

# THE GREEKS AND THE BRONZE AGE



The Bronze Age (ca. 3000 to 1200 BC) marks for us the beginning of Greek civilization. This chapter presents the arrival, in about 2000 BC, of Greek-speakers into the area now known as Greece and their encounter with the two non-Greek cultures that they found on their arrival, the civilizations known as Cycladic and Minoan. Cycladic civilization is notable for fine craftsmanship, especially its elegantly carved marble sculptures. The people of the Minoan civilization developed large-scale administrative centers based in grand palaces and introduced writing to the Aegean region. These and other features of Minoan civilization influenced greatly the form taken by Greek civilization in its earliest phase, the Mycenaean Period (ca. 1650 to 1200 BC). Unlike Cycladic and Minoan civilizations, which were based on the islands in the Aegean Sea, Greek civilization of the Mycenaean Period had its center in mainland Greece, where heavily fortified palaces were built. These palaces have provided archaeologists with abundant evidence of a warlike society ruled by powerful kings. Also surviving from the Mycenaean Period are the earliest occurrences of writing in the Greek language, in the form of clay tablets using the script known as "Linear B." This script, along with Mycenaean civilization as a whole, came to an end around 1200 BC for reasons that are not at all clear to historians.

## **Cycladic Civilization**

## **Minoan Civilization**

## **The Greeks Speak Up**

## **The Emergence of Mycenaean Civilization**

## **The Character of Mycenaean Civilization**

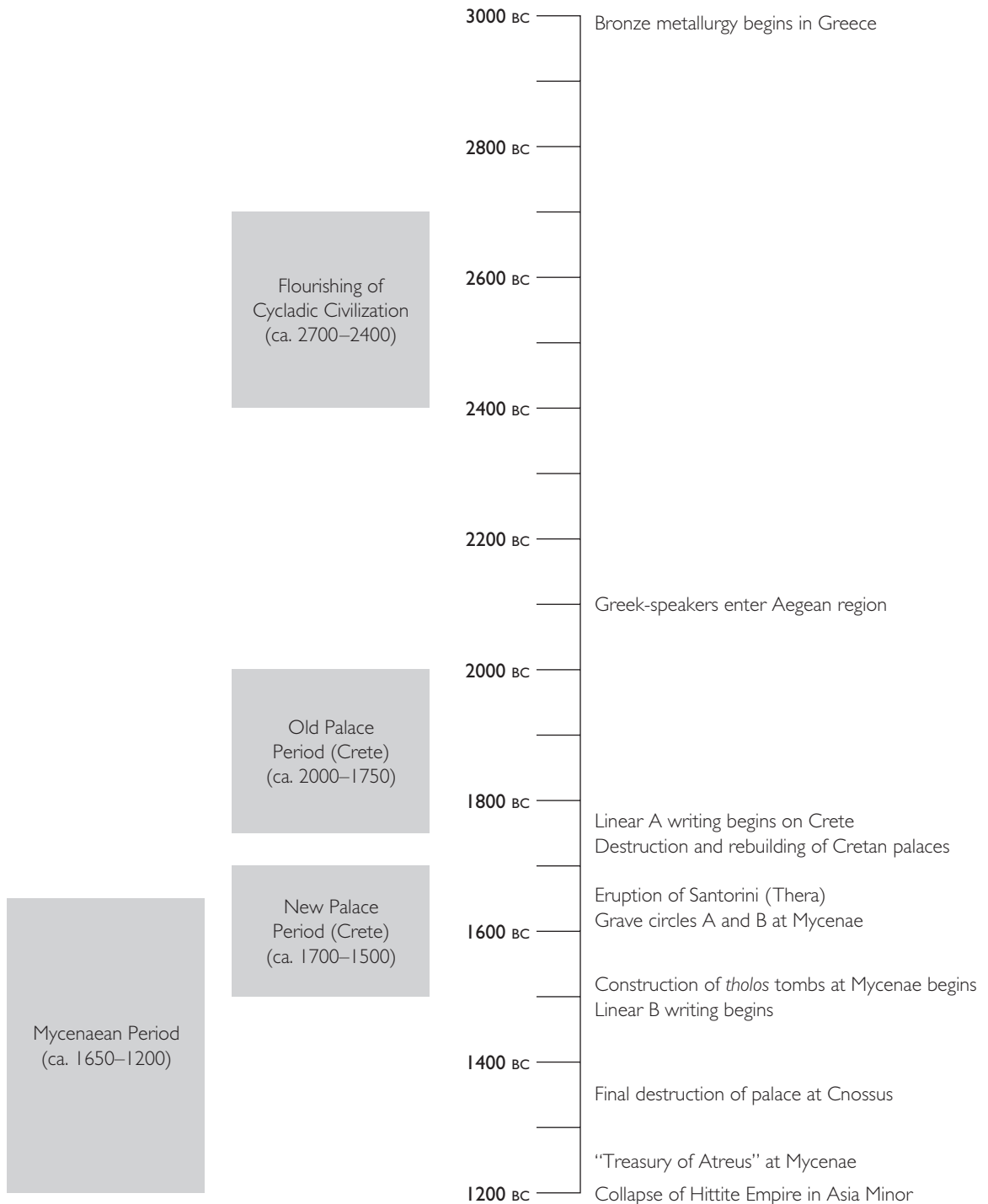
## **The End of Mycenaean Civilization**



Of all human activities language is the most misleading. We have already noted that the words “story” and “history” are in origin the same word, in spite of our desire to believe that the one is, in some sense, truth and the other fiction. This belief is encouraged by the practice of ancient historians, who distinguish between the “historical” and “prehistoric” periods of a given culture on the basis of the existence of written records, as though direct access to a people’s words provides truthful – or more truthful – evidence of their lives. The fact is that humans have always communicated with one another, using either transitory means (the spoken word and signing) or, more recently, recorded forms (writing, recorded sound, and so on). It is only for the historian, looking to the past, that the presence or absence of recorded language marks a decisive distinction. Not only does access to the written word induce the historian into feeling a specious kinship with the more “articulate” people of historical periods, in contrast to the “silent” totality of their prehistoric ancestors, but it enables the historian to distinguish between the speakers of one language and those of another. So, the historian can speak of “the ancient Egyptians” or “the Hittites” because the people who spoke those languages left behind written records. But for the prehistoric period we find ourselves using designations like “Hopewell culture” to refer to a particular native people of North America or “Magdalenian culture” in connection with the inhabitants of the Dordogne region of France during the Upper Paleolithic. There is no way of knowing what language was spoken by the people of the Magdalenian culture or whether all the people of the Hopewell culture spoke the same language.

In the absence of written records, historians and archaeologists must use other features of a people’s culture to distinguish one group from another, features such as the style of their ceramic ware or the method by which they dispose of their dead. If, therefore, we place the beginning of Greek “history” at the point at which we begin to find written records left by Greek-speakers, we are in effect defining Greek history in terms of our own concerns over access to a particular form of evidence. As it happens, of all languages Greek is the one for which there exists the longest continuous record, extending from the fourteenth century BC until the latest edition of this morning’s Athenian newspaper. But the Greek people existed before that time and they spoke to one another using a form of the Greek language. It is our problem, not theirs, that they are more difficult to trace in the period before they began to write, the period that we refer to as their “prehistory.” That problem extends even to the questions of when the Greeks began to occupy the land around the Aegean Sea and where they lived before that. Many scholars are now convinced that the Greeks first migrated into the Aegean region at some time shortly before 2000 BC and that they came there from the area of the steppes to the north of the Black Sea. Interestingly, while the evidence for the date is largely of an archaeological nature, the evidence for the place is primarily linguistic.

Greek is a member of the Indo-European family of languages, a family that comprises a number of languages spoken by peoples who have inhabited Europe and Asia. The Celtic, Germanic, Baltic, and Slavic languages are examples of European



**Timeline 2** The Bronze Age.

Indo-European		Non-Indo-European	
Greek	NYX	Arabic	LEL
Danish	NAT	Basque	GAU
German	NACHT	Chinese	HĒIYĒ
Hittite	NEKUZ	Finnish	YÖ
Latin	NOX	Hungarian	ÉJ
Lithuanian	NAKTIS	Indonesian	MALAM
Old Norse	NÖTT	Shoshoni	DUGAANI
Polish	NOC	Swahili	USIKU
Sanskrit	NAKTAM	Turkish	GECE
Spanish	NOCHE	Xhosa	UBUSUKU
Welsh	NOS		

**Figure 3** The word for “night” in some Indo-European and non-Indo-European languages.

branches of the Indo-European family, while Sanskrit, Persian, and Hittite are Indo-European languages spoken in Asia. (When we speak of a “family” of languages we are using the word in the sense of a group of languages that are descended from a common ancestor, which in this case is a language that is no longer spoken but which can be hypothetically reconstructed on the basis of its descendants’ common features; see figure 3.) There is evidence of considerable movement of peoples who spoke Indo-European languages in the period around 2000 BC, and it is widely believed that it was in connection with this movement that Greek-speakers migrated into mainland Greece at roughly this time. Archaeological evidence exists that seems to be consistent with the appearance in Greece of a new group, or of new groups, of people in the centuries just before about 2000 BC, but the evidence is difficult to interpret and not all scholars are convinced that it necessarily points to a large-scale movement of people. The character of the artifacts that archaeologists have uncovered in mainland Greece from this period exhibits significant differences from the immediately preceding period, and several sites on the mainland have revealed evidence of destruction at this time. But the destruction is not universal, nor does it follow a neat pattern that might suggest the gradual progress of a new, belligerent population. If this is the period in which the Greeks first made their home in mainland Greece, it appears that we should think not so much in terms of a hostile invasion as a steady infiltration that resulted, here and there, in localized outbreaks of violence.

Clearly, then, the Aegean region was not unoccupied when the people we know as the Greeks appeared on the scene. Whom did the Greeks encounter when they arrived and what happened to the earlier populations of Greece and the islands when the Greek-speakers entered the region? Unfortunately, because we are dealing with a period from which no written records survive, we are not in a position to know very much about who these people were or how long they had occupied the land that they were now forced to share with the Greek newcomers. For the evidence suggests that they did not simply disappear, their place being taken by a new group

of inhabitants. As we will see, we do have written records for a slightly later period from the large island of Crete, records that show that the non-Greek language of Crete continued in use until around 1500 BC. If the Greeks had driven out the earlier inhabitants or killed them off (for which, in any event, we have no evidence in the archaeological record), the language would have disappeared as well. In fact, communities of people who spoke a non-Greek language are said to have existed on Crete well into the first millennium BC. So it seems inevitable that Greek-speakers and non-Greek-speakers co-existed for an extended period of time. Eventually, the Greek language prevailed over the other language or languages, but recognition of that fact does not help us to know what happened to these non-Greek-speakers. Presumably, they and their descendants learned Greek and became themselves Greek-speakers. Also, presumably, they intermarried with the newly arrived Greek-speakers, so that the later population of Greece was a mixture, with any given individual increasingly likely, in the passage of time, to have among his or her ancestors members of both groups.

The pre-Greek population of the Aegean region included two groups of people who left behind evidence of remarkable cultural achievements. While we cannot be certain of the details regarding the extent and duration of the Greeks' interactions with these people, there can be no doubt that they left an enduring imprint on the later development of Greek culture. These people lived on the islands in and around the Aegean Sea, but their contacts with and influence upon the inhabitants of the Greek mainland are apparent. The first group flourished on the cluster of about two dozen islands east of the Peloponnese known as the Cyclades (map 3). For this reason, and because we do not know what these people called themselves, modern scholars have given the name "Cycladic" to this culture. The second group was located on the large island of Crete, but their culture, which we refer to as "Minoan" civilization, eventually imposed itself on much of the southern Aegean basin. Evidence for the existence of both these peoples was lost for thousands of years, emerging only as a result of archaeological exploration in the late nineteenth and early twentieth centuries.

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## Cycladic Civilization

Cycladic civilization arose around 3200 BC; that is, at about the time of the transition from the Neolithic Period (the "New Stone Age") to the Bronze Age. Its most impressive achievements date to the period from approximately 2700 to approximately 2400 BC and represent a stunning advance in terms of their artistic sophistication. The most striking creations that have survived from Cycladic civilization are a large number of marble figures (figure 4). It had been a widespread practice in Neolithic communities, both in Greece and elsewhere, to create representations of nude females in clay or stone, often referred to as "fertility figures" or "mother goddesses." These figures are generally crudely executed, and it is not known for



**Map 3** Bronze Age Greece.

what purpose they were made. Such figures were created by the Neolithic inhabitants of the Cyclades as well. By the middle of the third millennium BC, however, Cycladic culture had evolved, apparently by a process of internal development and not from outside influences, to the point of creating remarkably refined and elegant marble sculptures. The majority of them, like the one illustrated here, represent nude females. The materials used to create these objects were all available in (and presumably all came from) the Cyclades: fine marble for the figures themselves, emery and obsidian for carving and incising, pumice for smoothing by abrasion.

We tend to think of these figures as “works of art,” but the concept of a “work of art” that is created for solely aesthetic enjoyment seems not yet to have existed. These figures were made to serve a particular *function*, but we happen not to know what that function was. Nearly all of the figures that archaeologists have recovered had been buried in tombs along with the remains of the deceased, but this does not mean that the figures were necessarily *created* to serve as burial goods. They may have served some ritual function for some period before they were buried with



**Figure 4** Marble Cycladic sculpture, front and side views; height 39.1 cm, ca. 2400 BC. Athens, Museum of Cycladic and Ancient Greek Art, no. 206; copyright N. P. Goulandris Foundation – Museum of Cycladic Art, Athens.

their owner or with someone else, perhaps someone of particular status. Regardless of the purpose or purposes for which they were made, these Cycladic sculptures are notable in a number of respects. Like the earlier Neolithic sculpture, these figures continue to represent females in the nude, a practice that was generally abandoned elsewhere during the Bronze Age. On the other hand, Cycladic civilization shares a feature that appears elsewhere at this period only in the urban civilizations of Egypt and Mesopotamia, namely the practice of creating large-scale sculpture. Some of the Cycladic works are life-sized or nearly life-sized, yet there is no evidence of contact between the people of the Cyclades and the people of those other civilizations.

The figures are characterized by a strict adherence to a canon of proportions that appears to have been developed locally and without influence from elsewhere. Cycladic sculptors apparently approached the creation of their works by marking off the block of marble with a compass, dividing it into segments according to strict formulas. The most significant feature of Cycladic sculpture is its two-dimensionality: it seems almost to abandon volume in order to concentrate on form and contour as apprehended by the visual sense. This abstract, almost rationalizing, character of Cycladic art sets it apart from the art of other contemporary civilizations. Nor

did Cycladic art exercise an influence beyond a very limited geographical area. We find Cycladic sculptures imported only into the island of Crete and parts of the mainland of Greece.

## Minoan Civilization

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“According to oral tradition Minos is the first person to have established a naval power, and he held sway over much of the Aegean Sea. He controlled the Cyclades Islands and was the first to found colonies on most of them, first driving out the Carians and then appointing his own sons as governors. Naturally, he did his best to eliminate piracy from the Aegean in order to maximize the flow of revenues that came to him.” (Thucydides, *The Peloponnesian War* 1.4)

After about 2000 BC, however, the Cyclades fell under the influence of a civilization that developed on the island of Crete and that came to dominate the Aegean area generally and much of southern mainland Greece. We refer to this new force in the Aegean world as the “Minoan” civilization, although we do not know what the people of this civilization called themselves. The term

“Minoan” is a modern creation used by the archaeologists who first investigated the remains of this culture and wished to give it a name that indicated its distinct character. The name was chosen under the influence of myths that survive from the later, historical period of Greece. These myths tell of a powerful king, Minos, who ruled the prominent city of Cnossus on the north coast of Crete and who exercised considerable naval power in the Aegean. The myths clearly represent Minos as a Greek king, but the civilization of Minoan Crete turns out not, in fact, to have been Greek at all. We can see, then, in the naming of Minoan civilization after King Minos another illustration of the influence of stories on the construction of the past and we may recognize our own willing collusion with the ancient Greeks in the invention of their history.

“And then I saw Minos, the glorious son of Zeus, holding a scepter made of gold and dispensing justice among the dead. While he was seated in majesty they would ask him to render judgment for them, some seated and some standing, there in the house of Hades with its massive gates.” (Homer, *Odyssey* 11.568–71, Odysseus describing his visit to the Underworld)

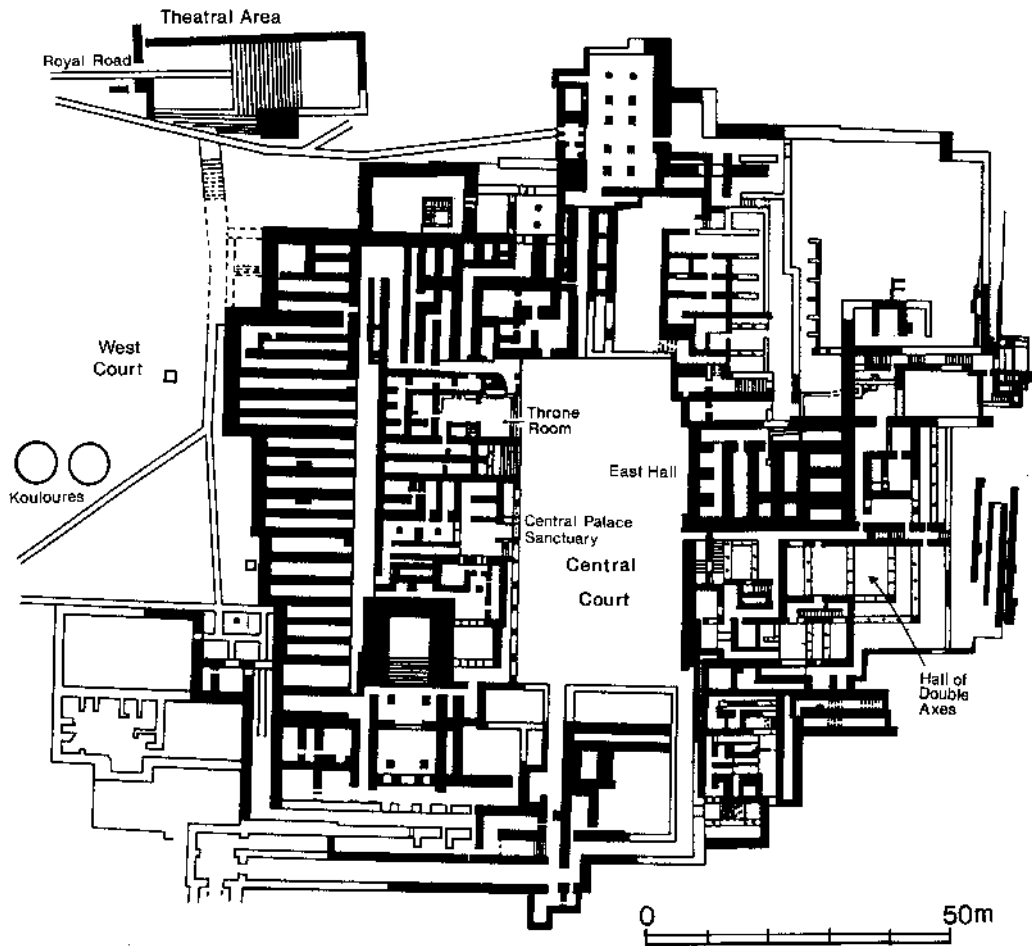
Our knowledge of Minoan civilization dates only from the late nineteenth century, since which time excavations have been carried out at Cnossus and at some other locations on Crete. Those excavations have given us very extensive and detailed evidence of a remarkable culture very different in character from the Cycladic civilization that it overshadowed. The most striking difference

is that, while the people of the Cycladic civilization lived scattered over the surface of the islands in small settlements, Minoan civilization is characterized by the construction of vast, complex structures that archaeologists refer to as “palaces.” These palaces were the focus of large, centralized communities. The island of Crete was divided up into a small number of regions and each of these regions was



administered from the palace and its immediately surrounding community. By 2000 BC these palaces were already extensive and impressive structures, but in the period from about 2000 to about 1500 they were expanded and developed, even being rebuilt on a grander scale following devastating earthquakes that occurred around 1700.

The palace at Cnossus (figure 5) is the largest and most impressive, but it is similar in plan to the other Minoan palaces, with a large rectangular central court surrounded by very many smaller rooms, hallways, stairways, and storage areas. These palaces were built in open areas that allowed them to grow by accretion over time. They were complex, sophisticated structures built on more than one level, with light-wells providing air and illumination to lower levels and with advanced drainage facilities for sanitation. The palaces were the center of what has come to be known as a “redistributive economy,” similar to the palace economies known from contemporary societies in western Asia. The extensive storage areas of the palace



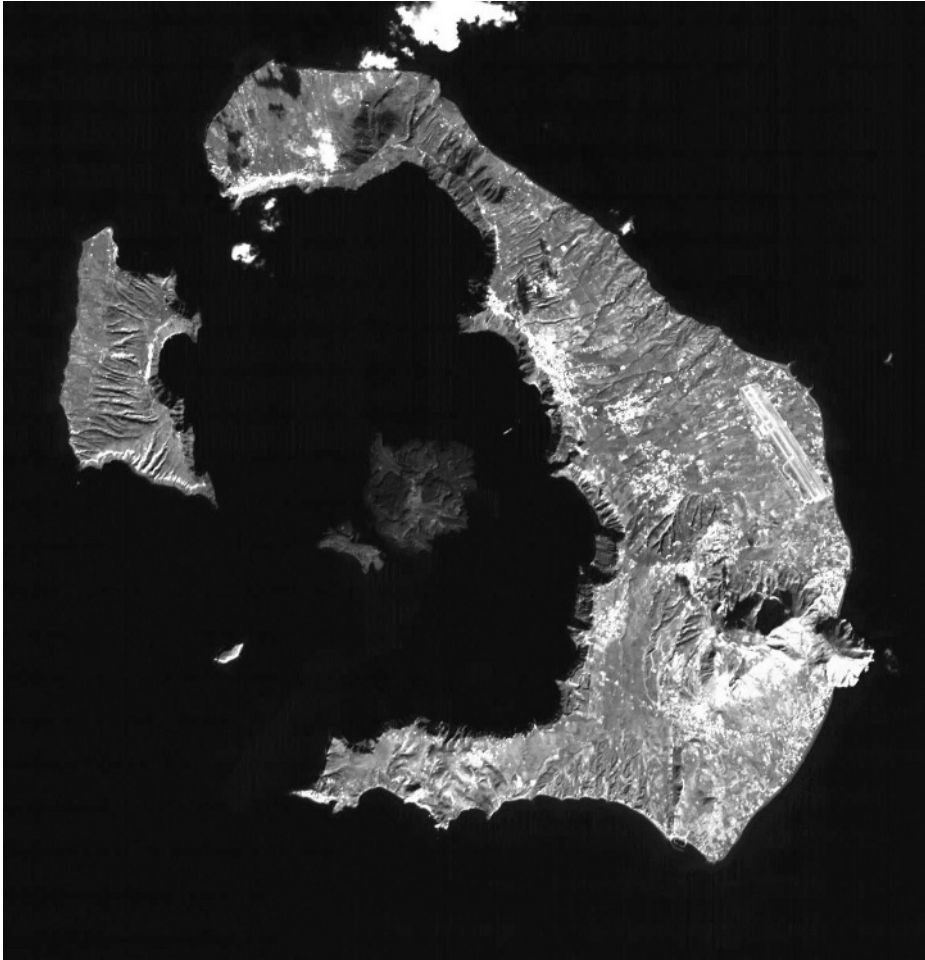
**Figure 5** Plan of the Minoan palace at Cnossus, ca. 1600–1500 BC. Reprinted with the permission of Cambridge University Press from O. Dickinson, *The Aegean Bronze Age* (Cambridge 1994), fig. 5.26.

served as a central location where produce and raw materials, presumably paid to the ruler or rulers in the form of taxes, could be kept, inventoried, and used in the production of manufactured goods. These “taxes” (perhaps “protection money” paid to racketeers is a more appropriate modern analogue) could then be redistributed to the populace at the will of the ruler(s) or used as a medium of trade both within and outside Crete. And indeed there is evidence of lively economic activity between Minoan Crete and the Aegean islands, mainland Greece, Egypt, and western Asia.

The level of administration required to maintain an economy of this nature and to monitor inventory on hand may have provided the incentive behind the development of a system of writing, which is found in Europe for the first time during the Minoan Period. While the idea of using graphic symbols to represent spoken language seems to have been taken over by the people of Minoan Crete from elsewhere, the specific form of the script that developed on Crete, apparently in the eighteenth century BC, has no known connection with other ancient systems of writing. The Minoan script, which archaeologists refer to as “Linear A,” came to be widely used in Crete, particularly in the eastern half of the island, and in some Aegean islands. It is found engraved on gemstones, which were used as seals, and written on tablets of moist clay, which were used as records of inventory. Both engraved seal stones and inscribed clay tablets are also found in earlier and contemporary Near Eastern civilizations, and it is presumably from them that the Minoans adopted this practice.

The appearance of Minoan writing elsewhere in the Aegean is one of several indications of the expansion of Minoan civilization beyond the island of Crete. On the Cycladic island of Thera, for example, archaeologists are discovering extensive evidence of Minoan cultural influence, both in the form of goods imported from Crete and goods created locally that imitate, sometimes quite closely, Minoan artistic style. As it happens, we are unusually well informed regarding the material culture of Minoan Thera. Today known as Santorini, the island of Thera is in fact the top of a volcano, which erupted with such violence that scientists have been able to detect evidence of volcanic ash from the eruption as far away as Greenland (figure 6). Through a combination of ice-core analysis, radiocarbon dating, and examination of tree-ring sequences, it has been possible to assign a date to the eruption of Santorini with some confidence to within a few years of 1625 BC. Fortunately for the inhabitants, there was apparently enough warning of the eruption that they were able to escape the island, taking with them (unfortunately for us) many of their valuable and portable belongings. Still, the excavations that have been carried out on Thera since the 1960s, along with those on Crete and elsewhere, have sufficed to reveal the existence of a vibrant and animated civilization characterized by an exuberant artistic temperament that presents a marked contrast to the restrained elegance of Cycladic art (see **FRESCO** in figure 7). It is perhaps not too fanciful to view the remainder of the long tradition of Greek self-expression in the visual arts as an attempt to balance these two conflicting and complementary tendencies.

**FRESCO** Painting in watercolor on a wall or ceiling whose mortar or plaster is still fresh and moist, so that the colors sink in and become more durable (figures 7 and 74).



**Figure 6** ASTER image of Santorini (Thera) taken on November 21, 2000 from NASA's Terra spacecraft. Image courtesy NASA and The Visible Earth (<http://visibleearth.nasa.gov>).

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## The Greeks Speak Up

Historians refer to the period that immediately succeeded the Minoan as the “Mycenaean Period” or the period in which “Mycenaean” civilization was dominant in mainland Greece and the Aegean. We saw above that the term “Minoan civilization” is a modern confection created with ingredients deriving from ancient Greek myth. The same is true of the name of Mycenaean

“And Agamemnon placed his helmet upon his head, a helmet made of four sheets of metal, with two horns and a horse-hair crest that nodded menacingly over all. He took up a pair of sturdy spears fitted with sharp points of bronze, and the gleam of the bronze shone forth from him into the far-off heavens. And about him Athena and Hera made the thunder ring out, paying tribute to the lord of Mycenae, rich in gold.” (Homer, *Iliad* 11.41–6)



**Figure 7** Detail of fresco from Akrotiri, Thera (Santorini); height of figure 78.4 cm, ca. 1700 BC. Photograph by Jürgen Liepe, reproduced by courtesy of The Thera Foundation from Ch. Doulas, *The Wall Paintings of Thera*, Idryma Theras-Petros M. Nomikos (Athens 1992), p. 154, no. 118.

civilization, which is derived from the name of the city of Mycenae. Archaeological excavation at the site of Mycenae, on mainland Greece, has revealed that it possessed considerable wealth and power in the period beginning in about 1700 BC. But the same can be said of some other mainland Greek cities at this time. The reason Mycenae has been singled out to provide a name for this period of prosperity is that Agamemnon, the mythical king of Mycenae, was supposed to have been the leader of the Greek forces in the Trojan War. According to the poet Homer, Mycenae sent a larger contingent of troops to fight at Troy than any other Greek city. Accordingly, we now refer to this earliest period of Greek civilization as “Mycenaean.”

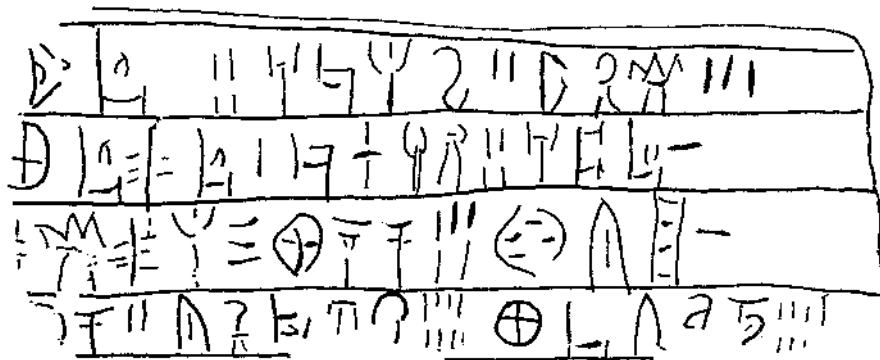
It is legitimate to refer to this as a period of *Greek* civilization because, as we will see, the people who lived in Mycenae and other cities of mainland Greece at this time were indeed Greek-speakers. Mycenaean civilization, then, was the earliest expres-

sion of Greek culture for which we have any evidence, and it was located primarily in the settlements of mainland Greece, in contrast to the Cycladic and Minoan civilizations, which were non-Greek or pre-Greek civilizations of the Aegean islands. No written records remain from Cycladic civilization, but the people of Minoan Crete used the form of writing known as Linear A. The Linear A tablets record the language of administration in Minoan Crete, and that language was apparently not Greek. There is evidence, however, that by the fourteenth century BC the language of administration at Knossos either had become or was well on the way to becoming Greek. It is possible to account for this change in a number of different ways, but the most attractive explanation is that control of the palace at Knossos (and of the palaces elsewhere on Crete) had begun to pass into the hands of a different group of people, people from the mainland who spoke Greek.

Along with the Linear A tablets, archaeologists also uncovered over five thousand tablets written in a script that is later than and different from Linear A. This script, called “Linear B,” is clearly derived from Linear A and is, therefore, its lineal descendant, so to speak. Tablets in the Linear B script have been found on Crete and in a few locations on the mainland, dating from the end of the fourteenth to the beginning of the twelfth century BC. While the Linear A tablets record a language that is almost certainly not Greek, the Linear B tablets represent the earliest evidence in written form of the Greek language. We know this as a result of a brilliant feat of decipherment by the British architect and amateur linguist Michael Ventris. In 1952, the 30-year-old Ventris showed that the Linear B tablets are a record of an early form of Greek. Linear B is a syllabary, a system of writing in which each symbol represents a syllable, like *do re mi*. Some languages, like modern Japanese, are well suited to representation by a syllabary; some, like English, are not. So, for example, the Japanese syllabary requires three symbols to represent the monosyllabic English word “golf”: *go-ru-fu*. Greek is like English in this regard, and the Linear B script rather awkwardly represents the Greek language. This is understandable since Linear B is derived from Linear A, which was designed to represent a language unrelated to Greek. We can see this in the Linear B tablet shown in figure 8, which gives an inventory of vessels and other household items of various sorts. The first word in line 2, for example, is a form of the Greek word **KRATER**, a “mixing bowl” (the origin of the English word “crater”), in the Linear B script, here represented by the four syllabic signs having the value *ka-ra-te-ra*. Line 4 records the fact that eight **TRIPODS** are on hand, giving a form of the Greek word *tripodiskos* as *ti-ri-po-di-ko*. (Words printed in small capitals, like **KRATER** and **TRIPOD** above, can be found in the Glossary at the back of this book.) It should be noted that all forms of writing are merely approximations of a spoken language. We will see later that the Greeks eventually came to use a more satisfactory system of writing than Linear B, but the system they came to use was not (and is not) identical with the Roman alphabet used in this book. For this reason, Greek words and Greek names will appear in this book according to a conventional, but by no means universal, system of transliteration. So, for example, the names that have appeared above in the forms “Knossos,” “Menelaus,” and “Athena” may be found in other books

**KRATER** A large, deep bowl for mixing wine with water (figure 52).

**TRIPOD** A pot or cauldron resting on three legs, often presented as a prize or as a votive offering (figure 18).



**Figure 8** Linear B tablet Ue 611 from Mycenae, ca. 1200 bc. The four lines of text read (from left to right):

ku-pe-ra 4 a-po-re-we 2 pe-ri-ke 3  
 ka-ra-te-ra 1 po-ro-ko-wo 4 a-ta-ra 10  
 pa-ke-te-re 30 ka-na-to 5 qe-ti-ja 10  
 qe-to 2 ti-ri-po-di-ko 8 ka-ra-ti-ri-jo 7

Drawing reproduced with the permission of the Istituto di studi sulle Civiltà dell'Egeo e del Vicino Oriente (CNR) from A. Sacconi, *Corpus delle iscrizioni in lineare B di Micene*, Incunabula Graeca 58 (Rome 1974), p. 60.

written in English according to a different (and perfectly acceptable) system as “Knossos,” “Menelaos,” and “Athene.”

## The Emergence of Mycenaean Civilization

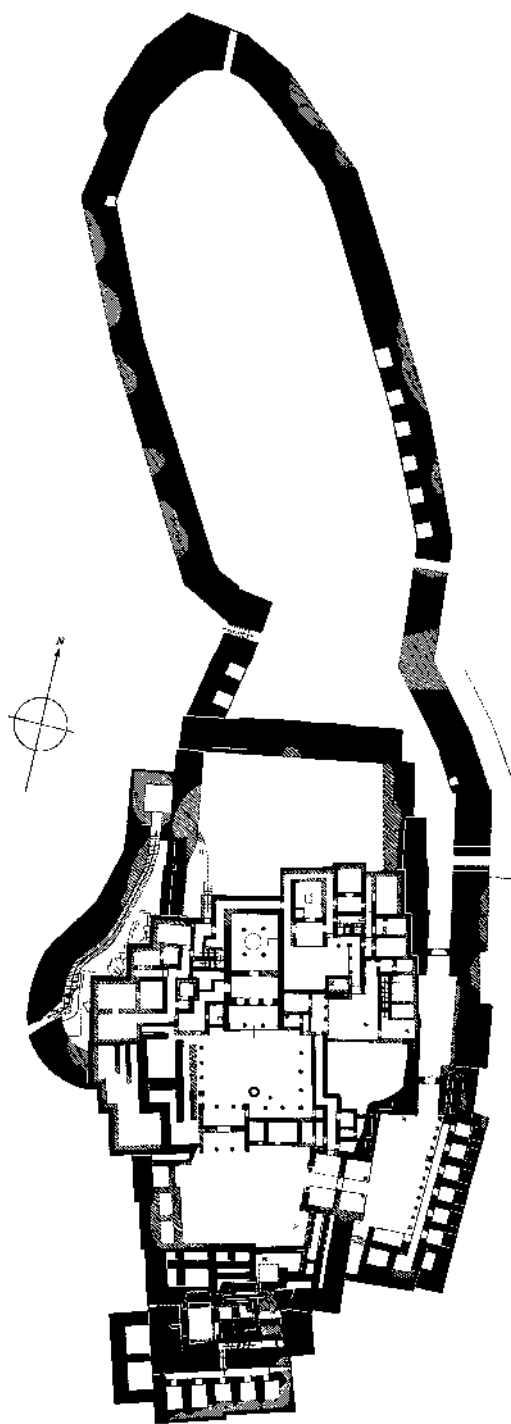
Mycenaean civilization developed within the context of, and shows the pervasive influence of, the Minoan civilization that it supplanted. Still, there are prominent differences in the character of the two civilizations. The point of transition, however, between the two periods is not at all well defined. It seems that the replacement of Minoan culture by Mycenaean was the result of a gradual transformation rather than a sudden overthrow. That is not to say that the transition was peaceful and without incident. In fact, there is evidence in the archaeological record of varying degrees of destruction among the Minoan palaces of Crete in the years around 1500 bc. Mycenaean control of locations on the mainland began before that time, and we may date the Mycenaean Period as beginning around 1650 bc and lasting until roughly 1200 bc.

The Minoan civilization that the Greek-speaking newcomers encountered was well organized and relatively prosperous. The large palaces on Crete represented the centers of administration, trade, and perhaps religious activity as well. This

manner of centralized authority, located in a substantial palace, was adopted by the Greek-speaking Mycenaeans, although there were some very important differences. While Minoan palaces were unfortified and were built in an open area that allowed for expansion, the mainland palaces constructed by Mycenaean Greeks were heavily fortified and occupied high ground overlooking a plain. Most impressive is the palace at Tiryns, which occupies the crest of a low outcropping of rock in the middle of a plain. The fortifications, made of massive blocks of stone, are in some places as much as eight meters in thickness (figure 9). This kind of fortified palace was common on the mainland, at places like Mycenae and Argos, located near Tiryns in the Peloponnese, and Athens and Thebes, located to the north. The heavy fortification of the palaces has given rise to much speculation regarding the identity of the enemy against whom these walls were intended to protect the inhabitants. It is usually assumed either that the Mycenaean cities were constantly at war with one another or that they were fearful of invasion by outsiders. There is, however, yet another possibility, namely that these massive fortifications were constructed for display, as a conspicuous assertion of power, rather than for any practical strategic purposes. This may seem implausible, but the construction of such fortifications would seem to require a protracted period of freedom from outside interference. The Cold War of the late twentieth century illustrates the fact that nations can persuade themselves to expend vast resources on “defense” even in the absence of any verifiable threat of attack from outside.

The suggestion that Mycenaean fortifications were intended as much for show as for protection may be incorrect (and may be contradicted by considerations to be presented below), but the Mycenaean Greeks’ fondness for impressive display is paralleled by another aspect of their culture, one which again serves to distinguish them from their Minoan predecessors. The people of Crete, during the Minoan Period and even during the Mycenaean Period, buried their dead in rather undistinguished communal graves. These graves took a variety of forms, but the deceased were generally buried in simple fashion, sometimes in a container and sometimes just laid on the floor of the tomb, with few grave goods or, in many instances, with none at all. The contrast presented by Mycenaean burial practice is great, and begins quite early in the Mycenaean Period. Dating to the period between about 1650 and 1600 BC are two circular burial plots at Mycenae. One, which was excavated in the 1950s, contains 24 graves, while the other contains only six graves, but the spectacularly lavish manner in which the deceased, undoubtedly members of the Mycenaean royal family, were buried made this the richest find of grave goods in the Greek world.

This burial plot, known as “Grave Circle A,” was discovered in 1876 by the pioneering figure in the archaeology of prehistoric Greece, Heinrich Schliemann. In fact, the site of Mycenae was the first in Greece to be subjected to modern archaeological excavation. Schliemann was encouraged to explore the site of Mycenae by his success a few years previously, when he excavated the remains of Troy. He had been impressed by the vividness of Homer’s descriptions of the landscape and topography of Troy, which convinced him that Homer was accurately describing a real location. His conviction seemed to be confirmed when he uncovered the remains



**Figure 9** Plan, drawn by Heinrich Sulze, of the Mycenaean palace at Tiryns, thirteenth century BC. Reproduced from K. Müller, *Tiryns: Die Ergebnisse der Ausgrabungen des Instituts III* (Augsburg 1930), Tafel 4.



of a prosperous prehistoric city. That the city revealed unmistakable evidence of having been overrun by attackers and destroyed by fire at one point in its history proved to Schliemann that Homer's account of events was as reliable as his descriptions of locations. For Schliemann, this was the destruction inflicted on Troy by the victorious Greek forces at the conclusion of the Trojan War, whose historicity could no longer be doubted. Inspired by this apparent confirmation of his faith in Homer's trustworthiness, Schliemann began digging at Mycenae, the home of King Agamemnon, which Homer describes as "rich in gold." What Schliemann discovered in his excavation of Mycenae satisfied both his exalted opinion of Homer's historical accuracy and his craving for valuable treasures. Among the objects unearthed in Grave Circle A was a series of gold death masks, one of which Schliemann proclaimed "the death mask of Agamemnon." As it happens, the burials in Grave Circle A date to a time some hundreds of years before the traditional time of the Trojan War, in which Agamemnon is supposed to have participated.

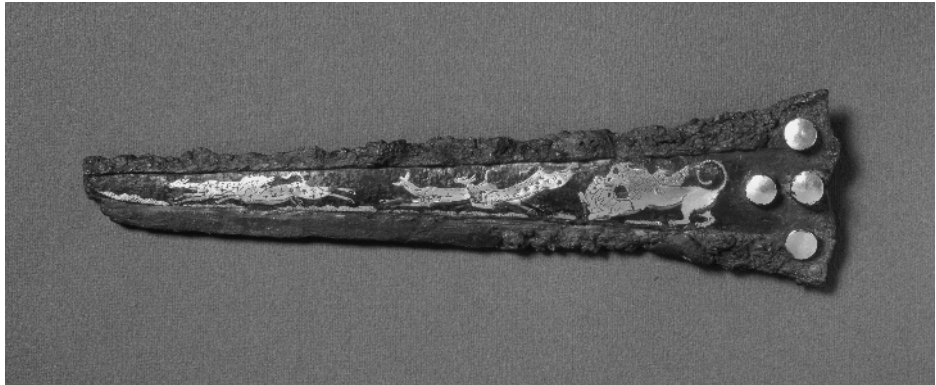
Schliemann's discoveries, therefore, do not provide exactly the sort of confirmation that he had hoped to find (and thought that he *had* found), but they do reveal the considerable power and prosperity that Mycenae and its rulers enjoyed in the middle of the second millennium BC. In addition to the death masks of gold foil that were found placed over the faces of some of the men (but none of the women) buried in the grave circles, other valuable objects in large quantities were placed in the tombs. These objects include elaborately decorated drinking vessels of gold, silver, and bronze, ceramic and stoneware vases, jewelry, and weapons of war. These burial goods are impressive (and were intended to impress) not only by reason of their quantity and their value, but because they represent the extent of these Mycenaean rulers' connections outside mainland Greece. The jewelry in these tombs, for example, includes quantities of amber beads, which can only have found their way to Mycenae as a result of trade with the inhabitants of northern Europe. Some of the stoneware and ceramic vessels are of Cretan origin; others are from the Cyclades. The metalwork is so strongly reminiscent of Minoan craftsmanship that much of it was likely imported from Minoan Crete.

Some of the grave goods – particularly the large number of weapons, elaborately inlaid in gold, silver, and lapis lazuli (see figure 10) – are likely to have been made to order for the Mycenaean rulers by craftsmen brought in from elsewhere, namely from Crete or even

"Two tripod cauldrons with goat decorations, of Cretan workmanship; one single-handled tripod cauldron with one foot; one tripod cauldron of Cretan workmanship with the legs burnt away (useless); three wine jugs; one large four-handled goblet; two large three-handled goblets; one small four-handled goblet; one small three-handled goblet; one small goblet without a handle." (Linear B tablet Ta 641 from Pylos)

"When Menelaus, the war-god's devotee, noticed him striding out in front of the ranks he felt the kind of elation that a ravenous lion feels when he comes across a hulking carcass, finding the body of a stag with great horns or a wild goat. For even if the swift hounds and the vigorous hunters rush at him he gluts himself all the same. That is how elated Menelaus was when his eyes lit upon godlike Alexander, for he was determined to take vengeance on his wife's abductor." (Homer, *Iliad* 3.21–8)

**Figure 10** Bronze dagger blade with lion hunt inlaid in gold, silver, and niello from Grave Circle A at Mycenae, now in the National Archaeological Museum, Athens; length 22.9 cm, 1650–1600 BC. Nimatallah / Art Resource, NY.



from the Near East. The reason for this assumption – that skilled workers were brought in from outside to create luxury items for the Mycenaean rulers – is that, while the craftsmanship of these items is paralleled elsewhere, the nature of the decoration is often specifically designed for Mycenaean tastes. And those tastes run very largely in the direction of scenes of warfare and hunting (figure 11). This fact, along with the presence of large numbers of weapons in the early Mycenaean burials and the imposing fortifications by which Mycenae, Tiryns, and other mainland cities were protected, gives the strong impression that warfare and wild-beast hunts dominated the life of the Mycenaean Greeks. This impression is further strengthened by the contrast with the apparently peaceable character of Minoan art. For, while scenes of conflict, both human and animal, do appear in the art of the Minoan Period, Minoan art is overwhelmingly concerned to depict what appear to be scenes of religious ritual, lively representations of marine life (figure 12), and athletic activity, including the ubiquitous bull-leaping scenes, with acrobatic young men gracefully somersaulting over the backs of charging bulls.

This contrast between peace-loving Minoans and warlike Mycenaeans appears to be confirmed by the fact that, by the middle of the fifteenth century BC, the Greek-speaking Mycenaeans came to be in control of the Cretan palaces, as is proved by the replacement of Minoan Linear A by Linear B for administrative purposes. The picture that we want to construct from all this evidence is one of violent overthrow of Minoan society by less-civilized invading Greek-speakers, who assumed control of the Cretan palace society and were in turn strongly influenced by the culturally and artistically advanced civilization that they had come to rule. This is a satisfying picture, and is consistent with most of the evidence that we have. It is, therefore, likely to be a reasonably accurate picture.

Yet it is interesting to note (and fruitful to think about) how we form these pictures. As we have seen, the incentive to excavate at sites like Mycenae and Troy was provided by the desire to find tangible evidence that might validate an already existing account, namely the Homeric poems. Since that time, archaeologists have made great advances, not only in the basic techniques of their discipline, such as



**Figure 11**  
Limestone STELE  
(grave marker) from  
Grave Circle A at  
Mycenae, with scene  
of warfare or  
hunting; height  
1.33 m, 1650–  
1600 BC. Athens,  
National  
Archaeological  
Museum, 1428.

developing more sophisticated and accurate methods of dating, but in their conception of the role of the discipline. It is no longer felt, as it was in Schliemann's day, that the archaeologist's agenda is set by the narrative provided by the more well-established literary and historical approaches that dominated the study of ancient Greece in the nineteenth century. Rather, the archaeologist makes use of the available physical evidence to construct an account that is often more detailed and

**STELE** An upright stone slab, often carved in RELIEF and/or painted for use as a grave marker (figure 11).



**Figure 12** Middle Minoan ceramic jar from Phaistos; height 50 cm, seventeenth or eighteenth century BC. Archaeological Museum of Herakleion, Crete, Hellenic Ministry of Culture, IAP service.

complex than the narrative preferred by others. And archaeologists have exercised considerable ingenuity both in interpreting the available evidence and in making new evidence available even in the most unpromising situations. For example, virtually all perishable items have, understandably, perished, so that many of the most commonly used objects of everyday life, like food and fabrics and wooden furniture, have not survived for us to consider. But it is sometimes possible to detect impressions made by fabric on ceramics before they were fired, or the shape of wooden structural elements can sometimes be inferred from the indentations they have left in plastered walls. Even the presence of fruits and other plants can be deduced from the painstaking analysis of the remains of seeds and pollen.

Still, the evidence available to us is necessarily partial, and often it is the specific cultural practices of a particular ancient society that help determine what evidence, and what types of evidence, are likely to survive. Mention was made above of the survival of great quantities of grave goods, particularly metal items, in the grave circles of seventeenth-century Mycenae. One of the reasons these items survived for Schliemann and other, later researchers to find was precisely the fact that they were buried along with the deceased. Metal in the ancient world is of great value, both for its decorative qualities and for its practical usefulness. Objects of metal that were not buried could be used and reused in antiquity. Sometimes this

reuse took the form of melting down an object in order to create a new object of an entirely different nature or of beating swords into plowshares (or vice versa), thus obscuring for us the nature of the original object. Therefore, a culture that, like the Mycenaean, adheres to the practice of placing lavish grave goods in its burials will ensure that those goods survive for archaeologists (or tomb-robbers) to retrieve, while a culture like the Minoan, which engages in more modest burial practices, will allow chance to play a much greater role in determining what is likely to survive.

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## The Character of Mycenaean Civilization

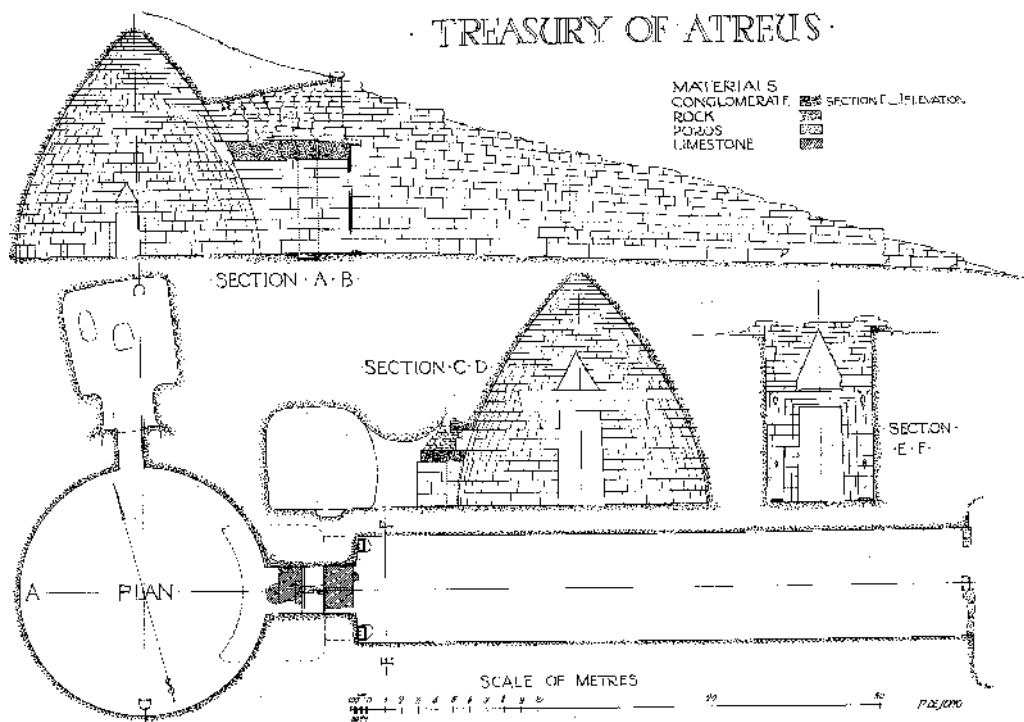
The Mycenaean Greeks were determined to leave little to chance, at least when it came to the burial of their rulers. Toward the end of the sixteenth century BC, the rulers of Mycenae began to be buried in a new style of tomb that allowed them to display their power and influence even more impressively than had been the case with the earlier grave circles. At this time, both at Mycenae and elsewhere in Mycenaean Greece, a tomb shaped like a beehive came to be used. This type of tomb is referred to by archaeologists as a *tholos* tomb, from the Greek word for “dome” or “vault.” Like the grave circles, these *tholos* tombs were intended to serve as repositories for the dead along with exceptionally lavish burial goods. At the same time, the size and appearance of the *tholos* tombs alone were enough to make a statement of overwhelming power and magnificence. Constructed, like the fortification walls of the citadel, of massive blocks of stone, these *tholos* tombs represent the largest space enclosed by a single span before the Pantheon was built by the Romans in the second century after Christ. The largest of the *tholos* tombs, the so-called Treasury of Atreus at Mycenae, dating probably from the thirteenth century BC, is nearly 15 meters in diameter and about the same size in height (figure 13). The tomb had a magnificent façade and was approached by a long and impressive passageway. The entire structure was built into the side of a hill (figure 14), so that the monument to this deceased king of Mycenae gives the impression of being at the same time a part of the natural world and an awesome display of one individual’s authority.

But at whom is this display directed? Who is expected to feel awe at the sight of so impressive a monument? In the case of the massive fortifications of Mycenae and other mainland cities it is easy to imagine that the inhabitants intended to impress outsiders and to discourage, if not actually to thwart, their attempts at attack. Such an explanation is not so readily available in the case of lavish and monumental burials (which, on the contrary, only invite and entice tomb-robbers), and it seems more likely that these splendid tombs were designed to inspire awe among the local inhabitants. One of the features of Mycenaean society, which is most clearly visible in its burial customs, is the competitive, almost obsessive, display of wealth in the form of material goods, especially metal objects. These goods are clearly a mark of status, and even the meanest burials among the Mycenaean Greeks are provided



**Figure 13** Interior of *tholos* tomb at Mycenae, called the “Treasury of Atreus,” thirteenth century BC. Photo: Hirmer Fotoarchiv (Archiv-Nr. 592.0226).

with some grave goods, if only a small ceramic vessel or two. But no one was able to compete with those who were buried in the largest and most magnificent of the *tholos* tombs. That, in fact, would seem to be the point. These tombs, and perhaps the citadel-like palaces as well, are conspicuous markers of social and economic superiority within Mycenaean society. This insistence upon the clear demarcation of levels of status is one of the features that serves to distinguish Mycenaean from Minoan civilization. That is not to say that Minoan society was somehow more egalitarian than Mycenaean, or that material resources were more evenly distributed. In fact, we have very little evidence for the nature of Minoan society. Nevertheless, it is clear from the burial practices of the Mycenaean Greeks that those at the upper levels of Mycenaean society went to extraordinary lengths to distinguish themselves from the rest.



**Figure 14** “Treasury of Atreus,” plan and sections, drawn by Piet de Jong. Reproduced from A. J. B. Wace, *Mycenae: An Archaeological History and Guide* (Princeton 1949), ill. 5.

Thanks to the evidence of the Mycenaean Linear B tablets, we are even in a position to identify some of the terminology used to distinguish various levels of Mycenaean administration. It should be remembered, however, that since the tablets do not provide any kind of narrative, we are very much in the dark as to the details of the relationships among the various holders of these titles. The individual most to be envied, apparently, in the hierarchy of Mycenaean society is the person identified in the tablets from Cnossus and Pylos as *wa-na-ka*, a title corresponding to the word *anax* (originally *wanax*) in Classical Greek. *Anax* is a word meaning “lord,” and is applied in Homer, for example, to kings and gods; it is also a common element used in forming Greek men’s names, like Anaximander and Astyanax. Mycenaean *wa-na-ka* is found in the tablets as a title, without the name of the person to whom the title is applied, and presumably refers to the king. There is one king at Pylos and one king at Cnossus, and each of the Mycenaean palaces appears to have been ruled by its own king. Another title that is attested in the Linear B tablets, in this case at Thebes as well as at Pylos and Cnossus, is *qa-si-re-u*, which corresponds to later Greek

“Amphiphoetes: female slaves 32; older girls 5; younger girls 15; younger boys 4.” (Linear B tablet Ak 824 from Cnossus)

**BASILEUS** (PLURAL **BASILEIS**) Originally the Mycenaean title referring to a man who held a position in the palace under the king, perhaps meaning something like “count” or “duke,” a meaning that continued into the time of Homer and Hesiod; later used to refer to a foreign monarch, a Spartan king, or a Greek TYRANT.

**BASILEUS.** Those designated as *qa-si-re-u* are named, and there is more than one such person in each location. This implies that they are of lesser status than the *wa-na-ka*, and this is confirmed by the number of material goods that the tablets record for them. Other titles or designations appear in the tablets, including those of the lowest status, namely those designated *do-e-ro* or, in the feminine form, *do-e-ra*, “slave.” These slaves (the later Greek word is *doulos*, feminine *doule*) are sometimes the personal property of other members of the Mycenaean society and sometimes the property of one or another of the Mycenaean deities, whose names also are recorded in the Linear B tablets. Among the gods and goddesses whose names appear on the tablets are some of those whom we have already met in connection with the judgment of Paris, namely Athena, Hera, Hermes, and Zeus (but not Aphrodite).

What we see, then, in the civilization of Mycenaean Greece is a culture that shares a number of features (social, linguistic, and religious) with that of Classical Greece but which is also heavily influenced by the non-Greek civilization of Minoan Crete. Mycenaean Greeks moved into an area that already had a flourishing and advanced culture. They absorbed that culture and, eventually, superseded it. Power in Minoan Greece had been concentrated on the island of Crete, but as Mycenaean influence increased, the focus of power and wealth gradually shifted to the cities of the mainland. In the area of the visual arts it is very clear that the Mycenaean were the borrowers, and the story of Mycenaean art is one of gradual but fairly steady decline, from a high point that was reached quite early, under Minoan influence. The one exception to that picture of steady decline is in the area of architecture, in which Mycenaean civilization developed quite independently of Minoan and, as we have seen, in the direction of monumental construction. The powerful fortresses of the Mycenaean kings were products of the remarkable increase in prosperity that characterized mainland Greece during the Mycenaean Period. This increase in prosperity was accompanied by substantial population growth, and Greece in the thirteenth century seems to have been more heavily populated than at any previous time. But, for reasons that are not at all clear, with the beginning of the twelfth century a period of decline in both population and prosperity sets in that is so severe that historians generally refer to the period that begins around 1200 BC as the “Dark Age.”

## The End of Mycenaean Civilization

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It is reasonable to consider the time around 1200 BC as the end of the Mycenaean Period, but there is no way of knowing why the Mycenaean civilization came to an end. There is evidence of physical destruction and fire at many of the centers of Mycenaean life at about this time, including Mycenae, Tiryns, and Pylos. Archaeologists have also found evidence that the inhabitants of Mycenae, Tiryns, and Athens were engaged in strengthening their fortifications and improving the



means of supplying their citadels with fresh water, as though they were expecting an invasion and were preparing for a siege. And the Linear B tablets from Pylos (which survive because they were baked in the fire that destroyed the palace) talk about “the watchers guarding the coast” and appear to name locations on the coast at which guards are to be posted. The widespread instances of destruction, then, seem to have been foreseen. But who were the invaders? Were they non-Greeks or were they Greeks from other Mycenaean cities? Or were they, indeed, *non-Mycenaean* Greeks, that is, a new group of Greek-speaking people who were entering Greece for the first time? We simply do not know the answer to these questions. We do know, however, that some of the Mycenaean palaces were immediately reoccupied after the destruction and some rebuilding was undertaken, although the level of activity and prosperity was very much lower than before. Some of the palaces, like that at Pylos, were not rebuilt at all.

Still, historians are fascinated with the question of why civilizations decline and, as in the case of the decline of the Roman Empire and the setting of the sun on the British Empire, a large number of theories has been developed to account for the darkness that fell upon the Mycenaean Greeks. These theories are based variously on social, technological, economic, and climatological causes. It is becoming increasingly clear that no one

“There was a time when countless tribes of mortals oppressed the lands with their weight, as they wandered over the broad surface of the earth. When Zeus noticed this he took pity and within his intricate mind he devised a means of unburdening the earth that nourishes all. He stirred up the great conflict of the Trojan War in order to reduce the mass of mankind and in Troy the great heroes perished, fulfilling the plan of Zeus.” (Stasinus (?), *Cypria*, fragment 1)

factor can be singled out as being “the cause” of the end of Mycenaean civilization. Almost certainly, it was a combination of factors that brought Mycenaean society to an end, as it was a combination of factors that caused Mycenaean civilization to come into existence in the first place. A single, identifiable cause of an event is acceptable in a fictional narrative – the Trojan War, for example, could be attributed to the abduction of Helen by Paris or to an even more outlandish cause – but historical occurrences are the result of more complex circumstances. Whatever the causes of the decline of Mycenaean civilization, other civilizations as well in the Mediterranean region suffered a similar fate at about the same time. The Hittite Empire, which controlled much of Asia Minor and had diplomatic relations with the kings of Troy, was invaded and its central power destroyed shortly after 1200 BC, just at the time when records of the Egyptian New Kingdom speak of threatening inroads by the otherwise unidentified “sea peoples,” whose attacks coincided with an irreversible decline in the prestige and power of the Egyptian kingdom.

It is possible that the Mycenaean Greeks were among these “sea peoples.” In any event, the character of Greek civilization was transformed in the period following the start of the twelfth century BC. It does not appear that Mycenaean Greece was invaded by people who introduced a new culture; rather, we find a continuation of Mycenaean cultural forms, but in a greatly attenuated state. For example, the

“If some enemy arises for you, I will not abandon you, just as I have not now abandoned you, and I will kill the enemy on your behalf. If your brother or someone of your family withdraws political support from you, Alaksandu . . . and they seek the kingship of the land of Wilusa, I, my Majesty, will certainly not depose you.” (Treaty between the Hittite King Muwatalli II and Alaksandu of Wilusa [= Alexander of Ilios, or Troy], ca. 1280 BC)

Mycenaean Periods the very frequent contact among various areas of Greece and the Aegean meant that there was relatively little stylistic variation between one area and another; in the following period, however, there is an increasing tendency toward the development of isolated regional styles. This would seem to indicate a severe reduction in the frequency of trade and commerce between parts of the Greek world, and the reduction in the amount of imported bronze and other metals found by archaeologists suggests a decline in trade with the wider world. Since trade in those metals had been in the hands of the Mycenaean rulers, it appears that the central administration of the palaces was now lacking. There was no longer a driving force behind the construction of palaces or of any buildings on a large scale. The practice of ostentatiously burying warriors with their weapons and armor is not attested during the hundred and fifty years following 1200 BC.

“And after they had satisfied their desire for food and drink Telemachus spoke to the son of Nestor, holding his head close to his so that the others could not hear: ‘Look, son of Nestor, delight of my heart! Look at the glitter of bronze throughout the spacious halls, and of gold and electrum and silver and ivory! This, I suppose, is what the court of Olympian Zeus must be like on the inside, so unspeakably great is the luxury of it all. I am struck with awe as I look upon it.’” (Homer, *Odyssey* 4.68–75, on the palace of Menelaus at Sparta)

tradition of decorating ceramic vessels with human and animal figures, and of creating figurines in human and animal form, virtually disappears from the Greek world after about 1200 BC. An exception to this is the island of Crete, where human figurines continue to be made, but this very isolation of Crete is also characteristic of the period in question. During the Minoan and

Even the knowledge of writing disappears after the collapse of Mycenaean society: the Linear B tablets cease being produced and, from the beginning of the twelfth century until the early eighth century BC, there is no evidence at all of literacy in Greece and the Aegean. When literacy resumes in the eighth century, the form of writing employed is based upon foreign models and owes nothing to Mycenaean script. It should not be thought, however, that this loss of the ability to write was

responsible for the substantial discontinuity between the Mycenaean Period and the period that follows the “Dark Age.” The discontinuity was brought about by the disappearance of institutions and by the break in certain technological and conceptual traditions. Other traditions, the narrative and musical traditions of story and song, which had never depended upon writing for their perpetuation, certainly did persevere. We know this because of the large body of legends and myths, preserved in the Archaic and Classical Periods, that represented the distant past as a glorious Golden Age, an age of heroes and warriors securely located precisely in those Mycenaean palaces that recent archaeological discoveries have revealed to be

every bit as powerful and prosperous as the myths and legends suggest. Of course, the impressive remains of the Mycenaean citadels at Mycenae, Tiryns, and other locations continued to be visible, and the later Greeks referred to their massive fortifications as “Cyclopean,” as though they must have been constructed by a race of giant Cyclopes. It would have been easy for legends to spring up regarding the ancient inhabitants of these abandoned landmarks, but legends also persisted concerning the might and wealth of Pylos, Sparta, and other Mycenaean sites of which no Cyclopean remains were visible. The focus of many of these legends was a mighty conflict, the Trojan War, in which forces from Mycenae, Pylos, Cnossus, and many other Mycenaean Greek cities banded together to attack and ultimately destroy the non-Mycenaean city of Troy. Excavations at the site of the city that Schliemann and others have identified as the city of Troy have indeed revealed evidence of widespread destruction there, like that which afflicted the Mycenaean cities themselves, in the period around 1200 bc. Whatever the connections between the later legends and the reality, these legends constructed the past against which all later Greek culture defined itself. In other words, the Greeks’ stories about the Mycenaean Period became what the later Greeks regarded as their history.

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### Recommended for Further Reading

Chadwick, J. *The Decipherment of Linear B*, 2nd edition (Cambridge 1967): the fascinating story of the decipherment, told by Ventris’s friend and collaborator.

Dickinson, O. *The Aegean Bronze Age* (Cambridge 1994): a balanced and scholarly introduction to the archaeology of Bronze Age Greece, organized by topics (arts and crafts, burial customs, trade, etc.).

Drews, R. *The End of the Bronze Age: Changes in Warfare and the Catastrophe ca. 1200 BC* (Princeton 1993): a survey of the various theories concerning the end of Bronze Age civilization, with a new (military) explanation.

Fitton, J. L. *The Discovery of the Greek Bronze Age* (Cambridge, MA 1996): the story of the recovery of the Bronze Age civilizations of Greece (Cycladic, Minoan, and Mycenaean) by archaeologists over the past 125 years.

Higgins, R. *Minoan and Mycenaean Art*, new revised edition (London 1997): a well-illustrated survey of Minoan, Mycenaean, and Cycladic art.

Latacz, J. *Troy and Homer: Towards a Solution of an Old Mystery* (Oxford 2004): a masterful survey of the archaeological and linguistic evidence from Greece and the Near East in the Mycenaean Period, presenting a compelling case for the historical reality of the Trojan War.

Renfrew, C. *The Cycladic Spirit: Masterpieces from the Nicholas P. Goulandris Collection* (New York 1991): a brilliant essay on the nature of Cycladic art, stunningly illustrated.

Taylour, Lord William. *The Mycenaeans*, revised edition (New York 1983): a clear introduction to Mycenaean civilization, part of the series “Ancient Peoples and Places,” written by the former director of the British School’s excavations at Mycenae.

Willetts, R. F. *The Civilization of Ancient Crete* (Berkeley and Los Angeles 1977): a history of Crete from the Minoan Period to the beginning of the Classical Age, with an especially good account of the Minoan palace economy.