2

Farm, Field, and Pylos

In chapter 2, I turn to Mycenaeans at Pylos itself, with a discussion of the development of textual and archaeological studies of the history of rural settlement in an area that would in the Late Bronze Age belong to the state controlled by the Palace of Nestor. My interest in rural history derives in large part from my own biography, a youth spent in an agricultural area in the American Midwest. There I witnessed agricultural life responding to social and economic change in the world at large. I conclude that the expansion of very small Mycenaean settlements that were inscribed in the landscape of Pylos in the earliest stages of the Late Bronze Age reflects a significant change in social and political structures that heralded the emergence of the Mycenaean state.

Between 1990 and 1995, more than a hundred archaeologists, natural scientists, physicists, and students from a half dozen countries participated in the Pylos Regional Archaeological Project. The purpose of the project was to explore one area that had belonged to the kingdom of Nestor in the thirteenth century B.C., the final century of Mycenaean palatial civilization. In the decades prior to World War II, the province of Messenia, where Pylos is located and where Blegen and his colleague Kourouniotis found the Palace of Nestor in 1939, had been peripheral to the concerns of most archaeologists, foreign and Greek. But in the 1950s interest intensified as communications and roads improved and, aside from the northeastern Peloponnesos, today we know as much or more about Mycenaean Messenia as any other part of southern Greece.

REGIONAL STUDIES IN THE KINGDOM OF NESTOR

In 1952, when Greece had achieved political stability after the violence of its civil war (1944–1949), Blegen resumed his excavations at the Palace of Nestor, which had been suspended since 1939. There he continued to explore, among other things, the small two-room complex in the Main Building that held its archives, their texts incised on clay tablets in the syllabic script called Linear B. He found in

FIGURE 12. William A. McDonald excavating in the Archives at the Palace of Nestor in 1939. Courtesy of the Department of Classics, University of Cincinnati. All rights reserved.

total about 1,100 such tablets in the ruins of the palace, nearly all accidently baked in a conflagration that had destroyed Pylos ca. 1180 B.C.

Blegen had been accompanied in 1939 by William A. McDonald, a twenty-six-year-old Johns Hopkins graduate student, who was being supported by a fellowship at the American School of Classical Studies at Athens (see figure 12). McDonald was with Blegen on the first day of excavation when Linear B texts were discovered. Inspired by Michael Ventris's decipherment in 1952, McDonald was determined to locate on the ground the network of towns and villages mentioned in the texts.[1] McDonald had already explored the area around Pylos in 1939. In 1953 he resumed his search for Mycenaean sites, but only part-time, since, as a member of Blegen's staff, he also dug around the edges of the acropolis, looking for a fortification wall.

Still, in just four days of surface reconnaissance, McDonald mapped eighteen Mycenaean sites (see figure 13). He also partnered that year with Dimitris Theocharis, who, a few years later, discovered the Bronze Age palace of Jason at Volos in Thessaly. Together they excavated in the so-called Cave of Nestor on the slopes of the medieval castle of Old Navarino. The cave had been mentioned by the Roman traveller Pausanias, long after the name of Nestor was detached from the Englianos Ridge.

Bitten by the bug of regional exploration, McDonald never again returned to the Palace of Nestor to help Blegen. By 1962 he had constituted the Minnesota Messenia Expedition, in Greece the first truly multidisciplinary collaboration of archaeologists with natural and physical scientists. By 1972, when McDonald and geologist George Rapp published *The Minnesota Messenia Expedition: Reconstructing a Bronze Age Environment*, hundreds of prehistoric and historic sites had been added to McDonald's list.

In his search for settlements and cemeteries, McDonald was soon joined by Richard Hope Simpson, an Englishman teaching in Canada, who shared his

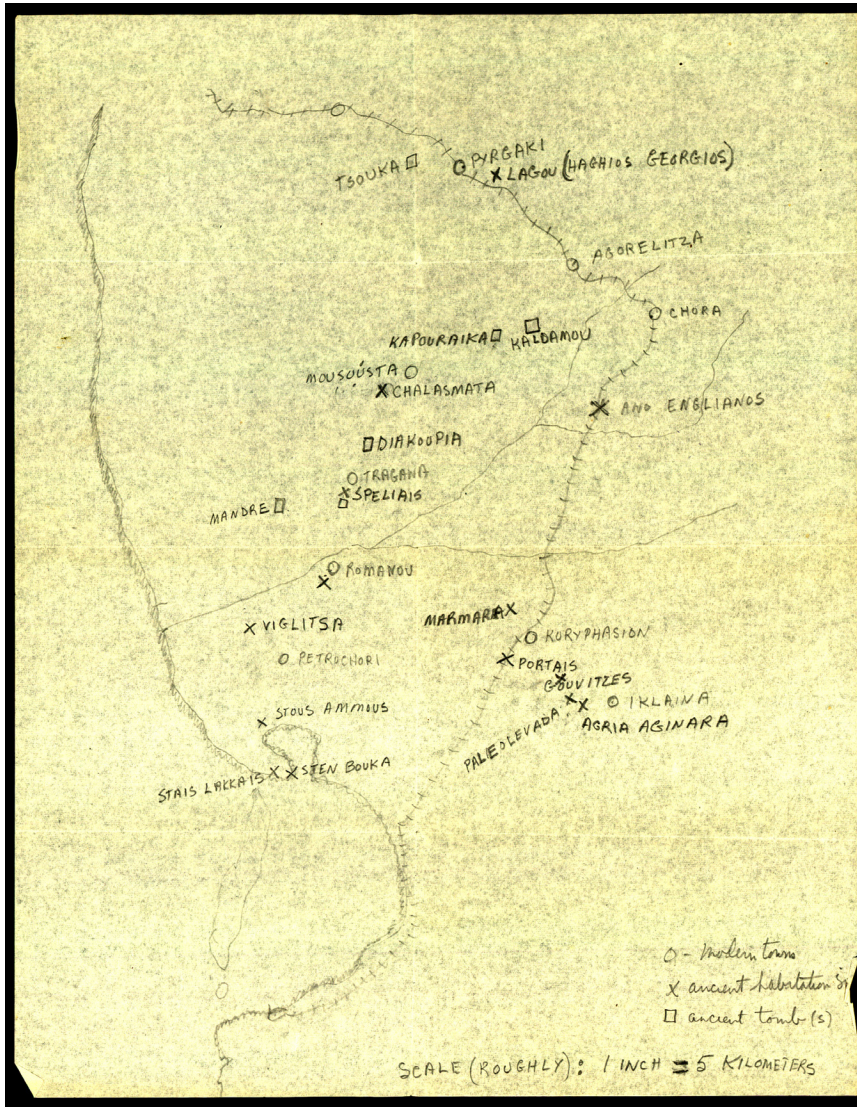
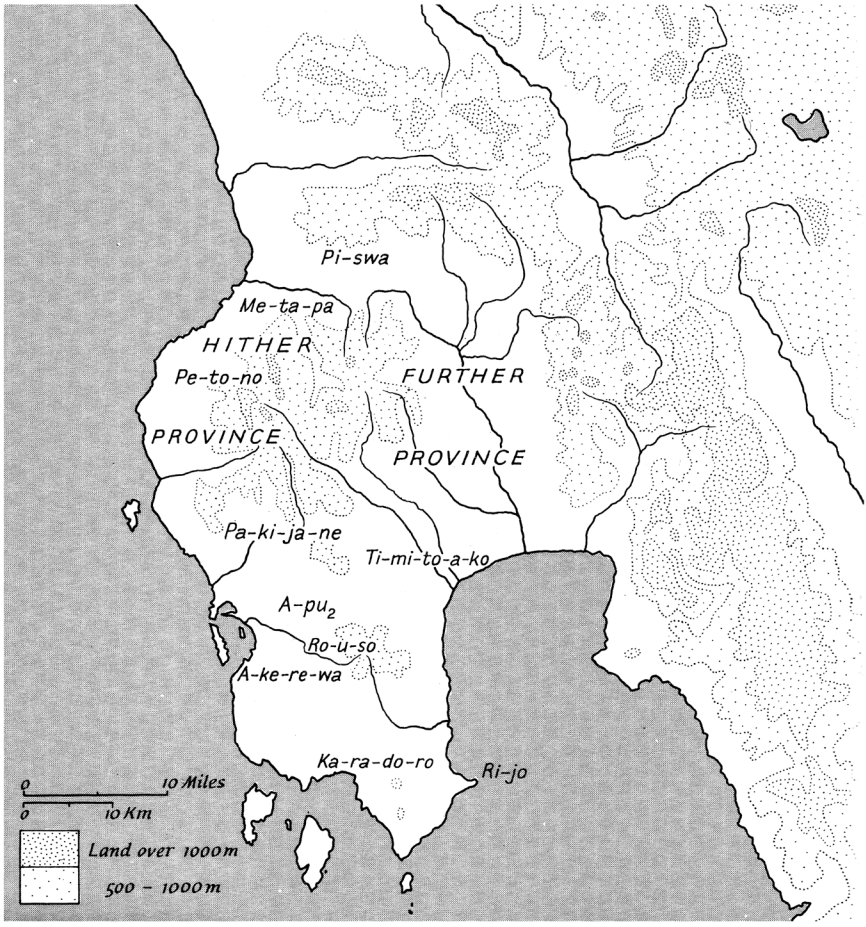


FIGURE 13. Ancient settlements and graves documented by William A. McDonald in the back of his 1953 excavation journal. Courtesy of the American School of Classical Studies at Athens, Archives, Pylos Excavation Records. All rights reserved.

interests in surface archaeology. "Naturally, our methods of search were modelled on those of Blegen and Wace," they wrote.

> They are sound methods, tested and improved over a half century. The base is the typological study of the surface pottery; but, of course, one must first locate the sites



MAP 3. Proposed locations of towns in the kingdom of Nestor. After John Chadwick, *The Mycenaean World* (Cambridge: Cambridge University Press, 1976), 64. © Cambridge University Press. Reproduced with permission of Cambridge University Press through PLSclear.

> on which pottery may be found. To do this successfully it is essential to have a firm grasp of the ancient topographical sources and to build on it a thorough familiarity with the modern countryside. One must learn the location of the best agricultural land, the most abundant sources of water, what constitutes a good defensive location, healthful orientation, good drainage, easy communication.[2]

In short, McDonald and Hope Simpson built a predictive model for settlement location. In the winter, they inspected aerial photographs taken for them by the Greek air force; then, in the summer, they examined likely locations for ancient sites—a process that we would today call "ground truthing." But, despite their remarkable successes, we now understand that such methods of investigation fail

to find a good many sites situated in places that do not conform to any predictive model, particularly those at the lower end of the size spectrum—and these small sites may be of great importance to us in understanding how a landscape was exploited in the past.

The next step in McDonald and Hope Simpson's research program was to try to match archaeological sites to the place names recorded in documents found in the archives of the Palace of Nestor. For help in this enterprise, they enlisted John Chadwick of Cambridge University, who, together with Ventris, had published the first major compendium of Mycenaean Greek texts (with translations and commentary).[3] It was clear to Chadwick that the Kingdom of Pylos in the thirteenth century B.C. was divided into districts, grouped in turn into two provinces, Hither and Further, which were separated by a mountain range called Aigaleon. The order in which the district capitals are listed in Linear B allowed Chadwick to produce a map of the kingdom (see map 3).

Next, with more than two hundred prehistoric sites to choose from by the later 1960s, McDonald decided to move from surface reconnaissance to excavation (1969–1975) of a likely district capital—a site called Nichoria, probably the *ti-mi-to ak-e-e* of Linear B Greek.[4]

Thomas Palaima has summarized what we know about *ti-mi-to ak-e-e*.[5] This toponym is mentioned in the Linear B texts from the Palace of Nestor in conjunction with bronze working, livestock, flax production, arrangements for coastal defense, and more. Palaima suggests that the name means "glen of the terebinth tree," a plant we know was exploited for its resins in the Bronze Age. McDonald, in his excavations at Nichoria, uncovered houses and cemeteries, and there are indications that the importance of the settlement waned as the Palace of Nestor became more powerful in the fourteenth century B.C.

After World War II, Spyridon Marinatos, later known for his investigations of Akrotiri, a "prehistoric Pompeii" on the island of Thera, was appointed successor to Kourouniotis, who had died in 1945. Marinatos left work at the Palace of Nestor to Blegen and, like McDonald, set out to explore the larger region. McDonald's research was thus complemented by Marinatos's excavations at many Mycenaean settlements and cemeteries near Pylos, giving historical depth and spatial extent to a picture of the Pylos area that otherwise would be known mostly from surface remains.

By 1972, prehistoric Messenia was, in fact, so well-known archaeologically that the kingdom of Nestor became the focus of an academic conference at Cambridge University. Its proceedings, published in 1976 as *Mycenaean Geography*, further discussed settlement patterns and regional organization within Nestor's realm.[6] My own interest in the kingdom was provoked by a desire to move beyond McDonald and Hope Simpson's approaches to surface archaeology and to gather fuller and more detailed information about the Mycenaean countryside than had been available to the participants in that conference.

AN AUTOBIOGRAPHY OF SETTLEMENT PATTERNS

One particular focus of Renfrew's *The Emergence of Civilisation* had spurred my passion for intensive survey and regional studies: how to explain changes in patterns of rural settlement and agricultural land use. In retrospect I am certain that my regard for the subject ultimately reflects my own biography.

I was born in 1950 in the American Midwest, in northeastern Ohio, and was raised in idyllic Apple Creek, a small service center village of several hundred families, founded in 1817 by Scots Presbyterian immigrant farmers on the banks of the stream that would power their flour mill. Named for legendary Johnny Appleseed (John Chapman), Apple Creek sits amidst rolling, glaciated farmland, near the Agricultural Research and Development Center that is an extension of The Ohio State University, with the mission of exploring ways to improve animal husbandry and arable cultivation.[7]

As a child, the arcadian landscape of Apple Creek seemed timeless to me. Farmers lived in large, isolated farmhouses in the midst of enormous fenced fields, grew prodigious quantities of corn (largely as feed for livestock), and maintained huge herds of dairy cattle—Holsteins, Guernseys, and Ayrshires—for milk.[8] Arable cultivation and animal husbandry were well integrated, promoting high productivity. The smell of manure lay heavy in the air.

Other than farmers, most outside the county seat of Wooster lived in small villages like Apple Creek, where there were dry-goods and hardware stores, mills, and railway shipping depots. The population was remarkably uniform—Christian and white. Other than we "English," as the Amish call us, there were only those flourishing descendants of conservative, German-speaking Anabaptists, who began to emigrate to America from the Rhine valley in the eighteenth century. My area of Ohio still boasts one of the highest densities of Amish in the United States.

By the time I was in my teens, the landscape that I had naively thought timeless began dramatically to change. Mechanized corporate farming made it ever more difficult for small farmers to eke out a living, and many threw in the towel or took second jobs. Farmland was put to new uses as urban populations and light industry expanded. Those farmers who survived were tempted to sell off plots for housing subdivisions at the edges of their fields, along existing roadways.

The collapse of rural railroads in the 1960s deprived villages like Apple Creek of an important means for transporting goods and people, while service providers also fell on hard times (see figure 14). The creation of the interstate and defense highway system under President Eisenhower, along with more dependence on automobiles, drew consumers to larger shopping centers owned by conglomerates and located in county seats like Wooster.

Transformations of this sort impacted much of rural America in the latter half of the twentieth century, and there is a very different feel to the countryside of

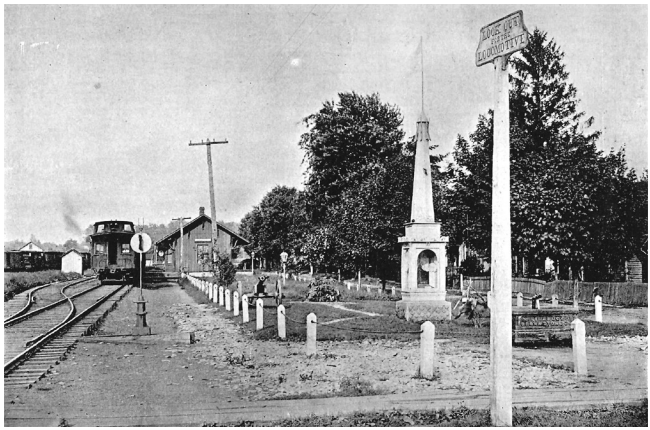


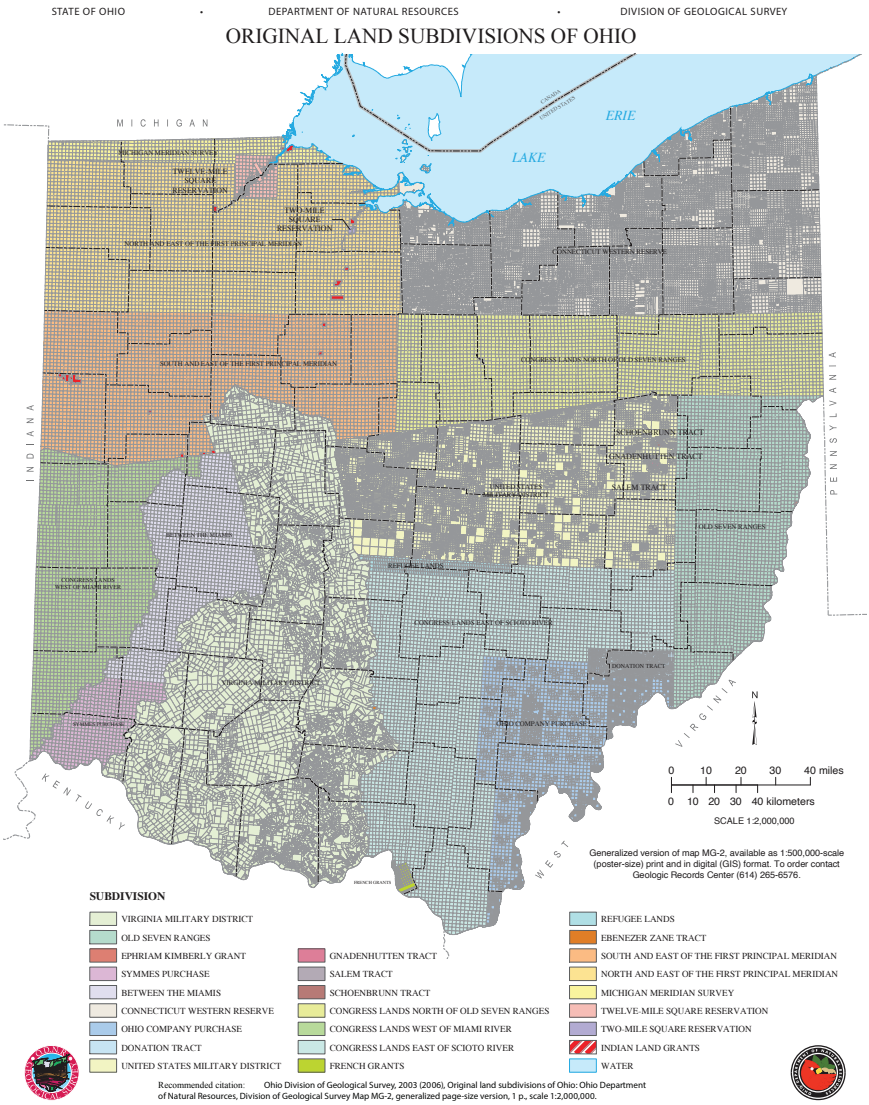
FIGURE 14.
Railway Park and Soldiers Monument, Apple Creek, ca. 1900. Wayne County, Ohio, Online Resource Center.

Apple Creek. Gone now is the sense of rural isolation. Shallow ribbons of houses line the tertiary roads that link villages. Their occupants are entirely urban in their lifestyles, separated by more than fences from arable fields. Amish farms, in contrast, do survive intact, secured by the conservative tenets of religious practice. Custom, enforced by threats of community ostracism, discourages the sale of land to "English" families, and fields are rarely subdivided.

It was only after coming to work as an archaeologist in the Mediterranean that I developed a conscious curiosity about the relationship between natural and human landscapes. I learned that historical developments, reflecting stages in European colonization of the Ohio Country, had determined the rural agricultural organization familiar to me as a child. Early settlers had cleared vast expanses of hardwood forest in Ohio, and the policies of Thomas Jefferson were ultimately responsible for the pattern into which I was born: a sea of isolated family farms, punctuated with villages.

The United States had claimed the Ohio Country after the 1783 Treaty of Paris that ended the American Revolutionary War. Jefferson, before assuming his post as U.S. ambassador to France in 1785, headed a Congressional committee that proposed division of the western lands of the nation, including Ohio, according to a grid that consisted of squares called "hundreds." The United States Land Ordinance of 1785 established "townships" of thirty-six square miles, cut into square-mile "sections" of 640 acres (see map 4). Government-sponsored surveys led to land speculation, displacement of native American populations, rapid colonization, and the construction of farmhouses centered in quarter-section lots of 160 acres. The pattern of isolated rural farms that I knew as a child had arrived in Ohio.[9]

My own European ancestors emigrated to Ohio in 1814, only a few years after this part of the Ohio Country, called Congress Lands North of the Old Seven Ranges, was surveyed in 1809 and opened for colonization. Joseph Arnold and his



MAP 4. Original land subdivisions of Ohio. Ohio Geological Survey, State of Ohio.

wife, Susanna Flickinger, left Maryland with a wagon, blazing their road west with axe and mattock as they plunged deep into the wilderness. At last, in the middle of December, they reached Wooster, where Joseph found his brother Samuel already settled. ("Chain migration" is not a recent phenomenon.) Joseph bought 320 acres of land, almost all forested, except where he and Susanna built a log cabin. Joseph was my mother's father's great-great grandfather.[10]

The Greece I found in 1969, when I first visited, was so very different from Apple Creek.[11] Rural landscapes were village-based; isolated farmsteads, rare. The organization of some landscapes reflected their origins in Ottoman sharecropper systems, which, in southern Greece, prevailed until the Greek War of Independence in the 1820s (more about this in the following chapter). Defensive considerations had sometimes been significant. There were villages attenuated along roads. Others were established as permanent settlements in places once seasonally occupied.

I came soon to understand, however, that the Greek rural landscape, like my own in Ohio, has not been stable in the longer *durée*. Its structure also has fluctuated in response to variability in historical, economic, and social conditions.

THE EARLY MYCENAEAN PATTERN OF SETTLEMENT AT PYLOS

Renfrew emphasized the importance of examining changes in settlement patterns for insights into the beginnings of complex societies in the Aegean. A chapter in *The Emergence of Civilisation* is titled "Patterns of Settlement and Population." There he defines four subsystems within the overall Aegean cultural system: Subsistence, Technology, Social, and Projective. Population was treated as a "parameter, a relevant statistic of all of these subsystems, . . . and settlement pattern an obvious record and symptom of so many activities." It was with these topics that Renfrew began the systems analysis central to his work.[12]

Renfrew hoped to define similarities and differences in the trajectories that different parts of the Aegean world had followed along the evolutionary path that led rapidly and smoothly or slowly and in fits and starts to the Minoan and Mycenaean palaces. He focused on the density, size, numbers, and locations of settlements and on continuity and disruption in their occupation through time. In so doing, he hoped to monitor population growth and decline, his assumption being that population growth had encouraged greater social complexity and that greater social complexity in turn promoted population growth. With power centralized in a state, one might expect that settlement patterns would reflect that hierarchy, with a larger center as the seat of power and subsidiary towns and smaller settlements under its authority.[13]

Renfrew's conclusions about population and settlement rested on wobbly evidential foundations, more wobbly than he may have realized.[14] As yet there had been no intensive surface surveys in Greece of the sort that Cherry would organize on Melos in the 1970s and that we would together launch on Kea. The extent and intensity of research varied greatly from one region to another and often was biased for or against sites of particular dates. Renfrew, nonetheless, hoped that, by examining the Aegean on a large scale, certain valid gross patterns would emerge.

Many of Renfrew's observations do hold up at the broadest level, in fact, but not when we zoom in closely on a specific part of Greece like Messenia. Drawing

on data gathered by McDonald and Hope Simpson, Renfrew concluded that the "growth of settlement in Messenia for the Neolithic through the successive phases of the Bronze Age . . . gives a vivid picture of sustained growth."[15] But this generalization masks truly important changes prior to the emergence of the Mycenaean state of Pylos. It hides, in particular, a major rupture in the settlement pattern late in the Early Bronze Age, one perhaps more severe than in the northeast Peloponnese—possibly reflecting the impact of a major climatic event at the end of the third millennium B.C.[16]

For southern Greece, Blegen long ago recognized a major disruption at the end of the third millennium, writing in reference to the Middle Helladic, "The geographical distribution of the principal settlements supports the view that Middle Helladic culture was brought by invaders from the north, or more probably the north-east, perhaps coming by sea."[17] Caskey also imagined a widespread incursion, marked by drastic changes in the character of material culture at Lerna after the House of Tiles was destroyed.[18]

In Messenia, it is toward the end of the Middle Helladic period that there first are indications both of population growth and the emergence of a multitiered pattern of settlement. At Pylos, we should search for the origins of the state at times contemporary with the period of the shaft graves at Mycenae.

The Pylos Regional Archaeological Project, our intensive surface survey of the 1990s, did clarify patterns of habitation. We not only found new settlements but were able to determine with greater precision the sizes of previously known sites. Now we know that there was a gradual expansion in the settlement on the Englianos Ridge where the Palace of Nestor would later be built, beginning at the end of the Middle Helladic period and continuing through the thirteenth century B.C. That town finally stretched for a kilometer and accommodated a community of several thousand people.[19]

For the region as a whole, we have come a long way from the simple dots on Renfrew's map in *The Emergence of Civilisation*. We can say with confidence that a dramatic expansion in numbers of settlements in the Early Mycenaean period is indicative of more than population growth. We can document a three-tier size hierarchy of sites consisting of the primary center at the Palace of Nestor, secondary sites in places that later became district capitals in the kingdom of Nestor, and relatively tiny tertiary sites.

These very small sites, for the most part newly discovered in the 1990s, have much to tell us about the character of Early Mycenaean political and economic systems. They are not impressive on the ground—and it is doubtless for that reason that they escaped previous notice. Nor have they been considered worthy of excavation. One example is the site of Megas Kambos I, located on a small knoll in the plain west of the town of Gargaliani, north of the Palace of Nestor (and coincidentally the ancestral home of U.S. vice-president Spiro Agnew) (see figure 15). We found evidence of habitation there, first in the Early Mycenaean period and

FIGURE 15. Small Mycenaean site at Megas Kambos, near the modern town of Gargalianoi. Courtesy of the Department of Classics, University of Cincinnati. All rights reserved by the Hellenic Ministry of Culture and Sports—Hellenic Organization of Cultural Resources Development.

continuing in later Mycenaean times. Finds are spread over a surface area of fewer than two hectares and include pottery of types typical for a Mycenaean household.

UNDERSTANDING NUCLEATION AND DISPERSION

One of the most important discoveries of intensive surface survey in Greece has been a recognition that very small sites have increased or contracted in numbers in the past and that they were sometimes scattered widely over a landscape. Such sites can be obtrusive far out of proportion to the percentage of the overall population that could ever have lived at them. In contrast there are periods when it appears that nearly everyone in a given region lived in a large settlement—a nucleated rather than a dispersed pattern.

In the *Emergence of Civilisation*, Renfrew wrote about the contraction of populations into nucleated settlements: "The chief factor producing these changes in settlement distribution and settlement type may well have been piracy." He considered the fifth century B.C. historian Thucydides to be "key to the understanding not only of the various settlement types, but of the different growth patterns of the time."[20] In *Emergence*, piracy seems to explain almost everything (walled citadels, even the creation of "regional territorial states" in historical times), while underscoring the advantage of a power structure that is hierarchical.

A decade later, in his study of the Cycladic island of Melos, more subtle explanations for nucleation and expansion of population were mooted.[21] Piracy may have played some role in dictating patterns of settlement there, as it did in the medieval and early modern periods in many Aegean islands. As a one-size-fits-all explanation, however, it fails to address certain questions. Why, for example, were certain Cycladic islands, such as Kea, home to multiple city-states in Classical times, whereas larger, more fertile islands, such as Naxos or Paros, had only one?[22]

While experiences on Melos nudged Renfrew and his colleagues toward a broader range of explanations for nucleation, particularly integration into external political and economic systems, his emphasis continued to focus on the processes by which highest-order centers were formed. Bronze Age sites at the very bottom of the settlement hierarchy commanded relatively little attention in periods when a central place existed in a region (as it did in the Middle Cycladic period and later at Phylakopi).

For historical periods, some progress has been made elsewhere toward understanding the character and significance of sites beneath the highest tier in a settlement hierarchy. Bjorn Forsén has observed that in Classical antiquity the fact that

> the population to a considerable degree lived in second-order, politically subordinated villages/hamlets not only in large poleis such as Athens . . . but also in several smaller poleis . . . [something that] offers valuable information for our understanding of the origin and nature of the Greek city-state. A pattern is revealed with villages/hamlets located at a distance of 4–6 km from each other, of which some develop into poleis, sometimes incorporating other villages/hamlets into their territory.[23]

We still, however, have lots of work to do. Forsén notes that most intensive surveys claim that they can help us understand "in what ways and how intensively the countryside was exploited." But such statements are generally based on unsubstantiated assumptions about the nature and significance of small, unexcavated rural sites. Were these permanently occupied single-family farms or clusters of several farmhouses? Were they seasonally inhabited field houses? For the city-state of Athens, Robin Osborne once argued for the latter in *Demos: The Discovery of Classical Attika*.[24] He admitted the existence of highly dispersed patterns of settlement elsewhere in Classical Greece but considered Attica different because of its geography as well as political and social determinants peculiar to the Athenian democracy. He concluded that isolated country residences were rare and that "completely dispersed settlement patterns seem to be a product of modern agricultural conditions."

By the time Osborne wrote his next book, *Classical Landscape with Figures*, three years later, more sites likely to be farmhouses had been discovered in intensive surveys on Melos, on Kea, and in Boeotia.[25] In favor of some of these being permanently inhabited was the range and diversity of associated finds, their regular spacing in the landscape, their presence only in some periods, and the existence of adjacent cemeteries. Haloes (low-density rings of artifacts) around them

point to the use of manure in fields near many and arguably indicate an integration of animal husbandry and arable cultivation that might be expected of intensive agricultural practices.[26] Osborne observed, too, that there tends to be a profusion of such small sites when landscapes are resettled after periods of abandonment.

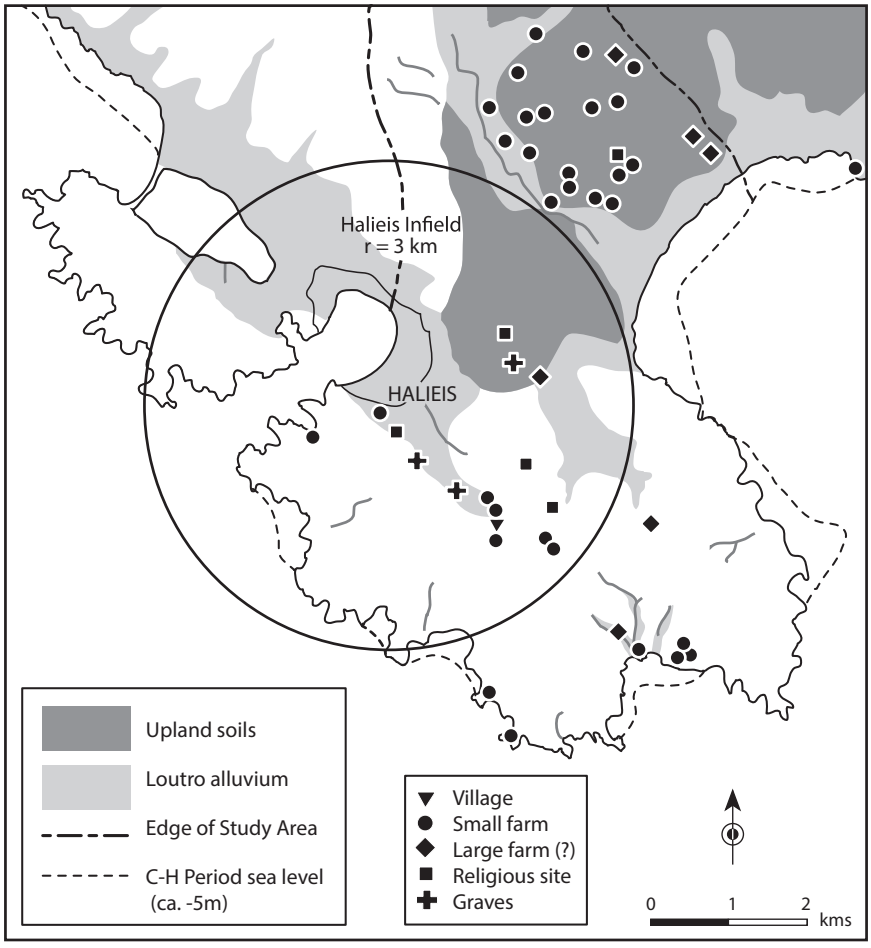
But, insofar as Attica is concerned, a problem remained: despite a very long tradition of topographical studies by archaeologists and ancient historians, the area of the ancient city-state of Athens had not been targeted by a single intensive surface survey. Now a Greek-Swiss-American project has been exploring the Mazi Plain in western Attica. Preliminary results suggest a more complex settlement pattern than one might have expected, and the evidence does point to intensive agricultural exploitation in Classical antiquity. One Classical-Hellenistic complex considered to have been a permanently inhabited farmstead is described as follows:

> The third location of interest is found in the southwestern extremity of the plain, at the debouchment of a small stream originating from the hills of Kokkina Chomata, in an area called Karaiskaki. The more fertile bottom of the valley, hemmed in by limestone hills, was divided by several low terrace walls running north-south. They appear to be connected to several features . . . forming a larger complex. Among them was discovered a rectangular enclosure with an internal room . . . , the walls of which are rectilinear and made of limestone blocks. The pottery from the site includes fine and coarse wares, a pithos [large storage jar] rim, and a large amount of glazed tiles.[27]

Outside Greece, such small sites have been excavated at times. For example, in the context of an intensive survey of the territory of the Greek colony of Apollonia in central Albania, we explored the fragile remains of a farmhouse of the third century B.C.[28] We suggested that more land was then being brought under cultivation, whether or not that particular farmhouse was occupied seasonally or inhabited year-round.

Distributions of very small settlements have also claimed some attention at a regional level. Phoebe Acheson has reanalyzed data from an intensive surface survey in the southern Argolid, southeast of Nauplion, challenging a belief that the "number and density of settlements increased, usually with an increase in population, whenever access to external commercial markets was available."[29] She instead argues that denser settlement patterns reflect an intensification of labor, the purpose being to bring more land under cultivation in response to population growth. She also makes a case that several small, coastal sites were probably permanently occupied farmsteads because of their distance from large settlements (see map 5). Acheson further hypothesizes that such isolated establishments controlled fields averaging thirteen hectares in size.

If studies such as Acheson's have brought us a bit closer to understanding rural patterns of settlement in Classical antiquity, the significance of their Mycenaean counterparts remains to be addressed. I will argue in the following chapter that the proliferation of small sites in the Early Mycenaean period at Pylos also reflects an intensification in agricultural production, although one embedded within a



MAP 5. Settlement and land use model for part of the southern Argolid in the Classical and Hellenistic periods. After Phoebe Acheson, "Does the 'Economic Explanation' Work?," fig. 4. With permission of Phoebe Acheson and Equinox Publishing Ltd. Phoebe Acheson; redrawn and abridged by Rosemary Robertson. Courtesy of the Department of Classics, University of Cincinnati. All rights reserved..

social and economic system radically different from that of Classical Greece. It is a pattern, however, in concord with what we might expect, given the nature of the Mycenaean economy. Ethnohistorical case studies from medieval and early modern Greece provide more useful analogies for the Early Mycenaean settlement pattern than those of Classical Greece.