PIONEERS OF AEGEAN ARCHAEOLOGY

The pioneering figure in the modern study of Aegean civilization was Heinrich Schliemann (1822–90 CE), who was inspired by Homer's epic tales, the *Iliad* and the *Odyssey* (see page 105). Born in Germany but an American citizen after 1869, he was the son of an impoverished minister, from whom he inherited a love of literature and languages. Yet Schliemann was forced by economic circumstances to follow a commercial course of study and to enter the business world—as a grocer's apprentice—in 1836. Largely self-educated, he worked hard, grew rich, and retired in 1863 to pursue his lifelong dream of becoming an archaeologist. Between 1865 and 1868, he studied archaeology and Greek in Paris; in 1869, he began conducting fieldwork in Greece and Turkey.

Scholars of that time considered Homer's stories pure fiction, but by studying the descriptions of geography in the *Iliad*, Schliemann located a multilayered site at Hissarlik, in modern Turkey, whose sixth level down is now generally accepted as being Homer's Troy (see "The Trojan War," page 105).

After his success at Hissarlik, Schliemann pursued his hunch that the grave sites of Homer's Greek royal family would be found inside the citadel at Mycenae. He did find opulent burials in shaft graves uncovered near the Lion Gate (see figs. 4-18, 4-19), but later data proved the graves to be too early to contain the bodies of Atreus, Agamemnon, and their relatives—if these legendary figures ever existed. Nevertheless, scholars today accept the possibility that some Homeric legends are based on actual events.

In 1887, Schliemann tried unsuccessfully to buy a site on the island of Crete where he hoped to find the palace of the legendary King Minos. That discovery fell to a British archaeologist, Sir Arthur Evans (1851–1941), who led the excavation of the palace at Knossos between 1900 and 1905 (see fig. 4-5). It was Evans who gave the name *Minoan*—after King Minos—to Bronze Age culture on Crete. His chief focus was early Minoan writing. He also made a first attempt to establish an absolute chronology for Minoan art, basing his conjectures on datable Egyptian artifacts found in the ruins on Crete and on Minoan finds in Egypt. Later scholars have revised and refined his datings.

American archaeologist Harriet Boyd Hawes, photographed on Crete in 1902.

Men were not the only energetic researchers in the field in those days. Sophia Schliemann contributed much to her husband's work, and American archaeologist Harriet Boyd Hawes (1871–1945)—assisted by Edith Hall—was responsible for the discovery and excavation of Gournia, which is one of the best-preserved Bronze Age sites in Crete. She published her findings in 1908.

advantage of its many safe harbors and its location to become a wealthy sea power, trading with mainland Greece, Egypt, the Near East, and Anatolia.

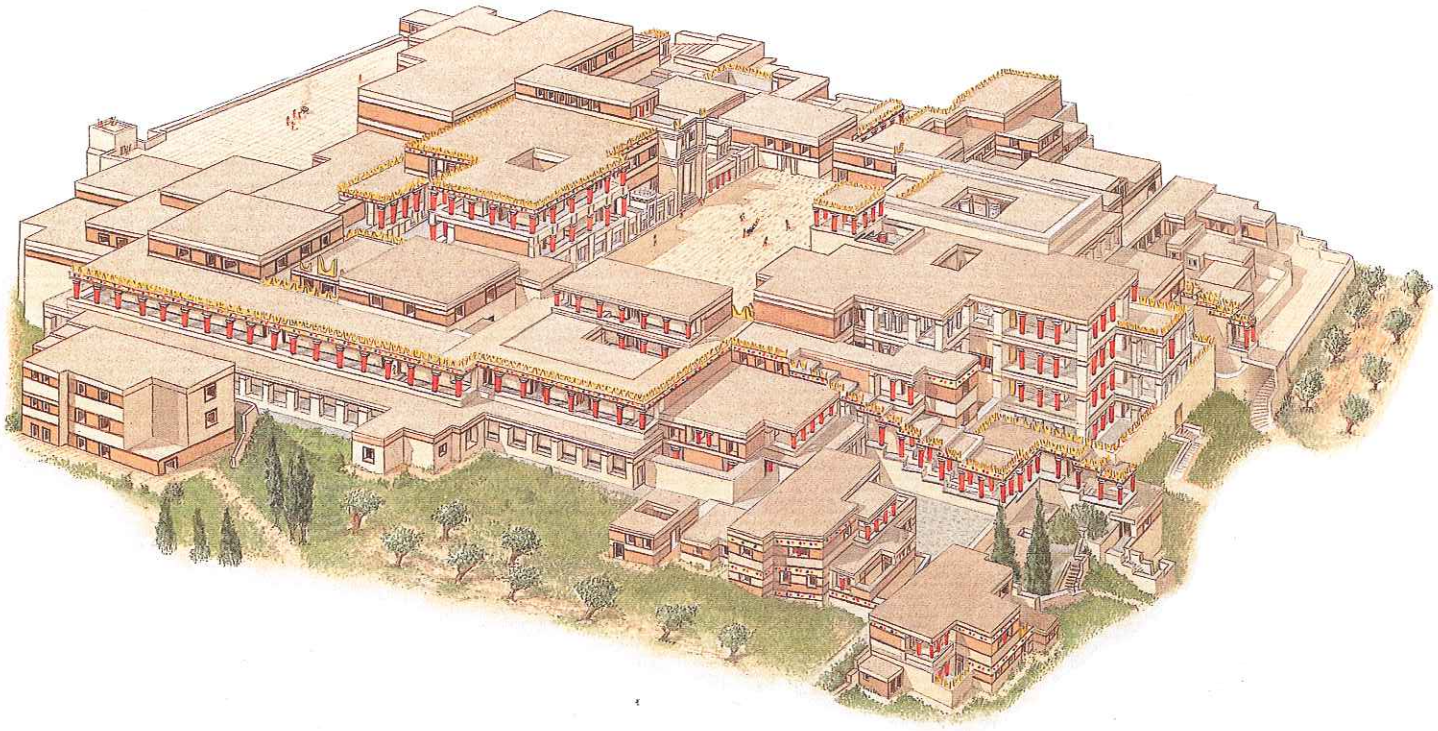
Archaeological discoveries suggest that in Minoan belief three goddesses controlled various aspects of the natural world. These deities may also have been the ancestors of the later Greek goddesses Demeter, Artemis, and Athena (Chapter 5). Female images found in graves and palace shrines may represent goddesses, priestesses, or female worshipers.

Although a number of written records from the period are preserved, the two earliest forms of Minoan writing, called hieroglyphic and Linear A, continue to defy translation. The surviving documents in a later script, Linear B—a very early form of Greek imported from the mainland—have proven to be valuable administrative records and inventories that give an insight into Minoan material culture.

Beginning in the third millennium BCE, the Minoans built and maintained (rebuilding after earthquakes and fires) great architectural complexes. Excavators in the nineteenth century CE called these complexes "palaces," an inaccurate term because *palaces* imply *kings*, but we do not know the sociopolitical structure of the society. The term *palaces* is still commonly used, and we will use it in this chapter. A number of these sites have been excavated and provide a wealth of art and information.

The walls of early Minoan buildings were made of rubble and mud bricks faced with cut and finished local stone. This was the first use of **dressed stone** as a building material in the Aegean. Columns and other interior elements were made of wood. Both in palaces and in buildings in the surrounding towns, timber appears to have been used for framing and bracing walls; its strength and flexibility would have minimized damage from the earthquakes still common to the area. Nevertheless, a major earthquake about 1700 BCE damaged several building sites, including the important palaces at Knossos and Phaistos. The structures were then repaired and enlarged, and the two resulting new complexes shared a number of features. Multistoried, flat-roofed, and with many columns, they were designed to maximize light, air, and adaptability, as well as to define access and circulation patterns. Daylight and fresh air entered through staggered levels, open stairwells, and strategically placed air shafts and light wells (fig 4-5).

Suites of rooms lay around a spacious rectangular courtyard from which corridors and staircases led to other courtyards, private rooms and apartments, administrative and ritual areas, storerooms, and baths. Walls generally were coated with plaster, and some were painted with murals. Floors were either plaster, plaster mixed with pebbles, stone, wood, or beaten earth. The



4-5. Reconstruction of the palace complex, Knossos, Crete, during the Second Palace period. Site occupied 2000–1375 BCE; complex begun in Old Palace period (c. 1900–1700 BCE); complex rebuilt after earthquakes and fires during Second Palace period (c. 1700–1450 BCE); final destruction c. 1375 BCE.

residential quarters had many luxuries: sunlit courtyards, richly colored murals, and sophisticated plumbing systems (at Knossos, a network of terra-cotta pipes was laid below ground). Clusters of workshops in and around the palace complexes formed commercial centers. Storeroom walls were lined with enormous clay jars for oil and wine, and in their floors stone-lined pits from earlier structures had been designed for the storage of grain. The huge scale of the centralized management of foodstuffs became apparent when excavators at Knossos found in a single storeroom enough ceramic jars to hold 20,000 gallons of olive oil.

THE OLD PALACE PERIOD (c. 1900–1700 BCE)

Minoan civilization remained very much a mystery until British archaeologist Sir Arthur Evans discovered the buried ruins of the architectural complex at Knossos, on Crete's north coast, in 1900 CE (see fig. 4-5). Evans spent the rest of his life excavating and reconstructing the buildings he had found (see "Pioneers of Aegean Archaeology," opposite). The site had been occupied in the Neolithic period, then built over with a succession of Bronze Age buildings.

THE LEGEND OF THE MINOTAUR

According to Greek legend, the half-man–half-bull Minotaur was the son of the wife of King Minos of Crete and a bull belonging to the sea god Poseidon. The monster lived in the so-called Labyrinth, a maze. To satisfy the Minotaur's appetite for human flesh and to keep him tranquil, King Minos ordered the city of Athens, which he ruled, to pay him a yearly tribute tax of fourteen young men and women. Theseus, the son of King Aegeus of Athens, vowed to free his people from this grisly burden by slaying the monster.

He set out for Crete with the doomed young Athenians, promising his father that on his return voyage he would replace his ship's black sails with white ones as a signal of victory. In the manner of ancient heroes, Theseus won the heart of Crete's princess Ariadne, who gave him a sword with which to kill the Minotaur and a spindle of thread to mark the path he took into the Labyrinth. Theseus defeated the Minotaur, followed his trail of thread back out of the maze, and sailed off to Athens with Ariadne and the relieved Athenians. Along the way, his ship put into port on the island of Naxos, where Theseus had a change of heart and left Ariadne behind as she lay sleeping. In his haste to return home, he neglected to raise the white sails. When Aegeus saw the black-sailed ship approaching, he drowned himself in the sea that now bears his name. Theseus thus became king of Athens.

Such psychologically complex myths have long inspired European artists. In William Shakespeare's *A Midsummer Night's Dream*, the play-within-the-play celebrates the marriage of Theseus to an Amazon queen. The plight of Theseus's abandoned lover Ariadne—who finds comfort in the arms of the Greek god Dionysos—is the plot of a 1912 opera by Richard Strauss. Also in the last century, Pablo Picasso used the Minotaur in his art as a symbol of the Spanish dictator Francisco Franco and the horrors of the Spanish Civil War.

4-15. ***Bull Leaping,*** wall painting with areas of modern reconstruction, from the palace complex, Knossos, Crete. Late Minoan period, c. 1550–1450 BCE. Height approx. 24½″ (62.3 cm). Archaeological Museum, Iraklion, Crete.

Careful sifting during excavation preserved many fragments of the paintings that once covered the palace walls. The pieces were painstakingly sorted and cleaned by restorers and reassembled into puzzle pictures that often had more pieces missing than found. The next step was to fill in the gaps with colors similar to the original ones, but lighter and grayer in tone, to make obvious which portions were restored while enabling the eye to read and enjoy the image.

4-16. ***Vapheio Cup,*** found near Sparta, Greece. c. 1650–1450 BCE. Gold, height 3½″ (3.9 cm). Archaeological Museum, Iraklion, Crete.

THE TROJAN WAR

The legend of the Trojan War and its aftermath held a central place in the imagination of ancient people. It inspired, sometime before 700 BCE, the great epics of the Greek poet Homer—the *Iliad* and the *Odyssey*—and provided later poets and artists with rich subject matter.

According to the legend, a woman's infidelity caused the war. While on a visit to the city of Sparta in the Peloponnese, in southern Greece, young Paris, the son of King Priam of Troy, fell in love with Helen, a human daughter of Zeus who was the wife of the Spartan king Menelaus. With the help of Aphrodite, the goddess of love, Helen and Paris fled to Troy, a rich city in northwestern Asia Minor. The angry Greeks dispatched ships and a huge army to bring Helen back. Led by Agamemnon, king of Mycenae and the brother of Menelaus, the Greek forces laid siege to Troy. The two sides were deadlocked for ten years, until a ruse devised by the Greek warrior Odysseus enabled the Greeks to win: the Greeks pretended to give up the siege and built a huge wooden horse to leave behind as a parting gift to the goddess Athena, or so they led the Trojans to believe. In fact, Greek warriors were hidden inside the wooden horse. After the Trojans pulled the horse inside the gates of Troy, the Greeks slipped out and opened the gates to their comrades, who slaughtered the Trojans and burned the city.

This legend probably originated with a real attack on a coastal city of Asia Minor by mainland Greeks during the late Bronze Age. Tales of the conflict, modified over the centuries, endured in a tradition of oral poetry until finally written down and attributed to Homer.

Like the Greeks, the Romans found inspiration in the legendary struggle at Troy. Seeking heroic origins for themselves, they claimed descent from Aeneas, a Trojan warrior. As recounted in the *Aeneid*, an epic by the Roman poet Virgil (70–19 BCE), Aeneas and his followers escaped from Troy and found their way to Italy.

As early as the seventeenth century CE, adventurers began searching for Troy. In the early nineteenth century, the Englishman Charles MacLaren and the American Frank Calvert both concluded that the remains of the legendary city might be found at the Hissarlik Mound in northwestern Turkey. Excavated first by Heinrich Schliemann (see "Pioneers of Aegean Archaeology," page 94) in 1872–90 and by an American team under Carl Blegen in the 1930s, this relatively small mound—less than 700 feet across—contained the "stacked" remains of at least nine successive cities, the earliest of which dates to at least 3000 BCE. The most recent hypothesis is that so-called Troy 6 (the city six levels down), which flourished between about 1800 and 1300 BCE, was the Troy of Homeric legend; its substantially reinforced fortifications suggest that it was threatened by a powerful enemy.

purpose and style from other megalithic structures of the time—Stonehenge, for example (see figs. 1-19 through 1-21). The basic architecture of this gate is post-and-lintel construction with a **relieving arch** above (see "Post-and-Lintel and Corbel Construction", page 14). The corbel arch "relieved" the lintel of the weight of the wall that rose above it to a height of about 50 feet. As in Near Eastern citadels, the gate was provided with guardian figures. The Mycenaean sculptors carved a pair of lions nearly 9½ feet tall on a triangular panel filling the opening above the lintel. Their now-missing heads were made separately—of stone, wood, bronze, or gold—then fastened into holes in the stone. The two animals, one on each side of a Minoan-style column, stand facing each other, their forepaws resting on Minoan-style stone altars. From this gate, the formal entranceway into the citadel, known as the Great Ramp, led up the hillside to the king's palace.

Tombs assumed much greater prominence for Helladic period culture of the mainland than for the Minoans, and ultimately they became the most architecturally sophisticated monuments of the entire Aegean period. The earliest burials were in shaft graves. The Mycenean ruling families laid out their dead in opulent costumes and jewelry and surrounded them with ceremonial weapons, gold and silver wares, and other articles indicative of their high status, wealth, and power (fig. 4-19, page 106, "The Object Speaks", page 106). By about 1600 BCE, kings and princes on the mainland had begun building large aboveground burial places commonly referred to as **beehive tombs** because of their rounded, conical shape. In their round plan, beehive tombs are somewhat similar to the prehistoric European megalithic tombs, such as the one at Newgrange, Ireland (see fig. 1-17).

More than a hundred such tombs have been found on mainland Greece, nine of them in the vicinity of Mycenae. Most of the tombs have been robbed. Possibly the most impressive is the so-called Treasury of Atreus (figs. 4-20, 4-21, page 107), which dates from about 1300 to 1200 BCE. The structure is an example of **cyclopean construction**, so called because it was believed that only the race of giants known as the Cyclopes could have moved its massive stones. A walled passageway through the earthen mound covering the tomb, about 120 feet long and 20 feet wide and open to the sky, led to the tomb's entrance facade. The original entrance was 34 feet high and the door was 18 feet high, faced with bronze plaques and flanked by engaged, upward-tapering columns of green Egyptian porphyry (a type of stone) incised with geometric bands and **chevrons**—inverted Vs—filled with **running spirals**, a favored Aegean motif seen in earlier Cycladic and Minoan art. The section above the lintel had smaller engaged columns on each side, and the relieving triangle was disguised behind a red-and-green engraved marble panel. The main tomb chamber (fig. 4-22, page 107) is a circular room 47½ feet in diameter and 43 feet high. It is roofed with a **corbel vault** built up in regular **courses**, or layers, of **ashlar**—squared stones—smoothly leaning

THE OBJECT SPEAKS

THE "*MASK OF AGAMEMNON*"

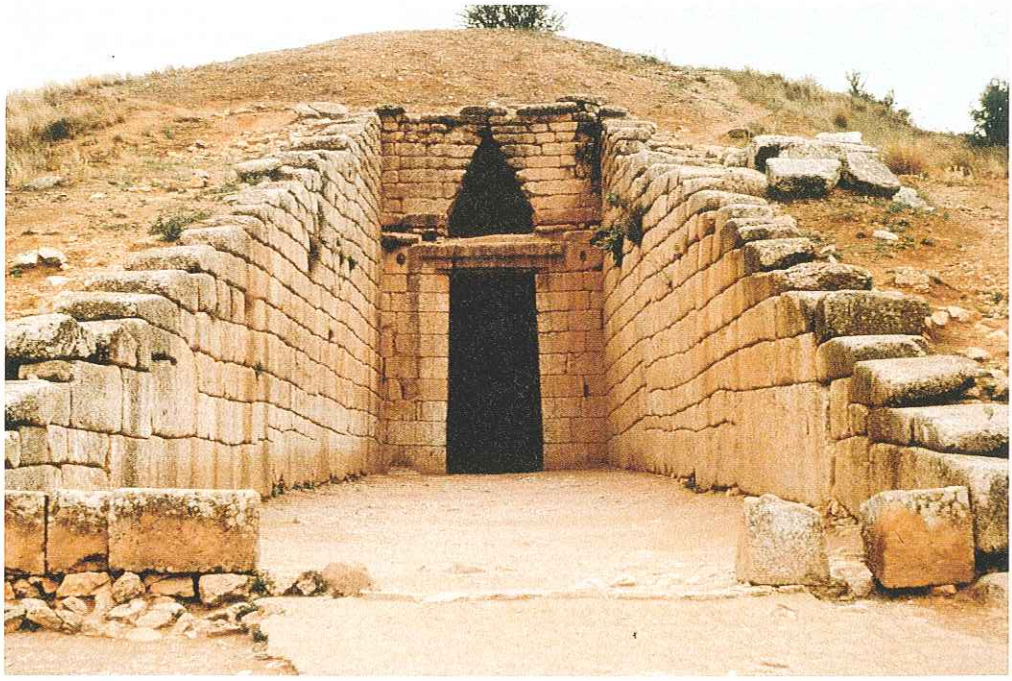
"I have gazed on the face of Agamemnon," archaeologist Heinrich Schliemann supposedly telegraphed a Greek newspaper in late 1876. His words to the king of Greece, while more enthusiastic, were also more guarded: Schliemann expressed his great joy at having found the tombs of Agamemnon and his family, the House of Atreus. Just as Schliemann had followed clues in Homer's epics to discover Troy (see "Pioneers of Aegean Archaeology," page 94), so had he tracked the words of the second-century BCE Greek geographer Pausanias to the citadel at Mycenae, which Schliemann believed to be the home of Agamemnon, the commander-in-chief of the Greek forces against Troy (see "The Trojan War," page 105). Among the 30 pounds of gold objects he found in the royal graves were five death masks, and one of these golden treasures (fig. 4-19) seemed to him to be the face of Homer's hero. Even today, the gold mask that so moved Schliemann exerts a nearly hypnotic power. But is the face Agamemnon's—if there was such a person—and does it say anything to us about him, and about Schliemann?

In fact, we now know this golden mask has nothing to do with the heroes of the Trojan War. Research shows that the Mycenae graves are about 300 years older than Schliemann believed and the burial practices were different from those described by Homer. Still, the image is so commanding that we sense it nevertheless is a hero's face. However, the characteristics that make it seem so gallant—such as the handlebar moustache and large ears—have caused some scholars to question its authenticity.

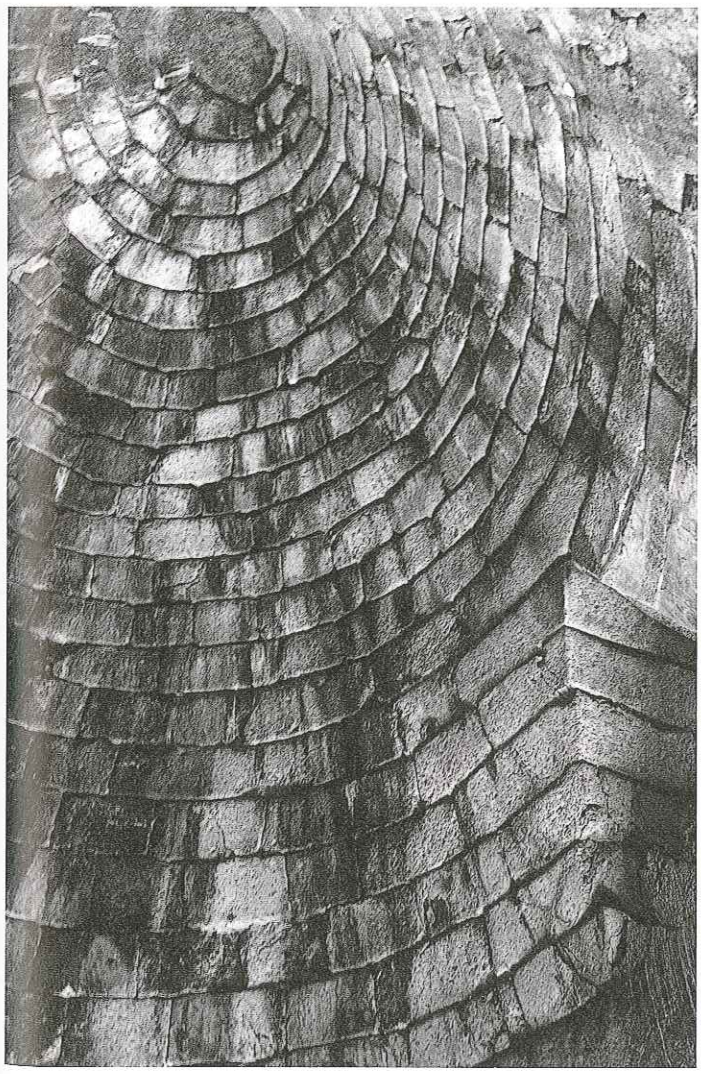
Controversies surrounding the mask surfaced about thirty years ago and were raised again in the July–August 1999 issue of *Archaeology*, which asked, "Is Schliemann Mask a Fake?" Some scholars today maintain that the mask is just what Schliemann claimed: a treasure he discovered in a royal tomb at Mycenae. Scholars at the opposite extreme disagree. Noting that this mask is significantly different from the others found at the site, they contend that Schliemann had some of the features added to make the mask appear more heroic to viewers of his day.

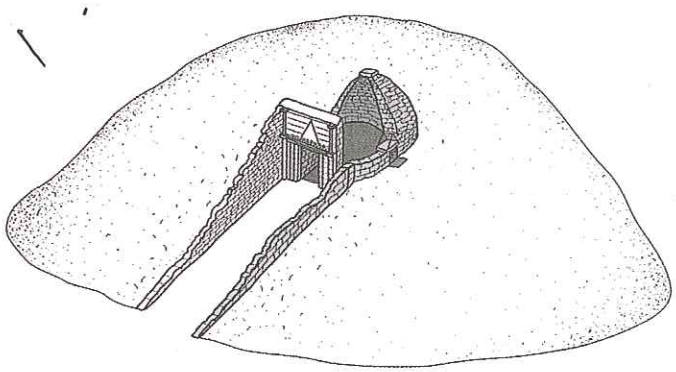
Regardless of what future researchers may learn about this mask, several facts are indisputable. First, for Schliemann it was a symbol of the Mycenaean culture he had hoped to find—and of the new world of archaeology he in fact opened up with his discoveries. Second, the image of this face—whoever's it may be—has the power to move us to this day.

4-19. *"Mask of Agamemnon,"* funerary mask, from the royal tombs, Grave Circle A, Mycenae, Greece. c. 1600–1550 BCE. Gold, height approx. 12" (35 cm). National Archaeological Museum, Athens.



4-20. Entrance to the *Tholos*, the so-called Treasury of Atreus, Mycenae, Greece. c. 1300–1200 BCE.

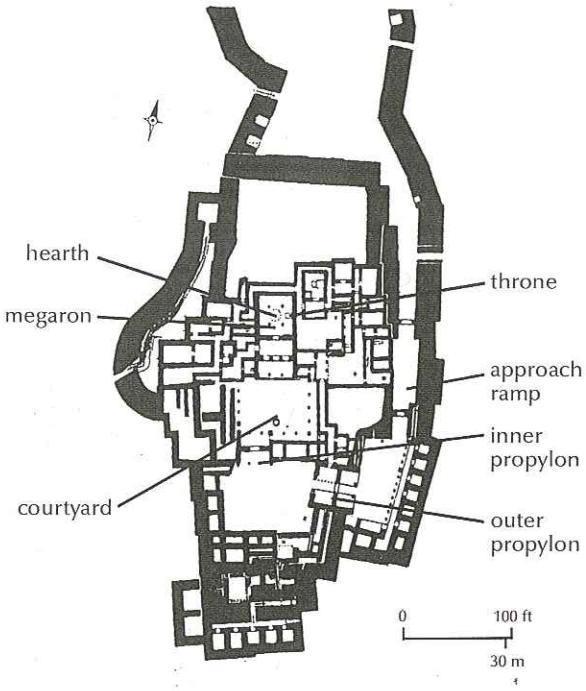




4-21. Cutaway drawing, the so-called Treasury of Atreus.

4-22. Corbeled vault, interior of the so-called Treasury of Atreus. Limestone, height of vault approx. 43′ (13 m), diameter 47′6″ (14.48 m).

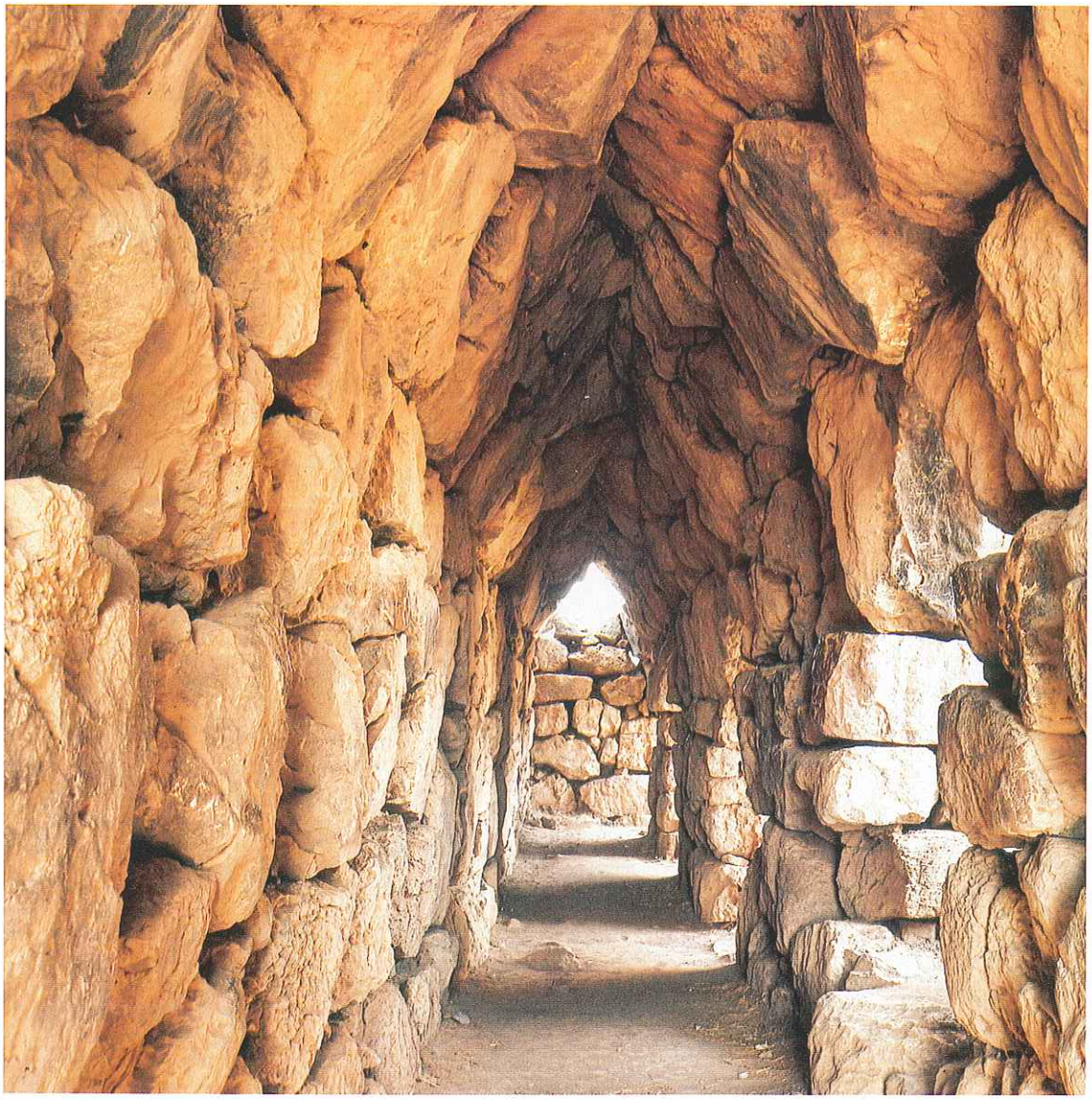
This great beehive tomb, which remained half buried until it was excavated by Christos Stamatakis in 1878, is neither a storage space for treasures nor likely to be connected to Atreus, the father of the kings Menelaus and Agamemnon, the king who led the campaign against Troy in Homer's *Iliad*. For more than a thousand years, this Mycenaean tomb remained the largest uninterrupted interior space built in Europe. The first European structure to exceed it in size was the Pantheon in Rome (Chapter 6), built in the first century BCE.



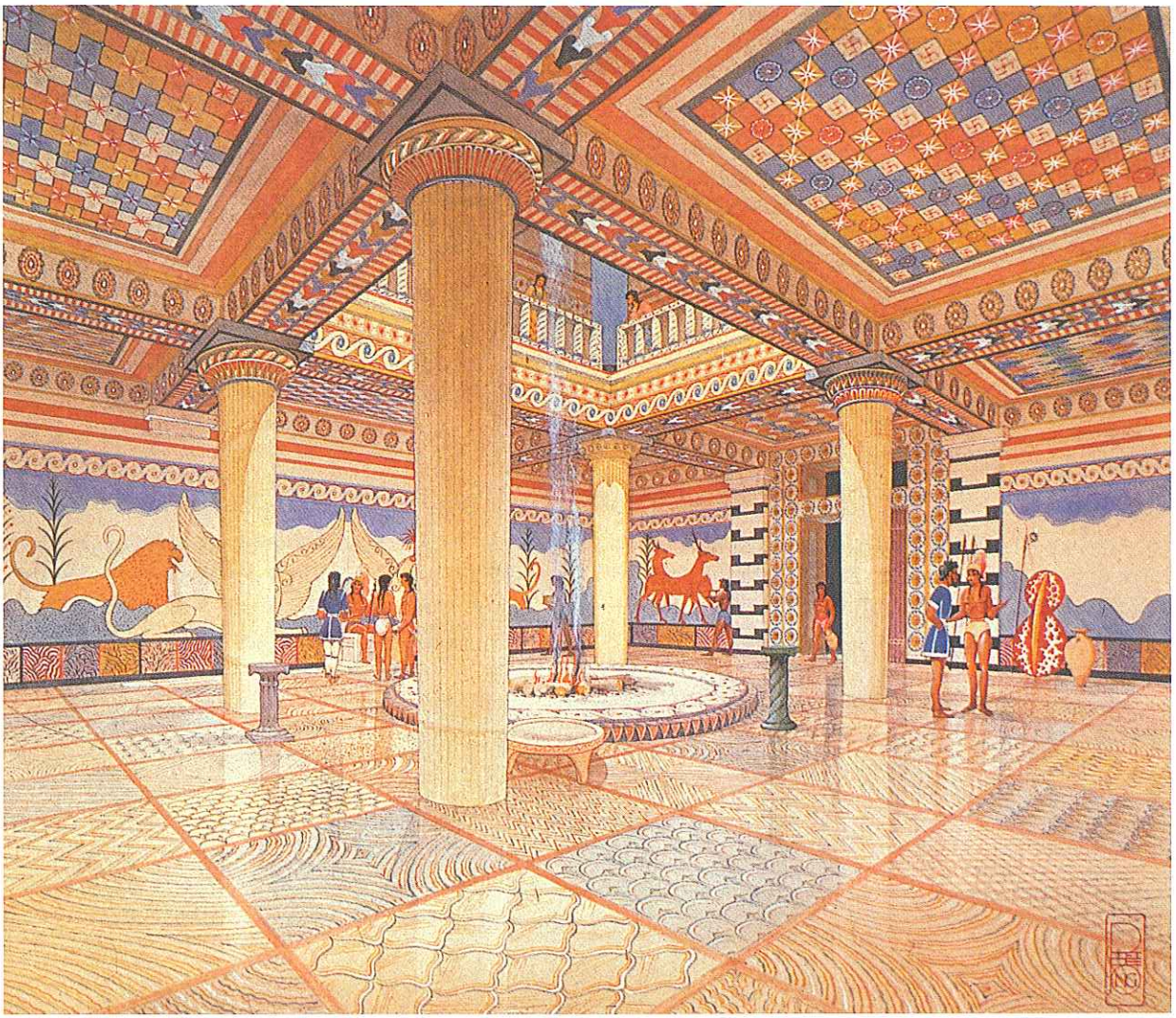
4-23. Plan of the citadel at Tiryns, Greece. Site occupied c. 1600–1200 BCE; fortified c. 1365 BCE.

inward and carefully calculated to meet in a single capstone at the peak, a remarkable engineering feat.

The Citadel at Tiryns. The builders of the citadel at Tiryns (fig. 4-23), about 10 miles from Mycenae and near the coast, made up for the site's lack of natural defenses by drawing heavily on their knowledge of military strategy. Homer referred to the resulting fortress as "Tiryns of the Great Walls." Its ring wall was about 20 feet thick, and the inner palace walls were similarly massive. The main entrance gate was approached along a narrow ramp that wound clockwise along the ring wall, forcing attacking soldiers to approach with their right sides exposed to the defenders on top of the wall (they carried their shields on their left arms). If the attackers reached the entrance, they still had to fight their way through a series of inner fortified gates. Corbel-vaulted **casemates**, or rooms and passages within the thickness of the ring walls, provided space for storing arms and sheltering soldiers or townspeople seeking safety within the citadel (fig. 4-24). In the unlikely event that the citadel gate was breached, the people inside could fight attackers from openings in the casemates.



4-24. Corbel-vaulted casemate inside the ring wall of the citadel at Tiryns. c. 1365 BCE.



4-25. Reconstruction drawing of the megaron in the palace at Pylos, Greece. c. 1300–1200 BCE. Drawing in Antonopouleion Archaeological Museum, Pylos.

As in all Mycenean citadels, the ruler's residence at Tiryns had a large audience hall called a **megaron**, or "great room." The main courtyard led to a porch, a vestibule, and then to the great room—a much more direct approach than the complex corridors imposed on visitors in a Minoan palace. In the typical megaron plan, four large columns around a central hearth supported the ceiling. The roof section above the hearth was either raised or open to admit light and air and permit smoke to escape. Architectural historians surmise that the megaron eventually came to be specifically associated with royalty. The later Greeks therefore adapted its form when building temples, which they saw as earthly palaces for their gods.

The Palace at Pylos. Tiryns required heavy defense works because of its proximity to the sea and its location on a flat plain. The people of Pylos, in the extreme southwest of the Peloponnese, perhaps felt that their more remote and defensible location made them less vulnerable to military attack. The palace at Pylos, built about 1300–1200 BCE, followed the megaron plan and was built on a raised site without fortifications. Set behind a porch and vestibule facing the courtyard, the Pylos megaron was a magnificent display of architectural and decorative prowess. The reconstructed view provided here (fig. 4-25) shows how the combined throne room and audience hall, with fluted, upward-swelling Minoan-type columns supporting heavy ceiling beams, might have looked when new. Every inch was painted—the floors, ceilings, beams, and door frames with brightly colored abstract designs, and the walls with large mythical animals and highly stylized plant and landscape forms.

Linear B clay tablets found in the ruins of the palace include an inventory of the palace furnishings that indicates they were as elegant as the architecture. The listing on one tablet reads: "One ebony chair with golden back decorated with birds; and a footstool decorated with ivory pomegranates. One ebony chair with ivory back carved with a pair of finials and with a man's figure and heifers; one footstool, ebony inlaid with ivory and pomegranates." It may be that the people of Pylos should have taken greater care to protect themselves. Within a century of its construction, the palace was destroyed by fires, apparently set during the violent upheavals that brought about the collapse of Mycenaean Greek dominance.