

VER SINCE HEINRICH SCHLIEMANN began digging at the ancient Greek site of Mycenae in 1876, generations of archaeologists have worked to uncover the spectacular remains of a Bronze Age superpower that gave its name to a whole civilization. The "Mycenaeans" were not a single people, but disparate groups united by a shared culture that stretched all over Greece and dominated the Aegean in the Late Bronze Age, from about 1600 to 1100 B.C. This was the world of the Trojan War; scholars believe Homer's *Iliad* describes actual events involving Mycenaean city-states around 1200 B.C. For many ancient writers and some modern excavators, Homer's kings and warriors were based on historical figures who set out for Troy from the citadels that still bear their ancient names—Pylos, Tiryns, Argos, Thebes, and chief among them, Mycenae. Not surprisingly, archaeologists have focused their efforts on uncovering evidence of the elite society ruled by kings, including Agamemnon at Mycenae and Nestor at Pylos.

But one energetic young scholar is turning away from the kings and focusing on the regular people of ancient Mycenae. Despite more than a century of excavation at the Mycenaean palace sites, no one has ever excavated a Mycenaean town. Christofilis Maggidis and his team are determined to change that. If he succeeds, questions about

Search for the Mycenaeans

Closing in on the people and towns of Homer's Greece

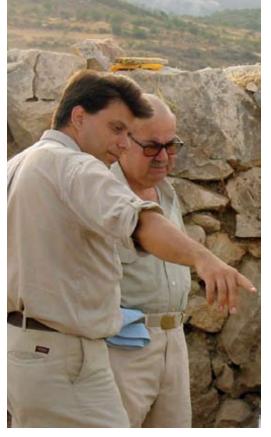
by Jarrett A. Lobell

Mycenae and other palace sites thought to be similar in sociopolitical organization, can be addressed for the first time. How did trade function outside the strict commercial system regulated by the palace? What was day-to-day social and economic life like? What kind of houses did the Mycenaeans live in and what did they eat?

We know that the Mycenaean elite flourished thanks to their control of rich farmland and ample food supplies, which were protected by rugged mountain ranges. At sites across Greece, excavators have found massive fortification walls built high on citadels surrounding impressive palaces. These royal residences are filled with elaborately decorated rooms featuring brightly colored frescoes fit for royal banquets and receptions. Huge storerooms also found on the citadels speak to the abundance of goods needed for an opulent royal household. At some Mycenaean sites, archaeologists have found rooms crammed with fragments of tablets that record a well-organized and extensive economy controlled by the palaces (see Linear B sidebar). And at many sites, rock-cut chamber tombs and stone-built *tholos* (beehive-shaped) tombs containing stunning gold masks, bronze weapons and armor, and imported gems and pottery create a picture of an impressive elite society. But a civilization like this, which controlled

View of the Chavos Valley from the citadel of Mycenae. In the foreground are houses of the Bronze Age settlement and the Cyclopean wall, in the background the excavation of the south sector of the Lower Town and the Argive Plain. large areas of land, waged long and costly wars, created both land and sea transport systems to support long-distance trade, and amassed great quantities of luxury goods, could not do with only kings and warriors. Maggidis, director of the Dickinson College Excavation Project and Survey in Mycenae, thinks he knows where the rest of the people, until now absent from the archaeological record, might be.

T 6:00 IN THE MORNING, sleepy students and supervisors set out from the Hotel Klytemnestra in the modern village of Mycenae, one mile from the ancient site. A hot wind barely moves the burnt air, and smoke and haze from the fires that raged all over southern Greece this past summer hang on the horizon. Later in the summer fires would flare up again, causing more than \$1.7 billion in damage, claiming 69 lives, and destroying more than 500,000 acres of some of the last forests in Greece. But for now the fires are under control as the team reaches the site, turning off the steep and winding road that leads up to the famous citadel whose enormous walls glow gold with the rising sun. Down in the Chavos Valley, 45 feet below the citadel, walls are just beginning to emerge from the pale, crumbly ground. Five neat, square trenches are covered by dark green canvas tents that protect excavators from searing



Above: Christofilis Maggidis, Field Director of the Lower Town excavation, and Spyros lakovides, Director of Mycenae discuss the plans for future work on the site. Below: The Lower Town excavations with the imposing citadel 45 feet above the plain. In the distance is Mount XXX, a natural protector for the Mycenaean settlement. late-summer temperatures. After a few minutes Maggidis arrives on site, having raced across the fields surrounding it in his gold Jeep Cherokee. His well-organized team, already hard at work, look up and smile.

With barely a minute gone by, Maggidis exclaims, "I think this is the greatest opportunity of the last 150 years of excavations! We know a lot about Mycenaean palaces and also about isolated houses, farmsteads, and small villages, but we need to find these towns and the people who actually paid tribute and taxes. We have found all these [Mycenaean] cemeteries full of dead people. But where did they live?" The 40-year-old Maggidis began working at Mycenae six years ago with his mentor Spyros Iakovides, director of the site since the 1980s. But even when he was working up on the citadel, he always had his mind on the valley below, what he confidently calls the Lower Town. "Ever since Iakovides told me to walk all around Mycenae for two solid weeks in 1993, to get to know every stone, every rise in the land, to take in the view from high on the sur-



The Citadel Digging in the forgotten corners of a legendary palace

N 2008, Christofilis MAGGIDIS and his team will return to the citadel of Mycenae, where they dug for six years while survey work was being done in preparation for excavations in the valley. After more than 130 years of excavation, archaeologists have uncovered almost 70 percent of the Mycenaean palace and its associated walls, gates, storerooms, workshops, shrines, graves, and residences within the fortification walls. This has helped create a rich picture of Mycenaean palace culture backed up with very precise dating chronologies continually refined by excavations like this one.

But parts of the citadel were never excavated and Maggidis will concentrate his work on one such spot, the citadel's northwestern section. One of the most interesting buildings in this area, tentatively named Building K, was a late Mycenaean (1240–1200 B.c.) storeroom built somewhat careless-

ly using old materials. At this time the palace was badly in need of storage space to replace rooms damaged by an earthquake around 1240 B.C. In 1200, Building K was completely destroyed by another earthquake, whose seismic imprint can be seen in a wall bent and curved by the force, and by a subsequent fire attested by a thick ash layer. The variety of finds in the destruction fill layer and embedded in the clay floor of the building at the time of the fire speak to the richness of Mycenaean palace culture—burnt wooden beams; shattered pottery and stone vases; fresco fragments with blue, red, and yellow color bands and geometric patterns; figurines; obsidian blades, flakes, and cores; traces of colored pigments; a jewelry mold; animal bones, including part of a boar's tusk; sheets of lead; and intact pots with organic remains, such as wine residue.

Evidence of the same earthquake that destroyed Building K is visible at the palace, royal workshops, cult center and several storerooms, as well as in one of the few excavated residential structures outside the walls at Mycenae, the Panagia House II. Excavations of nearby city states like Tiryns and Midea also show evidence of the same earthquake. Approximately at the same time, several other major Mycenaean sites on the mainland, among them Pylos, Thebes, Korakou, and Krisa, were



Above: Building K, a large storeroom destroyed around 1200 B.C. Left: A Mycenaen non-stick frying pan found on the citadel. Below: An anthropomorphic figurine of the "psi" type found on the citadel.

destroyed by fire, while other settlements were completely abandoned. A combination of events—earthquakes,

the collapse of foreign powers in Egypt and Anatolia with whom the Mycenaeans traded, severe climate change, and civil war—caused a widespread economic collapse and political fragmentation, leading to eventual end of the Mycenaean world. After the final earthquake, Building K was filled in and never used again, unlike some of the nearby storerooms, which were restored until they, too, were eventually abandoned over the course of the twelfth century B.C. Next Maggidis will excavate the large ramp that runs parallel to building K and which gives access to the fortification wall. There he hopes to reveal undisturbed levels and architectural remains of phases prior to these destruction levels, periods of the citadel's habitation so often obliterated by the almost-continuous building on the site. —JAL



rounding mountains and low in the valley, I have wanted to start looking for these people," says Maggidis with a characteristic wide smile and glinting black eyes. "It will take many decades, the rest of my life excavating here, and maybe even many more lifetimes of others who come after me, but we will find them."

Thanks to the judicious use of modern technology, Maggidis and his team have a pretty good idea of where to start looking. Many scholars, including a long line of excavators of Mycenae—Christos Tsountas in the nineteenth century, Alan J. B. Wace in the mid-twentieth century, George Mylonas in the 1960s-have argued that there may not have been any large urban centers around Mycenae or the other Mycenaean palaces. Instead, they suggest that the citadels were surrounded by small countryside settlements loosely connected by the system of roads and highways that developed after 1400 B.C. But Maggidis insists that towns did exist and that they have not been found because up to now, relatively few locations outside of the citadel walls have been explored. "The Linear B tablets from Pylos do seem to indicate that there were urban centers of some sort (see sidebar). We just have not really been looking for them," Maggidis says emphatically."Excavating in Mycenae is really our best chance

Excavation of the western long exterior wall of the large rectangular building of the megaron type. In both the Mycenaean and post Mycenaean worlds, megarons (large buildings with a porch and central hearth, and sometimes a throne) were used as meeting and ceremonial halls.

to find a Mycenaean town." There is some ongoing effort at several of the other palace sites, but—with the exception of promising work at the fortified site of Gla in northwestern Greece—it will be very difficult, if not impossible, for these projects to find Mycenaean towns. After almost 70 years of American excavations at Pylos, focusing mainly on the palace, the town has not yet been discovered. German excavators at Tiryns are struggling to find the Mycenaean town. Before the construction of a Mycenaean dam in about 1220 B.C., the Megalo Rema River had deposited as much as 9 feet of alluvial deposits on top of what the excavators believe to be the large thirteenth-century B.C. town surrounding the citadel at Tiryns. Excavation is impossible at both Thebes, where the modern town sits atop most of the ancient site, and in Athens, where any evidence of a possible Mycenaean town below the Acropolis is covered by a city of over 3.5 million people.

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To get a sense of the area's settlement patterns before excavation began, Maggidis and Antonia Stamos of the Institute for Aegean Prehistory initiated an intensive investigation into the valley south of the citadel. During the 1990s, the Athens Archaeological Society and the British School at Athens conducted an extensive surface archaeological survey of all the visible remains in an almost 80-acre area around Mycenae. Eventually, they were able to identify and map more than 750 visible sites, including structures, buildings, towers, remains of walls, tombs, roads, and bridges. With the results of this survey as a framework, Stamos and Maggidis designed a plan to locate the invisible remains using geophysical prospecting and remote sensing. For the first time, the team also used aerial photographs taken in 1988 by the Greek Military Geographical Service that showed dozens of ghost traces of walls all over the area. They combined this with the ERDAS system, geospatial imaging software used by many militaries to locate bunkers and underground missile silos, to create a model of the site. The model showed that the entire valley was likely to contain subsurface archaeological material and

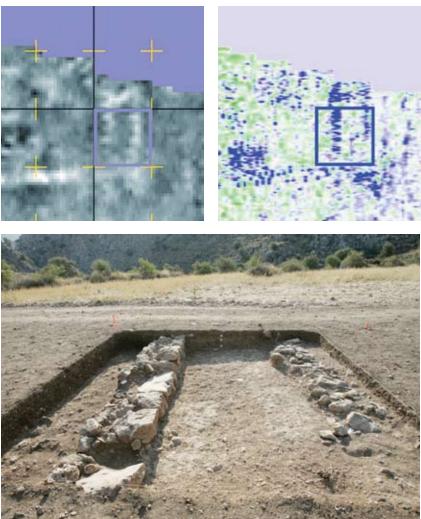
made it the most promising area for more survey and future excavation.

From 2002 to 2006 Stamos and her team conducted a ground-penetrating radar (GPR) survey of more than six acres of the valley. The results showed a variety of wall corners, structures, gates, and roads at two distinct levels across the grid, leading Stamos to propose a Hellenistic level dating from the early third to mid-second century B.C., with structures along a northwest-southeast orientation at a depth of 1 to 2.5 feet. Under this, Stamos has identified the Mycenaean level of occupation oriented to a north-south axis at 2.5 to 8 feet below the surface. Maggidis explains that the different orientations of the site indicate that while the Mycenaean buildings were aligned parallel to the Mycenaean road (the GPR survey also identified a substantial segment of this road along with two of its gate towers), the Hellenistic structures faced a theater

The north and south wall of the rear room of the megaron building as detected by remote sensing geoprospection and excavation. Above left: the gradiometer results, above right: the ground penetrating radar results, right: excavation reveals the accuracy of the survey results. that was built sometime in the early third to mid-second century B.C.

After she analyzed the results of the GPR survey, Stamos, a veteran of survey projects all over Greece, felt the team was on to something big. "I believe that the number, size, type, and spatial distribution of the buildings and features we have found so far supports the possibility of a sizeable Mycenaean urban center," she says. "It's possible that it extends as much as 30 hectares [72 acres]." Currently Stamos is combining her results with electrical resistivity, magnetometry, and geoacoustical surveys done by her team and others, to begin to create a 3-D digital model of what Maggidis hopes will be Mycenae's buried Lower Town.

The true test of a survey's success comes when the trowels start pulling away layers of soil and seeing what is actually underneath. "Given the importance of the site, we had to do everything perfectly from square one," says Maggidis. So he began by buying land the team wanted to excavate, using money raised from a private donor and matching funds from Dickinson College. Other projects in Greece have run into



Linear B Cracking the Mycenaean code

I 1939, a team from the University of Cincinnati led by Carl Blegen began to excavate a Mycenaean site called the Palace of Nestor in the southwest of the Greek mainland near the modern town of Pylos. By good fortune, the first trench they laid down went right through the middle of the Archive Room, a storeroom filled with hundreds of clay tablets baked solid by the fires that destroyed the palace at the end of the thirteenth century B.C. The tablets were identified as containing Linear B, an early form of ancient Greek. Additional fragments were soon found at Mycenae, Tiryns, and Thebes. When taken together with the Linear B tablets from Knossos discovered by archaeologist Sir Arthur Evans in the early 1900s, the language was recognized as the lingua franca of the Mycenaean palaces.

Since Linear B was deciphered in the 1950s, more than 4,600 tablets and fragments have been translated, and we now know that they are primarily lists of people, animals, produce, and manufactured goods. Linear B seems to have been a language used for bureaucratic and administrative purposes, not private or artistic forms like history, philosophy, or poetry for which the later Greek language would be so richly employed. Missing too are the treaties, diplomatic correspondence, and religious texts known from the extensive archives of royal tablets at sites in ancient Egypt, Mesopotamia, and Anatolia. The Linear B tablets also do not appear to have been intended for long-term storage, and were only preserved by the accident of fire that destroyed the palaces where they were kept.

At Mycenae archaeologists have found no trace of an extensive archive. In 1952 A. J. B. Wace found a collection of tablets in several large houses outside the citadel walls thought to have been occupied by members of the royal household, and a few badly damaged tablets have been found scattered inside the city walls, mainly in workshops and storerooms. Some scholars have suggested that the archives were destroyed by time and weather, while others say that perhaps Schliemann threw away great quantities of the tablets thinking they were simple pottery sherds. But Maggidis hasn't given up hope. "One-third of the citadel has never even been excavated down to the still-sealed Mycenaean level, so they might be there. Or they may be in the Lower Town, in one of the many large storeroom-type buildings we have located with our geoprospection survey. Someday we will find the Linear B tablets from Mycenae to break the loud silence of the archaeological record." -JAL

To read more about the decipherment of Linear B, visit www.archaeology.org.

difficulties when landowners would not sell, essentially ending research at a site. But Vlassis Cosmopoulos, a guard at the much-visited citadel of Mycenae, paved the way for future acquisitions by selling his property to the state and encouraging others to do the same. Although the land is a protected archaeological zone, the Greek government didn't have the money to buy it, and relied on the project to provide the funds to purchase the site. The government then granted permission for Maggidis to excavate there under the auspices of the Athens Archaeological Society, of which he is a member.

Stamos's predictions of the presence of archaeological remains proved remarkably accurate once the digging began, and everyone is eager to move quickly. Standing with his arms crossed looking over the site at each trench, Andreas Tentzeris, the tanned and always-smiling dig foreman and Maggidis's right-hand man says, "When I

was growing up in Mycenae, I really did not think about archaeology at all, even when I worked as a waiter in a tourist restaurant. But when I saw others working in archaeology here, I thought it was really interesting, and now I have been doing it here for more than 6 years. I really think this is where we are going to find these people." But for now Tentzeris, Maggidis, and the team have to focus on the remains of the valley's other, non-Mycenaean settlements.

The fascination with Homeric Mycenae and the focus on the citadel have left us not only ignorant of the Late Bronze Age town, but

also of the later development of the site after the end of the Mycenaean world around 1200 B.C. Very little is known of the small settlement of Archaic (700–480 B.C.) Mycenae or of the more sizeable Hellenistic (late 3rd–2nd century B.C.) town, a gap in knowledge that Maggidis and his team hope to begin to fill. This summer the team excavated three Hellenistic structures, including two large multi-roomed buildings of yet-undetermined use and a kiln,

> Top: Terracotta female figurine of the Early Archaic period found in the megaron; Middle: Hellenistic coin from nearby Argos pierced for use as a pendant; Bottom: Stone pendant bearing the incised symbol of a sun disc found in the megaron.



possibly for firing pottery. They also found a large number of small artifacts, including coins, figurines, stone tools, obsidian blades, arrowheads, animal bones, black-glazed pottery, and several fragments of human infant bones, perhaps remains of child burials once interred under house floors or thresholds in the late third or early second century B.C. The team also began to excavate a large rectangular building of the megaron type that may belong to the Archaic settlement destroyed by the inhabitants of nearby Argos after the Persian war in about 470 B.C. In the building they found early sixth-century pottery imported from Corinth, a talisman stone decorated with a sun, and two figurines of the late seventh or earlysixth century B.C. In his first year of excavation on the site, Maggidis decided that he would not dig through any floor layers that they find, explaining, "Next year we need to go into the destruction layer of the floor here to find out what this huge building was—we may have the most important Archaic building ever discovered in Mycenae," says Maggidis with obvious excitement. The only other major Archaic building at the site is the so-called Agamemnoneion, a shrine excavated by Wace. And just underneath the Hellenistic and Archaic structures, well protected by a sterile layer, and sealed over by only a foot of clean, red, soil lie the tantalizing Mycenaean remains. Maggidis acknowledges that it will probably take about five more years before he gets to the Mycenaean level, and he constantly reminds his students that while the Archaic and Hellenistic levels may not be as compelling as

Students and supervisors excavate the kiln from the Hellenistic settlement layer. It will be about five years before the team is able to reach the Mycenaean settlement layers underneath.

the Mycenaean one, it is important to try to understand how this site changed in more than 1,000 years of habitation. But Maggidis himself is not quite able to wait, and next year will dig two trenches all the way down to the bedrock to find the level of the Mycenaean phase.

For 2007 it is Maggidis and his team's last day of digging. On most excavations, the last day is chaos, but here the welloiled system and knowledge of a long future of excavations ahead keeps things relatively orderly and calm. But even Maggidis can't hide his own excitement. "I think when we reach the Mycenaean levels here it will be a revelation to us all when we compare what we find to the historical sources and Linear B tablets. For the first time we will really understand the spatial and economic relationships between the urban center and the palace. This is what I am really after, not just the frescoes and tombs." It is an enormous undertaking, but one that Maggidis clearly relishes. In a loud voice reserved to get everyone's attention, Maggidis calls an end to the day and reminds everyone to finish up quickly and then, smiling broadly, announces, "Next year, wider and deeper!"■

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