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
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

The couple had two children, Andromache and Agamemnon Schliemann.
The city is strategically sited to control major routes in the vicinity.

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

The ruins of Mycenae, ca. 1600-1250 B.C.E.
Plan of Mycenae, showing areas that have been excavated. ca. 1600-1250 B.C.E.
Comparison: Palace at Knossos.
Plan. (Crete), Greece, ca. 1700–1400 BCE

Plan of Mycenae,
ca. 1600-1250 B.C.E.
Lion Gate, Mycenae, Greece, ca. 1300–1250 BCE. Limestone, relief panel approx. 9’ 6” high.
Lion Gate. Detail
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.
Comparison: **Megalithic tomb at Er-Mane**, Carnac, France, ca. 4200 B.C.E.
This structure presents an early example of corbeled construction.

Comparison: **Treasury of Atreus**, Mycenae, Greece, ca. 1300–1250 BCE. Approx. 43’ high.

Comparison: **Neolithic Passage Grave at Newgrange**, Ireland. c. 3100 BCE
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, Prinias, Greece, ca. 625 BCE.

Comparison: Mycenaean Palace and citadel. Tiryns, Greece, ca. 1400–1200 BCE.
Temple Plans and the Greek Orders
Greek Temple Plans
Comparison:
Temple of Amen.
Karnak. Egypt

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

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

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

Comparison: 
Gorgon head 
Temple of Apollo, Veii, 500 BCE

Comparison Horus Stele 
4th c. BCE. Egypt.
**Siphnian Treasury, Restored View.**
Delphi, Greece, ca. 530 B.C.E.

**Caryatid:** a female figure that functions as a supporting column (may represent priestesses of Artemis)
Classical Period (5th c. BCE)
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,
IKTINOS and KALLIKRATES, **Parthenon**, the Temple of Athena Parthenos Acropolis, Athens, Greece, 447–438 BCE.
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 (Φ)

A golden rectangle is a rectangle with dimensions which are of the golden ratio, 1 : Φ (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.

Late Classical and Hellenistic

4th – 1st c. BCE
POLYKLEITOS THE YOUNGER, **Theater**, Epidauros, Greece, ca. 350 BCE.
5-76. Plan of the theater at 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.
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
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.

**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.
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.
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.

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