, Andromache and Agamemnon Schliemann.



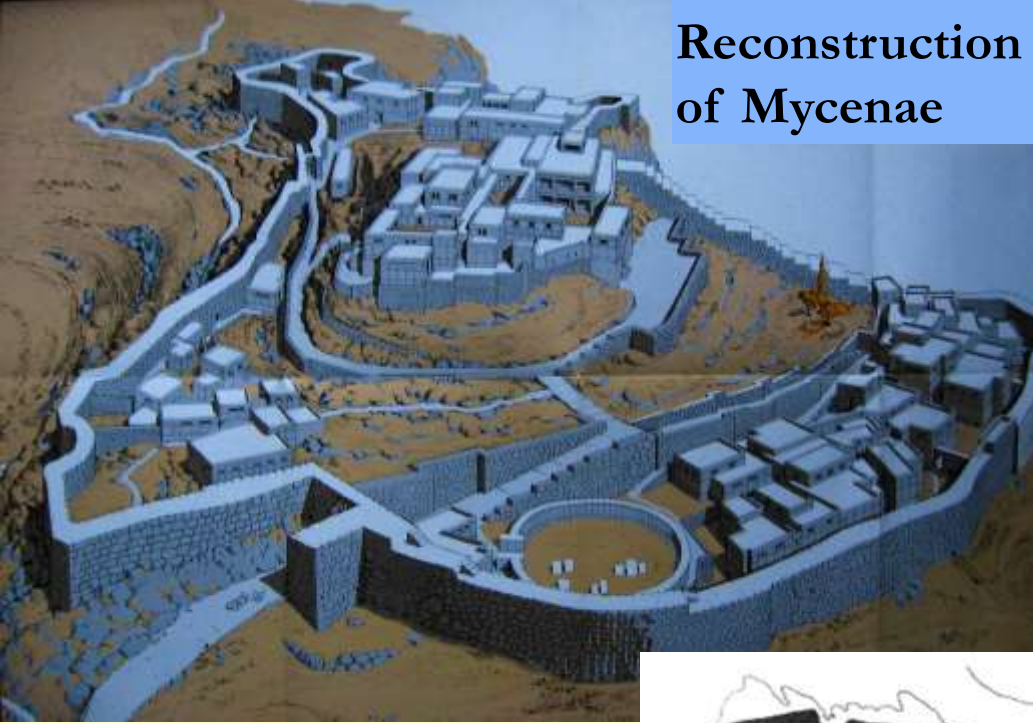
The ruins of Mycenae, ca. 1600-1250 B.C.E.

The city is strategically sited to control major routes in the vicinity.

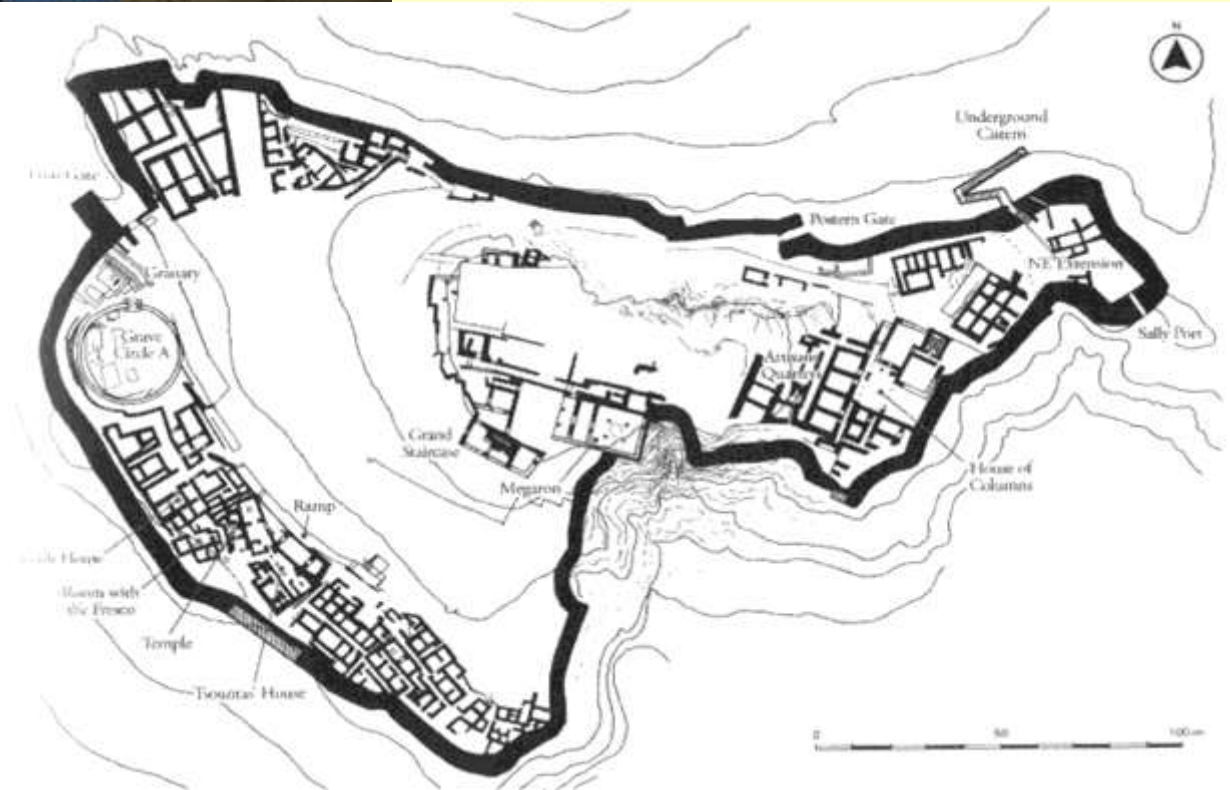
Ruins of the palace are at the high point of the site.

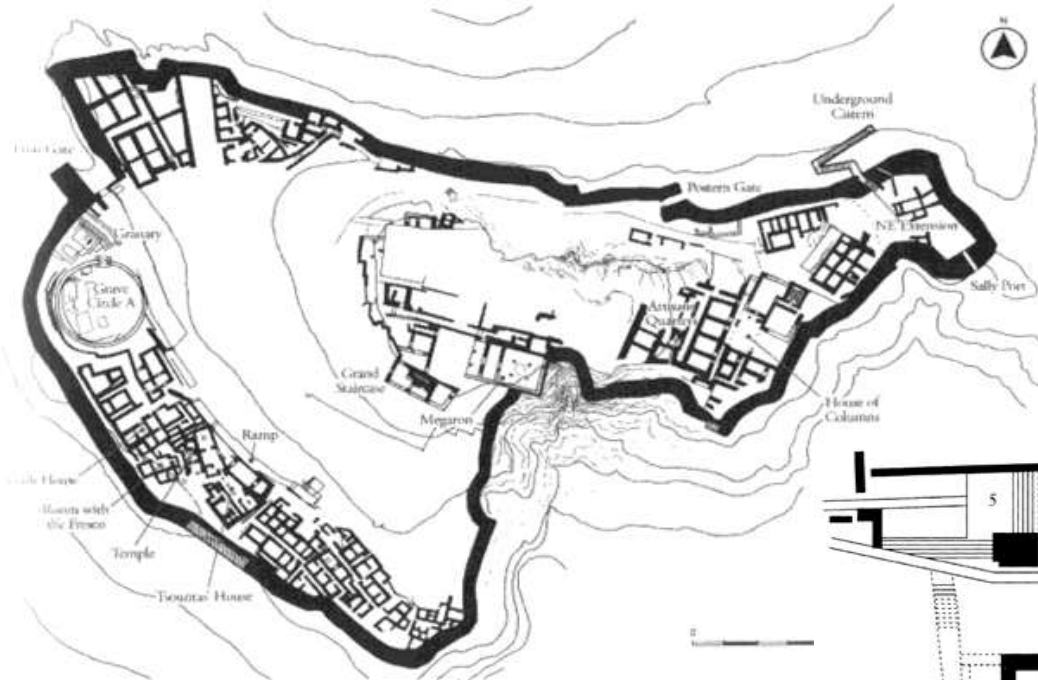


Reconstruction of Mycenae

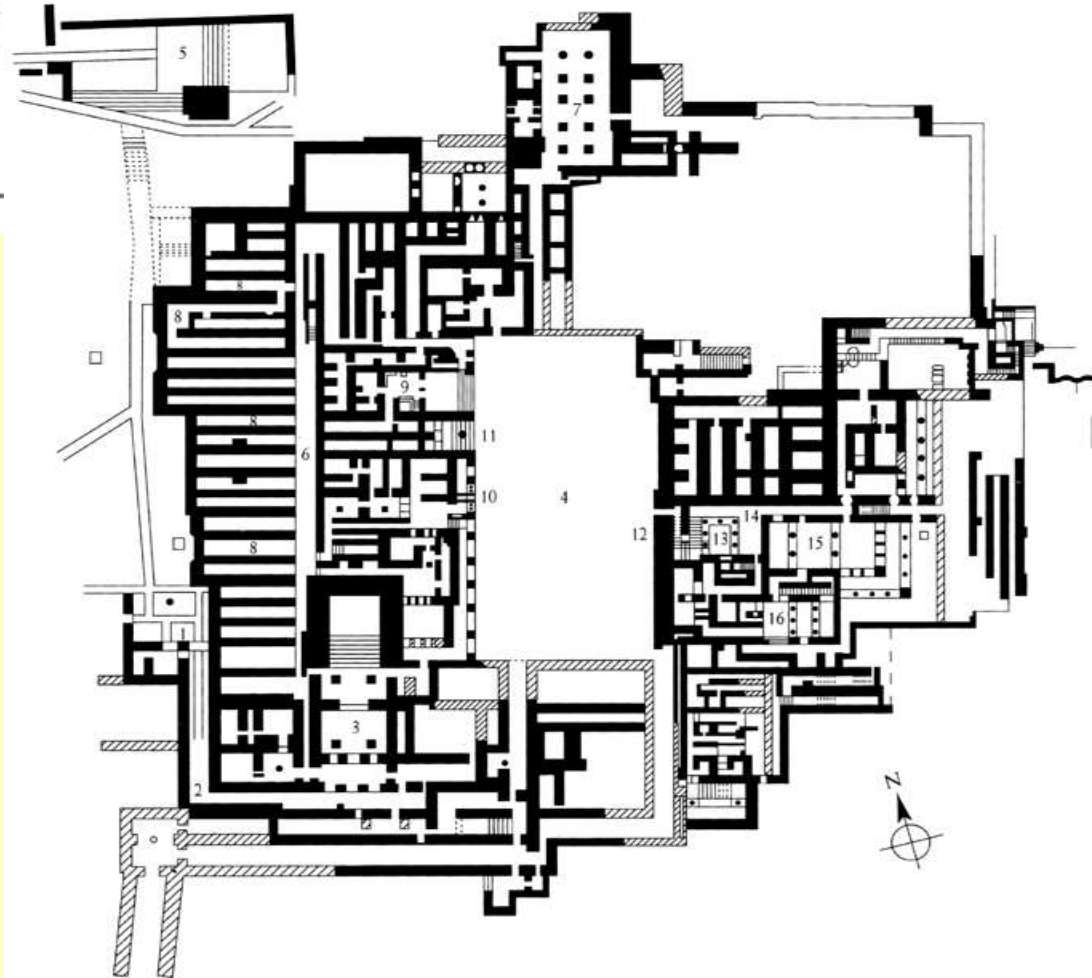


Plan of Mycenae, showing
areas that have been
excavated. ca. 1600-1250
B.C.E.





Plan of Mycenae,
ca. 1600-1250 B.C.E.



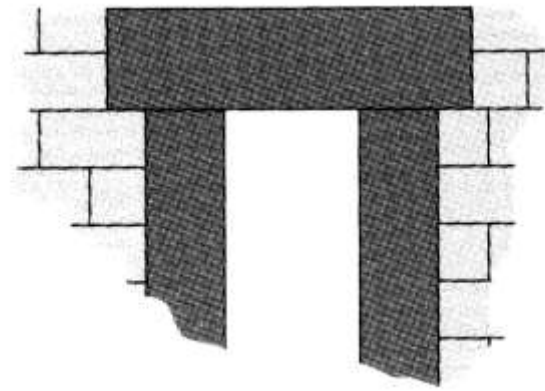
Comparison: Palace at Knossos.
Plan. (Crete), Greece, ca. 1700–
1400 BCE



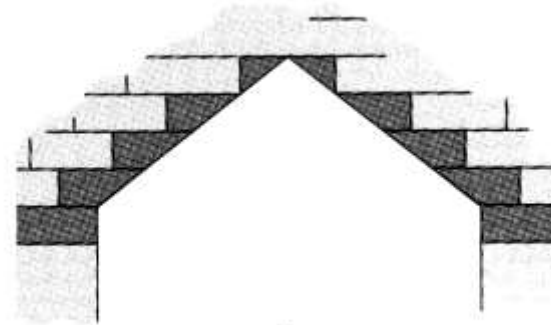
Lion Gate, Mycenae, Greece, ca. 1300–1250 BCE.
Limestone, relief panel approx. 9' 6" high.

Lion Gate. Detail

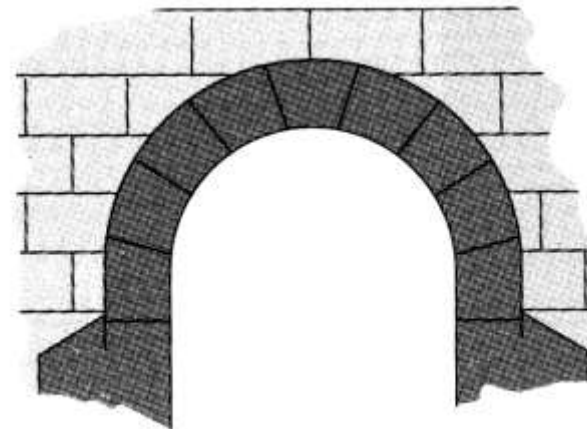




a



b

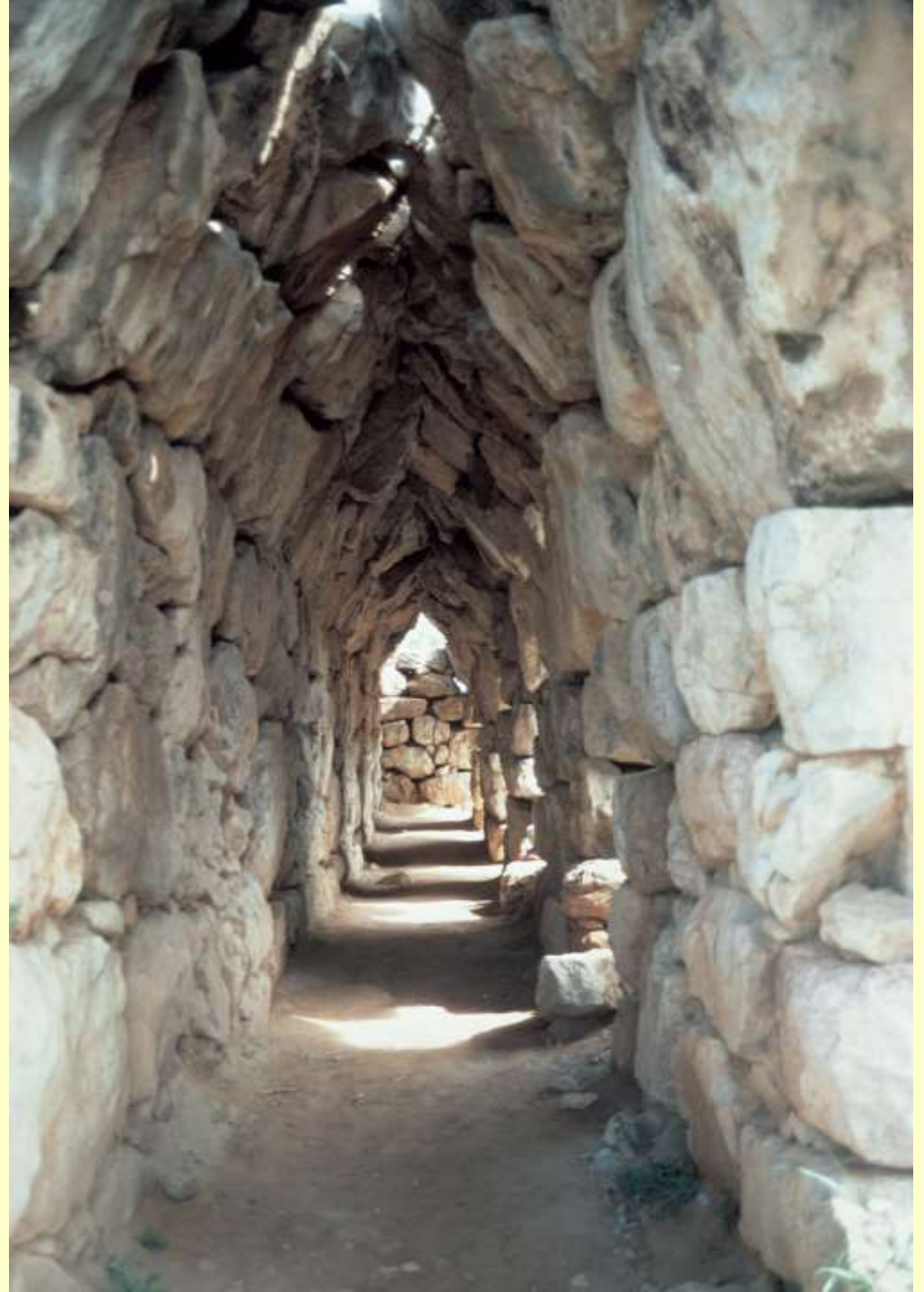


c

Three methods of spanning a passageway:

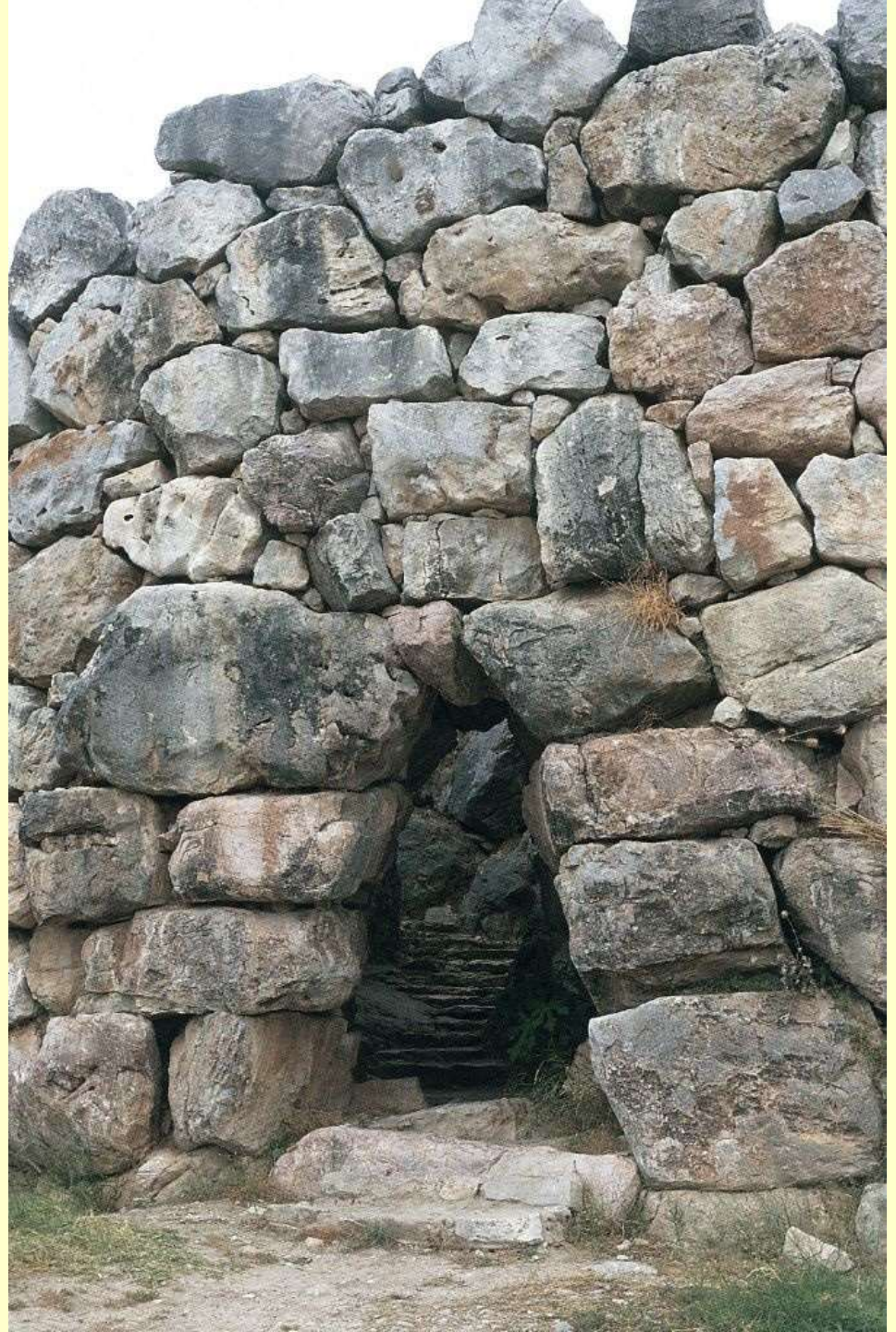
- (a) post and lintel
- (b) corbeled arch
- (c) arch

Citadel at Tiryns. Corbeled gallery
Tiryns, Greece, ca. 1400–1200 BCE.



Citadel at Tiryns

View of W bastion and fortified entry



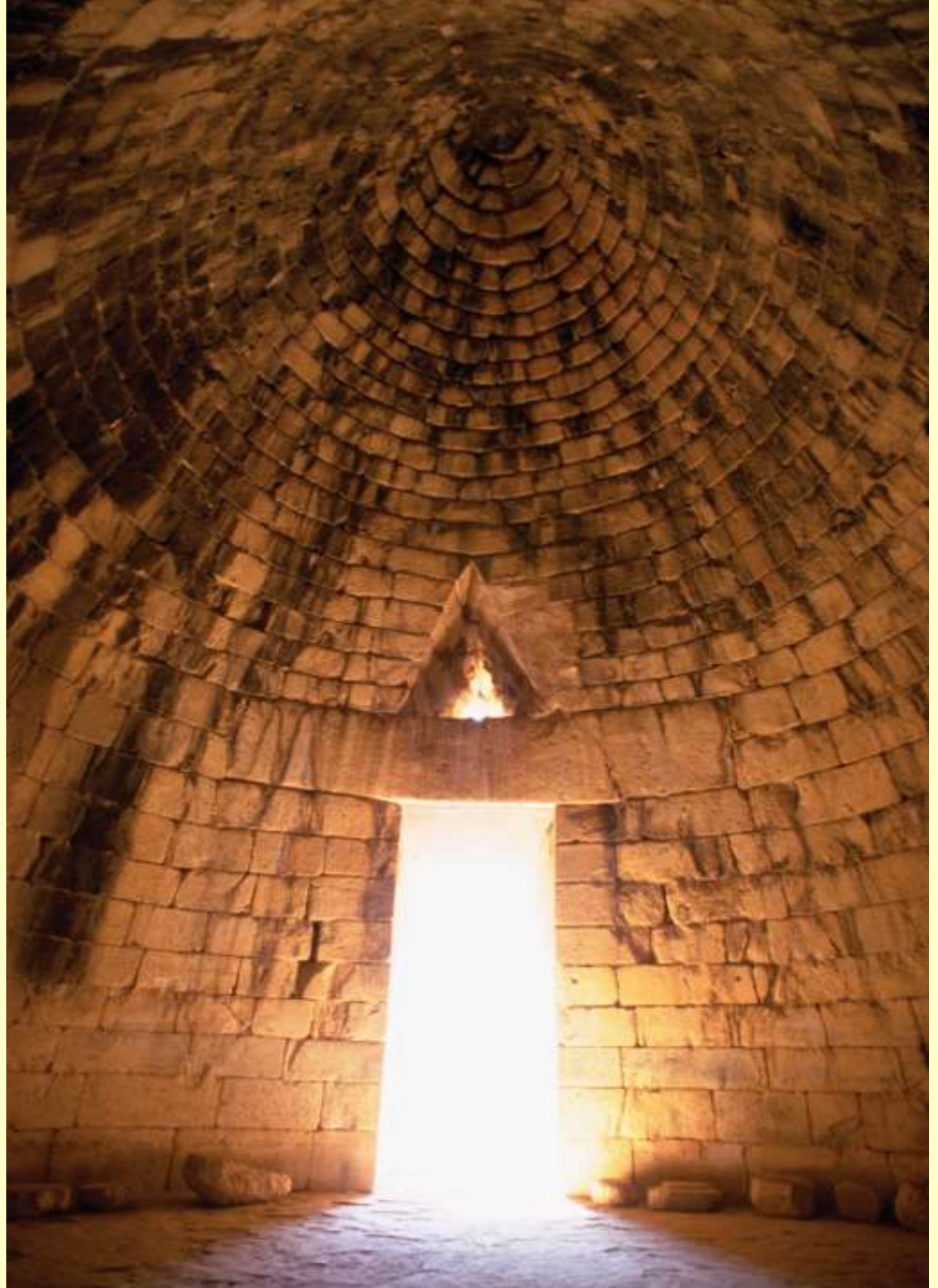


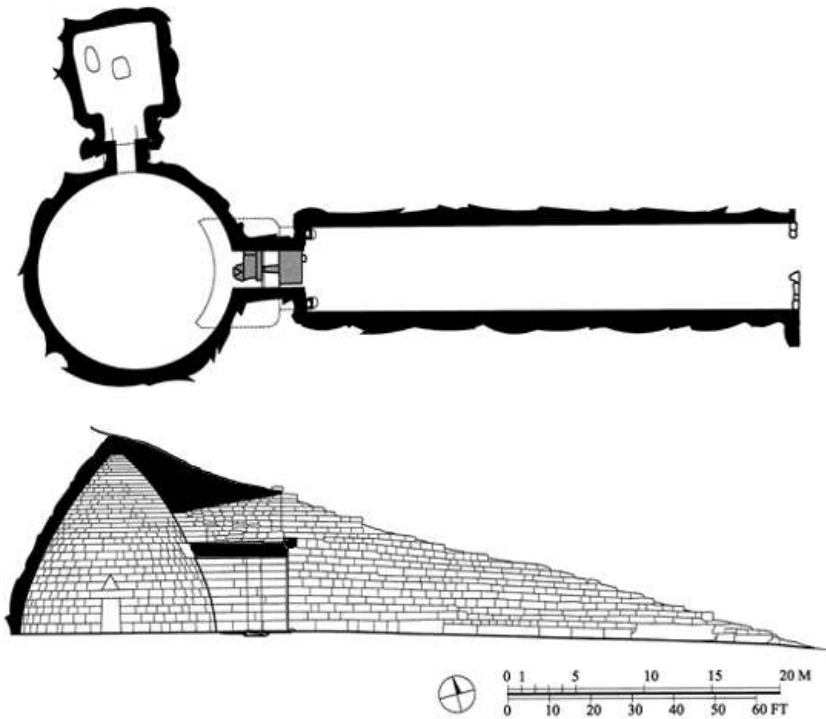
Treasury of Atreus, Mycenae, Greece, ca. 1300–1250 BCE.

https://youtu.be/Cc9cLmgXp_A

Tholos tomb: A beehive shaped tomb with a circular plan

Treasury of Atreus, Vault of the tholos Mycenae, Greece, ca. 1300–1250 BCE. Approx. 43' high.

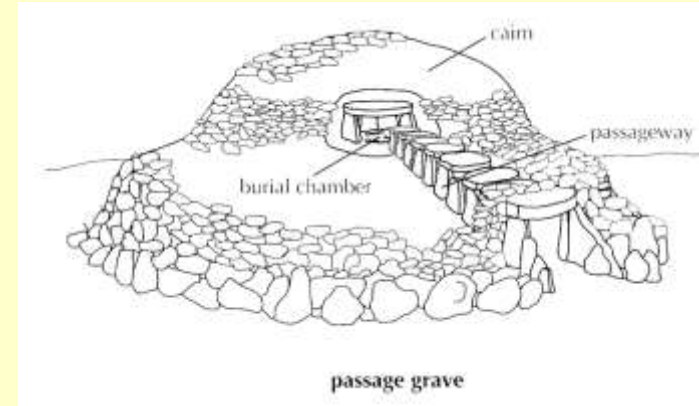
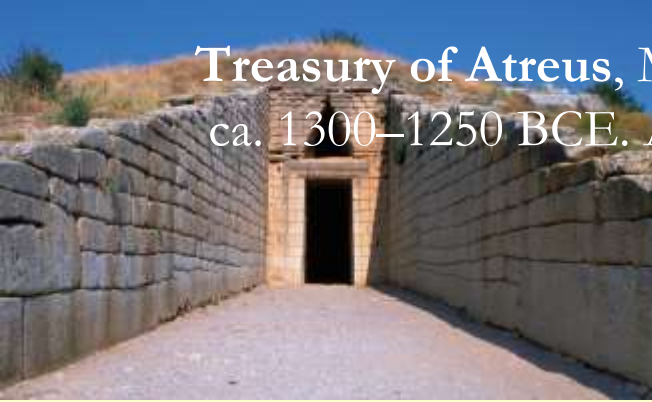




This corbeled tomb assumes the shape of a beehive. The function of the side chamber is unknown, but it may have been used for burials.

Plan and section of the Treasury of Atreus at Mycenae, ca. 1330 B.C.E.

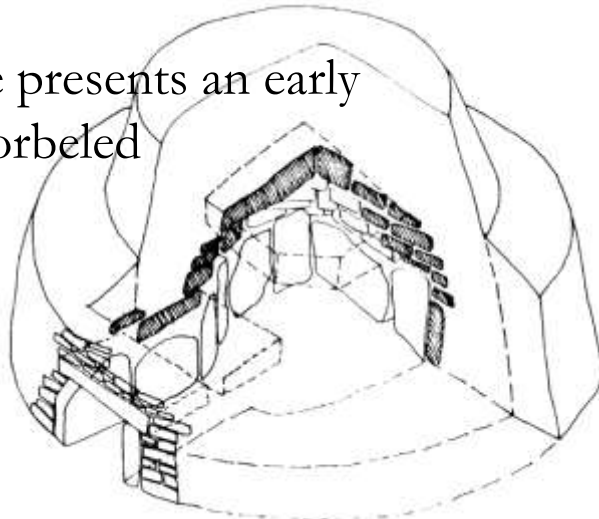
Treasury of Atreus, Mycenae, Greece,
ca. 1300–1250 BCE. Approx. 43' high.



Comparison: *Neolithic Passage
Grave at Newgrange,
Ireland. c. 3100 BCE*

Comparison: *Megalithic tomb
at Er-Mane, Carnac, France, ca.
4200 B.C.E.*

This structure presents an early
example of corbeled
construction.





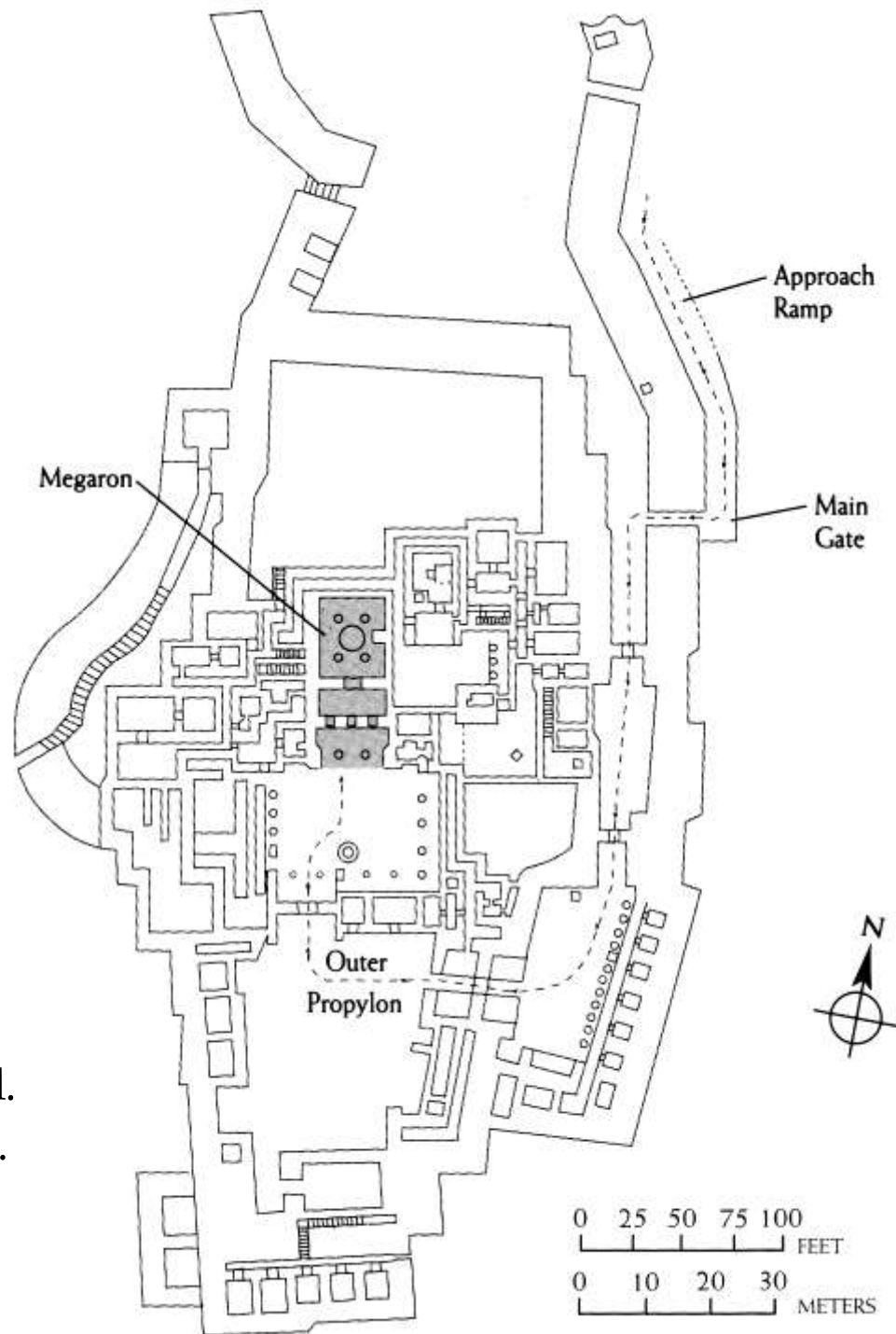
Citadel at Tiryns. Aerial view. Greece, ca. 1400–1200 BCE.

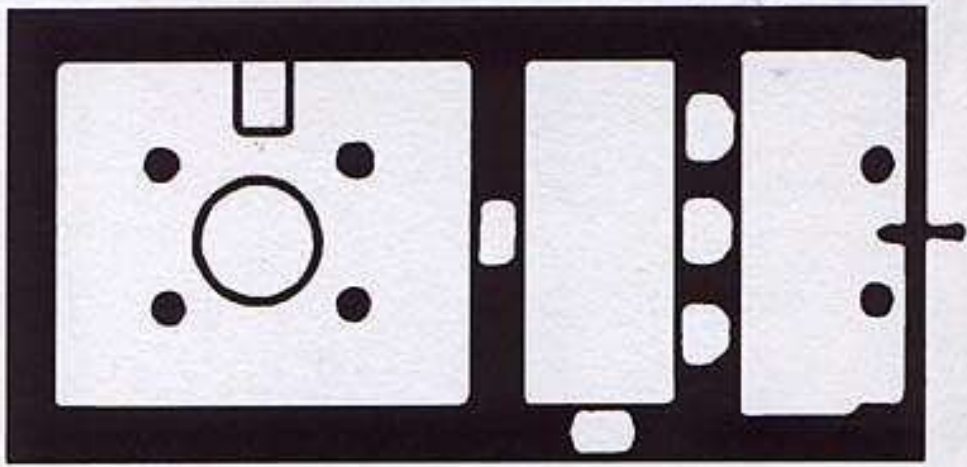
Megaron: The royal reception room of a palace or house.

It has a rectangular space, solid long walls without openings and entrance in the short side, a pillared porch (portico) and a central hearth or sacrificial pit.

- Hearth (pronounced- harth): firepit

Palace and southern part of the citadel.
Plan. Tiryns, Greece, ca. 1400–1200 BCE.





Plan of a Mycenaean megaron



Megaron reconstruction.
Palace at Pylos. 1300-1200
BCE

1250-1200 - Collapse of the Mycenaean Culture

1200-900 - Dark Ages

Ancient Greece (Iron Age)

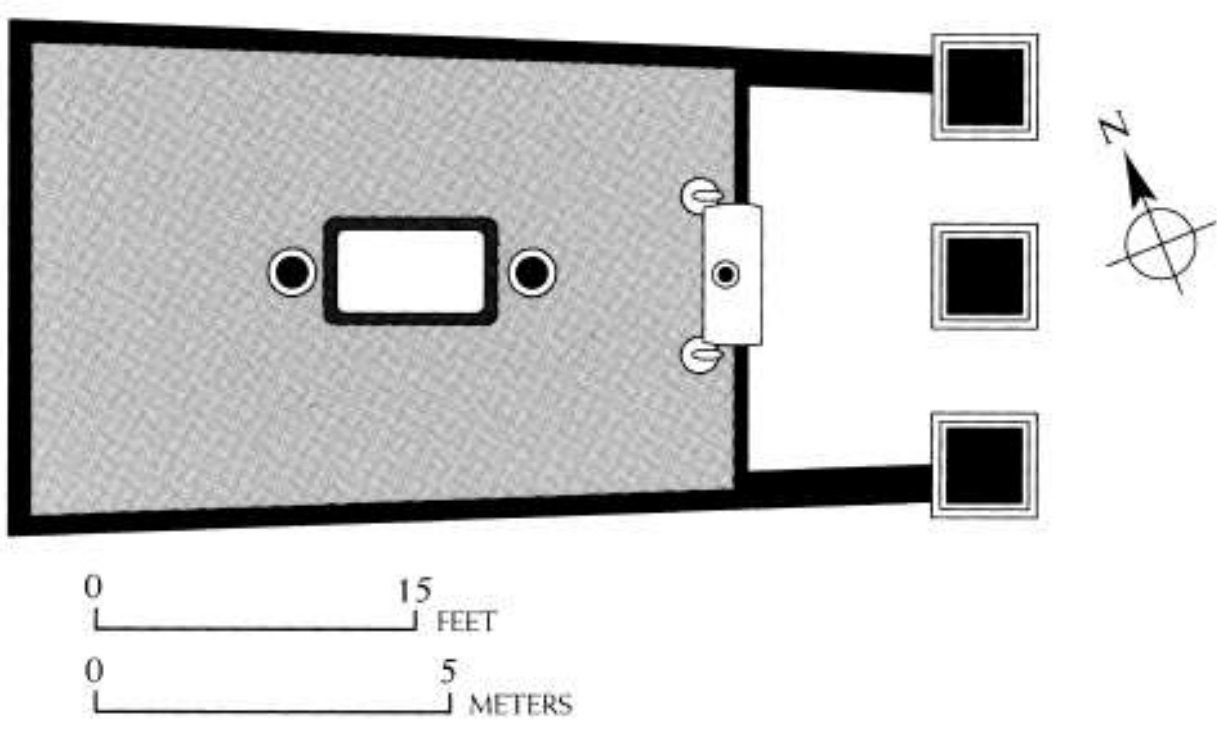
Early Greek Architecture:

7th c. BCE

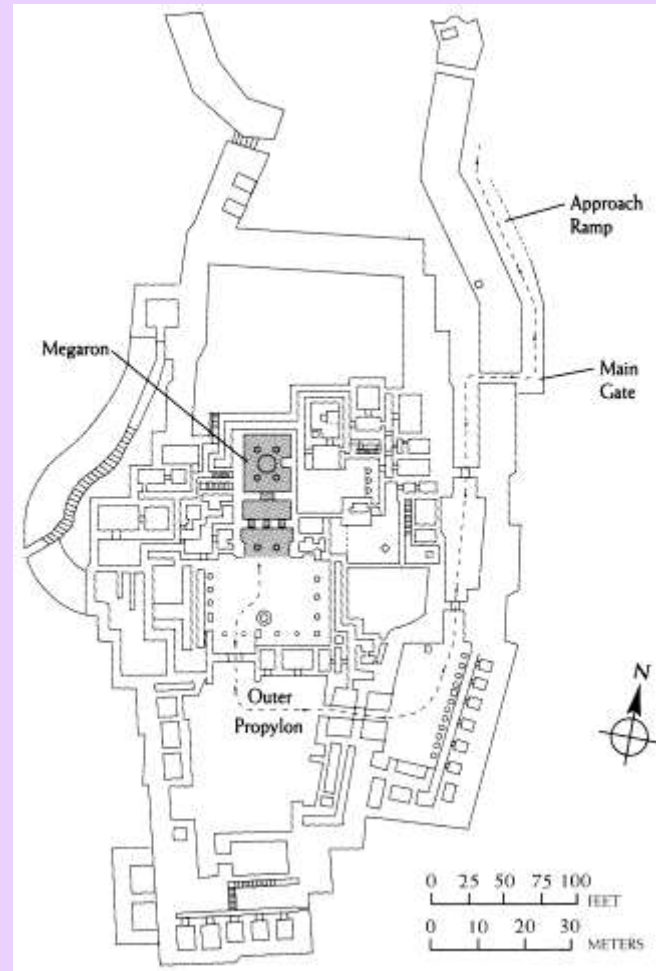
Temple or House Model

c. 700 BCE. Clay. Athens.
Acropolis Museum.



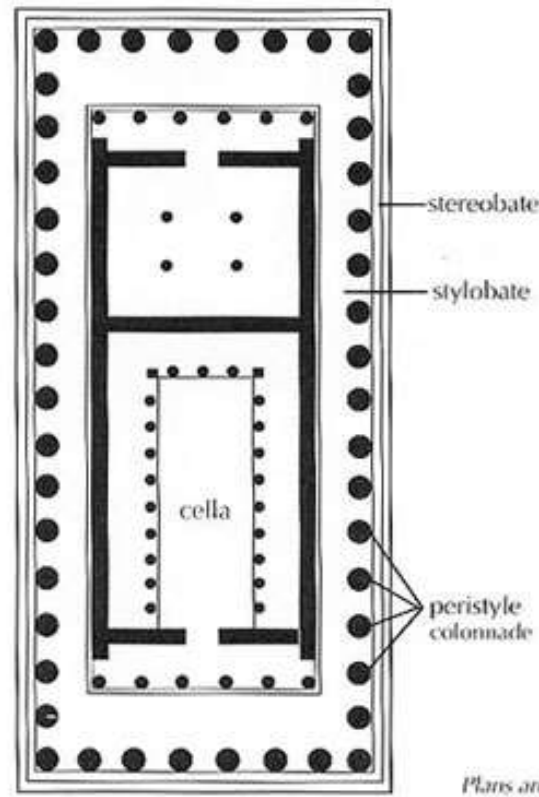
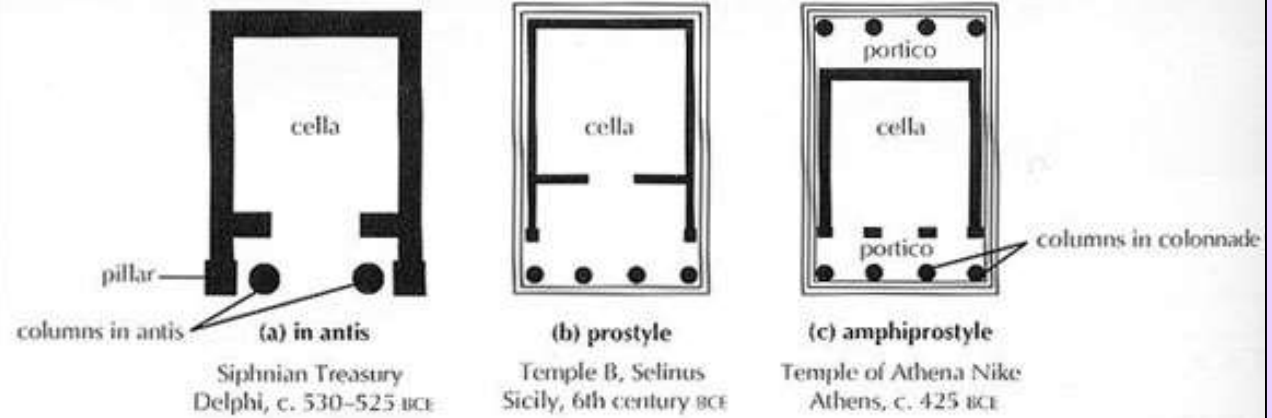


Plan of Temple A,
Prusias, Greece, ca. 625
BCE.

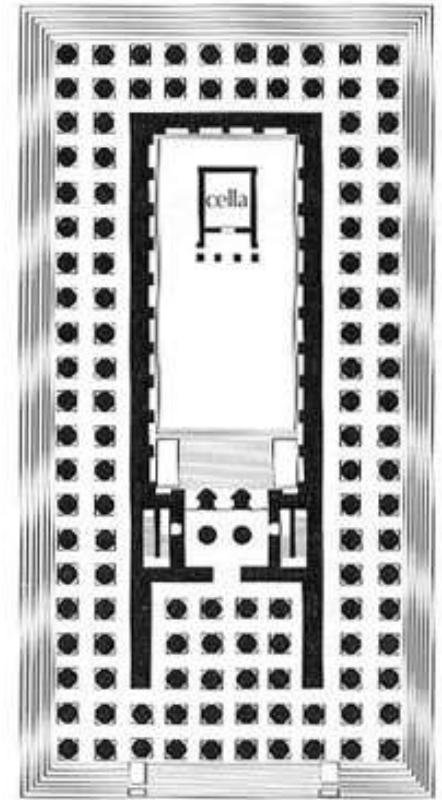


**Comparison: Mycenaean
Palace and citadel.** Tiryns,
Greece, ca. 1400–1200 BCE.

Temple Plans and the Greek Orders



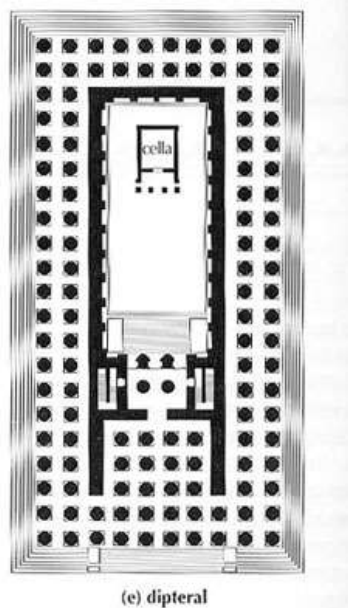
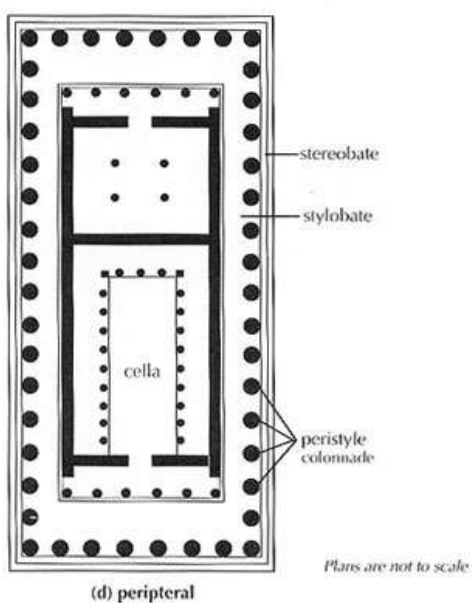
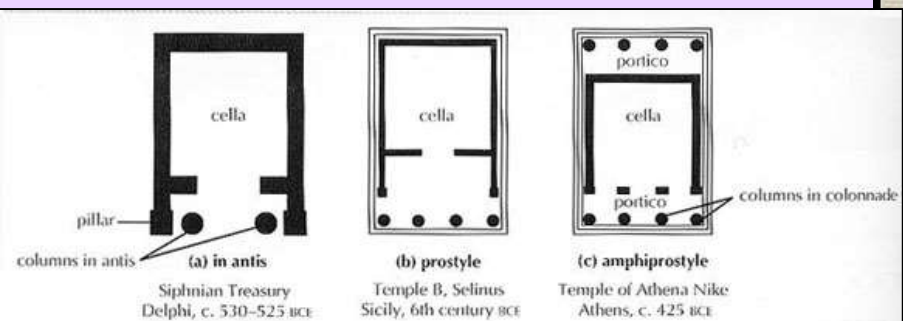
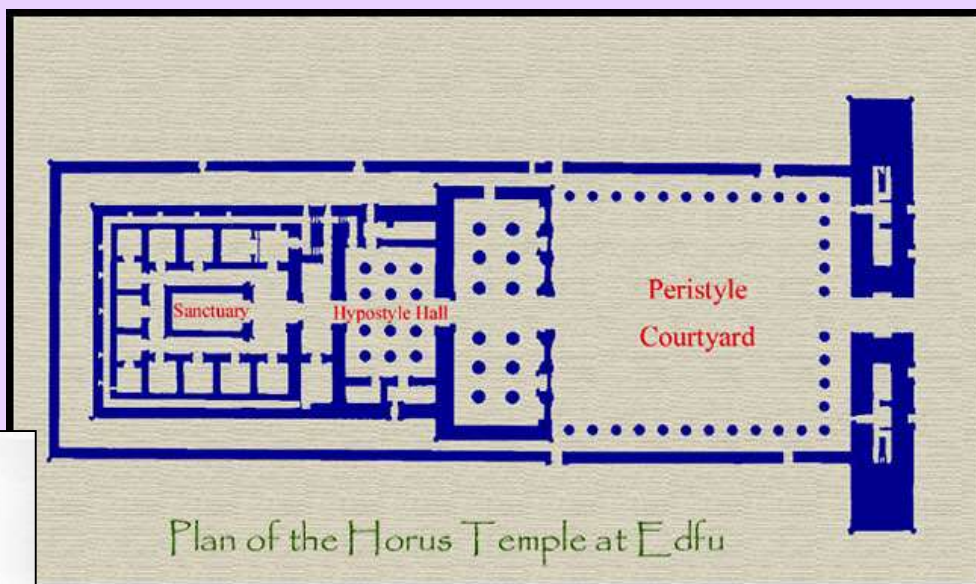
(d) **peripteral**
Parthenon, Athens, 447-438 BCE



(e) **dipteral**
Temple of Apollo, Didyma, Turkey, begun 313 BCE

Plans are not to scale

Greek Temple Plans



Plans are not to scale



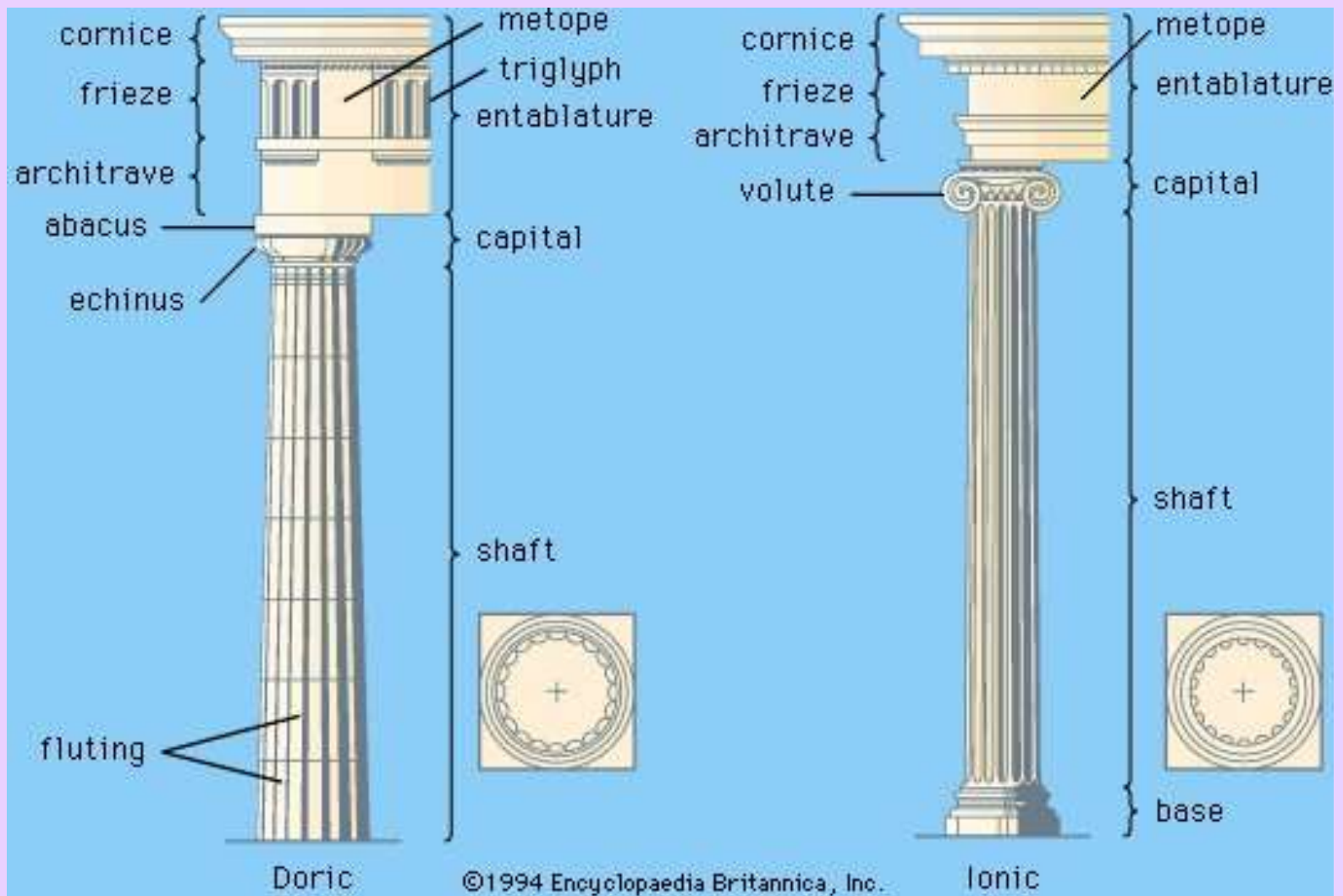
Temple of Athena Aphaia. Aegina.
500-490 BCE (late Archaic)

"Man is the measure of all things: of things which are, that they are so, and of things which are not, that they are not."
Protagoras

**Comparison:
Temple of Amen.**
Karnak. Egypt



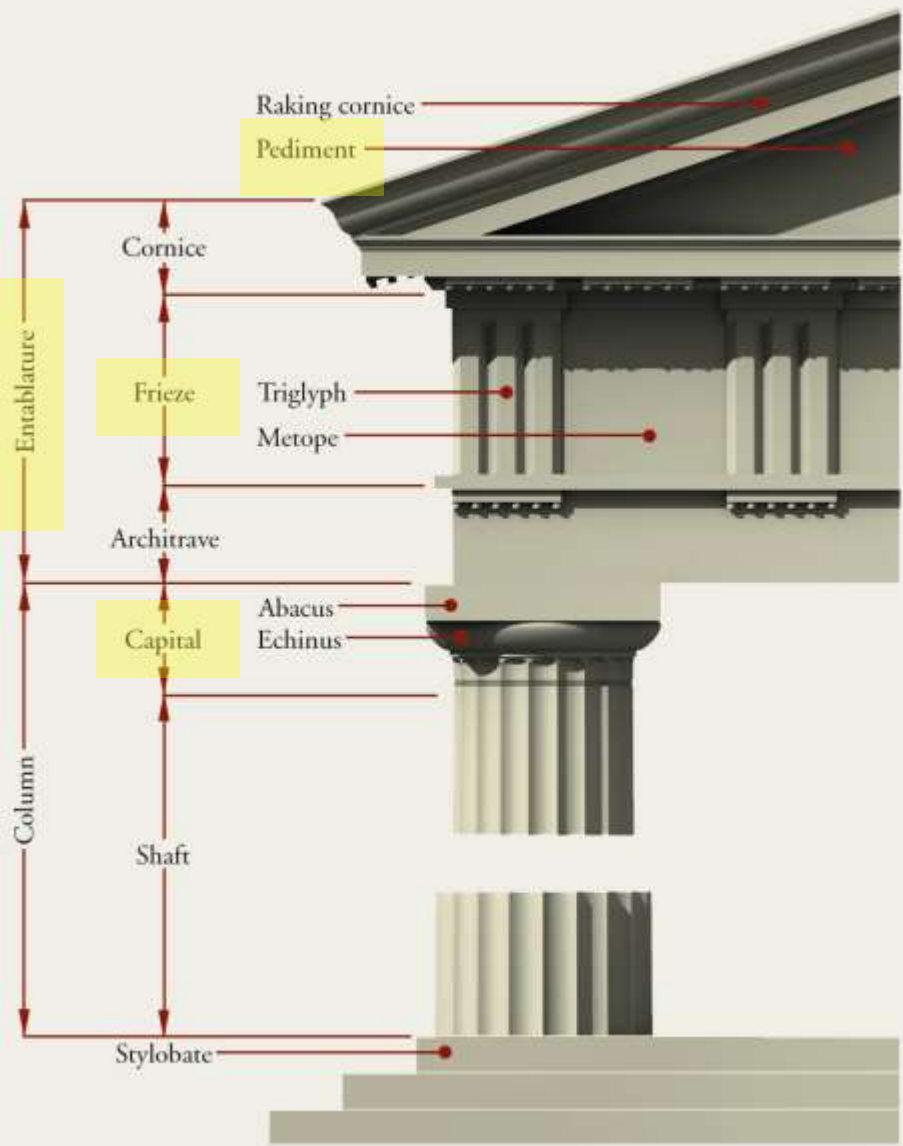
The Doric and Ionic Orders



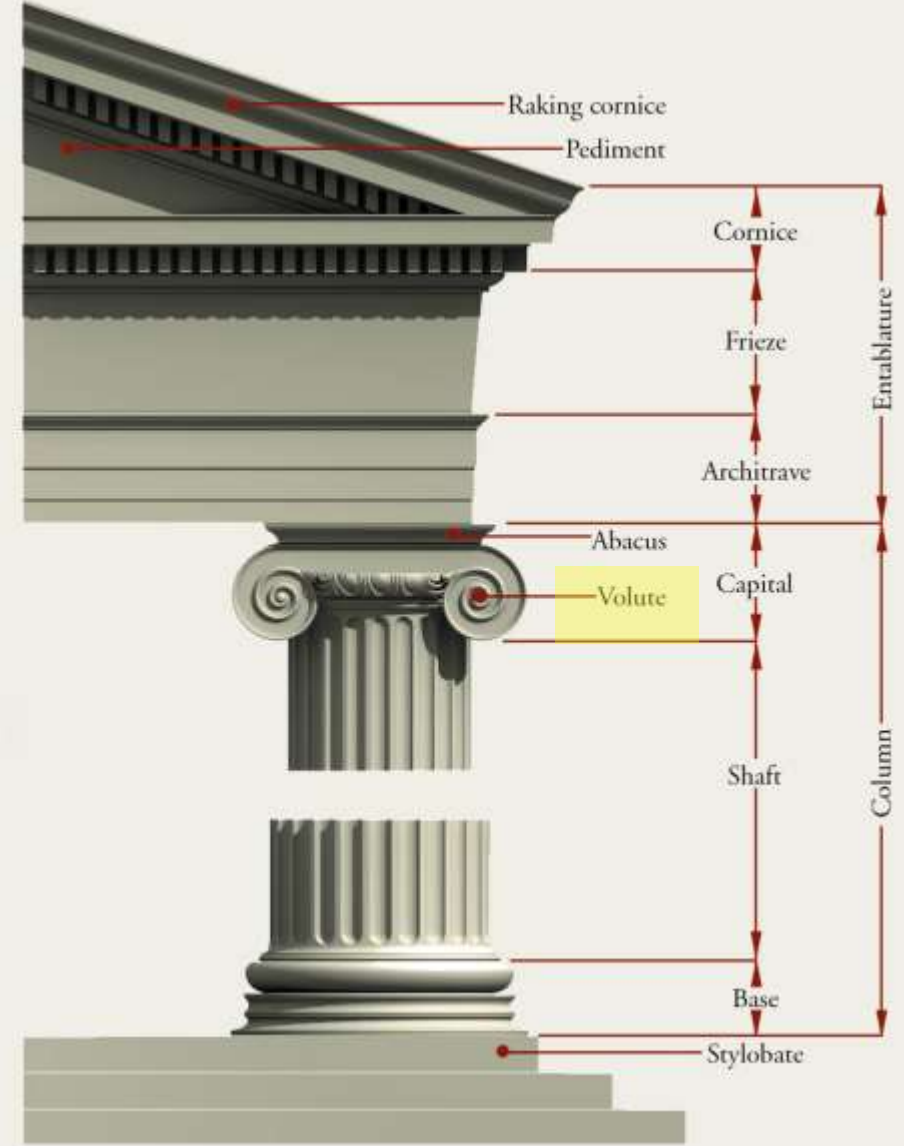
The two standardize elevation designs, the Doric and Ionic.
 Emerged in the Archaic period.

Doric originated on the Greek mainland, while the Ionic developed on the islands of the Aegean and the cost of Asia Minor.

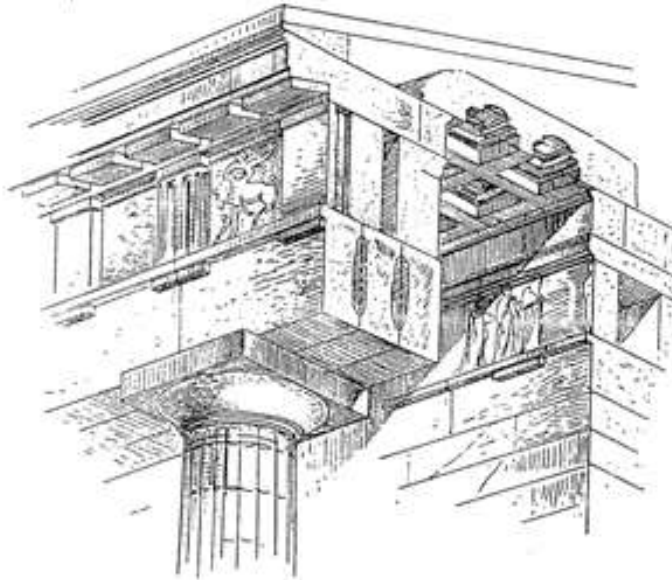
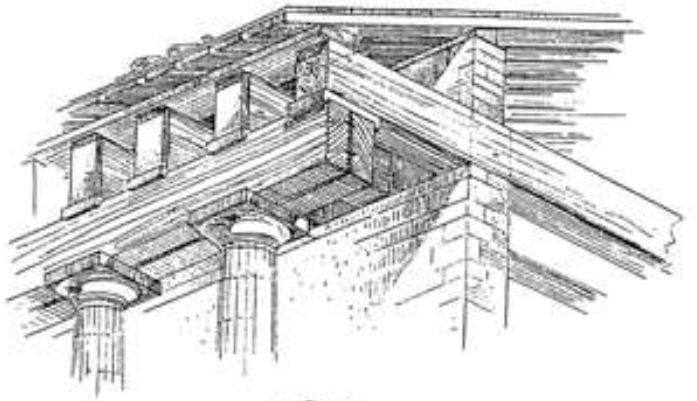
DORIC ORDER

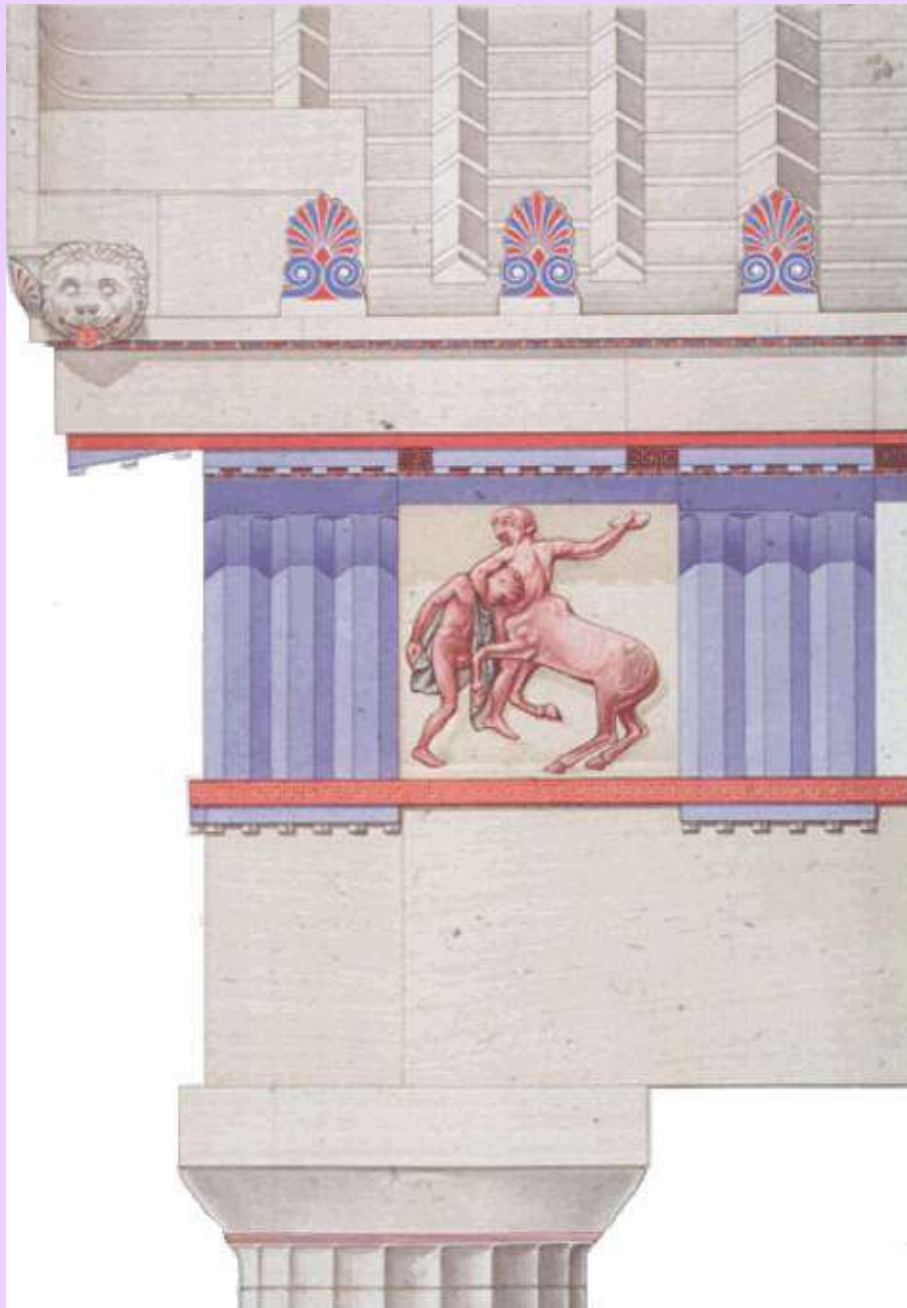


IONIC ORDER

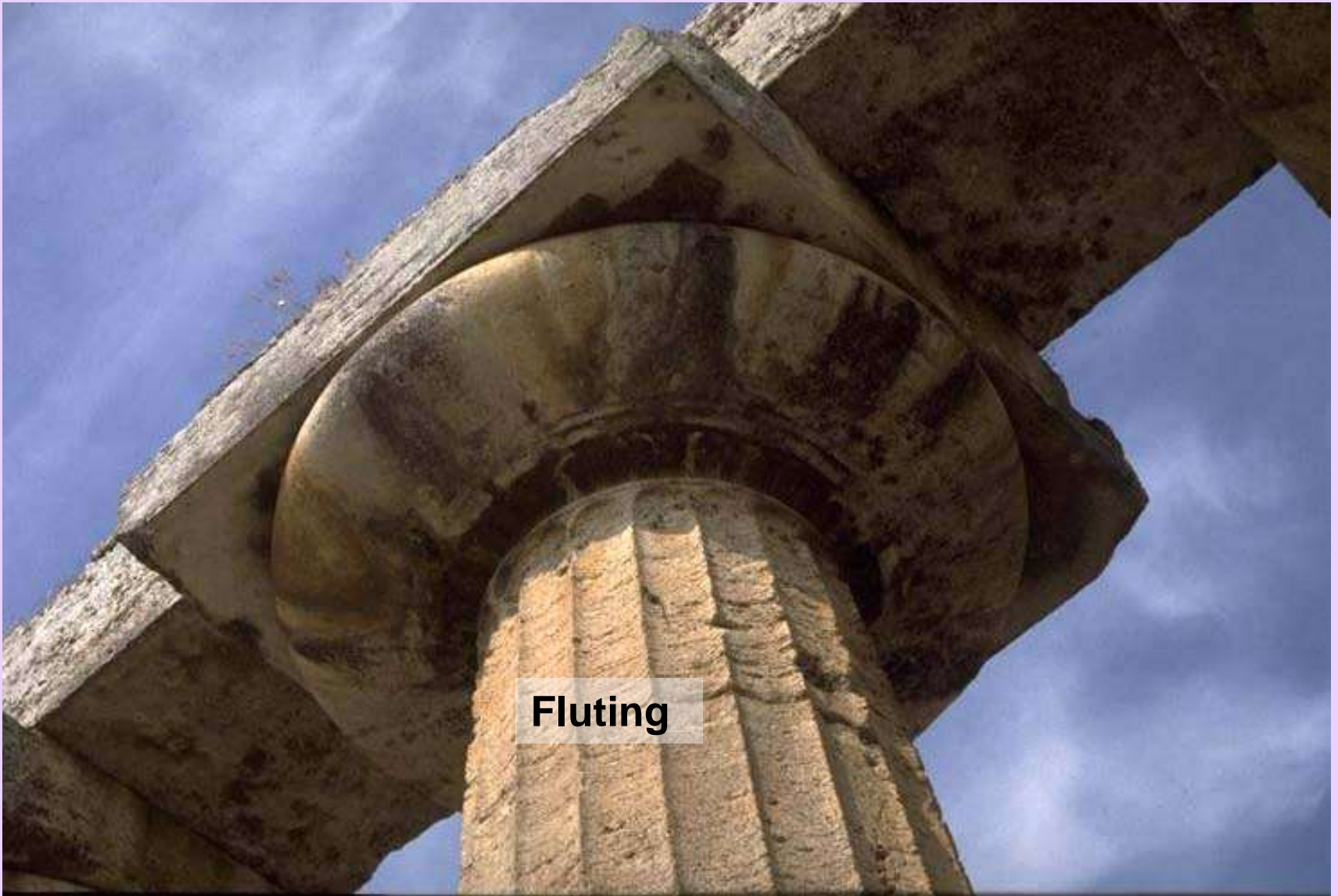


The Doric order, showing how its elements may have been derived from wooden prototypes. Triglyphs are interpreted as the stylized ends of wooden beams, while the metope panels were boards inserted between the structural beam ends.



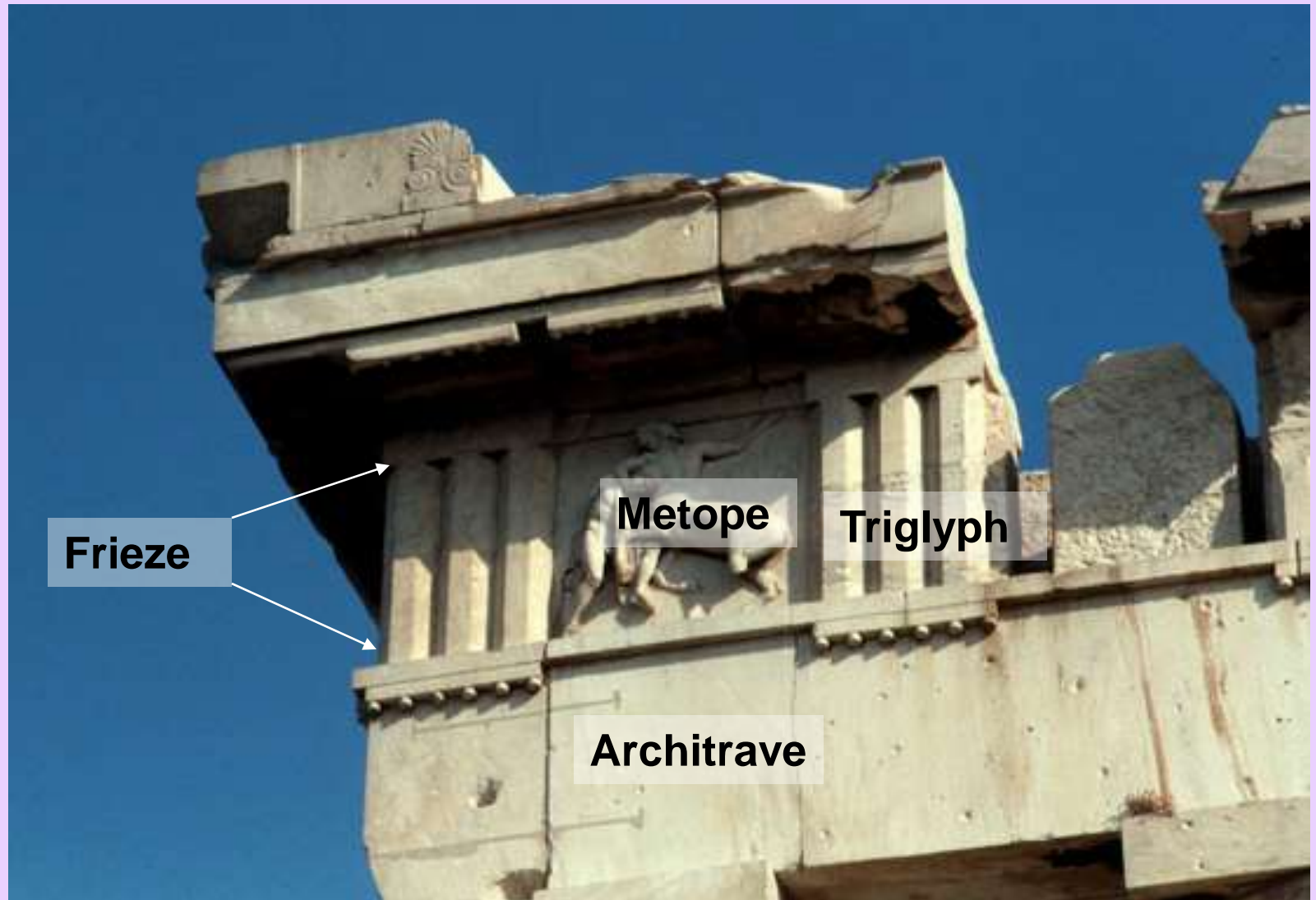


Reconstruction of the southwest corner of the Parthenon; Attributed to Phidias: Centaur choking Lapith



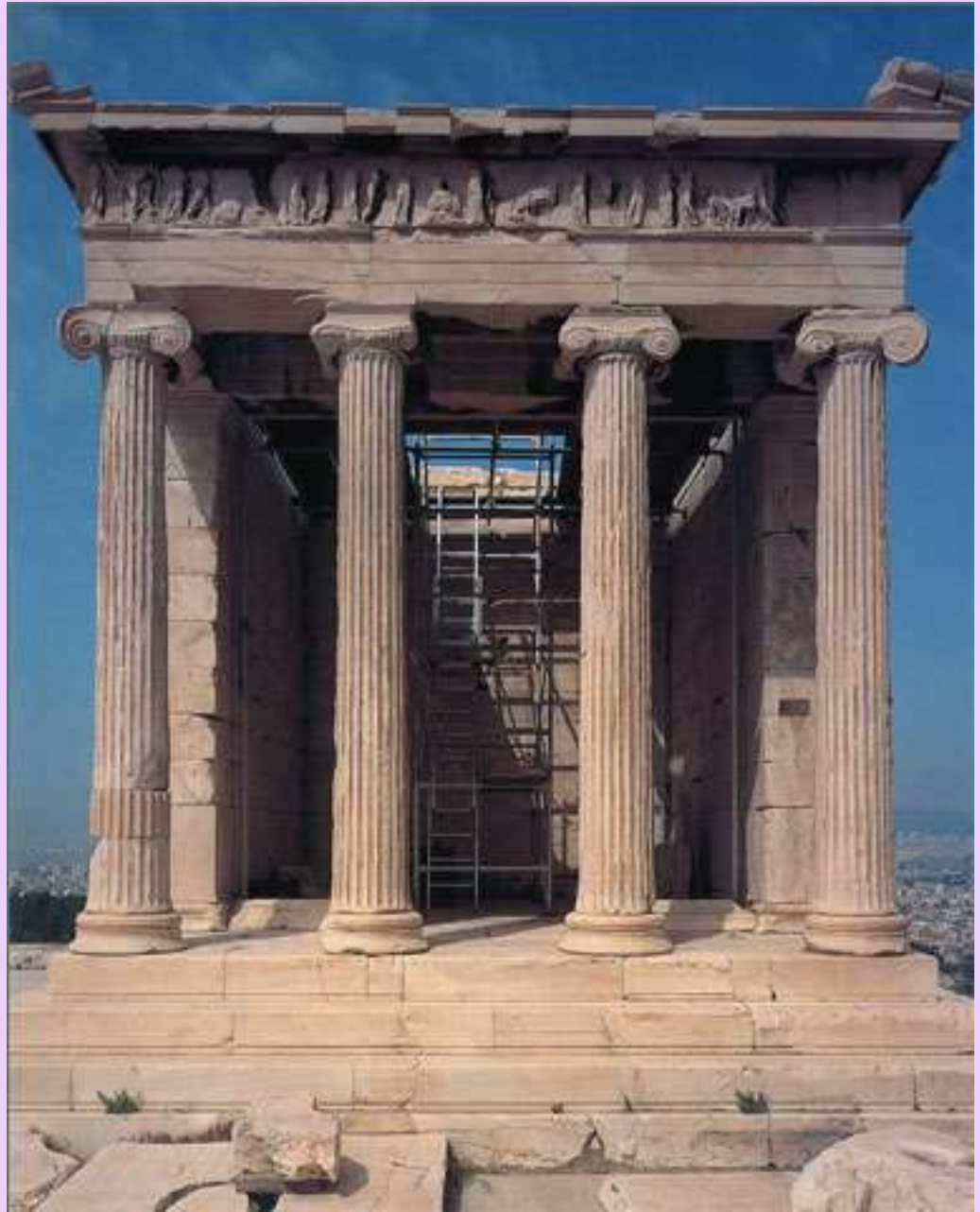
Fluting

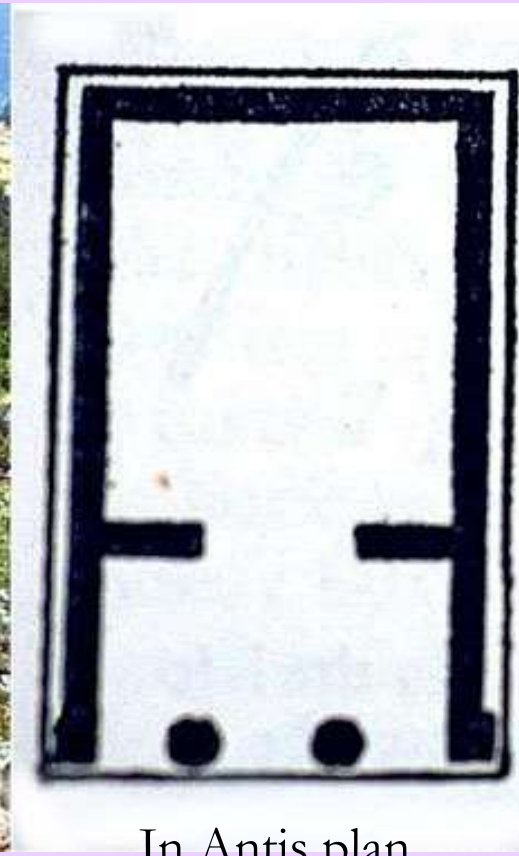
Doric Capital. Temple of Hera II, Paestum, Italy. 449-430 B.C.



Doric order. Detail from Parthenon.
Acropolis, Athens, 447-438 BCE

Ionic Order
Temple of Nike
(Victory), Acropolis,
Athens 427-424 BCE





In Antis plan

Doric Order: The Athenian Treasury. Delphi. Greece. 490-480 BCE



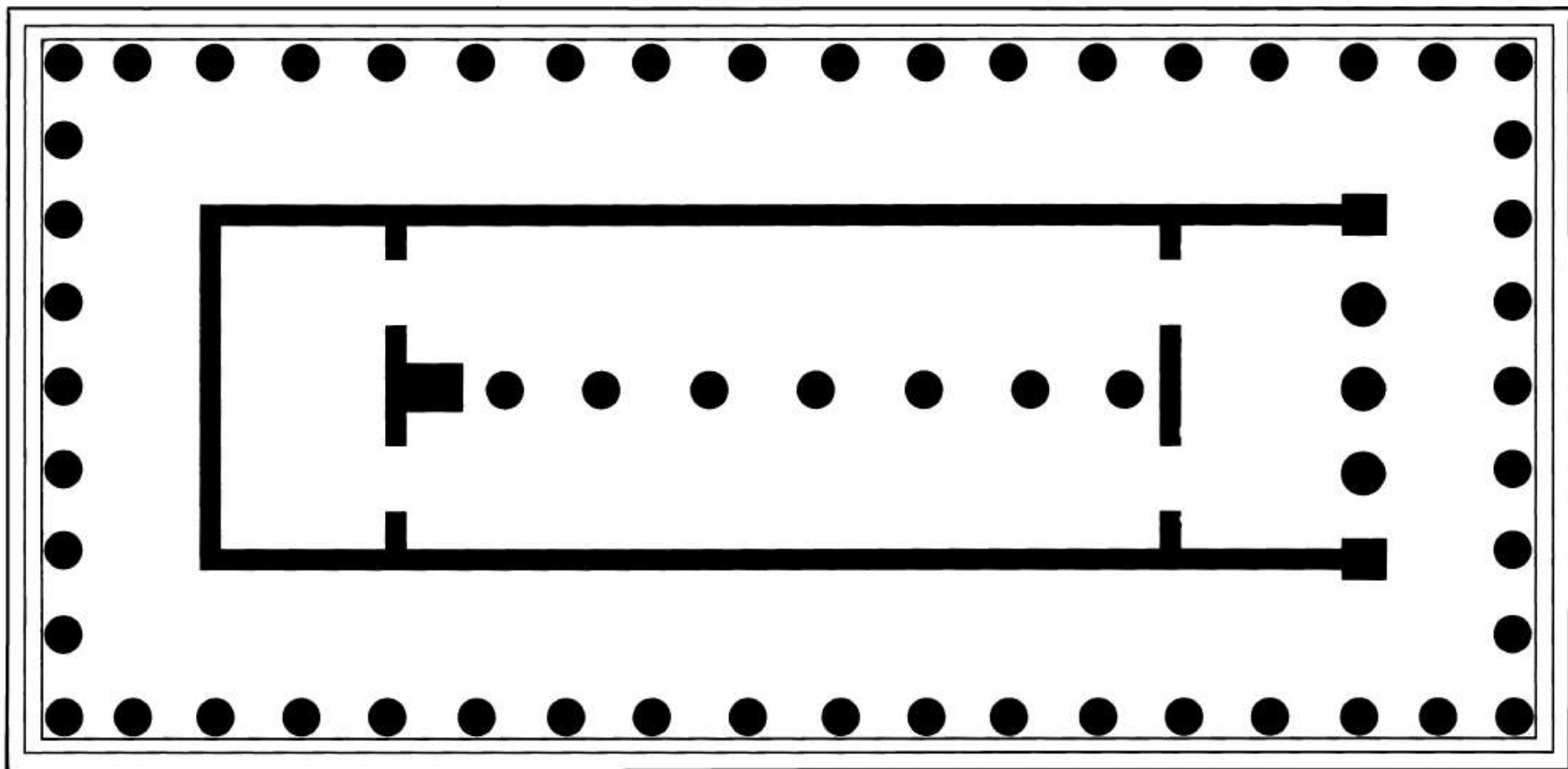
Lincoln Memorial. Washington, D.C.; 1914–17. The monument, designed by Henry Bacon and styled after a Greek temple, has 36 Doric columns representing the states of the Union at the time of Lincoln's death.

Archaic Period (6th c. BCE)



Temple of Hera I, Paestum, Italy, ca. 550 BCE.

Entasis: a slightly convex curve given to the shaft of a column, pier, or similar structure, to correct the illusion of concavity produced by a straight shaft



0 10 20 30 40 50 FEET

0 5 10 15 METERS

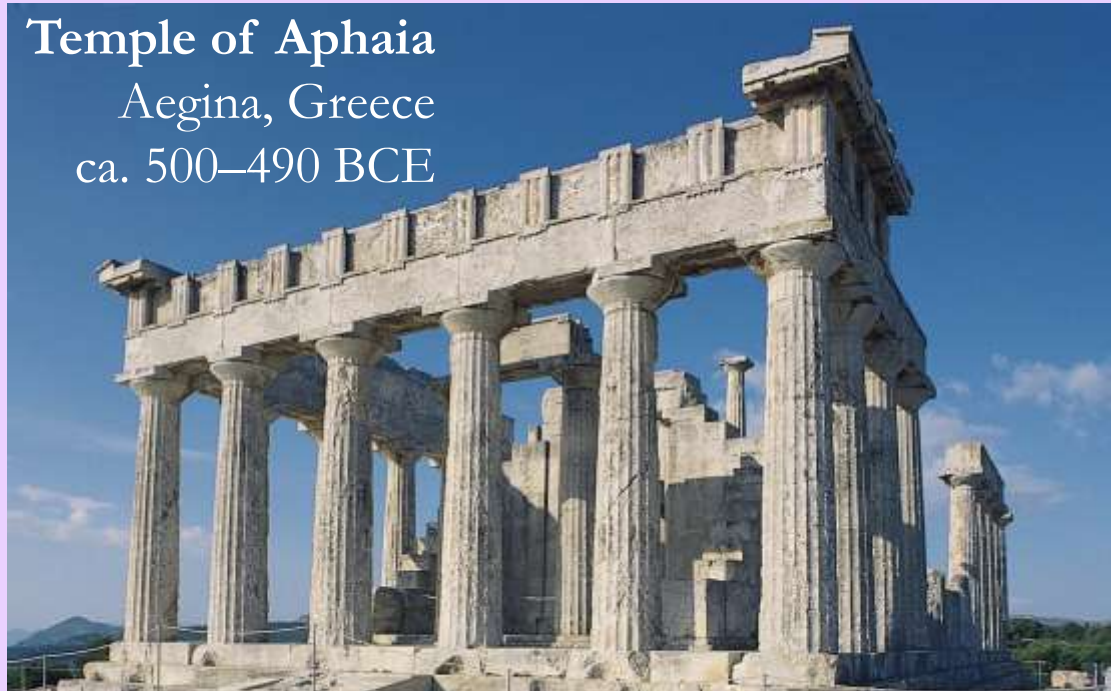


Temple of Hera I. Plan. Paestum, Italy, ca. 550 BCE.



Temple of Hera I Paestum, Italy ca. 550 BCE.

Temple of Aphaia
Aegina, Greece
ca. 500–490 BCE



Painted life size statuary
instead of the high reliefs
typical of earlier Archaic



Restored view of the façade of the Temple of Aphaia
Aegina, Greece, ca. 500–490 BCE



The Gorgone Medusa from the West pediment of the Temple of Artemis, Corfu, Greece ca. 600–580 BCE. Limestone, greatest height approx. 9' 4". Archaeological Museum, Corfu.



Pediment: The triangular gable between a horizontal entablature and a sloping roof. usually filled with sculpture.



The Gorgon Medusa

From the Archaic
temple in Syracuse

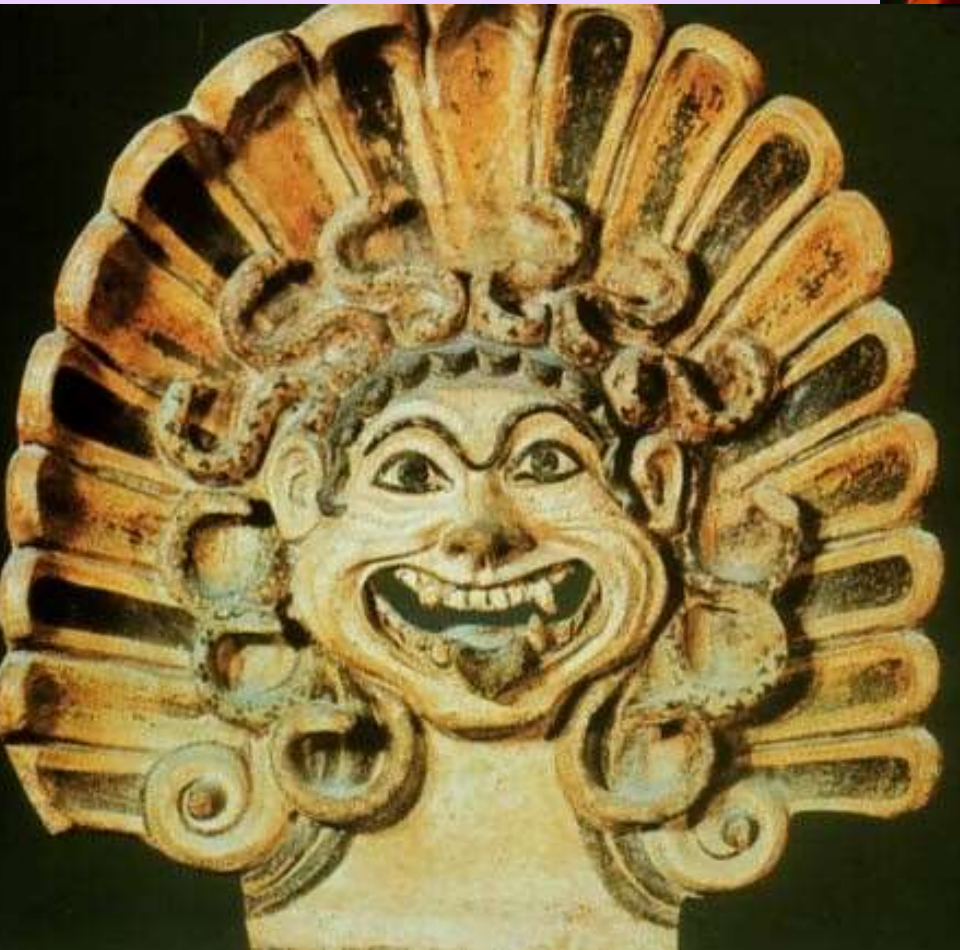
c.570-550 BCE

Clay plaque



Gorgon head

Temple of Apollo,
Veii, 500 BCE





Comparison:
Clay mask of the demon Huwawa
(Humbaba)
From Sippar,
southern Iraq, about
1800-1600 BC.
British Museum
Used in divinations



Gorgon head
Temple of Apollo,
Veii, 500 BCE



Comparison:
The god Bes.
From Dendera
temple, 1st c. BCE,
Egypt.



Comparison
Horus Stele
4th c. BCE.
Egypt.



Caryatid: a female figure that functions as a supporting column (may represent priestesses of Artemis)



Siphnian Treasury, Restored View.
Delphi, Greece, ca. 530 B.C.E.



Comparison: Interior of the temple of Ramses II, Abu Simbel. Egypt, ca. 1290–1224 BCE. Sandstone. Pillar statues approx. 32' high.

Classical Period (5th c. BCE)



KRESILAS, **Pericles**.

(lived 495-429)

Roman marble copy after
a bronze original of ca.

429 BCE

Vatican Museums, Rome.

Pericles

Athenian general and statesman largely responsible for the full development of Athenian democracy and the Athenian empire. He asserted Athenian control over the Delian League and used the league's treasury to rebuild the Acropolis.

Athens in the time of Pericles was a democracy where citizens -- free males born in Athens -- voted for a variety of officials.

"Freedom is the sure possession of those alone who have the courage to defend it." Pericles



Acropolis:

(Greek: “city at the top”) Central, defensively oriented district in ancient Greek cities, located on the highest ground and containing the chief municipal and religious buildings.

Model of the Acropolis, Athens, Greece,
1. Parthenon 2. Propylaea 3. Erechtheion 4. Temple of Athena Nike.

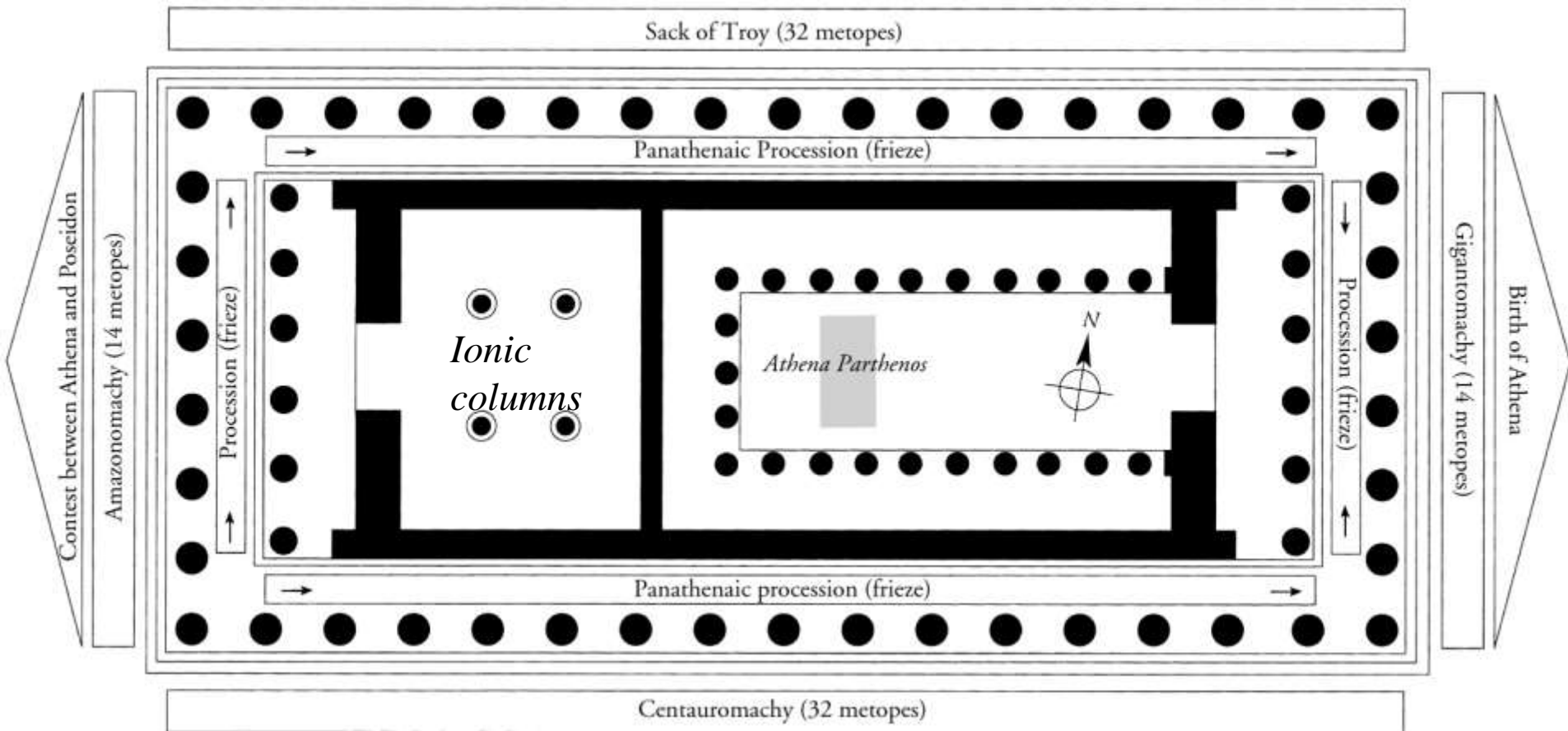


IKTINOS and KALLIKRATES, **Parthenon**, the Temple of Athena Parthenos Acropolis, Athens, Greece, 447–438 BCE.

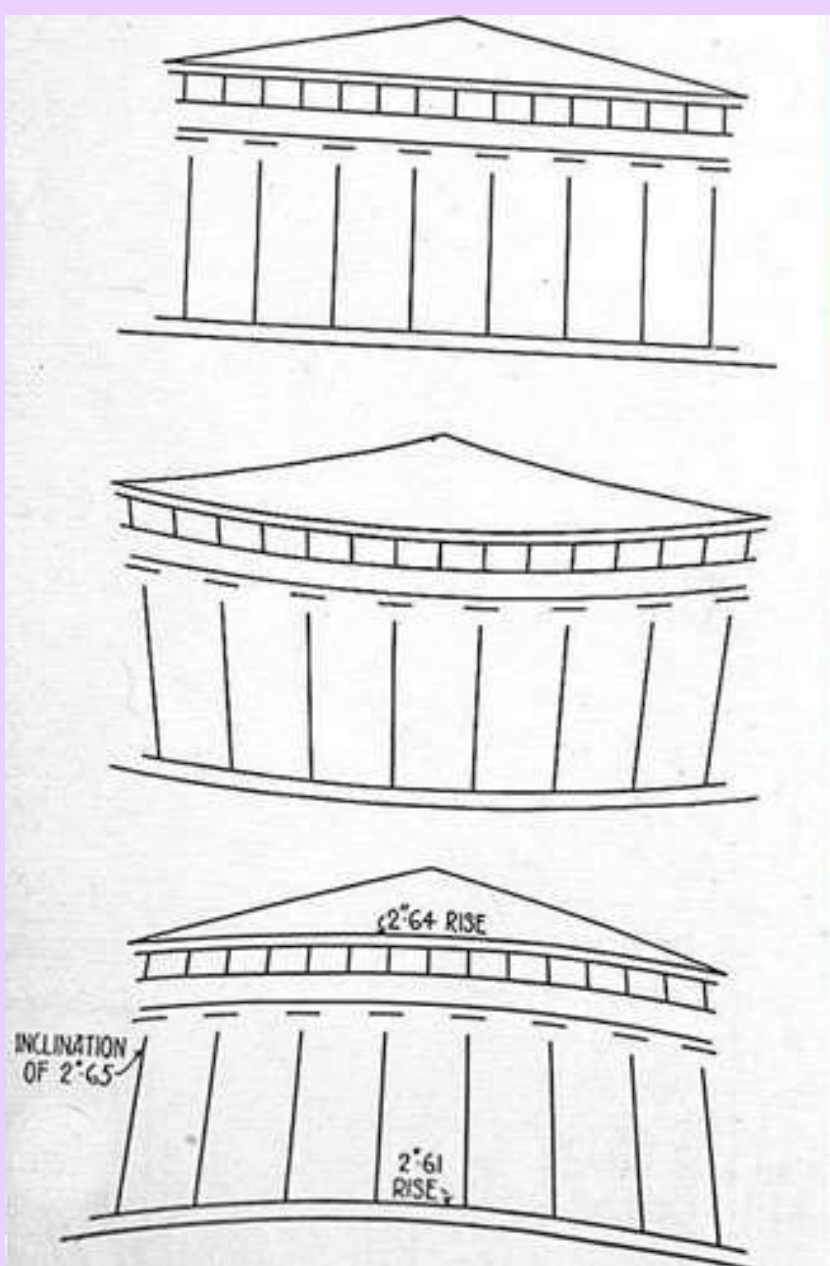
West Pediment: Contest between Athena and Poseidon



IKTINOS and KALLIKRATES, **Parthenon**, the Temple of Athena Parthenos
Reconstructed model of the west facade. Acropolis, Athens, Greece, 447–438
BCE.



Plan of the Parthenon, Acropolis, Athens, Greece, with diagram of sculptural program, 447–432 BCE.



Parthenon. L.Diagram of Adjustments. R. stylobate



Golden Ratio - 1.61803...:1 (Phi)

A **golden rectangle** is a rectangle with dimensions which are of the golden ratio, $1 : \varphi$ (i.e., 1.61803...). It has been claimed to be the most aesthetically pleasing shape of a rectangle.

“Varvakeion Athena” Small Roman copy of Pheidias's Athena Parthenos from 5th century BCE. Athens, National Archaeological Museum.



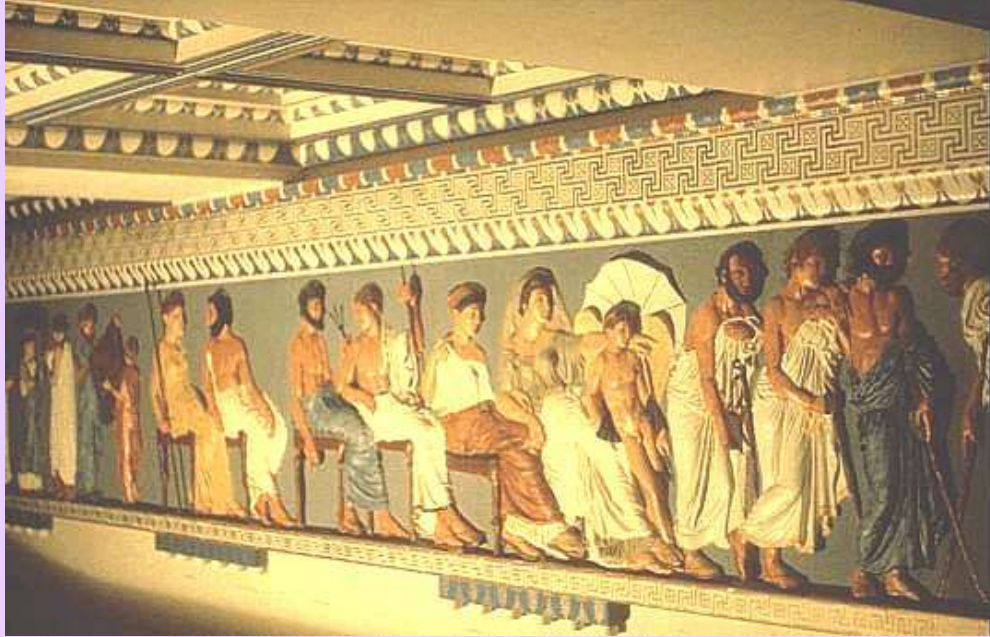
Roman copy of Athena's shield
British Museum





PHIDIAS, **Athena Parthenos ('virgin')** ca. 438 BCE. approx. 38' tall. Ivory and gold on wooden frame. Gold plates weighed approximately 1,500 pounds.

R: Model from Ontario Mus., Toronto. L. from replica of Phrthenon in Nashville



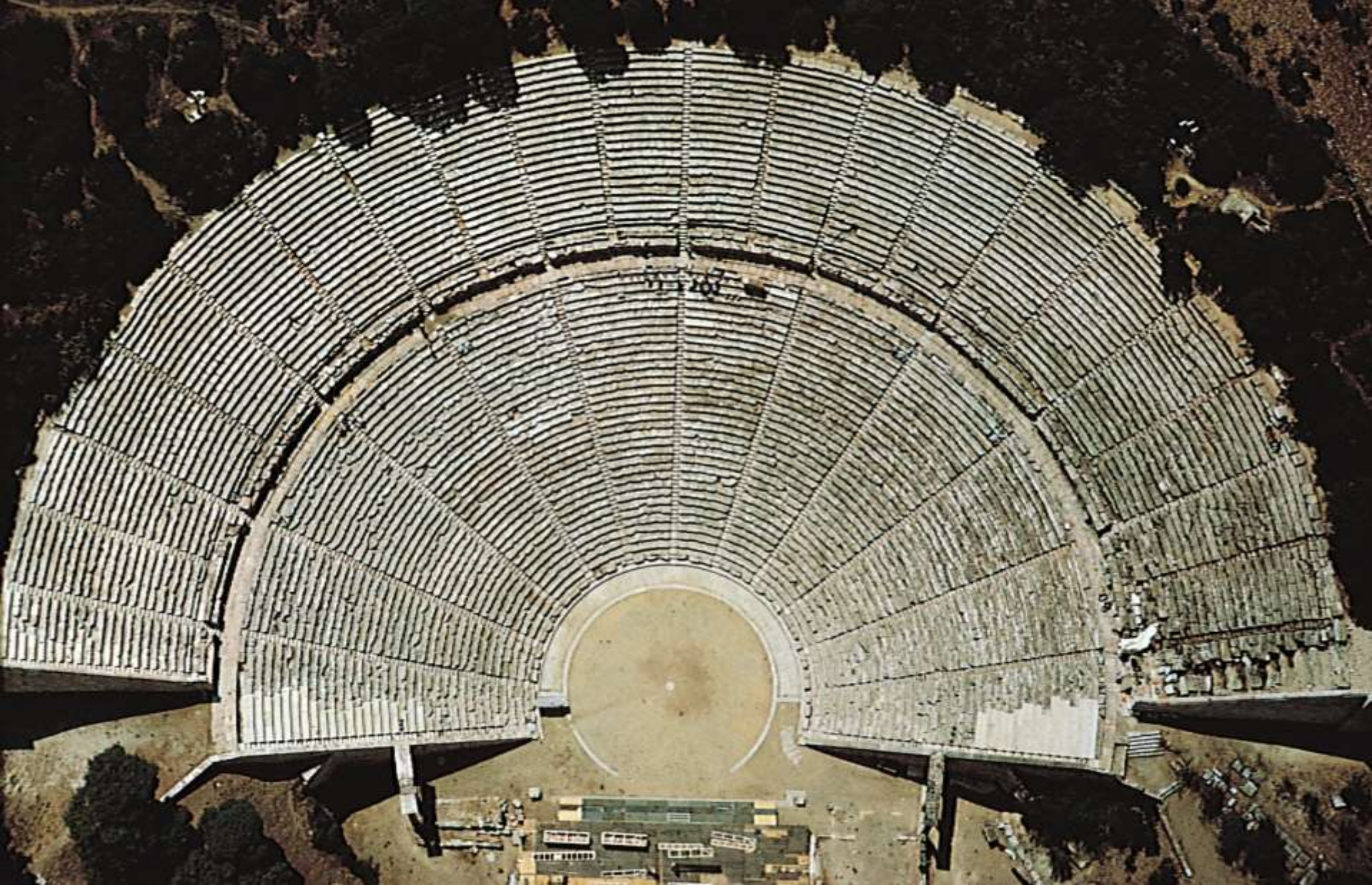
The background was dark blue and the figures were in red and ocher, accented with gold and real metal details such as bronze bridles and bits on the horses.



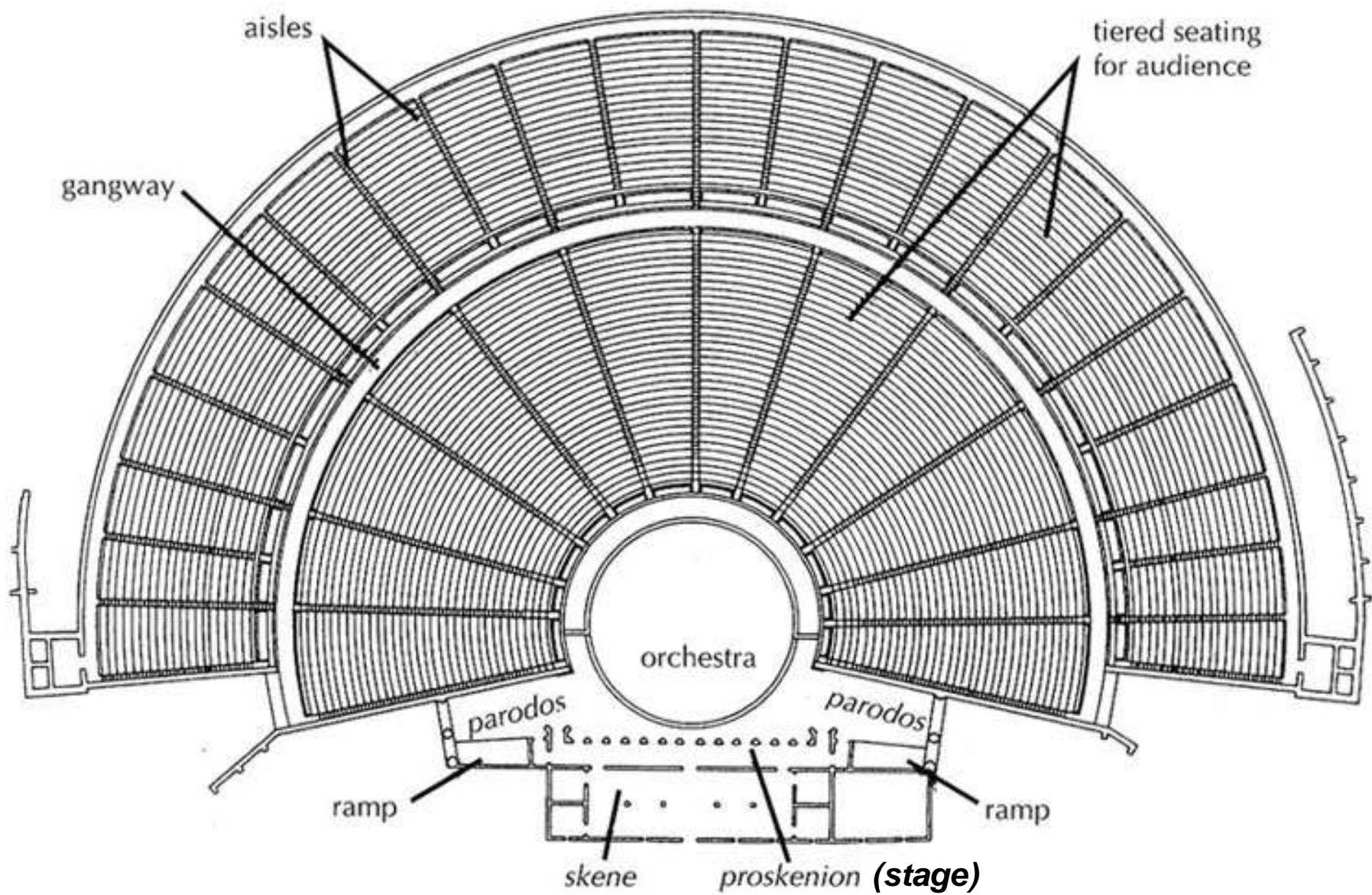
Panathenaic Festival Procession. Detail: Horsemen. North frieze. Parthenon, Acropolis, Athens, Greece, ca. 447–438 BCE. Marble, approx. 3' 6" high., British Museum, London.

Late Classical and Hellenistic

4th – 1st c. BCE



POLYKLEITOS THE YOUNGER, **Theater**, Epidaurus, Greece, ca. 350 BCE.



5-76. Plan of the theater at Epidauros

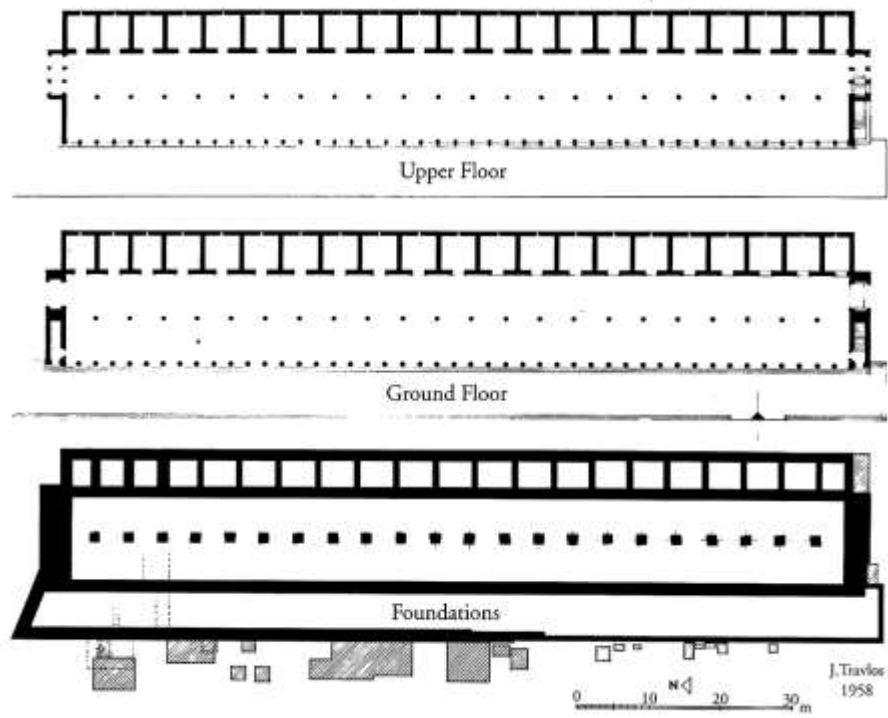
POLYKLEITOS THE
YOUNGER,
Corinthian capital,
from the Tholos,
Epidauros, Greece, ca.
350 BCE.
Archaeological
Museum, Epidauros.



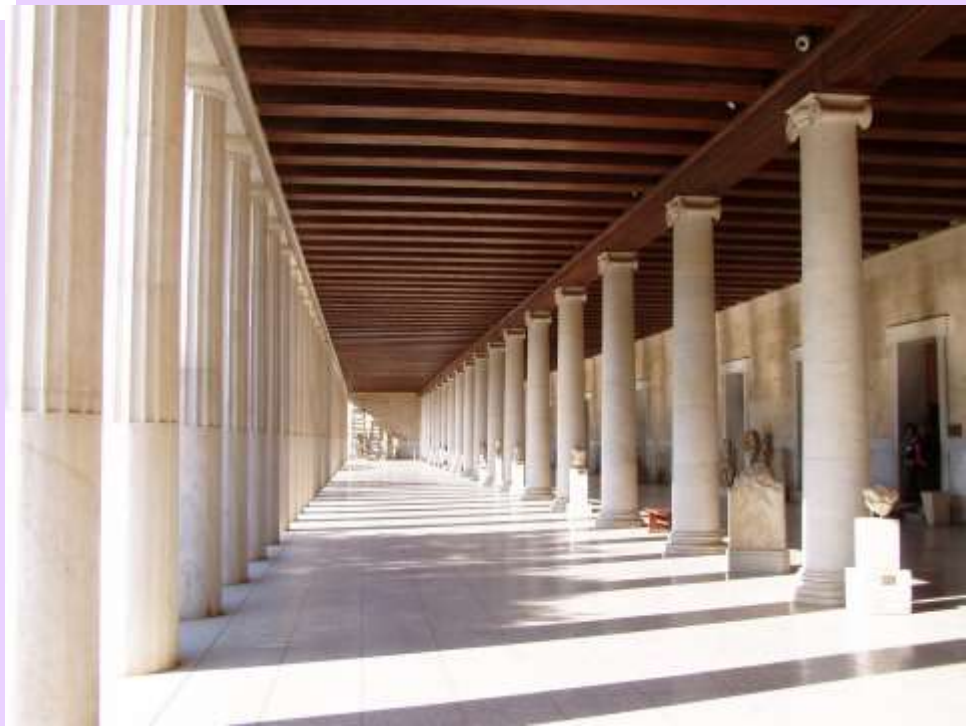


Stoa of Attalos. Athens 159-132 B.C.E (reconstructed 1952-56)

Stoa: An ancient Greek covered walk or colonnade, usually having columns on one side and a wall on the other. Often housed shops and civic offices. Stoas lined marketplaces and sanctuaries and formed places of business and public promenades.



Stoa of Attalos. Plan. Athens 159-132
B.C.E (reconstructed 1952-56)





*Comparison: Mortuary
temple of Hatshepsut*
,Deir el-Bahri, Egypt,, ca.
1473–1458 BCE.

Stoa of Attalos. Athens 159-132 B.C.E



Greek City Planning



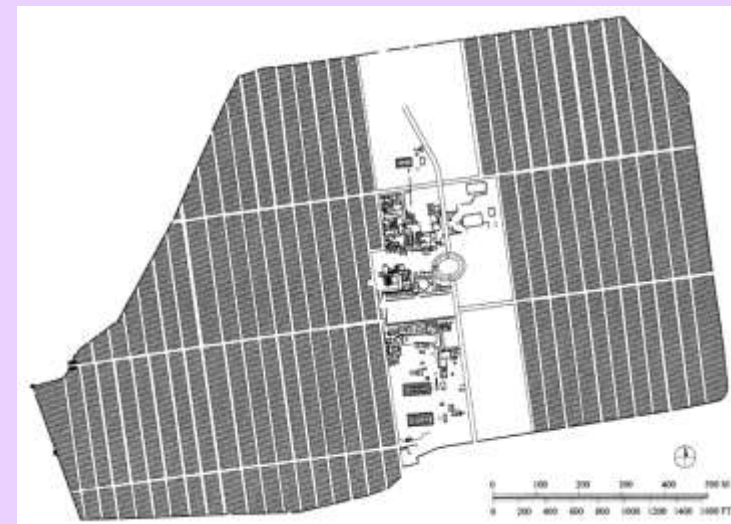
Grid Plan: a type of city plan in which streets run at right angles to each other, forming a grid.

Early grid plans found in the Indus Valley, in China, Egypt and Mesopotamia.

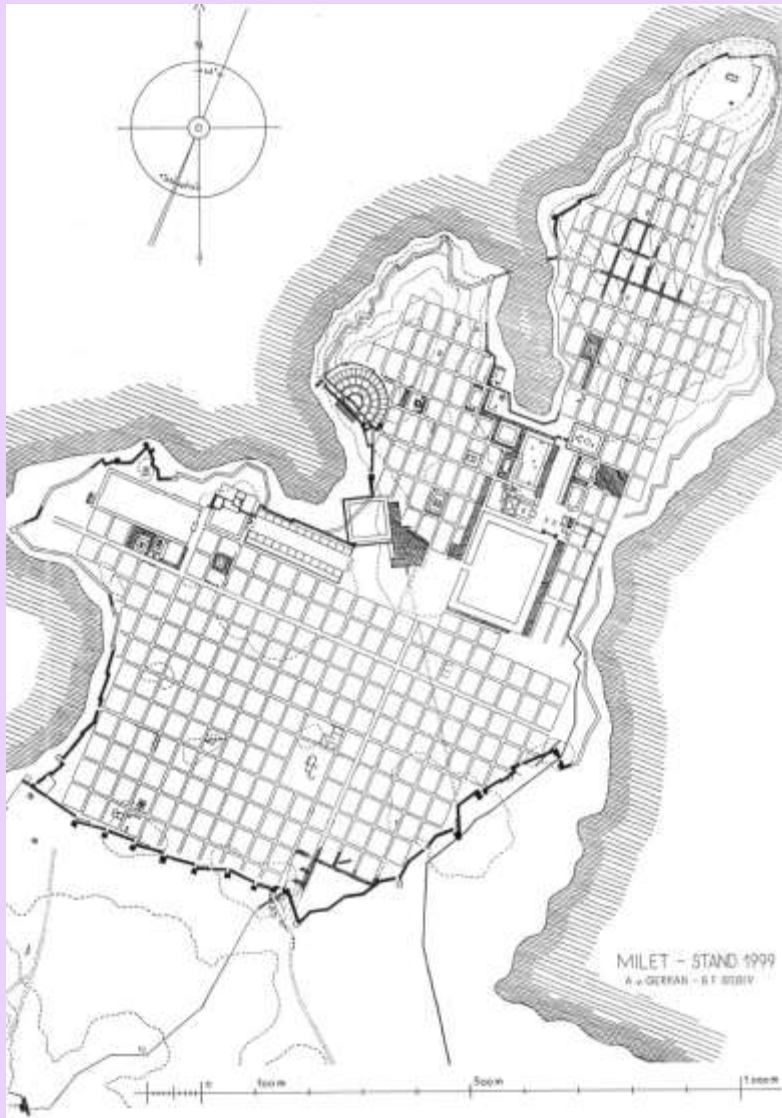
The Greek grid had its streets aligned roughly in relation to the cardinal points

During the dark ages the Greek city states started a program of colonization in Asia Minor, Sicily, Southern Italy and North Africa. The settlements were laid out in elongated rectangular blocks grouped around the market and temples at the center. There were public facilities for recreation and entertainment, and a protective wall surrounded the whole city.

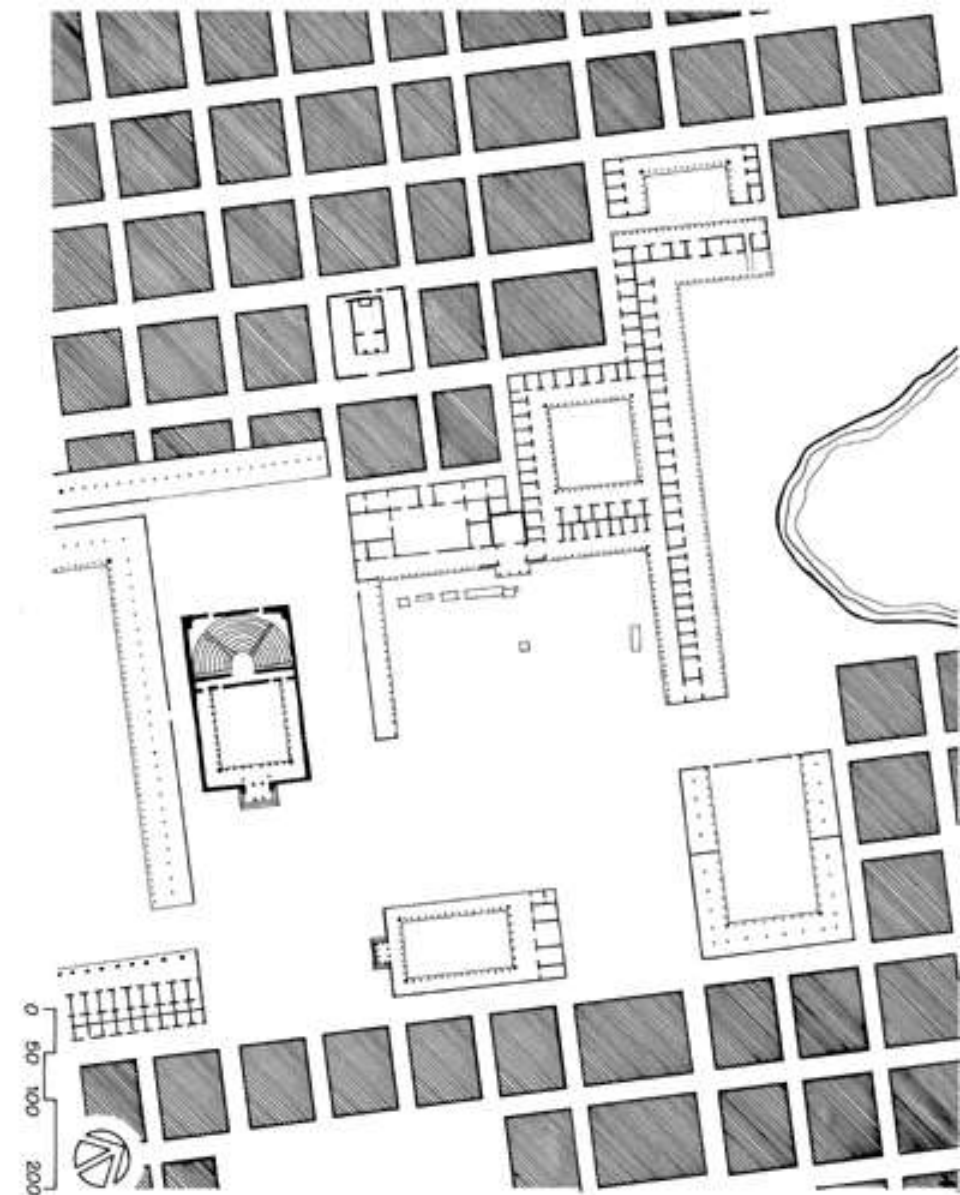
Plan of Paestum, Italy.
7th c. BCE



Hippodamus of Miletus (498 BC - 408 BC),
The most famous Greek town-planner. He imposed a strict grid plans on sites so all streets met in right angles. Such orthogonal plans actually predate Hippodamus. The “Hippodamian Plan” also designated separate quarters for public, private and religious functions.



In the mid-fifth century Hippodamus planned the town of Piraeus around the original sea-port, substituting broad straight streets intersecting at right angles in place of crooked, narrow streets.



Plan of the Agora at Miletus.

The city's regular grid of residential blocks is broken by civic and commercial buildings that are generally grouped into L or U shapes.

Agora: the public square or marketplace of a city. In early Greek history the agora was primarily used as a place for public assembly; later it functioned mainly as a center of commerce.

It was often surrounded by the public buildings, such as the royal palace, the law courts, the assembly house, and the jail. A favorite architectural device was the colonnade surrounding the agora.



Restored view of Priene, Turkey, 4th c. B.C.E and later
Hippodamian planning was still the norm in Late Classical and Hellenistic Greece.