THE PYLOS REGIONAL ARCHAEOLOGICAL PROJECT

PART I: OVERVIEW AND THE ARCHAEOLOGICAL SURVEY

(PLATES 85–92)

THE PYLOS REGIONAL ARCHAEOLOGICAL PROJECT (PRAP) was formally organized in the fall of 1990, its purpose being to investigate, primarily through the techniques of surface survey, the history of prehistoric and historical settlement and land use in western Messenia, in an area centered on the Palace of Nestor (Fig. 1).[1] In the course of a "reconnaissance" campaign in the summer of 1991 and in three major campaigns during the summers of 1992–1994, approximately 40 km^2 were examined intensively (Fig. 2). These included areas to the north, east, south, and west of the modern town of Hora,[2] and the entirety of the Englianos Ridge (upper and lower). Our fieldwork doubled the number of sites previously known in the area intensively surveyed. PRAP has also investigated nearly all previously known sites in an additional 30 km^2, defining their spatial extent and chronological components with greater precision. In addition to the archaeological survey, natural environmental investigations (geological, geomorphological, geophysical, and paleobotanical) have been supported by PRAP since 1991, organized and coordinated by Eberhard Zangger.[3]

The preliminary results of the archaeological survey are the focus of this part of our report. After a brief discussion of the goals of PRAP, the relationship of our research to previous archaeological endeavors in the area, and our field methods, the principal

[1] In the fall of 1990 a team of codirectors was assembled for PRAP, composed of Susan E. Alcock (Historical Studies), John Bennet (Field Direction), Yannos G. Lolos (Earlier Prehistoric Ceramics), Cynthia W. Shelmerdine (Later Prehistoric Ceramics and Museum Management), and Eberhard Zangger (Earth Sciences), with Jack L. Davis as overall director. In addition, an advisory board was constituted, consisting of Emmett L. Bennett Jr., William P. Donovan, Richard Hope Simpson, Mabel L. Lang, George S. Korres, William A. McDonald, and Stella G. Miller. We are grateful to each of them for their advice and support over the past seven years. For further acknowledgments see p. 488 below.

The following preliminary research reports and abstracts have been published: Davis *et al.* 1993; Davis *et al.* 1994a; Davis *et al.* 1994b; Davis *et al.* 1995; Alcock, Harrison, and Spencer 1996. Illustrated texts of preliminary reports for the 1992–1995 seasons are available on the WorldWideWeb at http://classics.lsa.umich.edu/PRAP.html or http://stream.blg.uc.edu/PRAP/PRAP.html, as is an illustrated gazetteer of all sites investigated by PRAP and a catalogue of artifacts from each.

[2] We thank all the citizens of Hora for their extraordinary hospitality. As their guests, we were extended every courtesy; we are particularly grateful that we were allowed use of the Second Elementary School as a workroom and dormitory. The support extended to us by successive mayors of the town, Panayiotis Petropoulos (1991–1994) and Dimitrios Papathomopoulos (1995), was nothing short of spectacular. We are also appreciative of the help that we received from many young people of Hora and the surrounding area, who, as participants in a European Community sponsored seminar, assisted us for three years in the field and museum. Finally we are grateful to the former foreman of the Palace of Nestor excavations, Dionysios Androutsakis, for his support and willingness to share with us "inside" information about Blegen's excavations.

[3] Zangger *et al.*, forthcoming in *Hesperia* 66.4, 1997.

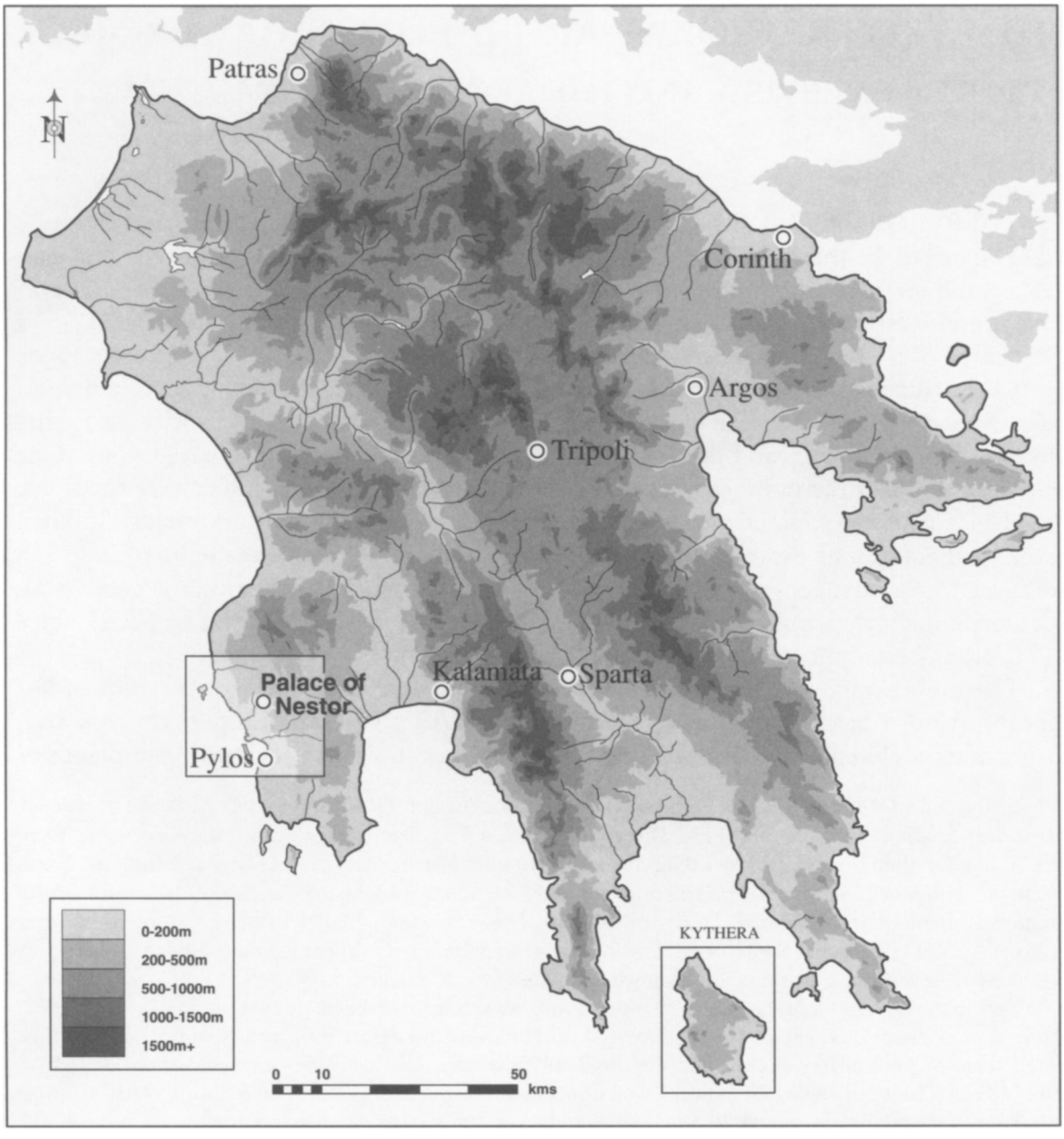

FIG. 1. Relief map of the Peloponnesos (Rosemary J. Robertson). Region investigated by PRAP indicated by box

archaeological results of the project are reviewed, as they are relevant both to prehistoric and historical periods. At the end of this paper general conclusions resulting from archaeological investigations, their relation to the natural scientific fieldwork, and plans for future research will be briefly summarized and discussed.

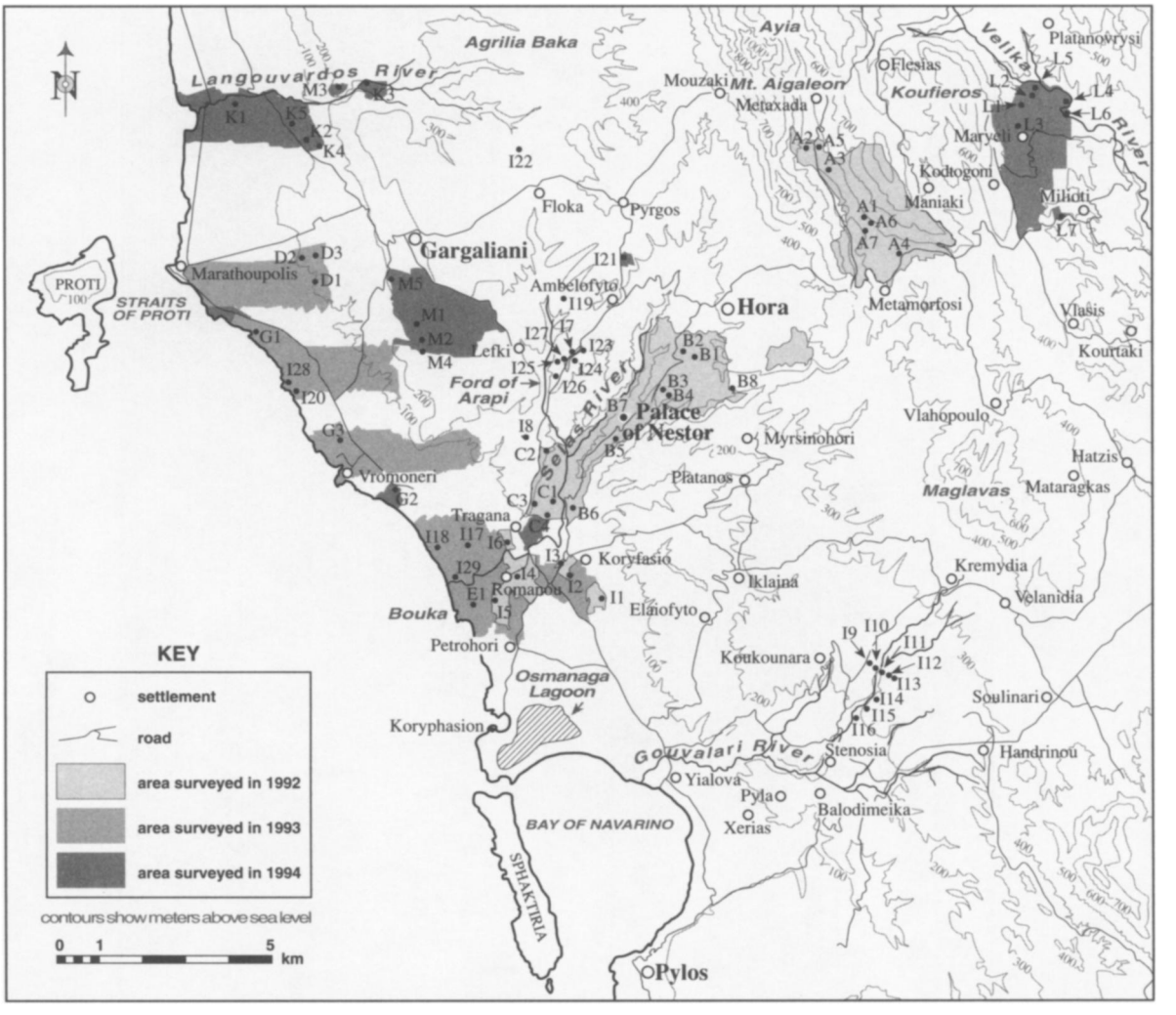

FIG. 2. Region investigated by PRAP (Rosemary J. Robertson). Areas intensively surveyed and sites defined, 1991–1995

THE RELATIONSHIP OF PRAP TO PREVIOUS ARCHAEOLOGICAL RESEARCH

Before World War II, the archaeology of Messenia was almost totally peripheral to the interests of archaeologists, foreign and Greek alike.[4] But today, aside from the northeastern Peloponnesos (the Corinthia and Argolid), we know more about this area, at least for the later prehistoric periods, than any other part of Greece (compare, for example, the

[4] McDonald and Rapp 1972, pp. 117–118.

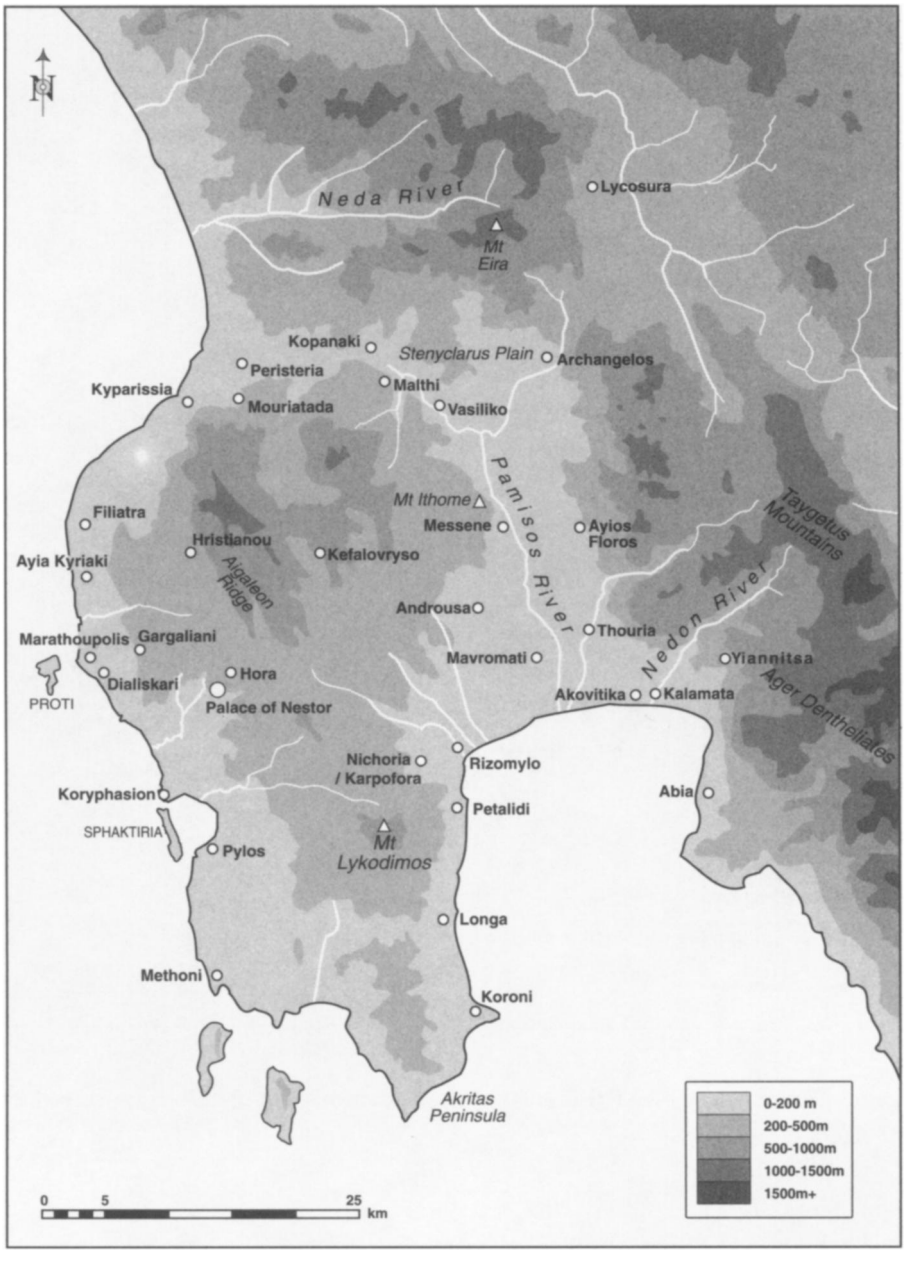

FIG. 3. Relief map of Messenia

absolute numbers of sites catalogued in Messenia with those in other regions).[5] The pioneering researches of Blegen, encouraged by his initial discovery of the Palace of Nestor in 1939, were complemented in the first two decades following World War II by the many excavations of Spyridon Marinatos, for the most part in cemeteries, at several Early Mycenaean centers in the area of Pylos and by excavations at Nichoria on the western edge

[5] Hope Simpson and Dickinson 1979, pp. 126–180; Dickinson 1982, p. 126.

of the Pamisos valley (Fig. 3).[6] Many historical sites had also been discovered and explored prior to the start of the University of Minnesota Messenia Expedition (UMME), especially through the work of the Swedish scholar M. Natan Valmin in the 1920's and 1930's.[7] Although on the whole less attention has been paid to historical than to prehistoric centers in Messenia, exceptions do exist, most notably the urban community of Messene, where fieldwork began already in the 19th century and continues today under the direction of Petros Themelis.

In the 1960's, in large part encouraged by the decipherment of the Linear B script, William McDonald and Richard Hope Simpson launched a campaign to investigate systematically the area that would, in the Late Bronze Age at least (*ca.* 1200 B.C., in the phase known as Late Helladic IIIB), have lain under the control of the Palace of Nestor.[8] The approach of UMME has exercised a prodigious influence on the development of archaeology in Greece, not only in promoting active collaborations between archaeologists, historians, and earth scientists but also in advocating a regional rather than a site-based perspective and a diachronic rather than a synchronic approach.[9] The UMME publication permitted for the first time the systematic examination of Mycenaean geography, as well as more tentative reconstructions of settlement patterns and regional organization for other epochs.[10] Still more recently, archaeology in the area of Pylos has been dominated by the activities of George Korres,[11] who assumed responsibility for publishing the results of excavations left incomplete at the time of Marinatos' death and who has himself continued the investigation of several important local prehistoric centers, most notably the site of Voidokoilia on the coast near the site of Classical Pylos (Ancient Koryphasion).[12]

Despite the sheer quantity of earlier studies concerned with the archaeology of the Pylos area, we believed that new data were urgently required. The archaeological results of UMME are fundamental to our present understanding of the area. Nevertheless, the extensive character of UMME's investigations, in comparison to current standards of intensive surface prospection, made it difficult to determine to what degree their data were representative of the total pattern of settlement in the region.[13] Certainly, some regional patterns proposed by UMME lack parallels in the results of later, more intensive survey projects in Greece. John Cherry thus could write: "So unless Messenia is quite unlike other parts of Greece in its archaeology, it seems plain the UMME has given us a large but selective sample of the extant sites and that much remains to be found."[14]

[6] *Nichoria* I–III.

[7] McDonald 1967, pp. 334–335; Valmin 1930.

[8] McDonald and Rapp 1972, p. 3.

[9] McDonald and Rapp 1972; McDonald 1984; Fotiadis 1995.

[10] See, for example, Chadwick 1972 and 1973; Shelmerdine 1973 and 1981; Bintliff 1977.

[11] See Korres 1990, with references to extensive earlier bibliography; Korres 1993, with a summary of the recent investigations of his University of Athens team in western Messenia.

[12] We are glad to have the opportunity here to thank the University of Athens team for their collegiality during the years we have worked at Pylos; we particularly thank George S. Korres of the University of Athens (the director of the Voidokoilia excavations), Aphrodite Hassiakou, and George Stathopoulos.

[13] Bintliff 1977, p. 6; Cherry 1984.

[14] Cherry 1983, p. 393.

Our investigation of a substantial portion of the overall UMME study area offered us an excellent opportunity to examine what limitations, if any, lay in the original UMME methodology. This was an important issue to settle, since site distributions as presented by McDonald and Hope Simpson have been extensively employed in the past twenty years for the reconstruction of both prehistoric and historical patterns.[15] Increasingly sophisticated methods for reconstructing past demographic trends and settlement patterns furthermore demanded that more detailed information be systematically collected about the size, functions, and duration of occupations at sites previously explored by UMME.

Another problem to be confronted was the prehistoric bias of most long-term archaeological projects in the Pylos region. Blegen's work, especially his excavations at the Palace of Nestor, provided a vast fund of information about Mycenaean life and socio-economic systems. It was a desire to make this picture of prehistory still fuller that fueled UMME in its desire to "reconstruct a Bronze Age regional environment," as the subtitle of the 1972 publication puts it; indeed, the heavily Bronze Age orientation of UMME was freely admitted by its organizers. Of their gazetteer of post-Mycenaean habitation sites (Register B), they noted honestly that "the data reported . . . and our handling of it may be rather inadequate and uneven."[16]

Given these large gaps, both real and potential, in our understanding of the Messenian archaeological landscape, our research emerges as an essential next step, moving well beyond mere reassessment of the results of UMME. This is not to deny the very close relationship of our fieldwork to that of our predecessors. Indeed, the very existence of the UMME work is one factor that made western Messenia so desirable for study. Hope Simpson wrote to us at the beginning of the project: "There is absolutely masses to do in the Pylos area. I rejoice that it is at last being tackled, after such a long 'drought'." In a sense, the survey conducted by PRAP might be viewed as a *de facto* second-stage research project, pursuant to the fieldwork of UMME.[17] Multistage research plans make sense in areas of the world that are archaeological *terra incognita*: there, intensive survey might follow a lengthy program of initial reconnaissance and inventory. In Messenia, however, broad reconnaissance and inventory had already been accomplished by UMME. Our work then comprised detailed examination of many problems brought into clearer relief by their research.

RESEARCH GOALS OF THE PYLOS REGIONAL ARCHAEOLOGICAL PROJECT

Nature of the Project

By organizing a new program of surface survey in western Messenia, members of PRAP hoped to remedy many of the deficiencies in available archaeological data (see pp. 393–396 above). Three different lines of research were envisioned:

[15] McDonald and Hope Simpson 1972. See Alcock 1993; Carothers 1992; Kosso 1993.
[16] McDonald and Hope Simpson 1972, p. 143.
[17] Sullivan and Davis, forthcoming.

1. An intensive survey of a large area around the Palace of Nestor (Pl. 85:a), designed to encompass one other nearby Early Mycenaean center, a Graeco-Roman urban site and its hinterland, and at least one mediaeval village settlement; we also planned to explore the boundary region between the Hither and Further Provinces of the Mycenaean kingdom of Pylos.[18]
2. A systematic investigation of areas adjacent to the Palace of Nestor itself, including intensive surface collection of artifacts, geophysical prospection, and geomorphological studies.
3. An inventory survey of already known prehistoric and historical archaeological sites in the area of Pylos, involving reexamination, systematic collection of surface finds, and mapping.

Our initial intent, already in the formative stages of research design, was to examine the entire historical and prehistoric spectrum of human occupation in western Messenia. This decision was strongly influenced by the Annales school of historical research, with its emphasis on the long-term, and complex, relationships between human societies and their physical environments. Questions about changing patterns of Mediterranean settlement and land use, and about shifting conceptions of landscape, have acquired increasing prominence in later 20th-century classical archaeology and ancient history. It is to this growing field of inquiry that our research is intended to contribute. Any such study of the "big picture" first demands, of course, that certain facts about many different stages of the past be established as soundly as possible. Only then will these individual "case studies" from different periods of the past, when examined in the aggregate, contribute to our interpretation of patterns in the overall history of the region.[19]

Reconnaissance Studies

Following a brief visit to the area in 1989 (by Alcock, Cherry, and Davis), the codirectors of the project undertook a single preliminary reconnaissance study season at Pylos in 1991.[20] The rationale for this stage of the project was the realization that

[18] Our original goal was to survey intensively 60 km^2. In the event, however, this proved to be an overly ambitious undertaking. Our estimates had been based on experiences elsewhere in Greece (e.g., Nemea, Keos, Melos), where, as it happens, patterns of ancient settlement are rather different from those of Messenia. In Messenia, where small farmsteads seem to have been rare and large nucleated centers the rule (see pp. 455–458 below), we found it necessary to invest a greater than anticipated percentage of our time in the gridded collection of surface artifacts from large sites. Such a reallocation of human resources reduced by one-third our ability to cover "new" ground.

[19] The relevance of such questions to the study of history is now widely recognized. Nonetheless, appreciation of the enormous potential contribution of archaeology to social and economic history has been slower to develop, albeit with some exceptions (e.g., Snodgrass 1991; Bintliff 1991; Knapp 1992 and 1993). A few regional-studies projects in Greece have succeeded in actually introducing an archaeological component to historical studies in the *longue durée* (see Cherry, Davis, and Mantzourani 1991; Jameson, Runnels, and van Andel 1994).

[20] Fieldwork was conducted under the auspices of the American School of Classical Studies at Athens (ASCSA), in accordance with terms specified in a permit granted by the 7th Ephoreia of Prehistoric and Classical Antiquities at Olympia. Participants included William V. Alexander, John Bennet, John F. Cherry, Jack L. Davis, Yannos G. Lolos, Cynthia W. Shelmerdine, and Eberhard Zangger. In following years our

careful preparation and advance planning significantly reduce the amount of time spent in executing fieldwork. Preliminary examination of terrain to be intensively surveyed also allows realistic quotas to be set for the amount of land to be investigated daily by survey teams. Given the substantial numbers of sites already discovered (and in some cases also excavated) within the area we proposed to examine, it seemed particularly important that we give careful consideration in advance to choosing the most appropriate strategy for studying these sites. Here, as always, the problem lay in finding the right balance between intensive and extensive techniques in a multistrategy survey.[21]

Our specifically archaeological goals for the 1991 reconnaissance season (during which no artifacts were collected) were as follows:

1. *The selection and definition of the boundaries of the area to be examined in 1992–1994.* To this end we systematically walked selected samples of the overall area covered in our permit in order to learn more about the artifact densities our teams would be likely to detect.
2. *Visitation of all known sites within the area, especially those with inadequately recorded architectural remains, using a computer database especially prepared for the project.*[22] The result of these inspections was the compilation of a list of needs for drawing and more intensive study in future years.
3. *The examination of surface distributions along the entire ridge of Ano Englianos.* On the basis of this inspection we concluded that it would be necessary to include within the compass of our investigations of this area a program of coring and geophysical prospection.

Definition of the Study Area

A general problem of regional surface survey is the difficulty of defining a study area that is equally appropriate for the investigation of all periods of the past. This is particularly true in mainland Greece, where the borders of past polities only seldom coincide from one period to the next, whether prehistoric or historical. In our choice of study area, although the location of the Palace of Nestor was a *sine qua non*, we effected a compromise

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work was completed according to the terms established in permits issued by the Central Archaeological Council of Greece (ΚΑΣ). We would like to express our appreciation to the staff of the 7th Ephoreia of Prehistoric and Classical Antiquities at Olympia, Xeni Arapoyianni, Yioryia Hatzi, and their successive representatives in Hora: Ourania Vyzyinou, Maria Fouzeti, Sophia Iliopoulou, Kalliope Kaloyerakou, Maria Antoniou, and Evangelia Malapani. We also thank the staff of the 5th Ephoreia of Byzantine and Post-Byzantine Antiquities at Sparta, particularly Aimilia Bakourou and Paraskevi Kalamara, as well as Kallimahos Antonakos, representative of the Byzantine Ephoreia at Kalamata. The guards at the Hora Museum and at the Palace of Nestor (particularly head guards Yiannis Gliatas and Dimitris Kayias) did everything in their power to make our working conditions satisfactory. Finally, we thank William D. E. Coulson, director of the ASCSA, for his interest in the progress of our fieldwork, and both him and his staff for facilitating our research in every way possible; his constant moral support and guidance have been much appreciated.

[21] See, for example, Cherry 1983, p. 394.

[22] This database was assembled at the University of Wisconsin by John Bennet, assisted by a National Endowment for the Humanities Summer Stipend (FT-35124). A second invaluable resource was a compendium of historical, archaeological, and epigraphical sources relevant for the study of Greek and Roman antiquity in western Messenia, compiled by Nigel Spencer during his tenure as a postdoctoral assistant to Susan E. Alcock at the University of Reading.

by selecting a zone in which we could be assured of collecting data relevant to a number of interesting problems for all stages of human occupation in the region.

On the basis of evidence available in 1991, we hypothesized that the Palace of Nestor site, before it became an administrative center for the entirety of the southwestern Peloponnesos, was only one of many roughly equivalent and competing emergent centers of power in the region. The most authoritative discussion of these issues had been offered by Oliver Dickinson, who contrasted the situation in Messenia with that in the northeastern Peloponnesos. In the former case, Dickinson envisioned a situation during the critical period of state formation where "many, perhaps rather unstable, principalities emerged, and the rise of Pylos may have been accompanied by a good deal of warfare."[23] Since we wanted not only to date more precisely the beginning of the ascendancy of the Palace of Nestor but also to understand the process by which it prevailed over its competitors, it was imperative that we chose an overall survey area of sufficient size and scope to embrace the territories of these neighbors. We could not limit ourselves to a notional "prepalatial" territory of the Palace of Nestor alone.

Because of the preceding considerations and as a result of the reconnaissance undertaken in 1991, we decided to select a very large study area, approximately equal to that encompassed by Figure 2. This area was originally approximately 250 km^2 in size and was largely a self-contained unit, blocked at the north, east, and south by high hills that separate it from the Kyparissia plain, the valley of Kalamata, and the peninsula of Methoni and Koroni (Fig. 3); it is, for the most part, geographically oriented toward the coast at the Bay of Navarino. The selection of this large study area allowed us to include significant regional centers of all periods of the past, together with secondary settlements and isolated habitations in their hinterlands. Apart from at least a half dozen of the subregional centers that would initially have challenged the Palace of Nestor for dominance, our original study area included the Classical center of Pylos at Koryphasion (Pl. 85:b), Hellenistic and Roman Yialova, and villages, such as Pyla or Kremydia, which are known to have formed part of the estates of the famous Acciajuoli family in the mediaeval period. Such a territory was, of course, too large to study intensively in its entirety, and it was always our intention to select sample microregions for such examination.

As can often happen, however, external factors worked to prevent the complete realization of our original research design. Although in 1992 we were allowed to investigate the totality of our defined study area, in subsequent seasons our operations were restricted to approximately one-third of the territory we had originally envisioned: in the end, to a continuous block of land that included the entirety of the Englianos Ridge, coastal areas north of the Bay of Navarino, and several valleys east of the Aigaleon range. Omitted, among much else, was the hinterland of modern Pylos and thus the ancient city of Pylos at Koryphasion, the Hellenistic and Roman settlement and cemetery at Yialova, the citadel of Paleonavarino, and the villages of Pyla and Kremydia.

These restrictions forced a readjustment of our initial plans midstream. Although the project did in the end cover a valid and interesting sample of the Pylos area, there is no doubt that the reduction of our study area made several of our original and most

[23] Dickinson 1977, p. 94; also Dickinson 1982, p. 127.

pressing research goals impossible to pursue. We can claim no clear picture of overall patterns of settlement in very significant parts of the Hither Province of the kingdom of Nestor, in much of the chora of the Classical polis at Koryphasion, or in the mediaeval estates of the Acciajuoli. Out of necessity, however, we redesigned our field strategy to identify alternative areas upon which to concentrate, which would still allow us to draw significant conclusions about the history of settlement in western Messenia.

Whereas it had been the plan to study in detail the territory of one of the several major Mycenaean centers to the south of Englianos (e.g., Iklaina or Koukounara), we shifted emphasis to prehistoric centers farther north (e.g., Ordines). Historical studies now concentrated on the large ancient coastal towns between the Bay of Navarino and Marathoupolis (e.g., Romanou and Dialiskari), since investigation of the best-documented settlement of the region, Koryphasion, was not allowed. Likewise, inability to work at mediaeval sites such as Pyla or Kremydia led us to explore more thoroughly the important Byzantine and post-Byzantine remains in the vicinities of Metamorfosi and Hora. Finally, the redefinition of our study area allowed us to invest more resources than we had planned in the examination of areas to the east of Mount Aigaleon, such as the valley of Maryeli. This redirection gave us the opportunity to consider whether these eastern zones, lying in a different drainage system and quite probably forming part of different political units in the past, followed a different developmental trajectory from the rest of our study area.

Within the area ultimately covered by our permit, we reaffirmed our intention to reexamine all previously reported sites and to select sample areas to be surveyed by intensive methods. These samples were chosen so as to achieve a balance between cultural and environmental considerations: areas for examination were selected, first, so that all major soil and landscape types were included and, second, so that they encompassed ancient centers that must have figured large in the political and cultural development of the region. In the first case, we were guided in our choice of target areas by relief, soil, and bedrock maps prepared by Zangger; in the second, by extensive prior study of historical sources and the conclusions reached as a result of previous archaeological research in western Messenia.

SURVEY METHODS

The procedures used in the intensive survey are those that were first introduced in Greece in the course of survey work on Melos (1976), in Boiotia (1979–), in the southern Argolid (1979–1983), and on Keos (1983–1984) and were further developed in the Nemea Valley (1984–1989) under the direction of Davis, Cherry, and Eleni Mantzourani. The general methods have been briefly described in a number of preliminary publications[24] and were discussed in detail in the final report on the survey on Keos;[25] they are, by now, so well known that they should need little further discussion.

[24] E.g., Cherry *et al.* 1988; Wright *et al.* 1990.

[25] Cherry, Davis, and Mantzourani 1991.

Our field walkers were spaced about 15 meters apart as they walked transects: parallel lines across the landscape. The basic unit defined and mapped by team leaders was the "tract", often coextensive with a cultivated field but in any case rarely larger than one or two hectares.[26] Total numbers of sherds, tile fragments, and other artifacts were recorded for each 100-meter segment of a transect. All "feature" artifacts (in the case of sherds, all but coarse, undecorated body sherds) were collected and brought to our workrooms, where they were identified and, at the end of each season, permanently stored by tract as a reference collection in the Museum of Hora. Within the samples selected for intensive survey the entire landscape was examined, barring impassable or fenced-off areas. Subsequent to initial tract walking, denser concentrations of surface finds, designated as Places of Special Interest (POSIs), were examined in greater detail.[27] For this purpose, however, the transect-and-grab method of "site collection", pioneered in the southern Argolid and a mainstay of survey strategies on Keos and at Nemea, was abandoned in favor of techniques that would give us more spatial control over variation within sites.[28]

At many of the sites investigated by our teams, the field methods used fall under the heading of "large-site survey". We knew before our first field season that the ancient settlement surrounding the Palace of Nestor was simply too big for useful information to be gathered by means of simple techniques that had originally been designed to investigate the remains of much smaller sites, such as, for example, Classical farmsteads. What was not foreseen, however, was just how many other extensive prehistoric and historical sites we would discover. Fortunately, on Keos, in the Nemea Valley, and also in Boiotia, methods had begun to be developed to deal with such situations,[29] and these strategies were adopted and modified for our work in the Pylos area.

It was also clear after our 1991 reconnaissance season that surface collection of artifacts alone would not always produce data sufficient to address the problems that concerned us. This was especially true at the Palace of Nestor. Extensive excavations in the past have greatly altered the character of the surface deposits in parts of its immediate vicinity,

[26] The borders of tracts were in the first instance recorded on Greek Army topographic maps at 1:5,000 scale, reduced to 1:10,000. The project also had access to 1:50,000-scale topographic maps (Greek Army) and 1:50,000-scale geological maps (Institute for Geological and Mineralogical Exploration of Greece).

[27] In so far as is possible, use of the term "site", as it has traditionally been employed in archaeological survey, was replaced by the term POSI in the internal records of PRAP. In our view sites are not, in any regard, "natural" components of a landscape but are, instead, constructs that archaeologists *choose* to define within a continuum of artifact densities that range in any Mediterranean region from very low to very high. Our use of the term POSI is intended to emphasize this relative character of site definition. POSIs described in this report are locations that we have studied in detail because of the specific problem-orientation of our research. They are usually, but not always, places where surface artifactual densities are higher than in adjacent areas and are clearly bounded. We recognize that another project might well choose to define a different set of POSIs were they to resurvey our study area or even to reexamine our own data. In this report POSI precedes the name of all sites defined by PRAP. Sites listed in Hope Simpson and Dickinson 1979 are prefixed with GAC. Sites catalogued by UMME are distinguished by the prefix UMME.

[28] Types of transect-and-grab systems are described in Jameson, Runnels, and van Andel 1994, pp. 225–227, and in Cherry, Davis, and Mantzourani 1991, pp. 28–31.

[29] Bintliff and Snodgrass 1988 (Boiotia); Whitelaw and Davis 1991 (Keos); Alcock 1991a (Nemea).

in ways that reduced the value and amount of information that was accessible without subsurface investigations. The situation of the palace on a high hill surrounded by steep scarps itself created further difficulties: Blegen's various test trenches around the palace in the so-called "Lower Town" revealed evidence of considerable erosion of archaeological deposits from the citadel above, particularly in surface levels.[30] To the northeast, between the palace and Tholos Tomb IV, the problem was compounded: very deep soundings there suggested to Blegen that most of the soil deposit above bedrock had been redeposited as the result of the erosion of soil from a tumulus once heaped over the tomb. What we only came to discover later, however, was the extent to which soil erosion has affected our picture of other sites within our study area, such as Koryfasio *Beylerbey* (POSI I1).[31]

Consequently a program of geological and geophysical studies was designed to cope with such difficulties, at the Palace of Nestor and elsewhere. The goal of this research was to assess the extent of buried architectural remains and to estimate the role played by secondary geological processes in disturbing the archaeological record. The results of this work frequently proved very useful. At the Palace of Nestor, for example, augering defined specifically which areas around the citadel have most likely been the recipients of redeposited earth; thus the probability that material collected on the surface actually reflects the presence of *in situ* subsurface deposits can be evaluated. At the site of Romanou *Glyfadaki* (POSI E1), a combination of techniques such as proton magnetometry and electrical resistivity delimited the remains of a buried building of Hellenistic date.

Methods for the inventory survey consisted of the following routine procedures: (1) Sites were located on a 1:5,000 map. This may seem a simple step, but the regional significance of the data available from older excavations and surface reconnaissance was often difficult to comprehend, not least because sites had never been precisely marked on published maps. This work was facilitated by our access to a set of aerial photographs, prepared by UMME and now in the archives of the ASCSA, on which many sites investigated by UMME were indicated.[32] (2) Surface collections were made in an attempt to determine more clearly the size of previously known sites and to establish with greater precision the extent of surface distributions of material of particular periods. Such fieldwork often resulted in radical revisions to our understanding of their history and function. Systematic collection procedures were employed, identical to those practiced on newly discovered sites.

[30] *Pylos* III, pp. 47–68.

[31] See Zangger *et al.*, forthcoming.

[32] We are grateful to the former archivist of the ASCSA, Carol Zerner, for arranging the production of copy negatives and prints from each of these photos, and to Craig and Marie Mauzy for manufacturing them. A full set of prints and negatives is now part of the PRAP Archives at the University of Cincinnati. In addition to these aerial photographs (taken in the 1960's) we have also in the PRAP Archives prints from a set of photographs taken by the Royal Air Force under combat conditions in 1943 and now housed at the University of Keele in England. We are grateful to Sheila Walton, the archivist, for providing them and to Nigel Spencer for his help in acquiring them. Finally, we have been able to obtain recent aerial coverage of much of our study area through the courtesy of the Greek Ministry of the Environment and Urban Planning.

IMPLEMENTATION OF RESEARCH STRATEGY[33]

Full-scale fieldwork, the results of which constitute the basis for this report, began in 1992 and continued for three seasons; it was followed by one large-scale study season (1995) and subsidiary study in 1996.[34]

The 1992 Season

In the first season of fieldwork, two teams of field walkers examined the entire Englianos Ridge, from the outskirts of the town of Hora to the village of Koryfasio, as well as parts

[33] It is a pleasure to acknowledge the assistance that we have received in fieldwork from members of the University of Minnesota Archaeological Researches in the Western Peloponnese (MARWP) team, particularly its director, Frederick Cooper, and project members Jane Carter, Diane Fortenberry, Charles Griebel, and Michael Nelson. In conjunction with their preparation of an actual-state plan for Blegen's excavations, MARWP members offered us an invaluable service by establishing grids at several sites investigated by our teams, notably in areas around the Palace of Nestor and at Koryfasio *Beylerbey*.

[34] Each summer an average of 35 individuals participated in the project. These included approximately 20 field walkers, a museum staff, natural scientists, and the project directors. We would like to express our warm appreciation to all those who joined PRAP in the field: Susan Alcock (1992–1995), William Alexander (1991–1995), Luanesha Alexander (1995), Maria Antoniou (1992–1994), Tarek Arafa-Hamed (1995), Oliver Bäumer (1995), Emilia Banou-Vassilas (1993–1994), Yiannis Bassiakos (1995), John Bennet (1991–1995), Ian Bennet (1992–1995), Emmett Bennett (1994–1995), Ina Berg (1994), Andrea Berlin (1995), Ebe-Karsten Blohm (1995), Michael Boyd (1994), Kate Bracher (1995–1996), Ulrich Brandes (1995), Lyla Brock (1992–1993), Cyprian Broodbank (1992), Christopher Bryan (1993), Bryan Burns (1994), John Cherry (1991, 1993–1995), Christina Clark (1992, 1994), Eric Cline (1992), Patrick Cronin (1992), Tracey Cullen (1992), Christopher Davis (1995), Jack Davis (1991–1996), Philip Davis (1995), Siriol Davies (1995), Ellen Dallagher (1993), Laura DeLozier (1993–1994), Roberta Dupuis-Devlin (1993–1995), Helen Dizikes (1993–1994), Birgitta Eder (1995), Fred Fieberg (1994–1995), John Fischer (1992–1994), Michael Galaty (1993–1995), Kirsten Gay (1994), Sharon Gerstel (1993–1995), Carla Goodnoh (1993), Matthew Gonzales (1994), Helge Grasshoff (1994–1995), Deborah Harlan (1992–1995), Ann Harrison (1993–1996), Sebastian Heath (1993–1995), Volker Heinz (1995), Jørn Helbert (1995), Nicolle Hirschfeld (1992), Stephen Hodkinson (1993), Susanne Hofstra (1992–1995), Gulnara Ismail-Zade (1992–1993), Hans Gunter Jansen (1992–1993), Marianne Jansen (1992–1993), Martha Jenks (1992), Kalliope Kaloyerakou (1992–1994), Axel Kampke (1994–1995), Jost Knauss (1995), Cynthia Kosso (1992), Maria Kottaridis (1993), Falko Kuhnke (1994–1995), Wayne Lee (1993–1995), Hauke Loebert (1995), Yannos Lolos (1991–1996), Susan Lupack (1993–1995), Timothy McKern (1992–1993), Kostalena Mihalaki (1992), Sarah Monks (1992), Joanne Murphy (1993–1995), Priscilla Murray (1993–1994), Georgia Nakou (1992, 1994), Danielle Newland (1994), Son Nguyen (1993), Emil Obermayr (1995), Carsten Othmer (1995), Holly Oyster (1993), Patricia Parker (1994), William Parkinson (1992–1995), Paula Perlman (1992), Richard Pianka (1992, 1994), Jens Poppensieker (1995), Aristea Poulaki (1994), Whitney Powell-Cummer (1995), Kate Pretty (1995), Betsy Reichert (1993–1995), Joe Remy (1994), Rosemary Robertson (1992–1995), Curtis Runnels (1993–1994), Michael Sage (1994), Robert Schon (1993–1995), Susan Seidenberg (1992), Cynthia Shelmerdine (1991–1996), Kim Shelton (1994–1995), Kathleen Slane (1993), Nigel Spencer (1992–1994), Sharon Stocker (1992–1996), David Stone (1993–1994), Amanda Sutphin (1993–1994), Lauren Talalay (1992), Steven Thompson (1993), Michael Timpson (1994–1995), Jan Verstraete (1995), Christian Vocks (1995), Martine Wagenaar (1992), Günter Wagner (1995), Charles Watkinson (1992–1994), Silke Weddig (1995), Eric Wetzels (1992), Peter Wiedelt (1994), Sergei Yazvenko (1992–1993), Aidonis Yiotis (1995), Eberhard Zangger (1991–1994), and Frank Zeroch (1995). Participants represented several dozen different universities and research institutions in Canada, France, Germany, Greece, Holland, Ireland, Russia, the United Kingdom, and the United States.

of the Tragana and Kaldamou areas. It was our assumption that this block of land would include much of the territory under control of the prehistoric settlement at Ano Englianos in the time before it became a regional center of power (i.e., before it *was* "The Palace of Nestor"), including borders with adjacent pre- and Early Mycenaean polities. We hypothesized that this area would also include parts of territory probably controlled by the once independent polities that there is reason to believe existed at Koryfasio, Tragana, Myrsinohori, and Hora. It also touched on the southern edges of the modern town of Hora, mediaeval Ligoudista. Virtually all of the area examined by these two teams is geologically homogeneous and consists of easily erodable Pliocene marl bedrock with deep deposits of alluvium in valley bottoms.

The second focus for intensive survey, the valley of Metaxada (Pl. 85:c), contrasted in its geology with the Englianos area and was chosen partly for this reason. Its slopes consist of older Pleistocene soils formed on limestone bedrock, and there is relatively little alluvium in the bottom of the valley. The valley was also selected for cultural reasons, since it is situated on the other side of Mount Aigaleon, a mountain range generally accepted, on the evidence of the Linear B documents,[35] as forming the boundary between the Hither and Further Provinces of the kingdom of Nestor; it is also the location of a Middle and early Late Bronze Age site, Kalopsana, already known from the reports of UMME. This area was later, under the palatial system, to become part of the Further Province of the kingdom of Nestor; the effects, if any, of the formation of a Mycenaean state centered at Englianos on patterns of settlement here were of considerable interest. While prehistoric-research concerns largely dictated fieldwork in the first season, the limits of the large mediaeval and Early Modern site of Metamorfosi *Skarminga* (POSI A4; Pl. 87:b) were defined at the southern end of the Metaxada valley, near the modern village of Metamorfosi.

In addition to the three teams engaged in intensive survey, a fourth was assigned to investigate previously known sites, principally in the area of the modern villages of Romanou and Koryfasio. At Koryfasio, our goal was to determine more precisely the size and date of occupation of the Mycenaean sites at Koryfasio *Portes* (POSI I3) and at Koryfasio *Beylerbey* (POSI I1; Pl. 86), one north, the other south of the so-called Osmanaga tholos tomb at Koryfasio *Haratsari* (POSI I2), the oldest known Mycenaean tholos tomb in Greece. At Romanou, and nearby at Petrohori, we also investigated locations where historical remains had been reported by earlier archaeological projects. In all cases, the histories of the sites investigated turned out to be much more complex than previously suspected and their size much larger.

The 1993 Season

In response to the restrictions imposed by our 1993 permit and on the recommendation of Zangger, research in 1993 concentrated on areas of Pleistocene soils along the Ionian coast between Osmanaga Lagoon and the town of Marathoupolis (Pl. 85:d). Archaeological remains on these stable soils will not have been subject to the virulent erosion typical of many locations explored in the previous year. Our strategy was to define three transects, approximately a kilometer wide north–south and separated one

[35] E.g., Chadwick 1972 and 1973.

from the other by about a kilometer. These transects ran east from the sea, terminating approximately at the 100-meter contour, west of the town of Gargaliani and the village of Lefki. Our goal was to sample a significant fraction of the coastal area west and northwest of the Palace of Nestor, so that patterns of settlement could be compared with the results of the 1992 season. Unlike the areas of Pliocene marl farther inland, the existence of very old and stable soils along the coast suggested that we might find *in situ* even the remains of Pleistocene occupation, not previously documented in Messenia. At the same time, the position of the northernmost transect was chosen to include two sites already known in outline from the research of others, viz., Marathoupolis *Dialiskari* (POSI G1) and Gargaliani *Kanalos* (POSI D1; Pl. 87:a). The former was of special interest because of the extensive Roman remains observed there by the Swedish scholar Valmin.[36]

Our fourth team in 1993 again concentrated on the Romanou-Koryfasio area. Areas between the various sites investigated in the previous year were intensively studied, thus creating a continuous block of surveyed territory. Subsequently, attention turned to the systematic collection of the extremely large prehistoric and historical site at Romanou, which had been defined in the course of field walking, using a "large-site" collection method that employed what we called microtracts.[37] Systematic investigation of the prehistoric town around the Palace of Nestor also began, although here collection of surface remains was organized according to a 20-meter grid in areas northeast and northwest of the palace.[38] In conjunction with surface collection, geophysical and geomorphological research commenced at several locations northeast of the palace. A similar gridded collection of surface remains was conducted at Kanalos and Glyfadaki (see pp. 467–469, 459–465 below). Geophysical and on-site geomorphological research was also extended to the site of Koryfasio *Beylerbey*.

The 1994 Season

The focus of research in 1994 was on the completion of systematic collection of large sites defined by field walking in previous years and on the detailed mapping of standing surface features at a number of historical and prehistoric sites. To this end we completed gridded collection on the Englianos Ridge; collected the extensive site at Metamorfosi *Skarminga* (POSI A4; Pl. 87:b); gridded two new sites discovered north of Gargaliani *Kanalos* (POSI D1) in 1993, both within the area known as Megas Kambos; and mapped and collected the totality of the impressive site at Marathoupolis *Dialiskari* (POSI G1), after

[36] Valmin 1930 and 1938. Research at Kanalos began in 1993 but was discontinued in 1994 when the area covered by the survey permit was curtailed.

[37] The basic units for site collection were the tracts established at the time the site was initially defined by field walking. Generally, if the original tract was larger than half a hectare in extent, it was subdivided in order to achieve greater spatial control over artifactual distributions. At some sites, within each of these microtracts total (vacuum) collections were made by gathering all surface artifacts from long parallel transects; in other instances, all artifacts were collected from 10 m^2 circles at the notional center of the microtract. In the remainder of the microtract, grab samples of potentially diagnostic artifacts were collected. See Alcock 1991a for the rationale behind this and similar site-collection strategies.

[38] The grid employed by PRAP for surface collections on the Englianos Ridge is an extension of that established by the MARWP project for mapping remains of the Palace of Nestor itself.

some supplemental field walking to determine its northern limits. Mapping of standing features at some of these sites and laying collection grids at others was greatly accelerated through the use of a Sokkia Set 5 TotalStation.[39] In addition to these time-consuming commitments, as labor was available we continued our inventory of other known sites in our permit area.

At the same time the area intensively surveyed was expanded considerably in three disparate locations. Northeast of Hora, a continuous block of land was examined around the modern village of Maryeli and the already known prehistoric site of Maryeli *Koutsouveri* (POSI L1; Pl. 87:c). We had several reasons for choosing to explore the Maryeli area. Like the Metaxada valley, it lay in the Further Province of the kingdom of Nestor and was home to an area of stable Pleistocene soils; but, unlike Metaxada, it is situated within the drainage of the Pamisos valley and partly within view of Kalamata. For that reason we also hypothesized that the occupational history of the area was likely to reflect developments at the historical center of Messene or at prehistoric Thouria (Ellinika) and thus follow a trajectory contrasting with that of the remainder of our study region, oriented, as it is, toward the Bay of Navarino and the Ionian coast. Moreover, this eastern part of our survey area lay nearest the territory of the military conqueror and controller of Messenia in the Archaic and Classical era, the city-state of Sparta.

Other areas targeted for intensive survey in 1994 included a final kilometer-wide coastal transect at the northernmost limits of our permit area, just south of the Langouvardos River. This transect was chosen so as to incorporate the location of several known prehistoric sites, notably Gargaliani *Ordines* (POSI K1; Pl. 88:a) and Valta *Kastraki* (POSI K3). After tract walking, the former was examined in detail by gridded surface collection. The completion of this transect thus provided us with additional detailed information about two extensive prehistoric sites that at some point in their history were absorbed into the palatial system administered from Ano Englianos. The settlement trajectories of Ordines and Kastraki can now be compared and contrasted with those of sites like Koryfasio *Beylerbey* (POSI I1) and Metaxada *Kalopsana* (POSI A2) that are oriented to the Bay of Navarino or are nearer to the Englianos ridge, or both. The transect also revealed the existence of several small, humble, hitherto unknown historical settlements, the type of site most often missing in previous archaeological studies of Messenia. The final area for intensive survey, the uplands between the town of Gargaliani and the village of Lefki (Pl. 87:d), was chosen to add greater geographical diversity to our samples. In elevation this area is remarkably different from the coastal areas farther west; at the same time the existence of Pleistocene soils on limestone bedrock differentiated it significantly from the marly uplands of the Kaldamou and Englianos ridges farther south. No sites had previously been reported in these uplands.

The 1995 Season

All sites defined by our teams in 1992–1994 were systematically reexamined in 1995. The purposes of revisitation were as follows: (1) to write instructions and to draw

[39] We are grateful to the Interdepartmental Program in Classical Art and Archaeology at the University of Michigan for the loan of this equipment and to David Stone, Michael Galaty, and Sebastian Heath, who supervised its operation. A TotalStation is an instrument that measures both distance and elevation by shooting an infra-red beam to a reflecting prism; these measurements are then recorded on a hand-held computer attached to the machine.

accompanying sketch maps to assist archaeologists in reaching each site;[40] (2) to draft a description of the site for inclusion in an illustrated descriptive gazetteer of sites;[41] (3) to take supplementary photographs; (4) to prepare additional drawings of architectural features; (5) to determine if there had been any substantial change in the condition of the site since the time of its initial collection and to inform officials of the Greek Archaeological Service about antiquities in immediate danger of destruction; and (6) to evaluate, without collection, the date and function of any new artifacts noticed on the surface in the course of revisits. Revisitation and reinspection of our data led us in 1995 to define several new sites.

Such, then, is a sketch of the development of fieldwork in 1992–1995. The overall strategy of selecting nonrandom samples stratified by landscape type seemed to us appropriate in an area such as western Messenia, where a great deal was already known from the results of previous research.

DATA MANAGEMENT AND MAPPING

Data Management[42]

From the beginning of the project PRAP has been committed to electronic storage and management of data generated by field and museum personnel. For our reconnaissance season in 1991, John Bennet created an electronic database containing basic information on all known sites in the survey region, based primarily on the research of UMME but including subsequently published material. Nigel Spencer later updated this database to include all post–Bronze Age sites.

During our three field seasons, electronic data files reflected the distinction between field and museum operations. In most instances, specific electronic files mirrored to varying degrees paper versions of data collection and summary forms, thus ensuring a hard-copy backup in the event of a major electronic data loss.

Fieldwork generated, on a daily basis, data concerning the numbers and types of artifacts observed within each unit (tract) walked. Each field walker summarized these data on stamped paper pads. At the end of each day, these slips—sometimes more than 100 per day—were collected by each team and submitted to the project's database manager. They formed the basis for the data compiled in the main field-data file: Master Tract

[40] These sketches and instructions have been privately published and copies deposited with the ASCSA, the University of Cincinnati, the 7th Ephoreia of Prehistoric and Classical Antiquities at Olympia, and the 5th Ephoreia of Byzantine Antiquities at Sparta: see Bennet 1995a.

[41] This gazetteer is now publicly available on the WorldWideWeb (see note 1 above).

[42] This section of the report is the work of Debi Harlan, University of Wisconsin, Madison. In the 1992 season, a Macintosh® Classic™ with 4 MB of RAM and a 40-MB hard disk and a PowerBook™ 140 were used for most electronic data management. In all seasons, a Personal LaserWriter was used for printing. In 1993–1995, hardware was augmented by additional PowerBooks. Since 1991 our database application of choice has been Filemaker Pro™ (now in version 3.0). The application is easy to use, thus making it possible to delegate data-entry duties to other staff members, without losing much time in training them. The program also offers comprehensive layout features that expedite the creation of paper forms with almost exact on-screen parallels. Furthermore, it has allowed stable export of data in a number of formats for manipulation within other applications, chiefly those associated with our Geographical Information System (GIS), ARC/INFO (see pp. 412–413 below). Finally, by means of its scripting facilities and the use of Apple Events, Filemaker databases were linked to our in-field geographical display application, MapInfo (see pp. 411–413 below).

PRAP Master Tract Data

Area L Yr 94 Tract 478 Date 8/8/94 Association L007SA

Pass#	Length#	TM#	Length	Pottery	Tile	Stone
1	1	93	30	8	7	0
1	1	89	45	9	0	0
1	1	2	25	3	2	0
1	1	7	25	8	6	0
1	1	92	40	7	6	0

165	35	21	0
TotLgth	TotPot	TotTil	TotSt

TotArea 495

DenPot 707.07

DenTil 424.24

DenSt 0.00

Coordinates:

E-W 10190

N-S 20076

Average Visibility 10 %

Vegetation	Pass	Visib%
straw and weedy olives, bushes	1	10

NB page# III:65

Map NB page# III:61

Photo Ref.

Features

Comments

good scatter of sherd and tile

FIG. 4. Page from Master Tract Data file (Deborah K. Harlan)

PRAP POSI Record Form

Site # L 07 | **Area** L | **Year** 94 | **Tract(s)** 477, 478, 479, 492 | **Map Coordinates** E-W 35202, N-S 26931

Team Leader, then members in transect assignment order: 57, 92, 93, 94, 7, 2, 1, 89

Start Time 8:20 | **End Time** 11:30 | **Date** 10/8/94

Nearest Village: Ayioi Apostoloi

Toponym: *Palaiospitia*

Location (NOTE: please relate to **(1)** tracts walked in region & **(2)** local topography)

Site is along N side of road from Ay. Apostoloi to Milioti. Site center is in tract 478 (approx. 183m and 54 degrees from the church and cemetery complex). The three parallel fields running N from the road to the knoll (maquis covered) walked as tracts 477, 478, 479 from the main grid area.

Site Description (NOTE: please include a sketch plan of the site grid on the reverse of form)

Tracts 477 and 479 are cultivated with young olives and deeply plowed or rototilled. The finds are especially thick in those areas. Tract 478 is weedy with low visibility although it still has a fair number of finds. In tract 481, to the N in the maquis, foundation walls of large cut stone are visible. Note that total station team used variant of grid system, switching the X and Y coordinates

Surface Cover

Orchard/Grove	☐ N	☒ Y
Vineyard	☒ N	☐ Y
Other Cultivation	☒ N	☐ Y
(specify surface cover)		
Woodland	☒ N	☐ Y
Grass/Weeds	☐ N	☒ Y
Scrub/Maquis	☒ N	☐ Y
Barren	☒ N	☐ Y (e.g. bedrock, river bottom, disturbed sediment)
Other (veg.)	☒ N	☐ Y
(specify vegetation)		

Other Modern Features

Inhabited Bldg	☒ N	☐ Y
Road/Path	☐ N	☒ Y
Abandoned Bldg	☒ N	☐ Y
Other (hab)	☒ N	☐ Y
(specify feature)		

Visibility	60	%
Size Max.	130	m.
Size Min.	90	m.
Approx Total Size	1.17	ha.

Artifacts Observed (**A** = abundant; **S** = some; **F** = few; **0** = absent)

Pottery	Tile	Grndst	Chipst	Bone	Archit	Other artifact
☒ A ☐ F ☐ S ☐ 0	☒ A ☐ F ☐ S ☐ 0	☐ A ☒ F ☐ S ☐ 0	☐ A ☐ F ☐ S ☒ 0	☐ A ☐ F ☒ S ☐ 0	☐ A ☐ F ☐ S ☒ 0	☐ A ☒ F ☐ S ☐ 0

Other artifact: glass, jewelry? Turkish coin?

# of bagged Samples for: Q1 26 | Q2 22 | Q3 13 | Q4 16

Note: Q1 is imm. E of T1

Size of Grid Squares 20 m.

Compass Bearing T1 70 °

Artifacts visible in vert. section? ☒ N ☐ Y

Surface scatter only? ☐ N ☒ Y

Are scatters of different date localizable? ☐ N ☒ Y

Ancient Use? cemetery?

If **YES**,: explain possible that HL-R stuff is only turning up in deep plow areas while surface scatter is largely Byz

Probable Chronological Periods Represented:

N	EH	MH	LH	G	A	C	H	ER	LR	BYZ	TRK
☐ Y ☐ ?	☐ Y ☐ ?	☐ Y ☐ ?	☐ Y ☐ ?	☐ Y ☐ ?	☐ Y ☐ ?	☐ Y ☒ ?	☐ Y ☒ ?	☐ Y ☒ ?	☐ Y ☒ ?	☐ Y ☒ ?	☐ Y ☒ ?

Notebook Page # L94 II:70-71, 74, 80, 82; H94I:131-33 | **Map Page #** L94II:74

Photography:

Roll # 72 | **Neg #** 10-11 | **Photographer** TM57 | **Log Page#** II:63-64 | **Recorder** TM92

Threatened? ☐ N ☒ Y plowing will continue to reveal more artifacts

Disturbed ? ☐ N ☒ Y plowing

FIG. 5. Sample POSI record form (Deborah K. Harlan)

Data (Fig. 4). Within this file, each tract has a single record indicating the numbers of artifacts (pottery, tile, stone) observed in the course of systematic field walking. In addition, team leaders maintained a daily logbook in which was transcribed additional information about each tract, such as average visibility, land use, and any manmade features (e.g., structures) within it. These data were systematically added to the Master Tract Data file over the course of the season, then checked and augmented in the U.S.A. during the fall and winter. Basic arithmetical operations available within the database automatically generated totals for each artifact category and computed densities for each tract. This file, therefore, now contains all the basic data collected in systematic field walking and can be used (see pp. 411–413 below) for geographical display. A total of 4,385 tracts were defined and examined in the course of the field seasons in 1992–1994.

When additional work was scheduled at sites, two sets of paper forms were used, each with an electronic version. A POSI Record Form (Fig. 5) contains basic information about a site: its number; its name (nearest village and specific local toponym); its geographic coordinates; a brief description of its character, location, and the archaeological research conducted; the probable date of artifacts collected and their types and relative abundance; and logbook and photographic references. A Grid Square Collection Form records quantities of each type of artifact in each grid square at the site.

Museum records were designed to record and describe all artifacts collected in the field, either in tracts or at sites. Since a number of personnel contributed to the completion of a form, each record was maintained in paper format with an electronic counterpart. Data were entered daily into a computer file so that they were immediately available for electronic searches and for the production of electronic maps; on return from the field they could thus also be rapidly disseminated to project members.

The Artifact Summary Form (Fig. 6) provides a brief overview (counts and weights) of the finds from each collection unit (e.g., a tract or grid square). The availability of this information frequently allowed us to correct at a later date the confusions over provenience that can always arise when labels are misplaced or destroyed. All finds from tract collections and a selection from each site were described, dated, and illustrated and the results then entered in the Master Catalogued Pottery and Tile database. By the end of the 1996 field season, a total of 12,737 fragments of pottery and tile had been so recorded. A parallel set of records was generated for nonceramic material: the Small Finds file. This file, to date, contains records for 1,656 objects, approximately 70 percent of which are chipped stone. Finally, a narrative summary for each site was composed: the POSI Museum Feedback Form; here can be found readily interpretable basic information about the nature and chronology of all finds.

In addition to the preceding files, electronic versions of photographic and drawing records (both field and museum) also exist and are linked to all other databases. It is thus already possible for researchers to move seamlessly between visual, geographical, and narrative representations of aspects of our results. Photographs themselves and inked drawings have been scanned and can be automatically accessed.[43]

[43] In addition to promoting use of the WorldWideWeb for public dissemination of results, PRAP is seeking to provide a model for the use of the Internet to facilitate collaboration among members of an

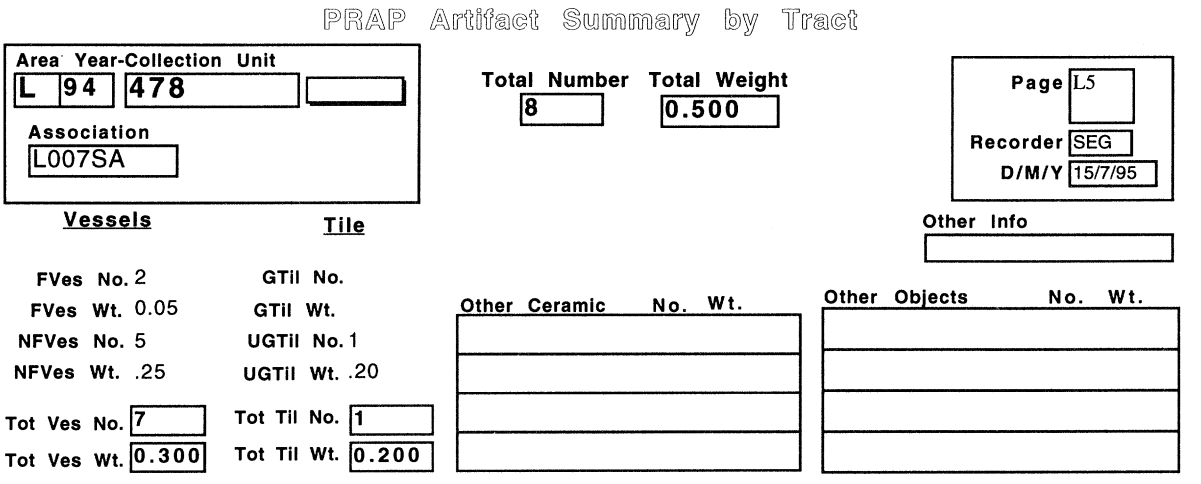

FIG. 6. Sample Artifact Summary form (Deborah K. Harlan)

DATA MAPPING[44]

In the field, PRAP employed a Geographical Information System (GIS) to help implement the in-field collection strategies of the project. To this end, PRAP had developed by 1994 a custom application that integrated MapInfo™, a desktop mapping package, with FileMaker™.[45] Because FileMaker was the database used by the project for daily data entry and reporting, MapInfo was able to provide a cartographic front end for all PRAP data, thereby avoiding the necessity of converting data from one format to another. Finds could thus be plotted on preexisting digital maps shortly after they were collected and analyzed. In particular, this fast turnaround was invaluable in the definition of sites and in the planning of intensive site-collection strategies. Of course, the implementation of an in-field mapping capability still does require the investment of considerable time and equipment if it is to contribute to the daily progress of any project.[46]

The ability to represent visually the progress of the survey was the result of three parallel efforts: the processing and identification of all material collected by each team, the entry of all density data recorded by field walkers, and the digitizing of tract locations so that the attribute data for each tract could be displayed on an electronic contour map

archaeological project. Currently, members of PRAP share files among themselves through the use of servers at the University of Michigan and the University of Cincinnati. Initial reports and preliminary maps are available through File Transfer Protocol (FTP), while virtually all photographic images, as well as a growing percentage of drawings, are available to project members using the WorldWideWeb.

[44] This section of the report is the work of Sebastian Heath (Interdepartmental Program in Classical Art and Archaeology, University of Michigan).

[45] MapInfo runs on Apple Macintosh– as well as Windows™-compatible machines.

[46] A digitizing tablet and one Macintosh PowerBook were given over almost exclusively to the input of spatially referenced data and the creation of maps.

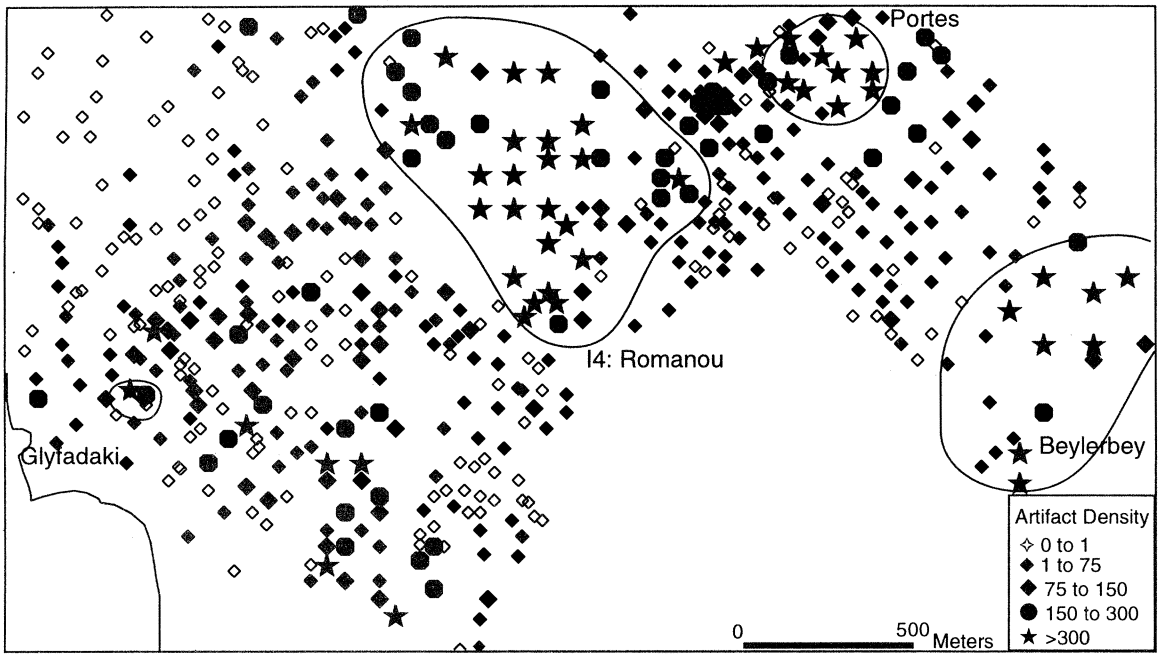

FIG. 7. Artifact densities at POSI I4 and in its vicinity (Sebastian Heath)

(a Digital Elevation Model [DEM]).[47] Typically, the day after a tract was defined in the field, its centroid (i.e., its geographical center) was digitized.[48] Maps showing artifact densities and distributions of sherds from particular periods could then be produced immediately. Figure 7 is an example of the output that MapInfo generated. It shows the sherd density around Romanou *Romanou* (POSI I4), with tracts containing more than 300 sherds per hectare indicated by star-shaped symbols. In conjunction with plots of tile density, this in-field mapping capability greatly facilitated the determination of site boundaries, a necessary first stage preceding intensive collection.

With the completion of fieldwork, the primary purpose of our GIS is to provide analytical support to team members involved in the publication of the results of the project. While MapInfo has served PRAP well because it runs on portable machines and because it is relatively easy to learn, in order to supplement its analytical abilities, PRAP data have also been imported to the workstation-based GIS, ARC/INFO™. Within this application the DEM has been used to augment the data collected for each tract in the field by automatically calculating elevation, slope, aspect (the direction in which a tract faces), and distance from the coast. To these physical properties can be added such

[47] A contour map of the PRAP study area was generated from a Digital Elevation Model of western Messenia, prepared at a scale of 1:50,000 by Vince Gaffney (Field Archaeology Unit, University of Birmingham), with support from the British Academy and the Society of Antiquaries of London.

[48] A schematic representation of the location of each tract was necessitated by the need for a quick turnaround. We are now in the process of digitizing the actual boundaries of all tracts.

	All	*LH*	*A–C*	*HL*	*R*	*Byz*
Quartile						
Minimum	0	0	0	0	0	0
2	28	93	20	1	20	11
3	80	136	23	21	61	252
4	285	138	136	190	189	396
Maximum	839	463	561	483	483	492
Total Sherds		172	25	16	47	73
Total Tracts	3532	45	16	11	36	46

TABLE 1. Table generated from ARC/INFO showing the number of sherds found off-site, grouped by period and by meters above sea level. Numbers in columns indicate elevations that divide sherds of each period into numerically equal quartiles

cultural factors as distance to the closest site, calculated either as a straight line or as a reflection of the effort required to traverse the intervening topography. In conjunction with chronological and typological study of artifacts, these calculated variables will contribute to identification of cultural patterns in the diachronic history of the study area. Preliminary results are already demonstrating the value of using GIS in the study of a consistently collected surface assemblage.

For example, Table 1 shows the elevations at which off-site pottery ranging in date from the Late Helladic to the Byzantine period was found. It was possible to generate the individual columns of this table because the PRAP GIS and its artifact databases can respond quickly to such requests as "list all off-site Hellenistic sherds sorted by the elevation of the tracts in which they were found." Such a query combines into a single report artifact density data generated by field walking, dates determined by ceramic specialists, and tract elevations interpolated from the DEM. This is only possible, however, because PRAP databases were specifically constructed to reflect the overall research design of the project. Indeed, the accurate recording and collection of off-site data necessarily slows the progress of fieldwork; thus a major purpose of the PRAP GIS is to justify this sacrifice by facilitating the study of the collected material.

From the table, it can readily be seen that one-half of the Roman off-site pottery was found below 61 m, and three-quarters, below 189 m, while, in striking contrast, one-half of the Byzantine off-site pottery comes from elevations above 252 m. To be sure, certain unique factors, specific to a single period, can influence such statistics: e.g., a small number of tracts near the Palace of Nestor but not within the area defined as the site proper lie between 136 m and 138 m and account for one-quarter of the Late Helladic sherds. Similarly, one quarter of all Hellenistic sherds (four of only sixteen!) were found at an elevation beneath one meter, and these in the same two tracts. The differences between the Roman and Byzantine periods appear, however, to be more significant and command attention.

Other studies have shown that monocausal explanations for light artifact scatters found in Mediterranean landscapes are often inappropriate and can too narrowly define the range of mechanisms that may result in the deposition of cultural material off-site.[49] These same studies have also emphasized that detailed study of specific artifact scatters is needed before one attempts to argue for specific causes. Still, a few preliminary observations are possible. While only a small percentage of off-site finds is represented in the table (viz., those artifacts that can be relatively narrowly dated), it is clear that the elevation of a tract is sometimes a good predictor of the date of the off-site artifacts likely to be found in it. The shift between the Roman and Byzantine periods (mean elevations of 61 m and 252 m respectively) is an excellent example. The significance of this reorientation is clearer when the elevations of off-site finds are compared to those of on-site finds (with mean elevations of 20 m and 451 m), indicating a strong correlation between the elevations of on-site and off-site material. Such a trend toward higher elevations, not only for settlements but also for off-site finds, is consistent with Gerstel's suggestion that, in the Middle Byzantine period, inland and elevated sites were preferred owing to the threat of piratical raids and implies that activities other than settlement were also focused at inland locations.[50]

PREHISTORY

Lithic Studies and Pleistocene Sites[51]

Regular tract walking, collection at sites, and limited special-purpose survey produced a modest sample of 1,099 chipped-stone artifacts.[52] Of these, 189 (17%) are of obsidian (almost certainly Melian), a couple of quartz, and the remaining 908 (83%) of chert. Although there is a surprising variety of color and knapping quality among the cherts, there is no reason to suppose that any of the raw material derives from outside the general area of the survey; most of it has eroded from the limestones of the Aigaleon ridge and was exploited in the form of nodules collected from streambeds. Densities of lithic artifacts are nowhere very great but are higher in areas of stable Pleistocene soils (e.g., the uplands between Gargaliani and Lefki, and the coastal plain between Marathoupolis and the Osmanaga Lagoon) than in areas of Pliocene marl farther inland. The most striking aspect of spatial distribution concerns obsidian: fully 40% (including all the cores found) comes from the single site of Romanou *Romanou* (POSI I4), with very little from tracts close to the Palace of Nestor, suggesting some interesting regional patterns of access and supply to be explored further.[53]

[49] Alcock, Cherry, and Davis 1994, p. 164; Wilkinson 1989, p. 31.

[50] See pp. 474–475 below.

[51] This section is the work of John F. Cherry (Department of Classical Studies, University of Michigan) and William A. Parkinson (Museum of Anthropology, University of Michigan).

[52] For comparison, the overall density of chipped-stone items per km^2 for the Keos survey is about four times the value for PRAP, and for the Argolid survey, about seven times greater; the Nemea survey, however, produced even less than PRAP.

[53] For initial attempts to do so see Parkinson 1996 and Parkinson and Galaty 1996.

At least a quarter of the material comprises retouched pieces or tools. Few of them are closely datable, either by context or by morphology and technology, but most fit comfortably within the general range of types documented from the Neolithic and Bronze Age in southern Greece.[54] Most common are notches, *becs*, end- and sidescrapers, burins, and arrowheads; sickle elements, denticulates, and *perçoirs* occur less commonly and only in chert. Since these are relatively well-known types, we concentrate in what follows on the new evidence provided by PRAP lithics for a human presence in Messenia during the Palaeolithic period. It is worth emphasizing that until 1993 no site predating the Neolithic was known anywhere in the southwest Peloponnesos.[55]

As in other survey projects, an attempt was made to identify the geological settings most likely to yield Pleistocene deposits and to conduct in those areas extensive survey for artifact-bearing deposits.[56] Two main areas were singled out in this way: a series of preserved fossil dunes extending along the present coastline, and a number of karstic rock shelters along the Gargaliani escarpment. Our efforts yielded two Palaeolithic sites (Romanou *Rikia*, POSI I18, and Vromoneri *Vergina Rema*, POSI I28), both located on the present-day coast. It may be noted that the only other Palaeolithic artifacts discovered by PRAP came from tracts in this same part of the study area, on the coastal plain south of Marathoupolis, a distribution that is not the result purely of sampling bias, since in routine tract walking *all* lithic items were collected.

Of all the chipped-stone artifacts collected during tract walking, less than half a dozen can tentatively be attributed to the Palaeolithic on the basis of their typology and/or technique of manufacture. Four belong to the Middle Palaeolithic (a possible Mousterian point, a Levallois core on a flake, and two Levallois flakes), the remaining artifact (an Aurignacian-type endscraper on a thick trapezoidal blade) probably being of early Upper Palaeolithic date.[57] All these items are made of local chert, heavily patinated or chemically altered, stained with red soil, and were found on soils that appear to be Pleistocene in age. These few artifacts provide the most fleeting of glimpses of a human presence in the area during parts of the Pleistocene, which, happily, we are able to confirm with evidence from two sites.

Work at Select Sites

ROMANOU *RIKIA* (POSI I18). A lithic scatter was found during the 1993 season eroding out of a Pleistocene soil matrix, about one meter thick, that had formed atop a fossil dune a few dozen meters from the coast and just north of where the Selas River

[54] The best comparanda from Messenian sites are at Nichoria (*Nichoria* II, pp. 712–756) and Malthi (Blitzer 1991); the stratified sequence of Bronze Age flaked-stone industries at Lerna (Runnels 1985) and the full publication of the lithic artifacts from the Argolid survey (Runnels, Pullen, and Langdon 1995, pp. 74–139) are also important.

[55] Runnels 1995, esp. figs. 1, 6, and 9. Korres (1981a, p. 456) mentions several possible locations of Palaeolithic finds in Messenia (including the hill of Profitis Ilias, northwest of the Bay of Navarino and the Bay of Voidokoilia), none of which, however, have been confirmed by expert autopsy.

[56] E.g., Runnels 1988; Jameson, Runnels, and van Andel 1994.

[57] SF0335, SF0393, SF0290, SF0584, and SF0329, respectively. For typology see Bordes 1961; Inizan, Roche, and Tixier 1992.

empties into the sea. Collection at the site (using both grab sampling and a 5-meter grid) indicated that, while many artifacts came from directly within or below the eroding deposit, some of the lithics had been washed as far as 15 m down the collapsed talus in front of the scarp. Since few of the 58 artifacts collected were actually found *in situ* in the scarp, one cannot be wholly certain of their context; but the material comprises a relatively homogenous assemblage and seems to reflect a single period of deposition (or even, perhaps, a single event). The raw material is highly tectonized chert, not heavily patinated, and consists of small cores (8), small flakes (48), and small lamellar flakes (2); retouched flakes are rare (4) and include a single *bec* or *perçoir* and two backed lamellar flakes. The very small cores (all less than 5 cm in length) include two unifacial chopper-cores, a "bladelet core", and a discoidal flake core; together with the cortical flakes, they all appear to have been made by direct percussion applied to small stream-rolled pebbles, probably from the Selas River itself.[58] Due to the expedient nature of the assemblage, its small size, and the high frequency of cores, we are inclined to believe that this was probably a single-use raw-material exploitation site. Unfortunately, the assemblage bears absolutely no typological or technological resemblance to the Middle Palaeolithic site (POSI I28) nearby, nor does it contain any of the backed blades which characterize Upper Palaeolithic assemblages in southern Greece.[59] It could, therefore, belong to almost any time during the later Pleistocene, and it may be that the assemblage can only be dated via direct thermoluminescence dating of its soil matrix.

VROMONERI *VERGINA REMA* (POSI I28). At a location 4.5 km to the north of POSI I18, we identified and collected a large scatter (*ca.* 120 × 40 m) of chipped stone eroding from a deflated layer of deep-red soil, no more than *ca.* 15 cm thick. This soil was formed from a Pleistocene beach fascia that has been partially protected from wave erosion by its position on top of a cliff of Pliocene beach sandstone (Pl. 88:c); some lithics were also found stratified in a colluvial deposit next to this cliff. The site yielded 124 stone artifacts, 6 of obsidian and the remainder of local cherts, heavily patinated to white.[60] The assemblage is dominated by flakes (71), with thick blades occurring only rarely (8). Retouched pieces include a small biface, denticulates on large flakes, notched pieces, and sidescrapers on both flakes and thick blades.[61] There are a number of flake cores (12), including 4 core-choppers that were created by removing alternating flakes from a single platform. That the Levallois technique was employed at the site is indicated by the presence of Levallois flakes, cores, and a single point (Pl. 88:b).[62] There are no backed blades in the assemblage, and the presence of the Levallois technique, in addition to the denticulates and sidescrapers, suggests a Middle Palaeolithic (Mousterian) association for it.

[58] Curtis Runnels, who has examined all of this material and was present for the initial collection of POSI I18, suggests that the "bladelet core" and small bladelike flakes are more likely to be the result of expedient flaking than of any intentional effort to produce bladelets.

[59] Runnels 1995, pp. 714–719.

[60] The five obsidian blades and one obsidian secondary flake were restricted to a small area at the southern end of the site and were found in association with a few tiny sherds of a fabric like that at the Early Helladic site of Vromoneri *Nozaina* (POSI I20), *ca.* 300 m farther south; except for this obviously later component, the remainder of the artifacts seem to be Middle Palaeolithic in age.

[61] SF1195 (small biface), SF1117 and SF1200 (denticulates), SF1215 (notched piece), SF1172 and SF1159 (sidescrapers).

[62] SF1229 and SF 1143; SF1106 (Levallois core, not in Pl. 88:b); and SF1210.

A few blades do occur at POSI I28, of kinds more commonly associated with Upper Palaeolithic assemblages; and since most of the material came from a deflated soil layer, it remains possible that the site was used more than once during the later Pleistocene and might contain material of both Middle and Upper Palaeolithic date. A complete reduction sequence is represented at the site, and it seems most probable that it served as an ephemeral camp used while exploiting the chert nodules in the Vergina streambed.

Neolithic and Bronze Age Sites and Settlement Patterns[63]

Overall Patterns and Their Significance

Neolithic material in the survey area comes from excavations at Petrohori *Cave of Nestor*[64] and *Voidokoilia*[65] and within the town of Hora itself (Hora *Katavothra*).[66] In addition, a number of sites investigated by PRAP have produced material that may possibly be assigned to the Neolithic period (see pp. 438–439 below). Collections around the Palace of Nestor yielded sherds of this type, while additional examples were found in the northern part of our study area, at Gargaliani *Kanalos* (POSI D1), Gargaliani *Ordines* (POSI K1), and Gargaliani *Ayia Sotira* (POSI K2), and in the south at Koryfasio *Beylerbey* (POSI I1). All these sites were used in later prehistoric periods. As yet, however, it has not been possible to confirm the presence of definitely Neolithic finds at any location where they were not previously known.

Unlike the Argolid, Messenia is not richly endowed with Early Helladic (EH) sites. The main EH site previously known within our survey region is that beneath the burial tumulus at Petrohori *Voidokoilia* (GAC D8),[67] while one needs to go some way outside our area to find larger sites of this period: e.g., Lepreon *Ayios Dimitrios* (GAC D245[68]) and Kalamata *Akovitika* (GAC D151). Recent excavations by Yioryia Hatzi have also revealed a site at Filiatra *Stomio* (GAC D65).[69]

To this number PRAP has added at least one entirely new EH (probably EH II) site at Vromoneri *Nozaina* (POSI I20). The site lies on a conglomerate cap, overlying clay deposits that are being eroded, resulting in the superimposed deposits tumbling into the sea. Material on the site consisted of an extremely dense but small scatter of coarse to semifine pottery with a few intermixed lithics (obsidian and chert). The area available for gridded collection was only 0.01 ha, but it is likely that the site has been damaged by erosion, and more material may exist in the dense surrounding maquis.[70] The material from Nozaina belongs exclusively to the EH period, with a few diagnostic shapes suggesting a closer dating of EH II. The location of the site in antiquity, on cliffs above the coast, resembles that of Voidokoilia, Stomio, and other EH sites in Messenia.[71]

[63] This section of the report is the work of John Bennet, Jack L. Davis, and Cynthia W. Shelmerdine.
[64] Sampson 1982.
[65] Korres 1990, pp. 1–2.
[66] Lolos 1994, p. 45.
[67] Korres 1990, pp. 2–5; 1993, p. 234 [3].
[68] Zachos 1987.
[69] Hatzi 1991.
[70] It should be noted that the EH site at Voidokoilia was also small, only 0.09 ha in extent; see Korres 1990, p. 3.
[71] Korres 1993, p. 231.

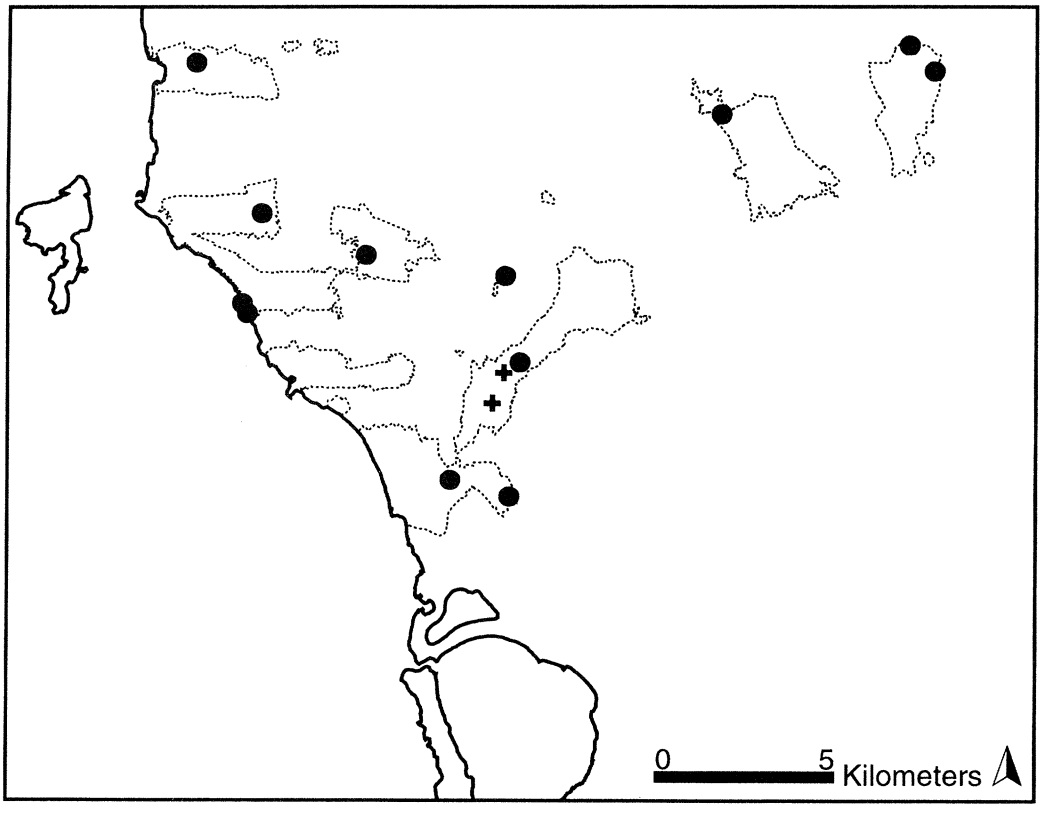

FIG. 8. Distribution of finds of the Early Bronze Age, on-site (circles) and off-site (crosses) (Sebastian Heath)

About 300 m north of Nozaina, EH pottery of the same fabric was found in the southern part of POSI I28 (Vromoneri *Vergina Rema*), other finds from which were almost exclusively lithics of Palaeolithic date (see pp. 416–417 above). Similarities between the two ceramic assemblages suggest an EH date for the I28 material also, and five obsidian pieces found there are better associated with these ceramics than with the rest of the artifactual assemblage.

EH material of similar type was also identified at POSI M1 (Gargaliani *Kalantina [1]*), an inland site situated on thin deep-red soils to the south of modern Gargaliani on the slope of a steep valley that links the coastal plain below and to the west with the uplands at the foot of Mount Aigaleon (Pl. 87:d). The whole area was generally rich in lithic material (both worked and unworked), suggesting that humans may have come here in part for access to raw materials. The ceramic material on the site was less abundant than that at POSI I20 (Vromoneri *Nozaina*) but did include a diagnostic EH II incurving bowl rim, while 63 pieces of lithic debitage were collected. Although not highly diagnostic, the lithic material would not be inconsistent with an Early Bronze Age date.

In addition to sites of predominantly EH date, EH material has been identified on a limited number of sites also occupied in later phases (Fig. 8). Most notable among these is

POSI I4 (Romanou *Romanou*), where diagnostic EH II was present. EH II is also possibly attested at Gargaliani *Kanalos* (POSI D1), Gargaliani *Ordines* (POSI K1; Pl. 88:a), and Koryfasio *Beylerbey* (POSI I1). The location of these sites in the vicinity of the coast fits well with the attested distribution of EH II sites in western Messenia, which during this period appears to have a much stronger coastal bias than do many other parts of southern Greece. That settlement at this time was not confined to the coast, however, is clear from the presence of pottery very similar to the Nozaina assemblage well inland at Gargaliani *Kalantina (1)*.

POSIs I20, I28, and M1 did not continue in use into the Middle Helladic (MH) period, possibly not even into EH III. Probable EH III is attested, however, in limited quantities, at POSI K1 (Gargaliani *Ordines*) and, it seems, in the area of the town that later surrounded the Palace of Nestor (POSI B7); EH III is possibly also represented at POSI I1 (Koryfasio *Beylerbey*). POSIs B7, D1, I1, and K1 continued to be occupied in the MH period, and MH is also now attested as a component on a number of new sites in the region. Most significant is that it represents the earliest material attested on two sites beyond the Aigaleon range: POSIs A2 (Metaxada *Kalopsana* [Pl. 85:c]) and L1 (Maryeli *Koutsouveri* [Pl. 87:c]). West of Aigaleon, apart from those sites already occupied by late EH, including the settlement at the site of the later Palace of Nestor, MH appears at a number of smaller sites: POSIs C3 (Tragana *Voroulia*), K2 (Gargaliani *Ayia Sotira*), and K3 (Valta *Kastraki*). Occupation seems more extensive in MH than in EH at the Palace of Nestor and Beylerbey.[72] POSI I4 (Romanou *Romanou*), at which there is no definite MH material, represents an exception, implying that the site shrank considerably after the EH phase.

An important feature of MH Messenia is, of course, the phenomenon of burial tumuli, such as those at Petrohori *Voidokoilia* (GAC D9), Papoulia *Ayios Ioannis* (GAC D52), and the recently excavated Kaloyeropoulou tumulus near Myrsinohori *Routsi*.[73] All such monuments within our study region were examined as part of our "inventory" survey. Several aspects of this investigation are discussed in the Appendix to this report.

The end of the Middle Helladic and the beginning of the Late Helladic period is a crucial phase in the development of social complexity in the region of Messenia. Of the sites studied by PRAP, very few can be said categorically to have begun in the LH I period, although it is possible that the MH III–LH II dating of many ceramics may obscure an "Early Mycenaean" first phase on some (Fig. 9). It can plausibly be suggested that some new sites came into being within MH III–LH II, namely POSIs D2 (Gargaliani *Megas Kambos (1)* [Pl. 85:d]), G3 (Vromoneri *Pigadia*), I3 (Koryfasio *Portes*), and I21 (Ambelofyto *Lagou*); and POSI I4 (Romanou *Romanou*) may have been reoccupied in that phase. On the other hand, all MH sites continue into this phase except perhaps POSI K2 (Gargaliani *Ayia Sotira*).

[72] It would be rash, however, to claim continuity of settlement at these sites simply because both the EH and MH phases are represented. So little is known at present about the end of the Early Bronze Age and beginning of the Middle Bronze Age in Messenia that it is not possible to determine if all phases of settlement are present in our surface assemblages. On the EBA–MBA transition in Messenia see Stocker 1995.

[73] Korres 1993, p. 235.

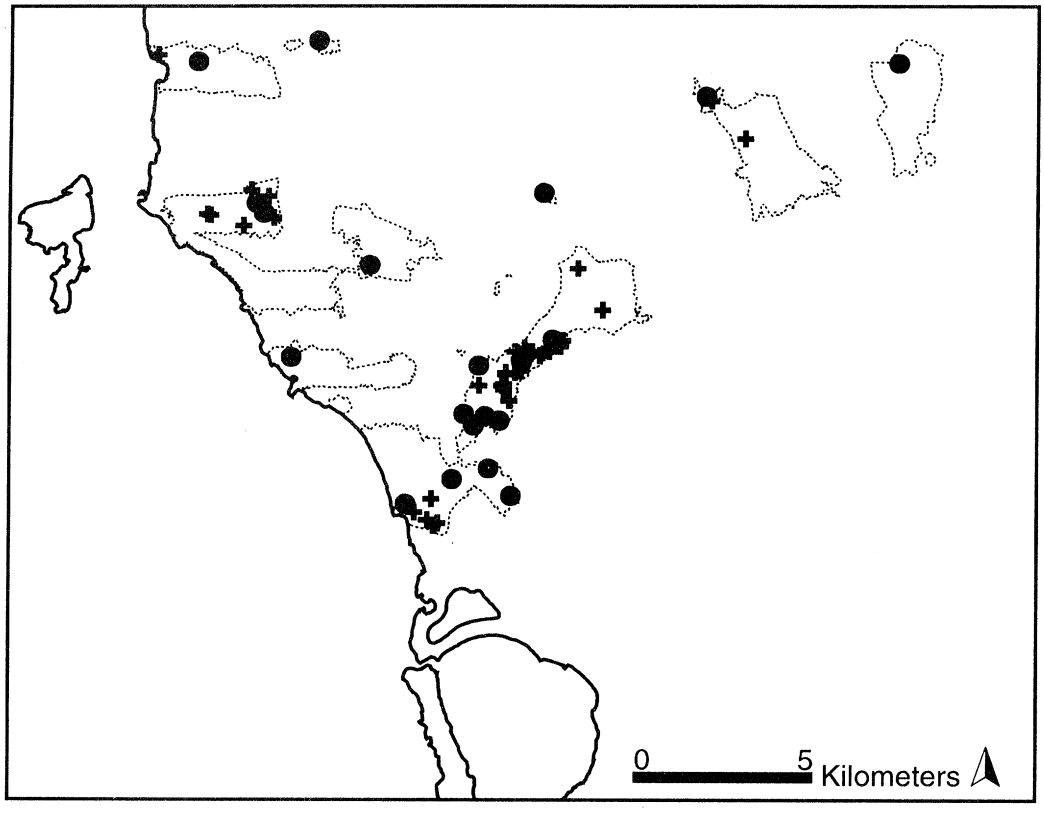

FIG. 9. Distribution of Middle Helladic III–Late Helladic II finds, on-site (circles) and off-site (crosses) (Sebastian Heath)

It is in the MH III–LH I period that the first tholos tombs were constructed, the earliest being that at Koryfasio *Haratsari* (GAC D5, POSI I2[74]), which is probably contemporary with the so-called "Grave Circle" (almost certainly, in fact, a tholos tomb) on the spur immediately southwest of the Palace of Nestor.[75] Most of our settlement sites have material assignable to this date range, but it is noticeable that the Palace of Nestor and Koryfasio Beylerbey, the largest two sites within our area (at perhaps 5.5 and 1.7 ha respectively in MH, 7.0 and 3.3 ha by LH I–II), have the earliest tholos tombs associated with them. A second phase of tholos-tomb construction took place in LH I, when Tholos IV was constructed northeast of the palace.[76] In addition, the two tholos tombs at Myrsinohori *Routsi* (GAC D54) were built, on the next ridge to the south of the Englianos ridge, and that at Petrohori *Voidokoilia* (GAC D8; Pl. 85:b),[77] which was inserted into the existing MH tumulus. Shortly afterward, in LH II, the tholos tombs at Tragana *Viglitsa* (GAC D11,

[74] Lolos 1989.
[75] *Pylos* III, pp. 134–176.
[76] *Pylos* III, pp. 95–134; Lolos 1987, pp. 184–188.
[77] Korres 1990, p. 8.

POSI I6) were constructed, perhaps set into the remains of a LH I settlement, as well as Tholos III at Kato Englianos, some 900 m southwest of the palace structures.[78] It is tempting to see the second and third phases of tholos construction as expressions of control by the center located where the Palace of Nestor was later built.[79]

By LH IIIA there is evidence from excavations at the Palace of Nestor for a monumental predecessor to the LH IIIB palace, suggesting that the site had come to exercise some central administrative functions by this period.[80] The LH IIIA phase is widely attested on sites defined by PRAP, although it is difficult to assess the extent of the territory then controlled by the Palace. Some indication of the evolution of power structures within the region is afforded by the continuities and discontinuities in the use of tholos tombs in the region. It seems that most tholos tombs had gone out of use by the end of LH IIIA, namely, Koryfasio *Haratsari* (by LH IIA), Tragana *Viglitsa* (by LH IIIA2; reused in LH IIIC–Submycenaean), Myrsinohori *Routsi* (by LH IIIA1), and Petrohori *Voidokoilia* (predominantly LH I, but one LH IIIB stirrup jar was found in the tomb).[81] In the vicinity of the palace, the "Grave Circle" went out of use in LH IIIA1, and Tholos IV, perhaps by the end of LH IIIA, while Tholos III continued in use into LH IIIB.

A plausible interpretation of this pattern is that Pylos was restructuring its power within its immediate region, effectively demoting the local centers it had promoted in LH I–II. It is perhaps in LH IIIA that we see the Palace turning its attention to the wider region of western Messenia, the area later known as the Hither Province. At the highest level of society, display shifted from conspicuous investment in burial architecture (and exotic objects, especially those of Minoan origin, but also including, for example, Baltic amber[82]) by local elites to a palace-based system involving, for example, state-sponsored conspicuous consumption in the form of feasts associated with important transitions in the control of power or as offerings to deities at particular times of the year.[83] The operation of this system can only be confirmed for the LH IIIB period, when we have the evidence of the Linear B documents, but it seems highly likely that, perhaps beginning in LH IIIA, the Palace reconstructed power configurations within its region along these lines. As the elite developed palace-based rituals of display within the community (such as feasting), it would seem that the function of tholos tombs changed from highly visible markers of elite burials (as perhaps tumuli had been earlier?) into more private markers for elite burials associated only with major centers.[84]

[78] *Pylos* III, pp. 73–95.

[79] Bennet 1997.

[80] Bennet 1995b; Kilian 1987, p. 209.

[81] Lolos 1987, pp. 172–178 (Haratsari), pp. 182–183 (Viglitsa), pp. 208–210 (Routsi); Korres 1990, p. 8 (Voidokoilia).

[82] Hägg 1982; Harding 1984, pp. 57–60.

[83] Killen 1992 and 1994; also McCallum 1987, pp. 68–141 (for representations of such festivals).

[84] The construction of a new tholos tomb at Nichoria in LH IIIA2 (*Nichoria* II, pp. 231–344) may appear to contradict such a proposal, because it has been argued that its construction reflects the incorporation of that site into the Pylos polity as one of the centers of the Further Province: e.g., Bennet 1995b, pp. 598–599. We would argue, however, that the construction of a new burial structure would be appropriate for a newly

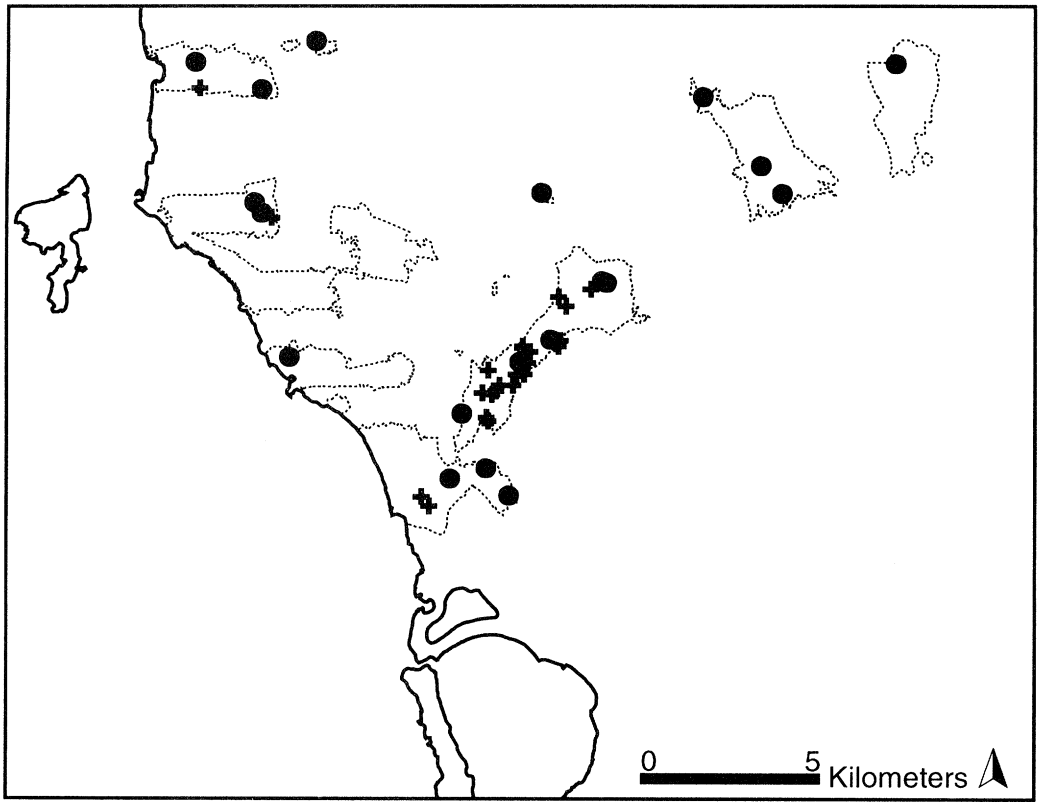

FIG. 10. Distribution of Late Helladic III finds, on-site (circles) and off-site (crosses) (Sebastian Heath)

Construction of the palace at Ano Englianos in its most recent (and most familiar) form seems to have commenced at the beginning of LH IIIB, by which time it almost certainly controlled all of western Messenia and had probably incorporated the Further Province, comprising the Pamisos River valley and including sites such as Nichoria (Fig. 3). It is perhaps only at the beginning of LH IIIB that the influence of the Palace of Nestor came to extend over the Pamisos valley to the east, the Akritas peninsula to the south, and (at least) the Kyparissia and Soulima valleys to the north, in all an area of nearly 2,000 km^2.

Almost all sites occupied in MH III–LH II continued into LH III, most with diagnostically LH IIIB material contemporary with the palace at Ano Englianos in its latest phases (Fig. 10). Preliminary examination of the phasing and extent of sites in this period allows us to make some significant statements regarding settlement hierarchy. The largest site in the region, by quite some margin, was the palace itself (*ca.* 18 ha, including the

dominant elite group at this site, which lay at some distance from the center at the Palace of Nestor, probably on the boundary of the newly incorporated Further Province.

palace structures[85]). One might have expected this, but it was not obvious before our own detailed work in the immediate vicinity (see pp. 427–430 below). The next largest sites within the region are Koryfasio *Beylerbey* (POSI I1; >3.52 ha) and Gargaliani *Ordines* (POSI K1; 2.1 ha), which reached its greatest extent in this phase.

In the vicinity of each of these large sites there are sites of lesser, but not insignificant, size. Inland from POSI K1 lies K3 (Valta *Kastraki*), situated on an excellent vantage point overlooking the mouth of the Langouvardos gorge. Three sites lie on the coastal plain west of modern Gargaliani (Pl. 85:d): POSIs D1 (Gargaliani *Kanalos*), D2 (Gargaliani *Megas Kambos [1]*), and G3 (Vromoneri *Pigadia*; not labeled in the photograph). In the vicinity of the palace lay the site of Hora *Volimidia* (GAC D20), whose extent is difficult to estimate, and to the north, POSI I21 (Ambelofyto *Lagou*), a site now nearly completely destroyed through cultivation but apparently belonging almost exclusively to the LH period. Finally, a string of smaller sites extend from POSI I1 (Koryfasio *Beylerbey*) north of the Bay of Navarino toward the coast: POSIs I3 (Koryfasio *Portes*), I4 (Romanou *Romanou*[86]), and (perhaps) Romanou *Viglitsa* (UMME 400), in the vicinity of which a small quantity of LH III material was found in tract walking. It is perhaps too early to discuss in detail the relationship of these smaller sites to the major ones within our region, but it does seem that most were already occupied by LH I.

One area in which it seems that MH–LH settlement patterns differed is that east of Mount Aigaleon. Two major MH–Early Mycenaean sites were already known there before our work: Metaxada *Kalopsana* (GAC D22, POSI A2; Pl. 85:c) and Maryeli *Koutsouveri* (GAC D116, POSI L1; Pl. 87:c). The vicinities of both these sites were intensively surveyed, but no smaller sites of MH–LH date were defined, in contrast with the situation in areas west of Aigaleon. Work on both sites confirmed the existence of MH–LH artifacts over quite extensive areas (2.5–3.0 ha, perhaps slightly more in the case of Kalopsana), but in relatively small quantities.

One striking feature of our investigations of the area "beyond Aigaleon" is the relatively limited extent of LH III material identified in those areas examined intensively. Material recovered at POSIs A2 and L1 is almost exclusively MH–LH II, suggesting that the use of these sites declined significantly in the LH III period. Our original hypothesis to explain this feature of the material record was that the upland area east of Mount Aigaleon, but still west of the Pamisos valley, may have formed a boundary zone between the two provinces and may have been deliberately depopulated (a kind of "no-man's land") or had its population drawn away by the attraction of the center at Ano Englianos. The presence of one or two LH III sherds, however, suggests that the area was not entirely depopulated, although it may still have formed a boundary region, perhaps fulfilling specialized functions (stock-rearing? bronze working?) within the Pylian system. A further explanation for its limited settlement might be that, with the incorporation of the Further

[85] Specifically LH IIIA and IIIB pottery is attested over an area of 12.4 ha, but this should be regarded as an absolute minimum size, since much of the relatively undiagnostic LH III material probably belongs to this phase. The same goes for size estimates for POSIs I1 (Beylerbey) and K1 (Ordines) in the same period.

[86] This extensive post–Bronze Age site appears to have been quite large in EH but shows no definite evidence of occupation in MH and minimal evidence for LH I–II (0.5 ha?). It only reached a significant size again in LH III (2.5 ha?), still smaller than its neighbor, POSI I1 (Beylerbey; Bennet 1997).

Province and (apparently) the construction of a road taking a southern route from the Soulinari-Kazarma region to Nichoria, the area became economically isolated.[87] If the equation of Nichoria with Linear B *ti-mi-to-a-ke-e* is secure,[88] then there is textual evidence for close links between the Hither Province and Nichoria, as the first of the seven chief settlements in the Further Province listed on tablets (and presumably also the closest).

LH IIIC–Geometric material is quite rare on sites within our survey area (see pp. 451–453 below). LH IIIC is attested by only a few sherds, including three swollen kylix stems, two from the vicinity of the palace (see p. 452 below). Furthermore, only at a very few sites has a Submycenaean–Geometric phase been recognized.

The Mycenaean Toponymy of Western Messenia[89]

One of PRAP's major research goals has been to try to elucidate the relationship between archaeologically observed settlement patterns and the textual evidence afforded by the Linear B documents from the Palace of Nestor, all the latter dating to the late LH IIIB period. Recently, Joan Carothers reported the results of a systematic attempt to relate the archaeological evidence (chiefly that collected by UMME) to the picture provided by the Linear B documents within the entire polity centered on the Palace of Nestor.[90] The PRAP study region was defined partly with a view to including sufficient territory around the center at Ano Englianos to encompass rival Early Mycenaean centers (see p. 400 above), and it is likely that by LH IIIA these centers had been incorporated into the Pylian polity. We are, therefore, in an excellent position to refine and correct the picture drawn by Carothers for the specific area studied by PRAP. Because our study area extends beyond the immediate vicinity of the palace, we have probably explored some of the major sites whose names are included in the fixed lists of the nine Hither Province place-names in Linear B texts (Fig. 11).[91] A second project goal was to extend the study area sufficiently far northeast to sample some of the territory east of the Aigaleon range (see p. 10 above),[92] plausibly equated with the boundary between the Hither and Further Provinces of the Pylian state, as exemplified in the terms *de-we-ro-a$_3$-ko-ra-i-ja* ("this side of Aigaleon": e.g., Ng 319) and *pe-ra$_3$-ko-ra-i-ja* ("beyond Aigaleon": e.g., Ng 332).[93]

In relation to the first goal, the greater confidence with which we can now estimate the size of LH settlements within our survey region has made the possibility of clearly identifying the chief settlements much easier. As already noted above, it seems that two settlements stand out as being of considerable size in this period (in addition to the center at the Palace of Nestor itself): POSI K1 (Gargaliani *Ordines*), in the north of our survey

[87] On Mycenaean roads in Messenia see McDonald 1964.

[88] Shelmerdine 1981.

[89] This section of the report is the work of John Bennet and Cynthia W. Shelmerdine.

[90] Carothers 1992; Bennet 1995b.

[91] The chief evidence for the fixed list of nine place-names in the Hither Province is the following tablets: Jn 829, Cn 608, Vn 20, and Vn 19 (fragmentary). For a discussion of all relevant texts see Bennet 1995b, pp. 588–596 and Bennet, forthcoming.

[92] Farther south, the probable boundary lies beyond the maximum area examined by PRAP (Fig. 11).

[93] These two texts give the totals for flax production in each territory: 1,239 units for the Hither Province, with 457 missing (Ng 319), and a minimum of 200 units (maximum 899) for the Further Province, with an unknown amount missing (Ng 332).

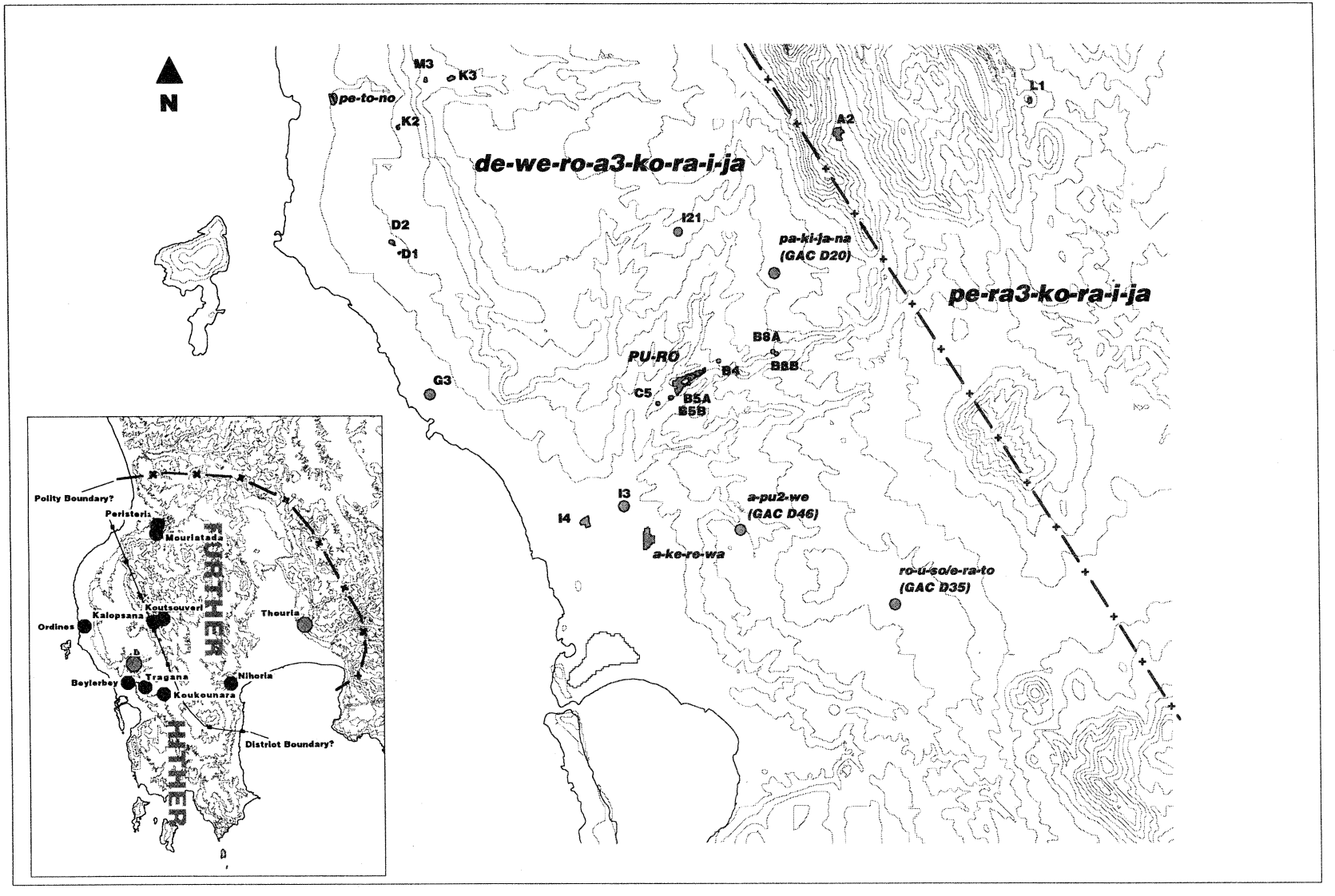

FIG. 11. Tentative Mycenaean toponymy of Messenia (John Bennet)

area, and POSI I1 (Koryfasio *Beylerbey*), in the south. With the identification by our teams of MH III–LH II material on the site of Beylerbey, we can now demonstrate that this site and the Palace of Nestor were the largest settlements in the region at that time and that Beylerbey is likely to have been associated with the Osmanaga tholos tomb, Koryfasio *Haratsari* (POSI I2), in contrast to the views of Marinatos and the UMME team.[94] If linked with the tholos, it is very likely that it was an early Mycenaean center that rivaled the emergent center on the Englianos ridge to the northeast, where the "Grave Circle" was constructed at approximately the same time as the Osmanaga tholos.[95] Beylerbey's long settlement history resembles that of the palace in the presence of possible EH III material. Given the size of Beylerbey in LH III, it is a highly plausible candidate for one of the place-names recorded in the Hither Province lists. POSI K1 (Gargaliani *Ordines*) would be a logical candidate to match up with another place-name, perhaps the next major center to the north, excluding the Palace of Nestor itself.

Indeed, in the list of the nine Hither Province place-names, which appear to run north to south,[96] those places in positions 3 through 6 probably lay within the north–south limits of the PRAP study area, and the following equations between archaeological sites and toponyms would be possible:

No. in List	*Linear B Place-Name*	*Possible Archaeological Site*	*POSI/GAC*
3	*pe-to-no*	Gargaliani *Ordines*	POSI K1
4	*pa-ki-ja-ne*	Hora *Volimidia*?[97]	GAC D20
5	*a-pu$_2$-we*	Iklaina *Traganes*[98]	GAC D46
6	*a-ke-re-wa*	Koryfasio *Beylerbey*	POSI I1

[94] Marinatos 1966a, p. 197; McDonald and Hope Simpson 1961, p. 242.

[95] Some confirmation that the palace and Beylerbey lay in distinct topographic zones is offered by the history of the region in the 19th century after Christ, immediately after the War of Independence, when the uplands around Hora and Gargaliani are referred to as the "Kambos", while the lowlands around the bay belong to the "Navarino" region.

[96] See Bennet, forthcoming for a summary of the evidence for the place-name order and for more extensive discussion of Pylian geography.

[97] Scholars have differed on the location of the specific site of *pa-ki-ja-ne*, while agreeing that it must be closely linked to the palace on the basis of the offering text Tn 316 and the E-series land-tenure documents (e.g., Ventris and Chadwick 1973, pp. 232–274, 286–289). Chadwick (1972, p. 109) and Stavrianopoulou (1989, pp. 140–141) associate the name with Hora *Volimidia* (GAC D20), while Carothers, because she ignores major sites with primarily mortuary as opposed to settlement remains, rejects this identification and associates the place-name with Metaxada *Kalopsana* (POSI A2), a site unlikely to have been extensively occupied in LH III (see p. 33 above; also Carothers 1992, pp. 233–234; Bennet 1995b, p. 593). A location somewhere in the general vicinity of the Bay of Navarino, rather than to the east of Mount Aigaleon, is made attractive by the possible identification of the name *pa-ki-ja-ne* with the Greek place-name Σφαγιᾶνες and the fact that Strabo (8.4.2) says that Σφαγία is the name applied to the island of Sphaktiria; the toponyms Σφαγία and Πύλος would both have moved down to the coast in the post–Bronze Age period. If we imagine the Palace extending its control to the coast as early as LH I (see p. 421 above), then these names would have migrated within the same territory, not moved from another region.

[98] This site lies outside our area of study to the southeast, but because the Hither-Further Province boundary ran from northwest to southeast, it almost certainly lay within the Hither Province. Its importance

The district centered on *pe-to-no* appears to have been a large one, since it has the highest assessment among the Hither Province place-names on the Ma taxation texts. Gargaliani *Ordines* is well positioned to have acted as a center for a large district. If the equation is correct, the district might have extended along the coastal plain from the Mati stream north, as far, perhaps, as modern Filiatra. It would presumably have been a focal point for smaller sites such as Gargaliani *Ayia Sotira* (POSI K2), Valta *Kastraki* (POSI K3), Vromoneri *Pigadia* (POSI G3), Gargaliani *Kanalos* (POSI D1), and Gargaliani *Megas Kambos (1)* (POSI D2). It is intriguing, however, to note that the texts have little else to say about *pe-to-no* except to identify it as a taxation center and one of the nine chief places in the Hither Province. This fact may suggest that *pe-to-no*'s status was relatively new, a possibility that finds some support in the archaeological record of Ordines, which doubles in size, according to our estimates, between LH I–II and LH III (from 0.9 to 2.1 ha).

a-ke-re-wa, on the other hand, appears quite frequently in the archive. It is mentioned in a series of texts that apparently list contingents (the Linear B term is *o-ka*) watching the coast.[99] *a-ke-re-wa* is one of the headquarters for an *o-ka*, as well as apparently being the location for one of the actual contingents. If the interpretation of these documents as relating to coastal guard posts is correct, then this would imply that the coast was visible from *a-ke-re-wa* or from within its territory. There is, however, nothing necessarily coastal about the other activities and commodities associated with *a-ke-re-wa*, including bronze working (more than 28 smiths), plowland, and sheep (more than 250). The site of Beylerbey would be a suitable location for all these activities, lying, as it does, on the first low ridge rising from the coastal plain, just inland and slightly north of the Osmanaga lagoon (Pl. 86). It therefore had ready access to the coast and, without the extensive modern cover of olive trees on the ridge itself, would have afforded a good view of the bay.

In relation to the second goal, our examination did not extend far enough east to include any of the major centers of the Further Province. Nevertheless, it is interesting to note that the area immediately east of Mount Aigaleon appears to have been occupied only on a very small scale, compared with the coastal strip (see p. 423 above).

Work at the Palace of Nestor

One of the initial goals of PRAP was to examine the area on the Englianos ridge immediately surrounding the Palace of Nestor in order to try to determine (1) the size of the settlement that existed around the palatial buildings and (2) changes in the form and size of this settlement from its earliest manifestations until its desertion, some time after the destruction of the palace. An additional aim was to place the area immediately surrounding the palace in context by examining the entirety of the Englianos ridge from Hora on the northeast to the point where, on the southwest, it reaches the coastal plain just north of modern Koryfasio.

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is suggested by the excavations carried out there by Marinatos in the 1950's: Marinatos 1957, pp. 309–311. UMME estimated its size at 3.0 ha, larger than its estimate for Gargaliani *Ordines* (McDonald and Rapp 1972, *s.v.* nos. 46 and 57).

[99] Ventris and Chadwick 1973, pp. 184–189, 427–430.

With the express purpose of addressing these goals early in the project, the palace region was targeted in 1992 (see pp. 403–404 above) for intensive coverage by two of our teams. Team C began near Tragana and ultimately investigated all of the northwestern half of the Englianos ridge, west of the asphalt road leading from Hora to Koryfasio and modern Pylos. Team B began from Hora and explored the southeastern half of the ridge, remaining south of the asphalt road. This initial coverage allowed the density of material within the entire palace region to be mapped and provided a context for already known archaeological sites, chiefly the palace but also chamber tombs in the ravine immediately west of the palace: Tholos III (the Kato Englianos tholos [POSI C5]), the so-called "Grave Circle", now completely destroyed, and the Protogeometric tholos at the southwestern end of the ridge (again, now completely obliterated).[100] In the course of this work, the poorly preserved remains of two more chamber-tomb cemeteries (POSIs B4 and B5) were also located, within a few hundred meters of the palace structures.

Plots of artifact densities determined on the basis of tract walking in the vicinity of the palace (Fig. 12) provided an initial estimate for the dimensions of the settlement surrounding the palatial structures. Remains appeared to extend approximately one kilometer southwest–northeast along the ridge and *ca.* 200–300 m across its width, a maximum area of some 20–30 ha, far in excess of the (admittedly conservative) estimate of 6.5 ha proposed by UMME.[101] What is perhaps more surprising is that no other significant densities of artifacts were discovered on the Englianos ridge except the extensive spread of material from before 1700 to the present around Hora to the northeast and, to the southwest, at Koryfasio *Pisaski* (POSI B6), a small site of the 18th to the mid-20th centuries that lies immediately upslope from the Kokkevis chamber tomb.[102] One possibility for the absence of small LH III settlements on the ridge is that the local population had become highly nucleated at the palace site, although it is also possible that severe erosion has removed traces of some smaller settlements.[103] The absence of LH III material elsewhere on the ridge strongly suggests that the Kato Englianos tholos (Tholos III) is associated with the palace, despite being nearly a kilometer distant.

On the basis of the data gathered in 1992, we determined that the best means to refine our picture of the extent of the settlement surrounding the palace and to document variation in its size through time was to investigate more intensively the entire area defined in 1992 as having the highest artifact densities. Accordingly, a 20-meter grid was established in 1993, extending northeast from the fence around the modern archaeological site; a similar grid was laid out in 1994 covering areas to the southwest. Within each of these 20-meter grid squares, all artifacts were collected, and remote sensing was subsequently employed in an attempt to detect buried remains.[104] In 1993, 184 squares were collected and in 1994, 290, making a total of 474 20-meter squares, covering an area of 19 ha,

[100] See *Pylos* III, figs. 300, 301 for these features. The "Grave Circle" was destroyed by agricultural activities; the PG tholos was bulldozed when the road from Koryfasio to Hora was recently redirected.
[101] UMME 1.
[102] *Pylos* III, pp. 224–237.
[103] See Zangger *et al.*, forthcoming.
[104] *Ibid.*

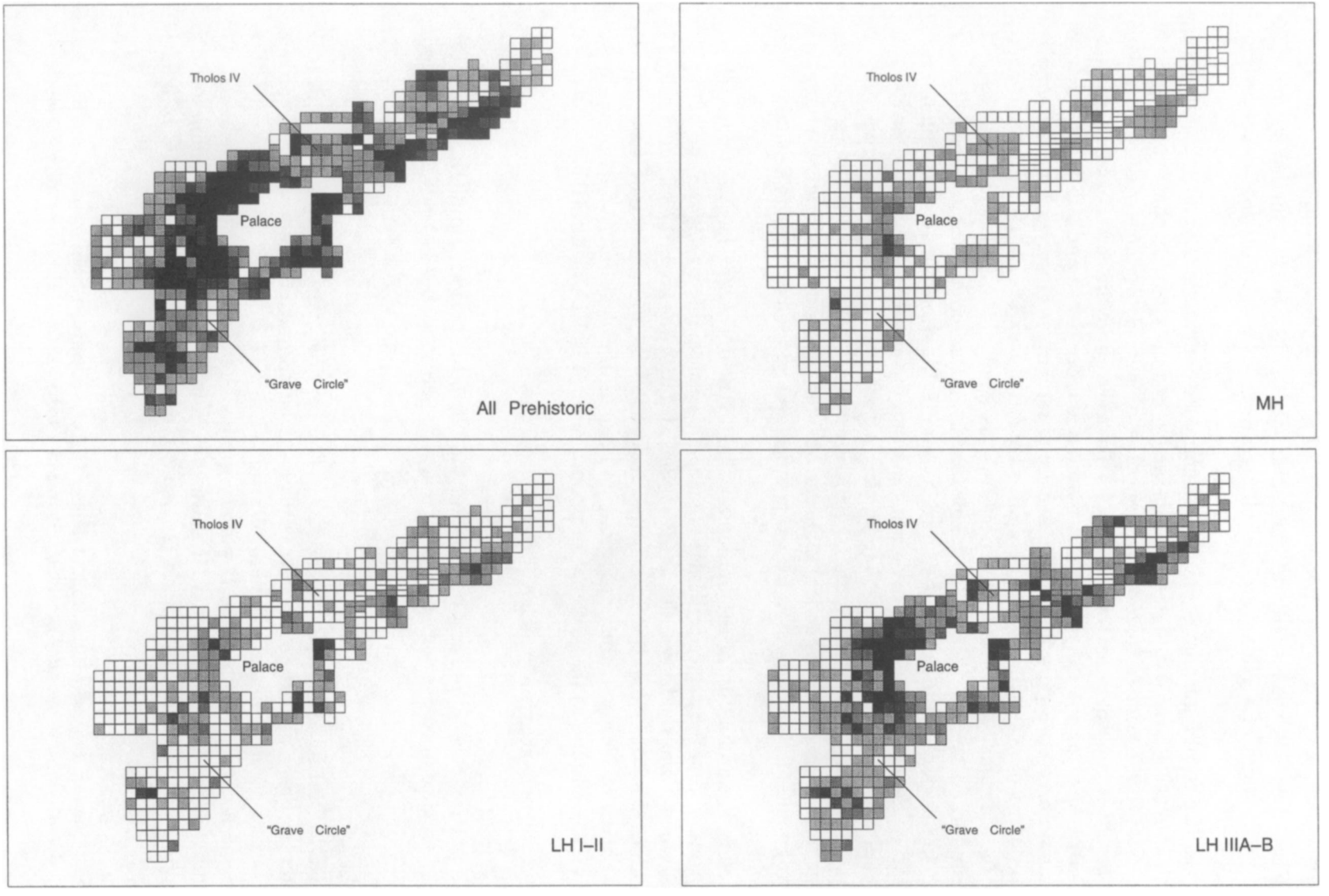

FIG. 12. Artifact densities on the Englianos Ridge in the vicinity of the Palace of Nestor by period (John Bennet). 20-meter grid. (The four levels of shading correspond to densities of 1–375, 375–750, 750–1500, and 1500+ sherds per ha)

excluding, of course, the fenced area surrounding the palace itself, a further 1.7 ha. The further refinement of a grid, therefore, allowed us to refine our original estimate based on tract walking.

As is clear from Figure 12, prehistoric material is abundant in the collections, covering an area of nearly 16 ha. More significant is the pattern of expansion that the plots reveal. Before MH, the extent of material is tiny, but within MH, perhaps mainly in its later phases, settlement expanded over some 5.5 ha all around the later palatial structures and northeast along the ridge. LH I–II material is more dense and still more extensive, covering an area exceeding 7 ha. The density of settlement in the vicinity of the palace by this period may explain why a new funerary structure, Tholos III, was built farther down the ridge in LH II. Material specifically assignable to LH IIIA and/or LH IIIB is attested in an area of 12.4 ha, although less diagnostic prehistoric material also may belong to this period; we prefer, therefore, to regard this size estimate as a minimum for the latest palatial phase. It is worth pointing out that the area of the earlier "Grave Circle" was quite extensively settled at this time, perhaps after the tomb had collapsed.[105] By contrast, the area between the palatial structures and Tholos IV to the northeast was, to judge from Blegen's test trenches, apparently devoid of architectural remains but rich in kylix fragments;[106] it may have remained an open area, dominated by the mound over the tomb.

Detailed examination of the immediate vicinity of the palace has, therefore, clearly demonstrated that the palace settlement reached a considerable size by the end of the MH period, when it was the largest site in the region, and that this growth continued in LH I–III. Against this background, we can better understand the prominence of the settlement at the Palace of Nestor within its region, and situate the beginning of its preeminence at the very beginning of the Mycenaean period, not in LH IIIA or LH IIIB.

Conspectus of Neolithic to Geometric Artifacts[107]

Neolithic Pottery

No pottery can definitively be dated to the Neolithic period, although some sherds of a distinct class of coarse ware may be of that date (see pp. 438–439 below, under Middle Helladic).

Early Helladic Pottery

VROMONERI *NOZAINA* (POSI I20). The ceramic material from Nozaina looks consistently Early Helladic and is very likely to be completely free of earlier or later admixtures. Most, if not all, should be assigned to EH II. This coastal group is thus a welcome addition to other EH II pottery groups already known from Messenia. No elements in it can be classed as EH III as we know it from the western Peloponnesos: e.g., at the Altis at Olympia, at Nichoria (Howell's Group A and early Group C of MH I),

[105] *Pylos* III, pp. 155–156.

[106] *Ibid.*, pp. 64–68.

[107] This section of the report is the work of Yannos G. Lolos, Cynthia W. Shelmerdine, and Sharon R. Stocker. Unless the text indicates otherwise, fragments cited in notes are representative examples, not complete lists.

and, arguably, at the Deriziotis Aloni near the Palace of Nestor.[108] On the other hand, close parallels for the main pottery shapes present in the Nozaina group exist in the EH II pottery from Voidokoilia, Akovitika, and Lepreon *Ayios Dimitrios*.[109]

The Nozaina pottery consists of numerous badly worn and fragmentary sherds. It is so homogeneous in its range of shapes and fabrics that it appears to be a one-phase assemblage. The great majority of sherds is in a distinctly gritty fabric ("Nozaina ware"), whose color ranges through shades of orange, red, and brown. Some pieces (including three rim and wall fragments of burnished bowls with incurving rims, a fragment of a probable sauceboat, and one or two other bowl rims) are of a finer, brown to red-brown fabric that contains few gritty inclusions. Seven soft, fine, yellow/white sherds resemble local LH IIIB and Dark Age wares; they may, however, be of EH II date, inasmuch as they are not dissimilar to a fine, pale EH II fabric known in other regions.

At least six vase types are certainly represented in the assemblage from Nozaina:

Bowl. Rim and wall fragments of bowls with (a) straight spreading sides (Fig. 13:3);[110] (b) incurving rims (Fig. 13:4, 8);[111] and (c) one T-rim (Fig. 13:2).[112]

Sauceboat. A possible rim fragment of a sauceboat, with a simple curved band in relief just below the rim (Fig. 13:1; Pl. 88:d).[113] Two round handles in the fine, yellow fabric mentioned above may come from sauceboats if they are EH and not LH in date.

Basin. A body fragment of a basin with slightly carinated profile.

Wide-mouthed vessel with two horizontal handles. A rim and a wall fragment of a wide-mouthed vessel with horizontal handle (oval in section)[114] and a second similar handle.[115]

Amphora. Four neck and shoulder fragments of amphoras (Fig. 13:7).[116] Belly handles include two complete examples[117]and one fragmentary. Body sherds were recovered from most parts of the site. There are three raised-base fragments of closed vessels: jars, perhaps amphoras (Fig. 13:5).[118]

Pithoid jar or pithos. Body sherds from pithoi were present in most parts of the site, but only a single possible base was recovered.

OTHER FINDS. A small group of diagnostic EH II pottery is represented among finds from Romanou *Romanou* (POSI I4).[119] Small shapes (Pl. 89:a) include a rim fragment

[108] Stocker 1995.

[109] Korres 1993; Themelis 1970; Zachos 1987.

[110] I93-920111-11.

[111] Fig. 13:4: I93-920411-01; Fig. 13:8: I93-920111-02; I93-920111-01 (black slipped?). I93-920243-01 has a thicker wall.

[112] I93-920411-02.

[113] I93-920111-09.

[114] I93-920111-05.

[115] I93-920111-08.

[116] I93-920111-12.

[117] I93-920111-07 (crescent shaped); I93-920111-06 (round).

[118] E.g., I93-920111-03; Fig. 13:5: I93-920111-10 (Diam. 0.06 m, with a woven-mat impression).

[119] EH II sherds also occur in the fill of two nearby tholos tombs: Koryfasio *Haratsari* and Tholos Tomb 1 at Tragana *Viglitsa*. We thank George S. Korres for this information.

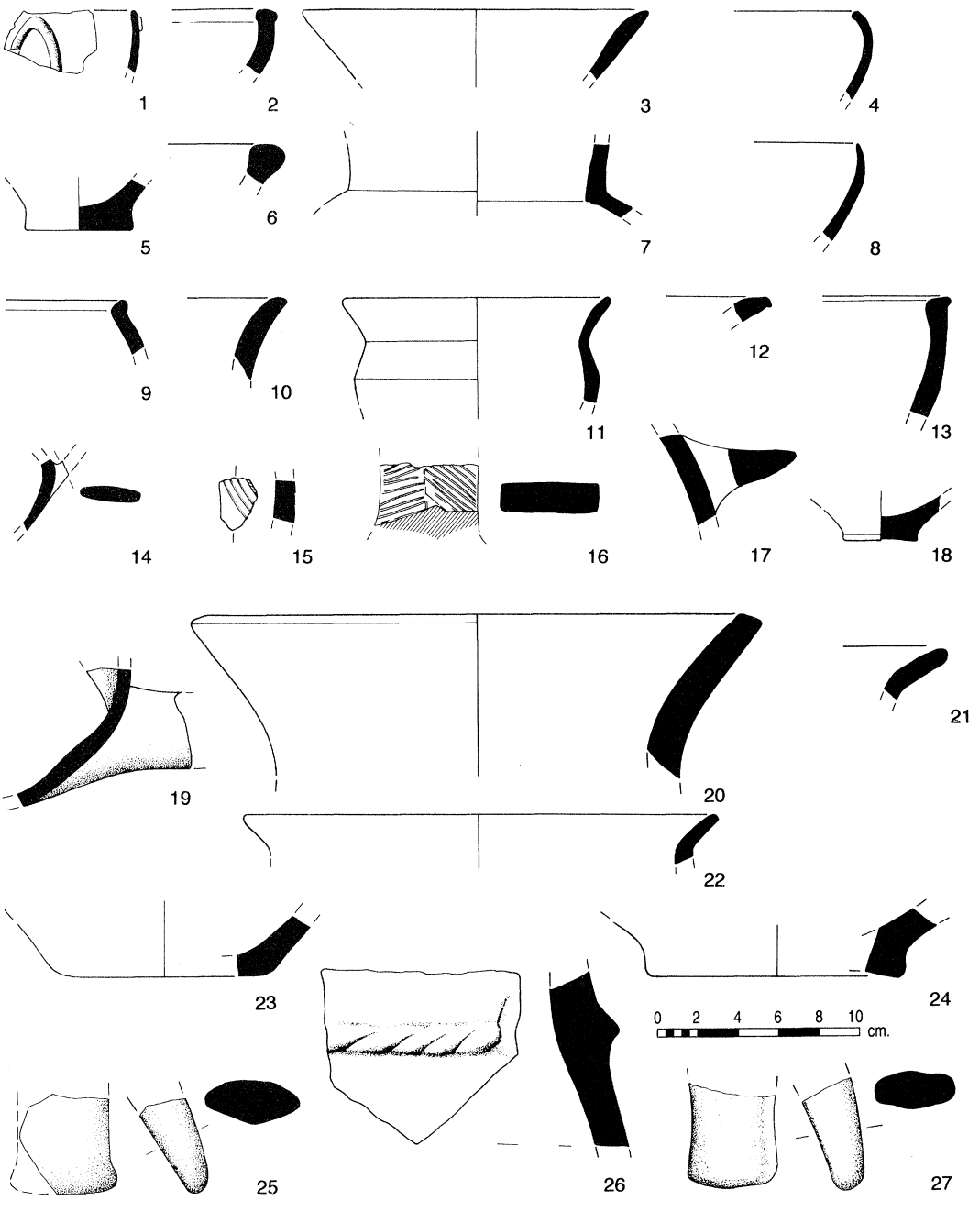

FIG. 13. Early Helladic, Middle Helladic, and Early Mycenaean pottery (Rosemary J. Robertson). (1) I93-920111-09; (2) I93-920411-02; (3) I93-920111-11; (4) I93-920411-01; (5) I93-920111-10; (6) I92-024-05; (7) I93-920111-12; (8) I93-920111-02; (9) C92-166-04; (10) D93-901133-01; (11) D93-901133-02; (12) I92-9010463-03; (13) B93-90721310-01; (14) C92-163-02; (15) C92-149-01; (16) D93-901121-01; (17) C92-133-04; (18) I92-9014464-01; (19) B92-115-06; (20) A92-171-14; (21) A92-171-02; (22) A92-171-01; (23) A92-171-06; (24) A92-171-05; (25) K94-901141-04; (26) A92-171-15; (27) C92-158-07

of a sauceboat in a fine, light grayish fabric (Munsell 7.5YR 7/3);[120] a rim-and-wall fragment in a fine pinkish yellow fabric (10YR 7/4), probably from a shallow bowl or saucer;[121] and two fragments of conical pedestaled bases from bowls or sauceboats (10YR 7/3;[122] Among coarse wares are a bowl rim;[123] a slightly flaring rim-and-neck fragment from a jar (Fig. 24:15);[124] a raised base; and six horizontal belly handles from medium- to large-sized jars (three round or oval in section,[125] three crescent shaped and triangular in section[126]). The jar base and the handles are in gritty Nozaina ware.

Probable or certain EH II sherds also occur sporadically elsewhere within the survey area. Finds from Vromoneri *Vergina Rema* (POSI I28) and Gargaliani *Kalantina (1)* (POSI M1) are few in number, but each site yielded a homogeneous group very similar to that from Nozaina. The fabric is Nozaina ware; the only shapes are a rim fragment from a T-rim bowl from Vergina Rema, and a rim fragment from a bowl with incurving rim from Kalantina (1).[127] In the same fabric is part of a wide (0.038 m) vertical strap handle from Gargaliani *Ordines* (POSI K1), with six parallel, lightly incised lines on its outer surface (Pl. 89:c).[128] From other sites come two swollen rim fragments from bowls or similar open shapes in a reddish gritty fabric (Fig. 13:6),[129] and a body sherd, smoothed but with brush marks or striations on its exterior.[130] Various other fragments of coarse vases with horizontal relief bands may be dated provisionally to EH II–MH (e.g., a rim fragment of a probable open shape with a plastic band bearing two finger impressions, from Koryfasio *Beylerbey* [POSI I1][131]).

The range of pottery at Nozaina, Romanou, Ordines, and Vergina Rema is likely to be typical of small- and medium-sized EH II coastal sites in western Messenia. Such sites appear to have been relatively common: in addition to the sites investigated by us, EH establishments have been reported at Ancient Koryphasion, Voidokoilia, in a coastal location southwest of Petrohori, at Marathoupolis, and at Filiatra *Stomion* (GAC D65).[132] Similar assemblages have been reported from many of the smaller and larger islands that lie off the coast, e.g., Proti, Sphaktiria, Tsihli Baba,[133] Sapienza, Ayia Mariani, and Shiza.[134]

[120] I93-9040436GR-10. For fabric-color numbers see *Munsell Soil Color Charts*, Baltimore 1975.
[121] I93-9040436GR-09.
[122] Fig. 24:22, Pl. 89:a: I93-9040436GR-01; Pl. 89:a: I93-9040551VC-01.
[123] I93-9040261VC-03.
[124] I93-9040542GR-01 (grayish blue core and reddish orange surfaces).
[125] I93-9040436GR-07; I93-9040436GR-08; I93-9040261VC-02.
[126] I93-9040261VC-01; I93-9040481GR-01; I93-9040436VC-01. Cf. I93-920111-07 from Nozaina.
[127] I94-928000GR-01 (POSI I28); M94-901000-01 (POSI M1).
[128] K94-901452-04.
[129] A92-182-01 (contiguous to POSI A3); Fig. 13:6: I92-024-05 (POSI I4).
[130] I92-133-03 (POSI I23; unusual fabric, red brown with large bluish stone inclusions).
[131] I92-9010192-02 (grayish core with reddish surfaces).
[132] In 1995 George S. Korres and Yioryia Hatzi kindly supplied information about these sites.
[133] Korres 1994, p. 3.
[134] The Early Bronze Age site on Shiza (EH II?) has recently been identified by Elias Spondylis of the Ephoreia of Underwater Antiquities.

From Ordines and other locations came several pierced, crescent-shaped, horizontal lug handles, triangular in section (Fig. 13:17),[135] mostly in fine fabrics and apparently from closed vessels; these find good parallels among lug handles from Deriziotis Aloni (near the Palace of Nestor) and from Nichoria and are of EH III–MH II date.[136] A flaring rim of a cup or small bowl in the local Black Minyan class is of approximately the same date.[137]

Middle Helladic Pottery

All phases of the Middle Helladic period are represented in the PRAP survey area, although much of our ceramic material cannot be dated more closely than to the MH period in general. Among the more closely datable pieces are two fine rim sherds from highly burnished cups from the Palace of Nestor (POSI B7), probably of MH I date; they have parallels among the early MH material from Nichoria and may be considered a local variant of Gray Minyan.[138] MH II is represented by two rims, both of which have highly burnished outer surfaces and belong to a local Red/Brown Burnished ware.[139] Of MH I–II date is a rim with a lower handle attachment from a cup or kantharos also in Red/Brown Burnished ware.[140] The bulk of the Middle Bronze Age sherds can be attributed to a MH II–III horizon.

MH ceramics can be grouped into nine different categories on the basis of surface treatment. These include: (i) local Gray Minyan (or Minyanizing); (ii) local Black Minyan; (iii) Yellow Minyan; (iv) Red/Brown Burnished; (v) Dark-coated; (vi) Matt-painted; (vii) fine plain; (viii) plain semicoarse and coarse; and (ix) coarse incised "Adriatic". MH is well represented at Hora *The Palace of Nestor* (POSI B7; Fig. 13:9, 13, 14), Gargaliani *Kanalos* (POSI D1; Fig. 13:10), Koryfasio *Beylerbey* (POSI I1; Fig. 13:18), and Gargaliani *Ordines* (POSI K1).

Numerous fragments of open vases, mostly small, are of local Gray Minyan. On the other hand, canonical Gray Minyan ware, soapy to the touch and of the sort common in the Argolid, is extremely rare in Messenia. Our only example was found at the Palace of Nestor.[141] In contrast, most local Gray Minyan sherds have a soft, powdery fabric, with a core that is homogeneously gray in appearance (10YR 5/1); surfaces may have originally been highly lustrous but are now much worn. Harder-fired examples do preserve burnished surfaces. Local Gray Minyan ware also occurs in large quantities in excavated MH settlement levels at Nichoria,[142] the Palace of Nestor,[143] and Filiatra *Stomion* (GAC D65),[144] and complete vases of this type have been found in MH Messenian graves.[145]

[135] B94-90741105-01; Fig. 13:17: C92-133-04 (POSI B7); K94-901141-02 (half-preserved; very fine, pinkish yellow fabric, 7.5YR N5), K94-901465-01 (POSI K1).

[136] Stocker 1995; Rutter 1993, p. 773.

[137] B94-90740609-01.

[138] B94-90741107-01 (Diam. 0.070–0.075 m); B94-90741107-02 (Diam. 0.10–0.12 m).

[139] B94-90740417-03 (est. Diam. 0.13 m); D93-901272-01; see Howell 1992, P2514, fig. 3:45 (MH II, plain ware).

[140] B94-90740817-01.

[141] B94-90741414-01.

[142] On the development of Minyan ware at Nichoria see Howell 1992, pp. 44, 46–47, 48–49, 50–53 (MH I), 58–60 (MH II), 66 (MH III).

[143] Among MH material in the Petropoulos Trench and other trenches from Blegen's excavations at the Palace of Nestor (now being studied by Sharon R. Stocker). See *Pylos* III, pp. 63–64, fig. 159, p. 104.

[144] Hatzi 1991, p. 84.

[145] A complete shape (cup strainer) in this ware, found by Korres in the Kaloyeropoulos Tumulus at Routsi near Myrsinohori (now stored in the Hora Museum, inv. no. 3692).

Shapes in local Gray Minyan are typical of those represented in the northeastern Peloponnesos and central Greece. Sherds from PRAP include several wall and rim fragments of cups/kantharoi, most preserving in part or entirely an attachment for a high-swung strap handle;[146] a tall flaring rim of a deep open jar or kantharos (Diam. 0.135 m);[147] one strap handle, slightly concave on the outside, apparently coming from a cup or kantharos;[148] a bowl rim;[149] and several body sherds.[150]

A few sherds from open vessels are characteristic of local Black Minyan ware. All have black, highly burnished surfaces, while cores vary in color from very dark brown or very dusky red to black (10YR 7/3, 2.5YR 5/2, 5Y 6/1). Shapes include cups/kantharoi with high-swung strap handles,[151] bowls,[152] and other open shapes.[153] Local Messenian versions of Black Minyan[154] are also documented in excavated MH settlement contexts at Stomion,[155] the Palace of Nestor,[156] Methoni,[157] and Nichoria and are found in MH tumuli.[158]

Local versions of MH-type Yellow Minyan ware (5YR 8/4) also occur but are rarer than the local Gray Minyan and Black Minyan wares; two good examples are a flat cup or bowl base and a dipper fragment, both from POSI B7.[159]

More common than local Gray, Black, and Yellow Minyan is a variety of pottery that we have called Red/Brown Burnished, a type closely paralleled in the MH pottery from Nichoria and represented in Blegen's excavation dump at the Palace of Nestor.[160] All such fragments come from handmade open vases, mostly of fine or semifine fabric. Outer and

[146] B92-103-01; B93-90721109-01; B94-90741107-12 (W. of handle 0.063 m); D93-901133-12; K94-901223-02.

[147] B94-90740417-01 (gray core; surfaces mottled very pale brown and gray).

[148] B93-90721209-10.

[149] B93-90721109-01.

[150] B92-103-02; B93-90721208-09; B94-90740705-01; B94-90741107-13; C92-903331-01. Also three uncatalogued sherds from Koryfasio *Beylerbey* (POSI I1).

[151] D93-901353-01 (wall fragment with upper attachment of a high-swung strap handle); Fig. 13:14: C92-163-02 (wall fragment with the lower attachment of a high-swung strap handle); B94-90740516-06 (everted rim); B94-90740613-14 (shoulder); Fig. 13:18: I92-9014464-01 (slightly raised base; Diam. 0.04 m).

[152] L94-9012672-02 (small sharply curved strap handle).

[153] E.g., an uncatalogued wall fragment from POSI D1.

[154] The typical Argive Minyan fabric, commonly used for festooned bowls, is represented among the finds from Blegen's excavations at the Palace of Nestor (see note 156 below) but is not present in our survey material. See Caskey 1973, p. 119; French 1972, p. 24; Zerner 1978, p. 145.

[155] Hatzi 1991, pp. 83–84, fig. 3, right (kantharos with sharply carinated profile).

[156] Among MH material from the Petropoulos Trench and other trenches excavated by Blegen at the Palace of Nestor. Three fine Black Minyan sherds (two of them with incised festoons), found in a pit under Corridor 25 of the Palace of Nestor, are on display in Case 33 in the second room of the Hora Museum.

[157] In the MH material from the underwater settlement site in the Bay of Methoni, now stored in the Neokastro in Pylos and kindly shown to us by Elias Spondylis in July 1996. We thank him for allowing us to make reference to the unpublished finds from the site in this article.

[158] Examples include a Black Minyan kantharos with a sharply carinated profile from a pithos burial in the tumulus at Ayios Ioannis near Papoulia (now stored in the Hora Museum, inv. no. 3163; see Korres 1982, p. 132, fig. 2:a, pl. 111:b) and two Black Minyan kantharoi of an early type found inside two burial pithoi in the tumulus at Voidokoilia: Korres 1980, p. 354, pl. 212:a; Korres 1981c, p. 144, pl. 112:b, right.

[159] B93-90710505-01 (dipper); B94-90740617-09 (cup or bowl).

[160] Shown to us by Frederick Cooper in July 1995 and July 1996. We thank him for this kindness and for allowing us to make reference to these finds here.

inner surfaces (red, reddish yellow, light reddish brown, pale brown, or brown in color)[161] are burnished to varying degrees; some are almost Minyanlike in appearance. Characteristic shapes include cups/kantharoi with high-swung strap handles;[162] cups/bowls with slightly outturned rims;[163] bowls with rims thickened at the outer edge and flattened on top (Fig. 13:9, 13);[164] bowls/basins with rims thickened at both edges and flattened on top;[165] jars with flaring rims;[166] and other open shapes.[167]

A few sherds with a semicoarse fabric and lightly burnished interior and exterior surfaces are covered with a dark wash that varies in color from brown to black. This category has been recognized at Hora *The Palace of Nestor* (POSI B7) and Koryfasio *Beylerbey* (POSI I1). Shapes include straight flat-topped bowl rims and other open shapes.

Matt-painted ware is sparsely represented: only a few pieces have been recognized. These include five body fragments and three handle fragments, bearing bands (or remnants of bands) in dark matt paint.[168] Another sherd, from an open(?) shape, carries a wavy band in semilustrous or matt paint.[169] In Messenia, as in the northeastern Peloponnesos and elsewhere, Matt-painted ware survives into the initial phase of the Late Bronze Age, on the evidence from pottery deposits at Peristeria (East House), Tragana *Voroulia*, and Koukounara *Katarrahaki*.

Fine plain ware includes numerous fragments of bowls or basins in a reddish yellow fabric with a rim profile that is characteristically MH: flat at the top and thickened at both edges.[170] This type of rim is paralleled in MH deposits from Blegen's Petropoulos Trench on the Englianos Ridge[171] and, as noted above, is represented in the survey material in Red/Brown Burnished ware. Other fine plain shapes include a bowl that tapers sharply toward the rim and is paralleled in MH II plain ware at Nichoria,[172] bowls with everted rims,[173] and kantharoi.[174]

[161] Munsell 2.5YR 6/8; 5YR 7/8; 5YR 6/3; 10YR 6/3; 7.5YR 5/4.

[162] K94-901151-02 (rim with lower handle attachment); K94-9034924GR-02 (lower handle attachment); B93-90721510-01 and I92-9014453-01 (flat and slightly raised bases of kantharoi[?]; Diam. 0.06 m and 0.045 m respectively).

[163] B94-90740615-01; C92-150-22.

[164] Fig. 13:13: B93-90721310-01; Fig. 13:9: C92-166-04; C92-120-01.

[165] B94-90740612-12 and B94-90740712-01 (compare I92-9014423-01, for type of rim; also Howell 1992, P2693 [x], fig. 3:64 [MH II, coarse ware]).

[166] B93-90710503-01 and B93-90721309-03 (POSI B7); one sherd in D93-901133, uncatalogued (POSI D1).

[167] B93-90720406-12, B93-90720202-01, B93-90721209-01, and B93-90720506-07 (rim fragments); B94-90740610-01, B93-90721210-04, and D93-901381-01 (wall fragments).

[168] B92-108-02 (jar handle, round in section); B92-108-03 (jar handle, oval in section); B92-108-04 (coarse jar handle); B94-90740417-02 (wall fragment of cup/kantharos); B94-90740318-01, B94-90740516-15, B94-90740615-12, and D93-901152-05 (body sherds).

[169] B94-90730414-01.

[170] E.g., B93-90710204-03; B94-90730514-01; B94-90740217-01; B94-90740717-09; K94-901372-03; I92-9010442-01.

[171] *Pylos* III, pp. 63–64, figs. 104, 159.

[172] I92-9010141-04; see Howell 1992, P2511, P2512, fig. 3:45.

[173] E.g., B94-90741107-04.

[174] B94-90741107-15.

Plain semicoarse and coarse wares are the most common varieties of MH pottery found by our survey and are well represented at Metaxada *Kalopsana* (POSI A2); Hora *The Palace of Nestor* (POSI B7); Tragana *Voroulia* (POSI C3); Gargaliani *Kanalos* (POSI D1); Koryfasio *Beylerbey* (POSI I1); Gargaliani *Ordines* (POSI K1); Gargaliani *Ayia Sotira* (POSI K2); Valta *Kastraki* (POSI K3); and Maryeli *Koutsouveri* (POSI L1). Large grog and stone inclusions are common. Surfaces may be reddish yellow, pink, pinkish gray, light gray, or gray in color and are usually unslipped and often smoothed; only rarely have they been lightly burnished.[175] Cores may be shades of gray, brown, black, or red.[176]

Shapes in plain semicoarse and coarse wares include

Pithoi. Pithoi always lack handles and often have plastic bands on their necks, at the base of their necks, or on their shoulders. Necks may be splaying or even form an S-curve with the body. Rims may be flaring or thickened, with flat or rounded surfaces. One nearly complete base is 0.113 m in diameter.[177] Decorative relief bands of varying width and thickness are quite frequent on neck and shoulder fragments of coarse pithoi and include varieties with round or oval finger impressions;[178] diagonal oblong finger impressions;[179] diagonal incisions or grooves in imitation of rope;[180] deep holes, perhaps punched by a stick but not perforating the wall of the vessel;[181] incised herringbone;[182] and overlapping half disks.

Jars. Closed jars have two cylindrical handles set horizontally on the belly. A deep open or wide-mouthed jar, of a particularly common type, has one raised strap handle; rims may be straight, spreading, or everted and are sometimes flattened on top (Fig. 13:10, 11).[183] This shape is closely paralleled by complete examples excavated at Malthi, Nichoria, and the Palace of Nestor.[184] A body sherd of a large coarse jar from Gargaliani *Kanalos*

[175] Munsell 5YR 6/6–6/8, 5YR 7/4, 5YR 7/2, 2.5Y 7/2, 2.5Y 6/1.

[176] Other coarse fabrics recognized elsewhere in Messenia are largely absent from our collections. These include a distinctive yellowish white or pinkish "oatmeal" fabric represented in the pottery excavated from the submerged MH settlement in the Bay of Methoni. On the other hand, the coarse fabric called "oatmeal" by McDonald and Hope Simpson in their reports (1969, p. 172; Matson 1972, p. 203) is probably to be equated with a coarse late MH–early LH fabric characterized by its high content of grog inclusions and found in quantity at several sites surveyed by PRAP (see p. 441 below).

[177] D93-901152-03.

[178] E.g., K94-9034924-01 and L94-9013681-02. Finger impressions appear on a few pieces other than pithos bands: three finger impressions or indentations were used to decorate an almost vertical lug handle of a thick-walled MH vase from the Palace of Nestor (B93-90721410-05), while finger impressions, arranged in three rows, are present on a body sherd of a pithos of late MH–early LH date from Beylerbey (I92-9010477, uncatalogued).

[179] E.g., L94-9012681-02.

[180] E.g., A92-172-02; D94-902425-02. Cf. Fig. 13:26: A92-171-15 (MH III–LH II).

[181] E.g., K94-901334-04.

[182] K94-901223-03.

[183] E.g., Fig. 13:10: D93-901133-01; Fig. 13:11: D93-901133-02; D93-901323-01 (with knob on shoulder); D93-901143-01 (this "squared" type of jar rim finds good parallels in MH jar rims from the Petropoulos Trench at the Palace of Nestor and the underwater site at Methoni); K94-083-01; K94-495-01.

[184] See Valmin 1938, pls. I:1, XVI:1, p. 103 (MH); *Pylos* III, pp. 25, 28 (CM 2669), figs. 133 (MH), 234:5 (LH I?); Howell 1992, P2685, P2686, fig. 3:62 (MH II, coarse ware), P2851, P2852, P2853 (λ), P2854, fig. 3:78 (MH III, coarse ware).

(POSI D1) has a relatively thin arclike lug similar to one on a small MH pithos from Methoni *Nisakouli* and to that of another example from an MH deposit at the Palace of Nestor.[185] A rim-and-shoulder fragment of a coarse jar from Valta *Kastraki* (POSI K3) with a horseshoe-shaped lug set high on its shoulder has a good MH counterpart at Nichoria.[186] Jars of this type may also have decorative knobs on their shoulders, as does a fragment of a rim and shoulder found by our teams at Gargaliani *Kanalos*.[187]

Cups, bowls, and basins. Among the many bowls and basins is one particularly diagnostic type with a straight vertical rim that is flattened on top; it is closely paralleled by bowl rims at Nichoria.[188]

At least sixteen sherds have incised decoration and belong to Valmin's so-called "Adriatic" ware, a MH ceramic category well known from excavations at Messenian centers such as Peristeria, Malthi, the Palace of Nestor, Nichoria, and Filiatra *Stomion* (GAC D65).[189] Sites where pottery of this type has been found by PRAP are the Palace of Nestor (POSI B7; Fig. 13:15; Pl. 89:b: B94-90741107-11, B94-90741107-09, B94-90741107-07, B94-90741107-08), Gargaliani *Kanalos* (POSI D1; Fig. 13:16; Pl. 89:b: D93-901252-02), Gargaliani *Ordines* (POSI K1), and Maryeli *Koutsouveri* (POSI L1).[190] Most examples seem to be body fragments of thick-walled handmade jars. Some, however, may be from deep open cups/jars with one raised flattened handle, a type found at Malthi, the Palace of Nestor, and Nichoria. In all cases, the incision consists of simple linear patterns, including variously arranged groups of parallel lines. The decoration of a broad flattened handle from Kanalos (POSI D1; Fig. 13:16) consists of oblique parallel lines arrayed in two vertical zones, a scheme closely paralleled on a coarse handle from an excavated MH deposit at the Palace of Nestor.[191] A body sherd from Koutsouveri (POSI L1) bears a comparable motif.[192]

Another group of approximately three dozen semicoarse and coarse sherds, very homogeneous in appearance, is much more difficult to date than material from the preceding nine categories. This group could be compared to Marinatos' Smoked Ware (Καπνιστή Κεραμεική) category,[193] and several sherds find parallels among Late Neolithic pottery (a group of *ca.* 150 sherds) from his 1955 excavation in the entrance of the

[185] D93-901143-02; Nisakouli: on display in the Pylos Museum (Room 1); Palace of Nestor: on display in the Hora Museum (Room II, Case 33).

[186] K94-9034941GR-01 (coarse fabric with both stone and grog inclusions); see Howell 1992, P2854, fig. 3:78 (MH III, coarse ware).

[187] D93-901323-01; see Howell 1992, fig. 3:62, P2684 (x) (MH II, coarse ware); Korres 1978, p. 273, fig. 2, top right; also jar fragments with knobs from Blegen's excavation dump at the Palace of Nestor. This shape continues into LH I (see p. 441 below).

[188] E.g., B94-90740712-02; I92-9014423-01; see Howell 1992, P2693 (x), fig. 3:64 (MH II, coarse ware).

[189] See Valmin 1938, pp. 136–239, 284–290; Rutter 1983, p. 460, note 5.

[190] B93-90721309-01; B94-90741106-01; Pl. 89:b: B94-90741107-07, B94-90741107-08 (neatly incised, of semifine fabric), and B94-90741107-09; B94-90741107-10; Pl. 89:b: B94-90741107-11; Fig. 13:15: C92-149-01; Fig. 13:16: D93-901121-01; Pl. 89:b: D93-901252-02; D93-901251-01; D93-901332-02; I92-9010442-01; K94-901452-03; L94-282-01; L94-9013681-01.

[191] Fig. 13:16: D93-901121-01; Palace of Nestor: on display in Case 33 in Room II of the Hora Museum.

[192] L94-282-01.

[193] Marinatos (1960, p. 246) gives a description of the ware.

Katavothra Cave in Hora (unpublished, in the Hora Museum).[194] Other Neolithic parallels come from excavations by McDonald, Theocharis, and Sampson (in 1953 and 1980) in the Cave of Nestor at Ancient Koryphasion (now stored in the Neokastro of Pylos);[195] from Korres' excavations at Petrohori *Voidokoilia*; and from trial excavations in the Cave of Koufieros near Maniaki.

Many of the sherds, however, also resemble Middle Helladic coarse wares from the Palace of Nestor and from an underwater settlement site in the Bay of Methoni, currently under investigation by Elias Spondylis for the Ephoreia of Underwater Antiquities. Given the numerous MH parallels, and the absence of more clearly diagnostic Neolithic pottery in our collections, it seems possible that most of, or even all, the examples found by PRAP are MH.

The sherds found by PRAP come from five different sites: Hora *The Palace of Nestor* (POSI B7),[196] Gargaliani *Kanalos* (POSI D1),[197] Koryfasio *Beylerbey* (POSI I1),[198] Gargaliani *Ordines* (POSI K1),[199] and Gargaliani *Ayia Sotira* (POSI K2).[200] A few more examples come from tracts not associated with any site.[201] Many of the sherds have black or yellowish brown cores. With few exceptions,[202] interiors are various shades of black. Some have dark brown to blackish exteriors,[203] although most are red to red-brown outside. Surfaces are perfunctorily smoothed and, in a few instances, slightly polished. Most fragments appear to belong to ill-shaped handmade deep bowls, wide-mouthed jars, or other thick, open, medium-sized or large vessels.

Middle Helladic III–Late Helladic II

Both fine and coarse wares of the end of the Middle Bronze Age and the initial stages of the Late Bronze Age are represented in PRAP's collections. No fine pottery can be dated specifically to MH III, but a few fine sherds fall into the MH III–LH II range.[204] In contrast, examples specifically dated to LH I–II are numerous (see pp. 442–445 below).

Coarse-ware shapes, on the other hand, can rarely be dated more closely than to MH III–LH II; few new coarse-ware shapes are introduced into the Mycenaean ceramic

[194] Marinatos 1960, pp. 245–246; Theocharis 1973, p. 350 (no. 106); Theocharis 1981, p. 74 (where the group is assigned to the Early Neolithic period); Korres 1981a, p. 456; Lolos 1994, pp. 24–25, 45. Evidence for Neolithic activity southwest of Hora is provided by the recent discovery of a small stone celt of Neolithic type on the hill of Ayia Marina, above the Yiftovrisi spring (see Lolos 1994, p. 45).

[195] Sampson 1982, pp. 175–187; Korres 1981a; Korres 1981b.

[196] E.g., B94-90740616-14; B94-90740818-01; B94-90740513-02; C92-153-03.

[197] E.g., D93-256-01; D93-901124-01.

[198] I92-9010151-01; I92-9010185-05; I92-9010192-01; I92-9010463-02.

[199] E.g., K94-901322-01; K94-901341-02; K94-901452-02; K94-901462-01; K94-901462-02; K94-901464-01.

[200] K94-9024181-01; K94-9024184-01.

[201] C92-128-01; C92-147-03 (contiguous to POSI B7).

[202] E.g., C92-147-03; I92-9010463-02 (both yellowish brown).

[203] E.g., C92-147-03; I92-9010185-05; I92-9010192-01.

[204] E.g., B93-90721410-03 (horizontal bowl with rim thickened at both edges); B93-90710204-02 (goblet rim with concave upper surface); K94-9034951GR-02 (high-swung handle of kantharos or dipper).

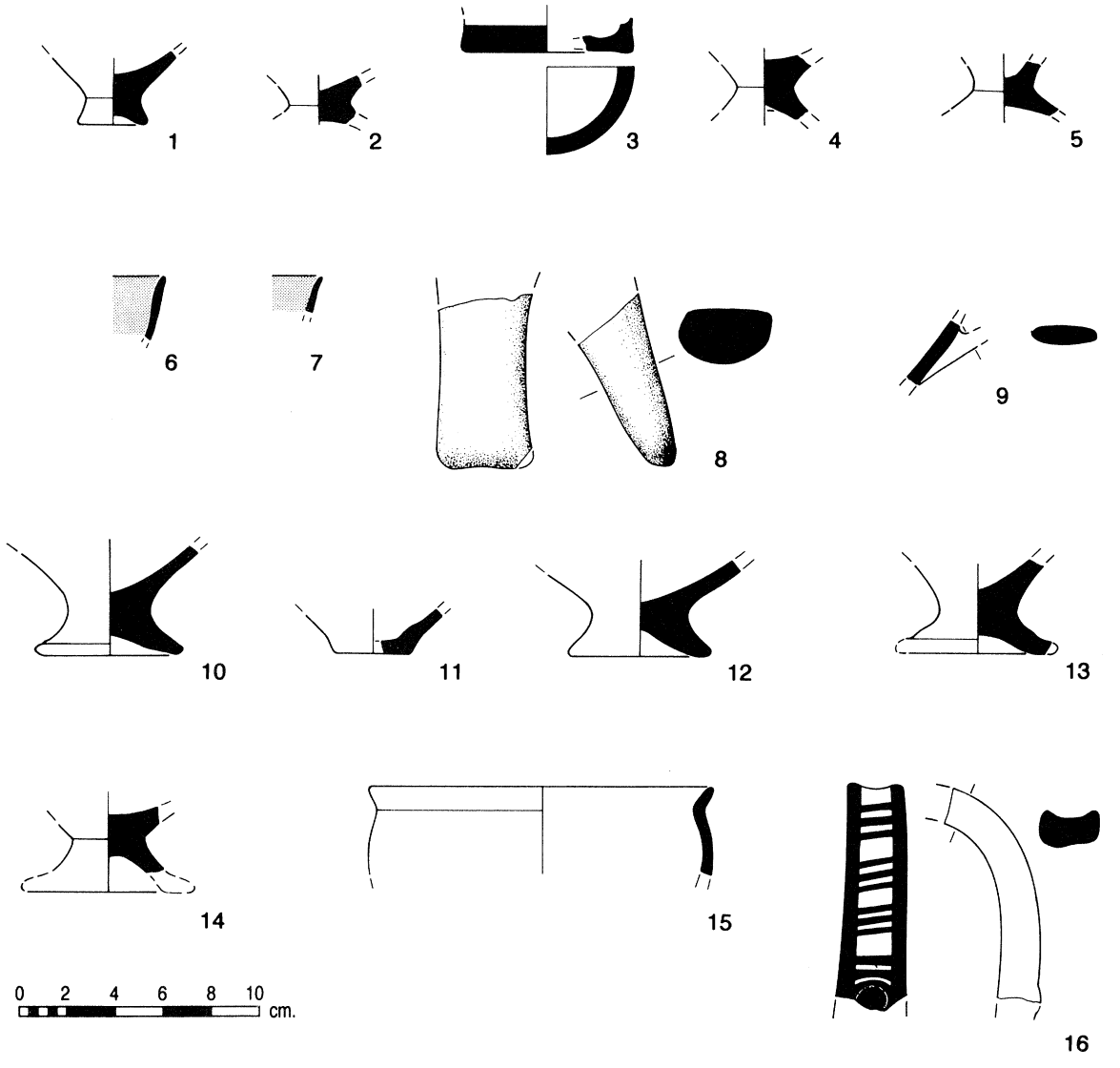

FIG. 14. Middle Helladic III–Late Helladic II pottery (Rosemary J. Robertson). (1) B92-096-01; (2) C92-158-05; (3) C92-903111-01; (4) C92-155-04; (5) K94-137-03; (6) D93-901133-05; (7) D93-901133-06; (8) K94-084-05; (9) B92-108-10; (10) D93-256-02; (11) B92-101-09; (12) B92-097-02; (13) I92-005-07; (14) C92-156-04; (15) C92-132-01; (16) K94-901373-01

repertoire in LH I.[205] The tripod cooking pot (FS 320[206]), a domestic shape of Minoan derivation, is a particularly good example of a shape that spans the transition between the Middle and Late Bronze Ages. Tripod legs (whole and fragmentary) have been found at many sites, including Hora *The Palace of Nestor* (POSI B7), Gargaliani *Kanalos* (POSI D1),

[205] Dickinson 1977, pp. 22–26.
[206] For FS (Furumark shape) and FM (Furumark motif) numbers see Furumark 1941.

Ambelofyto *Lagou* (POSI I21), and Gargaliani *Ordines* (POSI K1; Figs. 13:25, 14:8).[207] Fabrics are semicoarse or coarse, often with large pebbles and/or tan grog inclusions. The exterior profile of the leg may be straight, or it may curve slightly; its section may be oval or a flattened oval; the leg tapers in thickness toward its base, which in some examples splays slightly. The tripod cooking pot is well documented in later MH and earlier LH excavated deposits at Nichoria and Peristeria.[208] It is absent, however, in the excavated LH I deposit at Tragana *Voroulia*, where the dominant cooking pot is the coarse wide-mouthed jar with one vertical handle, a type also represented in our surface collections (see below, with note 212).

The majority of the other semicoarse and coarse pottery that we have dated to MH III–LH II consists of sherds of handmade thick-walled vessels in a semicoarse or coarse fabric, normally tempered with stone and especially grog inclusions. These wares are attested at many PRAP sites, including Metaxada *Kalopsana* (POSI A2), Hora *The Palace of Nestor* (POSI B7), Gargaliani *Kanalos* (POSI D1), Gargaliani *Ordines* (POSI K1), and Maryeli *Koutsouveri* (POSI L1). A coarse, reddish yellow fabric with tan grog inclusions is common (7.5YR 8/6–6/8) for both pithoi and smaller domestic shapes (Fig. 13:20, 22, 26),[209] as is a semicoarse light-gray ware (10YR 7/1; Fig. 13:12).[210] The high percentage of semicoarse and coarse wares in our collections is a feature also of the major excavated Messenian pottery deposits of this time, from Malthi, Nichoria, Koukounara *Katarrahaki*, Tragana *Voroulia*, Hora *Volimidia* (GAC D20), and Peristeria.

Principal semicoarse and coarse-ware shapes represented in our collections include pithoi (represented by thickened rims that are either rounded or flattened on top, bases, shoulder fragments with relief bands, and body fragments);[211] large closed jars with horizontal belly handles, cylindrical in section (base, body, and neck fragments and round belly handles);[212] and deep, open or wide-mouthed jars with flaring or everted rims and a single raised vertical handle (Fig. 13:20–24).[213] The last type has complete or nearly complete parallels from excavated deposits at Nichoria and Tragana *Voroulia*.[214]

[207] B94-90740517-07, B94-90740619-03, and two examples from B94-90740914, uncatalogued (POSI B7); D93-901124-05 (POSI D1); L94-170-02 (L. 0.093; POSI I21); Fig. 13:25: K94-901141-04 (L. 0.045; POSI K1). Other examples can be dated no more closely than MH–LH II: Fig. 13:27: C92-158-07 (POSI B7). The shape itself seems to have been introduced well before the start of the Late Bronze Age: see our MH examples, B94-90740609-02 and Fig. 14:8: K94-084-05 (POSI K1).

[208] See Dickinson, Martin, and Shelmerdine 1992, pp. 480, 488; Lolos 1987, p. 381.

[209] Fig. 13:26: A92-171-15 (pithos with raised-band decoration imitating rope) and B93-90721208-01 (pithos); Fig. 13:20: A92-171-14, Fig. 13:22: A92-171-01, B92-299-03, and D93-222-02 (jars); B93-90721208-02 and K94-9034952GR-04 (bowls).

[210] I92-9010463-03.

[211] E.g., K94-137-01; K94-901151-03; K94-901122-02; K94-901221-01; K94-901221-02; K94-901222-01; K94-901241-06; K94-901251-01; K94-901251-02; K94-901252-05; K94-901261-01; K94-901272-01; K94-901362-02.

[212] E.g., B92-101-11, B92-101-12 (handles), and several other cylindrical belly handles at Gargaliani *Kanalos* (POSI D1) and Gargaliani *Ordines* (POSI K1), where there is much MH–early LH pottery like that excavated at the Palace of Nestor by Blegen.

[213] Among numerous examples are Fig. 13:22: A92-171-01; Fig. 13:21: A92-171-02; Fig. 13:24: A92-171-05, Fig. 13:23: A92-171-06; and Fig. 13:20: A92-171-14 (POSI A2).

[214] See Howell 1992, P2851, P2852, P2853 (λ), P2854, fig. 3:78 (MH III, coarse ware); Dickinson, Martin, and Shelmerdine 1992, P3055, fig. 9:6, pl. 9:12 (LH I); Lolos 1987, figs. 83–85, 86:f–g, 90–94.

More specialized domestic MH III–LH II coarse vessel shapes are rare. Examples include a wall-and-handle fragment from a brazier (FS 312), with a parallel from the tholos tomb at Koryfasio *Haratsari* (Fig. 13:19),[215] and a body sherd from a jar or cup-strainer (FS 314) with three perforations, similar to excavated examples from MH deposits at Nichoria, Petrohori *Voidokoilia*, Routsi *Kaloyeropoulou Tumulus*, and a LH I deposit from Tragana *Voroulia*.[216] A large fragment of a possible spinning bowl preserves part of an interior handle (Pl. 89:d) and has parallels in finds from Volimidia *Kephalovryso Tomb 1*, Nichoria, and the Palace of Nestor.[217] Possibly also of MH III–LH II date is a fragment of a thick-walled vessel with four deeply punched holes.[218]

Early Mycenaean fine wares that can be dated specifically to LH I–II are well represented in the PRAP collections. The most common unpainted LH I shape is the goblet, which is easily recognizable from foot fragments.[219] LH I feet belong to one-handled or two-handled versions of the short-stemmed goblet (FS 261, 263, 268, 270), a vase type, undoubtedly of MH ancestry, that is exceptionally common among the small open shapes made in fine plain wares during LH I in Messenia and elsewhere.[220] Most are in a plain, soft fabric with a gray (5YR 4/1, 5YR 7/1) to very pale brown (10YR 7/3) core and reddish yellow surfaces (5YR 7/6–6/8), although some are homogeneously reddish yellow. Compared to those of later goblets, LH I goblet feet are generally low and usually conical or splaying conical in form. Unlike the broader feet of their LH II descendants, which are frequently hollowed underneath, they are solid, flat, or only slightly concave underneath. On the whole, they are rather carelessly modeled, without a well-defined stem (this being in many cases almost nonexistent). A small type, with a small (Diam. 0.025–0.045 m) concave or flat button base diagnostic of LH I, is present at Metaxada *Kalopsana* (POSI A2), Hora *The Palace of Nestor* (POSI B7; Fig. 14:1, 2, 4), Gargaliani *Megas Kambos (1)* (POSI D2), Koryfasio *Beylerbey* (POSI I1), and Gargaliani *Ordines* (POSI K1; Fig. 14:5).[221]

[215] B92-115-06; see Blegen 1954, p. 161.

[216] B94-90740616-18 (plain); see Howell 1992, P2033, fig. 3:1b (MH I, Group A), P2233 (β) and 2236 (β), fig. 3:17 (MH I, Group C); Lolos 1987, fig. 86:e.

[217] L94-9012664-01; cf. Hora *Volimidia*, Kefalovriso Tomb 1 (Marinatos 1966b, pl. 90:e [late MH]; Lolos 1987, figs. 364, 365); and Nichoria (Carington Smith 1992, p. 710 [no. 2783], pl. 11:34 [LH IIA?]). Blegen also found a handle fragment of a MH spinning bowl in Trench S at the Palace of Nestor (unpublished).

[218] K94-901231-05 (of coarse fabric). Pieces of similar MH–LH vessels have been found in Blegen's excavation dump at the Palace of Nestor.

[219] E.g., B92-107-01, B94-90740612-16, B94-90740817-02), B94-90740619-02, and C92-156-08 (POSI B7); D94-902425-01 (POSI D2); I92-001-03 and I92-9010492-01 (POSI I1); I94-9030181GR-06 (POSI I3); K94-901112-02, K94-901231-03, K94-901141-03, K94-901212-01, K94-901222-13, K94-901222-14, K94-901232-02, K94-901346-01, and K94-901466-01 (POSI K1).

[220] On the occurrence of LH I plain goblets in settlement and tomb contexts in the southwestern part of the Peloponnesos see Lolos 1987, pp. 140, 340–342; Dickinson, Martin, and Shelmerdine 1992, p. 478.

[221] E.g., A94-9024792-01 (POSI A2); Fig. 14:1: B92-096-01; B94-90740612-15; Fig. 14:4: C92-155-04; Fig. 14:2: C92-158-05 (POSI B7); D94-902342-01 (POSI D2); I92-9010144-01 (POSI I1); Fig. 14:5: K94-137-03 (with partial fingerprint preserved in bottom of bowl; POSI K1). Sites with parallels include Nichoria (Dickinson, Martin, and Shelmerdine 1992, P3149, P3150, P3151, fig. 9:3), Katarrahaki, Volimidia, and Peristeria, East House (see Lolos 1987, fig. 64).

Many other fine unpainted sherds can be dated to LH I–II. These include ladles,[222] dippers,[223] conical cups (FS 204; Fig. 14:11),[224] bowls/basins,[225] small jars,[226] probable kraters,[227] and cups/small bowls with everted rims and strap handles.[228] Many base fragments of short-stemmed goblets can be dated to LH I–IIA (Fig. 14:12, 13),[229] as can a strap handle fragment from a goblet/kantharos, coated with a purple wash on its exterior face (Fig. 14:9).[230] Other goblets, with larger, more carefully shaped feet are of LH I–II,[231] and several feet (two of them well burnished) can be dated specifically to LH IIA on the basis of their size, shape, craftsmanship, and the fineness of their fabric (Fig. 14:10, 14).[232] Also of specific LH II date are a horizontal bowl rim and a small cup,[233] as well as a number of plain goblet feet with deep central cavities beneath.[234]

The LH I Vapheio cup (FS 224), the most common fine decorated shape in all LH I settlement deposits in the southwestern Peloponnesos,[235] is represented in our surface collections by a single fragment, a base from Tragana *Voroulia* (POSI C3), a location where similar examples have been excavated.[236] Like cups found there by Marinatos, it is white slipped and has a dark brown band at the base outside, with the edge of the underside of the base painted (Fig. 14:3).[237] The few LH I–IIA sherds with lustrous-painted decoration include three Vapheio cup rims (FS 224). One, from Hora *The Palace of Nestor*, preserves no decoration other than the characteristic rim banding (Fig. 15:21).[238] The other two are from Gargaliani *Kanalos* (POSI D1); one is decorated with reddish tortoise-shell ripple pattern (FM 78; Fig. 14:7), the other with a poorly preserved motif consisting of black dots

[222] B92-108-09.

[223] C92-166-20.

[224] B92-101-08; Fig. 14:11: B92-101-09; C92-156-09.

[225] B94-90740617-05; B94-90740615-06; D93-901333-01; K94-9034953GR-03. B94-90740612-17, a bowl with a horizontal rim (cf. FS 295), is also of this date.

[226] B93-90720505-02, K94-901342-01 (neck/shoulders); K94-901142-01 (small jar or alabastron handle); B92-114-09, I92-9010171-03 (bases).

[227] B94-90740516-09 (rim); I92-023-02 (base).

[228] D93-901121-05 (POSI D1); I92-9010145-02 (POSI I1).

[229] E.g., Fig. 14:12: B92-097-02 (contiguous to POSI B7); Fig. 14:13: I92-005-07; I92-016-08; I92-023-02.

[230] B92-108-10. For purple wash in LH II at Nichoria see Dickinson, Martin, and Shelmerdine 1992, p. 488 (tripod legs).

[231] I92-058-15 (foot); B94-90740708-02 (rim; Diam. 0.11 m).

[232] E.g., B94-90740716-01; Fig. 14:14: C92-156-04; D93-901281-01. Fig. 14:10: D93-256-02, a fragment preserving part of a foot and the lower body of a goblet, is a particularly fine example; it has a light-brown fabric with highly burnished surfaces.

[233] B94-90741107-06 (cup); D93-901133-11 (bowl).

[234] E.g., I92-9010151-05; K94-901454-01, K94-901252-01, K94-901111-01. On LH II goblets at Nichoria see Dickinson, Martin, and Shelmerdine 1992, p. 486. Still other sherds of plain goblets and other plain open shapes with strap handles can be dated no more closely than LH II–IIIA: e.g., B92-108-05, B92-109-01, and I92-9014422-01 (goblets).

[235] See Lolos 1987, pp. 240–260; Dickinson, Martin, and Shelmerdine 1992, p. 474.

[236] See Korres 1978, pp. 271–281; Lolos 1987, pp. 60–95.

[237] C92-903111-01.

[238] B93-90721612-01.

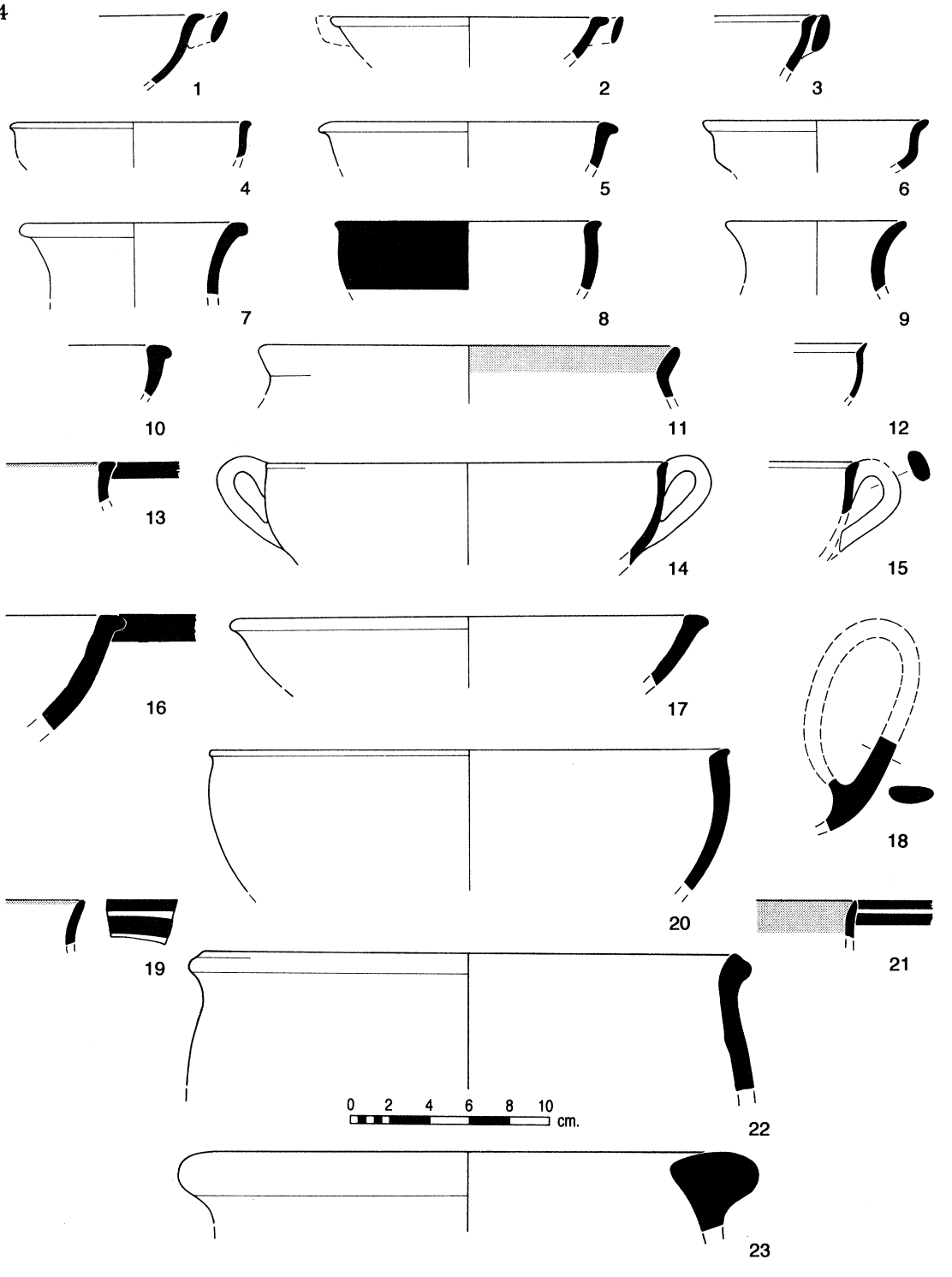

FIG. 15. Mycenaean pottery (1–12; 14–23); Roman (13). (Rosemary J. Robertson).
(1) B93-90720606-01; (2) B93-90721611-01; (3) B92-090-02; (4) B93-90721612-02; (5) B92-109-02; (6) C92-166-08; (7) K94-901252-03; (8) B92-093-01; (9) K94-901131-03; (10) D93-461-01; (11) C92-145-01; (12) B93-90710805-05; (13) B93-90722015-01; (14) C92-166-06; (15) C92-166-07; (16) K94-901251-03; (17) B92-299-04; (18) B92-092-09; (19) B92-110-01; (20) B92-101-03; (21) B93-90721612-01; (22) B92-114-04; (23) B92-092-03

(Fig. 14:6).[239] Lustrous paint also appears on a rim fragment of a semiglobular(?) cup with a band at the rim[240] (FS 211); a rim fragment of a cup with a solidly painted strap handle;[241] and a solidly painted body fragment from a small jar (FS 27) or alabastron (FS 80, 81, 83) preserving part of a horizontal handle, its section a flattened cylinder.[242] Exceptional among our Early Mycenaean lustrous-painted sherds is a flanged handle fragment from Gargaliani *Ordines* (POSI K1; Fig. 14:16), probably part of a LH IIA bridge-spouted jug (FS 103, 104), with bars on its outer face and an applied clay "rivet" near its bottom.[243]

Some painted sherds are clearly later in date than LH IIA. For example, a rim fragment in fine, pale-yellow fabric may be part of an Ephyraean goblet (FS 254; Fig. 14:15),[244] a type-fossil of LH IIB that does not, however, appear to have been as popular in western Messenia as in the northeastern Peloponnesos.[245] A body sherd with a red spiral motif of LH IIB type (FM 47:2) from the Palace of Nestor is one of only a few Early Mycenaean sherds collected by PRAP that preserve a recognizable motif in lustrous paint.[246]

Late Helladic IIIA–B Pottery

LH IIIA1–2. Ninety percent of the clearly datable LH IIIA pottery found during the survey comes from Hora *The Palace of Nestor* (POSI B7), but small quantities are present at other sites (POSIs A2, C3, D1, I1, I3, I21, K1, and K3). More pottery from these sites no doubt is also LH IIIA in date but, lacking good diagnostic features, can only be assigned generally to LH IIIA–B (see pp. 449–451 below). The material is overwhelmingly of settlement character, with a wide range of large and small open shapes that are typically Mycenaean in details of profile, fabric, and paint. Specifically LH IIIA1 material is especially hard to distinguish. A body sherd from a cup (FS 219) with stipple above a base band certainly belongs to this phase,[247] and so probably do several goblet rims from POSI B7 (FS 255; Fig. 15:11).[248] A somewhat larger number of sherds decorated in good red paint can be dated to LH IIIA2. Decorated kylikes are represented by banded stems and by one body sherd decorated with diagonal whorl-shell (FM 23).[249] Coated kylikes from POSI B7 and from Gargaliani *Ordines* (POSI K1) belong to this period as well (Fig. 15:8).[250] Also found at POSI B7 were the bottom part of an elegant stemmed bowl

[239] Fig. 14:6: D93-901133-05 (dots); Fig. 14:7: D93-901133-06 (bands).

[240] D93-901133-07 (POSI D1).

[241] B92-111-01.

[242] B92-111-02.

[243] K94-901373-01. On "rivets" and other metallic features of LH IIA vases see Mountjoy 1993, p. 38. For a corpus of LH I–IIA vases carrying plastic "rivets" from sites in the southwestern Peloponnesos see Lolos 1987, pp. 541–545.

[244] C92-132-01.

[245] There are several examples from Nichoria (Dickinson, Martin, and Shelmerdine 1992, pp. 481–482; P3235, pl. 9:17; P3236, pl. 9:19; P3326, fig. 9:11; P3482, pl. 9:40; P3512, pl. 9:43; P3536, fig. 9:23, pl. 9:48; P3537, pl. 9:48.

[246] B94-90740616-07.

[247] B94-90740516-01; see Dickinson, Martin, and Shelmerdine 1992, P3580, fig. 9:27.

[248] Fig. 15:11: C92-145-01 (decorated); see Dickinson, Martin, and Shelmerdine 1992, P3563, fig. 9:24; B94-90740617-02 (coated); B94-90740617-03 (plain).

[249] C92-150-14 (stem); B94-90730120-01 (body sherd with whorl-shell).

[250] Fig. 15:8: B92-093-01; see Dickinson, Martin, and Shelmerdine 1992, P3671, fig. 9:41; K94-901262-04.

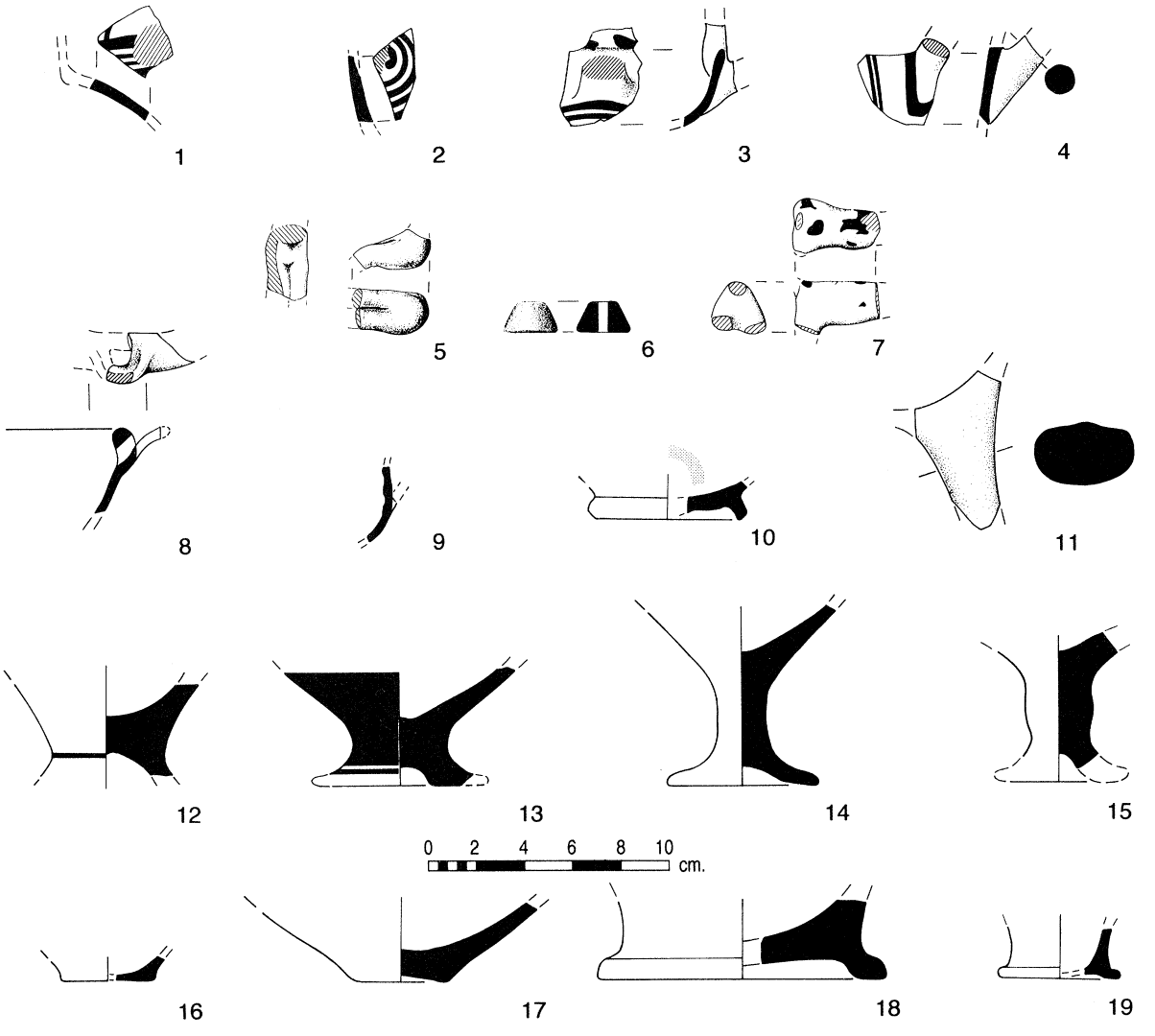

FIG. 16. Late Mycenaean pottery and small finds (Rosemary J. Robertson). (1) B93-90720506-21; (2) B93-90721310-09; (3) B94-90740616-05; (4) D93-901133-16; (5) SF0108; (6) SF0206; (7) SF0107; (8) C92-168-01; (9) B92-307-01; (10) B94-90740616-03; (11) B92-092-08; (12) K94-901241-01; (13) B92-101-04; (14) L94-170-06; (15) B92-095-01; (16) B92-090-13; (17) K94-901252RV-02; (18) B92-091-04; (19) B92-905000TB-01

with banded foot, its lower body coated inside and out (Fig. 16:13),[251] and a painted ring base from a small closed shape, probably a piriform jar.[252] Two rim/handle fragments of shallow angular bowls (FS 295) can also be dated to LH IIIA2 by their profile (Fig. 15:2).[253] Material of general LH IIIA date includes kylikes, most of them plain but several coated

[251] B92-101-04.

[252] C92-144-02.

[253] Fig. 15:2: B93-90721611-01; see Dickinson, Martin, and Shelmerdine 1992, P3730, P3731, fig. 9:48; B94-90740317-07.

bright red;[254] plain and painted teacups (FS 220);[255] a painted ring base probably from a krater (FS 7, 8);[256] small jar fragments also with traces of red paint; a false neck with spiral decoration from a stirrup jar; and a possible banded alabastron rim.[257] A particularly interesting find was a tinned kylix stem from Ambelofyto *Lagou* (POSI I21); the practice of tinning is most common in LH IIIA1 but continues in LH IIIA2.[258]

LH IIIA2–LH IIIB. This group includes pottery from the height of the Mycenaean period, produced during the time a palace existed on the Englianos ridge. The designation LH IIIA2–B covers pottery that is not specifically diagnostic of either period but belongs in the general category of standard Mycenaean pottery. It excludes distinctly early or backward-looking LH IIIA material, however, and emphasizes the later part of LH IIIA2 and LH IIIB. A few pieces can be specifically assigned to LH IIIA2, late, a few more to LH IIIB1, early, and quite a number to LH IIIB. In this connection it is worth noting that a true transitional LH IIIA2/IIIB1 phase seems to exist at several sites. At Korakou and Tsoungiza, deposits of this date have been described as early LH IIIB1, with some characteristics of late LH IIIA2.[259] At Nichoria the double chronological label was chosen, instead, to describe a genuine phase of mixed character.[260] The pottery there shows some features that are typical of late LH IIIA2 deposits at Mycenae (diagonal whorl-shells and rather naturalistic motifs, a high proportion of decorated kylikes and stemmed bowls), and others typical of early LH IIIB1 deposits at that site (deep bowls, Zygouries kylikes, and conical kylikes).

Obviously, surface finds cannot be treated or dated like an excavation deposit. It is notable, however, that some of our survey pieces are datable on stylistic grounds to the range LH IIIA2, late–LH IIIB1, and their best parallels come from such transitional deposits. Most of the sherds in question are from the town around the palace, and they attest to a variety of shapes. A deep bowl rim (FS 284) with typical rim profile has traces of decoration, probably a spiral, below a rim band (Fig. 15:19).[261] The reddish paint on a pink/buff fabric (10YR 8/5) argues for a date very late in LH IIIA2 or early in LH IIIB; later in LH IIIB the paint is consistently brown to black.[262] Decorated kylikes are also represented at Hora *The Palace of Nestor* (POSI B7) by banded rims and a black-banded

[254] B94-90740914, uncatalogued (coated); B94-90740517-01, D93-901133-08 (plain).

[255] B94-90740615-07, B94-90740617-04 (painted rims); B94-90740612-02 (exterior bands above coated base).

[256] C92-150-06.

[257] B94-90740616-01, C92-151-04 (jar fragments with traces of decoration above bands); B94-90740516-02 (stirrup jar neck); B94-90740612-06 (alabastron rim).

[258] I94-921000-01. On tinning in general see Immerwahr 1966; Gillis 1994, with references. Examples of LH IIIA1 date come from a number of sites in Messenia and elsewhere; see the good discussion in *Agora* XIII, pp. 118, 127–128, 151, Tomb I-12 (pp. 164–165), Tomb III (pp. 171–175). Later examples do occur; there are 19 in one tomb at Berbati (Holmberg 1983, nos. 31, 33–41, 45, 46, 49, 50, pp. 34–50; discussion p. 49). A LH IIIA2 date is reasonable for all examples illustrated by Holmberg (Mountjoy [1993, p. 75] refers to this tomb as the source of 14 tinned vases of LH IIIA2).

[259] Korakou, East Alley deposit: Rutter 1974. Tsoungiza, rubbish pit deposit in EU2: Wright *et al.* 1990, p. 637; Thomas 1992; Thomas, forthcoming.

[260] Dickinson, Martin, and Shelmerdine 1992, p. 503.

[261] B92-110-01.

[262] It is now acknowledged that the deep bowl begins to occur already near the end of LH IIIA2, giving further support to the notion of a transitional phase: Mountjoy 1986, p. 91.

stem and foot, a feature typical of late LH IIIA2 and IIIB1.[263] Another stem is more finely slipped than is usual for plain ware in Messenia; thus it could be from a LH IIIB1, early Zygouries kylix, although not enough of the body is preserved to show decoration.[264] Small cups and bowls are also attested in very small fragments at this site. Koryfasio *Portes* (POSI I3) also yielded several cup and kylix fragments, including the banded rim of a decorated kylix with the rounded profile that marks LH IIIA2, late–LH IIIB1, early.[265] From Gargaliani *Kanalos* (POSI D1) comes a body fragment from a cup, preserving one interior and three exterior bands.[266]

Clearly identifiable fine, small, closed shapes are rare, as one would expect from predominantly settlement material. From POSI B7 come a number of banded stirrup- or pithoid-jar shoulders, one with the edge of a decorative motif above thick and thin bands (Fig. 16:1).[267] Two finds associated with tombs were also recovered that date to this phase. One is the base of a piriform or stirrup jar, coated red, found near the palace (Fig. 16:19).[268] The other comes from a grave site at Valta *Kastraki* (POSI K3). The mayor of Valta reported that a child's skull was found here some years ago. We were pleased, therefore, to discover among the sherds collected amid the remains of the grave the complete profile of a LH IIIA2 or IIIB1 child's feeding bottle (FS 160 or 161) decorated with a filled tricurved arch (FM 62). Only the spout was missing, and UMME reported finding a feeding-bottle spout at this site 25 years ago.[269]

A much larger amount of material could be assigned to LH IIIB than to LH IIIA. Most common is plain ware, which bears a strong resemblance to material from the Palace of Nestor. Included in this category is a soft greenish white/greenish yellow fabric (5Y 8/1, 8/2; 2.5Y 8/2, 8/4) very distinctive in Messenia in this period. LH IIIB material is very common in surface material collected around the palace and in other locations as well: Gargaliani *Kanalos* (POSI D1), Gargaliani *Megas Kambos (1)* (POSI D2), Vromoneri *Pigadia* (POSI G3), Koryfasio *Beylerbey* (POSI I1), Koryfasio *Portes* (POSI I3), Romanou *Romanou* (POSI I4), Ambelofyto *Lagou* (POSI I21), Gargaliani *Ordines* (POSI K1), and Valta *Kastraki* (POSI K3). Painted ware is marked by dark brown to black paint. A decorated body sherd from POSI D1 with two vertical bands beside the stump of a round horizontal handle probably comes from a deep bowl (FS 284; Fig. 16:4).[270] A ring base from POSI B7, with a black band around the interior as well as the exterior, is more likely to be from a Group A deep bowl than a cup, in view of its 0.06 m diameter (Fig. 16:10), while Group B deep bowls are represented by a base from POSI I1 with coated interior and a band above the base on the exterior.[271] Similar handles and ring bases attest to

[263] B93-90721209-03 (rim); B93-90711310-01 (banded stem, bowl coated on interior); B94-90740612-07 (foot).
[264] B92-114-11.
[265] I92-016-01.
[266] D93-901132-09.
[267] B93-90720506-21.
[268] B92-905000TB-01.
[269] K94-9035041TA-01; see McDonald and Hope Simpson 1969, p. 146.
[270] D93-901133-16.
[271] Fig. 16:10: B94-90740616-03 (Group A); I92-9010191-03 (Group B).

the presence of deep bowls at POSIs I3 and K1 as well. Two ring bases from POSI B7 are coated inside and out, but it is not clear whether they come from coated or decorated deep bowls. Other painted open shapes include kraters, cups with banded rims, bowls, and basins (FS 294; Fig. 15:16).[272] There are also a few decorated body sherds: one with traces of spiral decoration, one showing a tricurved arch with spiral fill (FM 62:28), and one with a lozenge or triangle beside a triglyph and metope.[273] Identifiable closed shapes are quite rare among painted ware, but some body sherds and belly handles clearly come from jars. POSI B7 yielded a banded jug rim, while the coated lower body of an angular alabastron was noted at POSI I4.[274]

Plain ware exhibits the range of shapes usual in settlements and is well documented from excavations at the Palace of Nestor. Kylikes are very common; rims are attested for both the angular type (FS 267; Fig. 15:6)[275] and the rounded variety (FS 266; Fig. 15:12, 14).[276] Small feet, both string cut and hollowed, can be associated with the angular kylix, and larger feet and tall straight stems, with the rounded-profile kylix.[277] A large (Diam. 0.13 m) torus base belongs to a krater (FS 9; Fig. 16:18).[278] Among smaller open shapes, the shallow angular bowl (FS 295) is well represented. The rims are hard to distinguish from the angular kylix, unless the horizontal strap handle is preserved (Fig. 15:1, 3).[279] Bases are typically flat and string cut, but an example from POSI K1 has a concave underside (Fig. 16:17).[280] Several other rims belong to cups and bowls of various shapes (Fig. 15:17) and to dippers with high-swung handles.[281] Closed shapes are certainly present as well, though in smaller numbers. Amphora handles and flat bases were noted at most sites, but from such scrappy material no other shapes securely datable to LH IIIB could be identified.

Apart from these more specifically diagnostic pieces, a great deal of pottery was recovered that is generally representative of LH IIIA–B ceramic styles. In painted ware almost all the typical Mycenaean shapes are attested. Banded stems of decorated kylikes were noted at POSIs B7, D1, I3, and K1.[282] POSIs B7 and K1 also produced stemmed-bowl stems (FS 304, 305) with a band of paint preserved on the exterior at the base of the bowl (Fig. 16:12), and coated stemmed bowls are also attested, chiefly at POSI B7 but in smaller numbers at POSIs I1, I4, and I21.[283] Definite krater fragments are scarce, but a

[272] B94-90740712-03, I94-9030181GR-03 (krater rim and ring base); B93-90721109-02, B93-90721109-03 (cups); B93-90721310-08 (bowl); I92-9010192-03, Fig. 15:16: K94-901251-03 (basin).

[273] B94-90740518-01 (spiral); B94-90740616-06 (tricurved arch); B94-90740615-10 (lozenge).

[274] B93-90721209-04 (jug); I92-024-17 (alabastron).

[275] B92-115-01; B93-90720605-03; Fig. 15:6: C92-166-08.

[276] Fig. 15:12: B93-90710805-05; Fig. 15:14: C92-166-06; I92-9010914-03; K94-901241-02.

[277] B93-90720505-09 (string-cut foot of FS 267); B92-088-03 (foot of FS 266).

[278] B92-091-04.

[279] Fig. 15:1: B93-90720606-01, Fig. 15:3: B92-090-02, I94-921000-02 (rims with handles in "palace ware"); see Dickinson, Martin, and Shelmerdine 1992, P3793, fig. 9:57.

[280] K94-901252RV-02.

[281] C92-166-11 (cup); Fig. 15:17: B92-299-04 (bowl); B92-110-03, C92-166-19 (dippers).

[282] B93-90721208-06; D93-901134-01; I92-016-06; K94-901231-02.

[283] B93-90721611-04, Fig. 16:12: K94-901241-01 (decorated); B93-90721310-05, I92-9010192, uncatalogued, I93-9040441GR-08, L94-170-07 (POSI I21) (coated).

wide (0.045 m) vertical handle of FS 8, 9 should be mentioned: the sides of the handle are painted, and there is a reserve stripe down the middle.[284] Cup rims are small and fragmentary, and most have the everted profile of the teacup (FS 220).[285] A few small ring bases probably belong to the same shape (FS 220), including one from the Palace of Nestor with its exterior (as far as is preserved) coated dark brown.[286] We noted a range of small and large bowls. A rim fragment from POSI B7 with transverse bands on the upper surface has the profile of a LH IIIB basin (FS 294); it has a deep rim band on the exterior, and the interior is coated.[287] Also from Hora *The Palace of Nestor* comes a large rim fragment in gritty fabric, coated red inside and out (Fig. 15:20).[288] Several rim sherds with a band at the rim come from smaller bowls;[289] one with an additional band below the rim may belong to the deep but small one-handled bowl (FS 283) of LH IIIA2.[290] From the vicinity of the palace comes a rim fragment of a bridge-spouted bowl (FS 300, 301) coated red inside and out (Fig. 16:8).[291] A body sherd with spiral decoration is probably from a mug (FS 225, 226), given its concave profile (Fig. 16:2).[292] Decorated dippers (FS 236) are represented by a small fragment of rim and handle; there is brown paint on and around the handle and two thin bands below the handle zone (Fig. 16:3).[293]

Closed shapes include both small and large jars. Usually on jugs and jars the only paint preserved is secondary: a band at the rim, base of the neck, or on the shoulder or paint on the exterior of a raised base.[294] However, a few body sherds with traces of decoration above bands also come from jars.[295] Several coated ring bases could belong to piriform or stirrup jars; only one fragment is large enough to classify definitely.[296] A number of banded shoulder fragments suffer from the same ambiguity, but a wide horizontal rim with fugitive paint belongs to a piriform jar, and the false neck of a small stirrup jar was also catalogued.[297] All piriform- and stirrup-jar fragments but one belong to small, fine versions of those shapes and come from the elite center, Hora *The Palace of Nestor* (POSI B7). It is interesting that the one exception, from POSI I3, is the top of a false neck from a much larger coarse stirrup jar, of the utilitarian transport and storage variety.[298]

Plain wares of general LH IIIA–B date are similar in their range of shapes and fabrics to published material from the excavated Messenian sites of the Palace of Nestor and Nichoria. They are common throughout the survey area, but it is no surprise that they are

[284] B94-90740612-08.
[285] B92-093-02 (decorated); B92-114-13 (coated).
[286] B92-116-04.
[287] B94-90740717-01.
[288] B92-101-03.
[289] C92-154-01.
[290] B93-90720406-07.
[291] C92-168-01.
[292] B93-90721310-09.
[293] B94-90740616-05.
[294] B94-90740716-03 (rim); K94-901242-03 (shoulder); B93-90720406-08 (base).
[295] B94-90740517-09.
[296] C92-150-07 (piriform jar).
[297] B93-90721310-04 (rim); B93-90711308-01 (shoulder); B94-90730120-02 (false neck).
[298] I92-016-05.

especially predominant at POSI B7. As usual, kylikes are ubiquitous and easy to recognize, both among rim sherds (Fig. 15:4, 15) and by their stems and feet (Fig. 16:14).[299] Kraters are represented by rims, belly handles, and a few stems/feet of FS 8, 9 from the palace and POSIs I1 (Beylerbey) and K1 (Ordines).[300] Small conical rim fragments could be from cups or kylikes, but a few small flat bases confirm the presence of conical cups.[301] Also noted were the everted rims, small vertical handles, and flat or slightly raised bases (Fig. 16:16) of teacups (FS 220).[302] Bowl rims come in a variety of shapes and sizes, including rounded types impossible to classify securely (Fig. 15:5).[303] Easier to identify are a horizontal basin rim (FS 294) and several shallow angular bowls with horizontal strap handles (FS 295); the base of the latter shape is also attested.[304] A few dipper fragments could also be identified (Fig. 15:18).[305] More unusual are the lower body of a rhyton from POSI B7 and a fine-ware tripod foot from POSI K1.[306] Closed shapes are distinctly in the minority, but a number of horizontal and vertical round-sectioned handles come from jugs or jars, as do several flat and raised bases, as well as one with a slightly concave underside,[307] and rims of several types (Fig. 15:7, 9).[308] In semicoarse and coarse fabrics,[309] body sherds are common enough, but few shapes could be identified; these include pithos rims (Fig. 15:23), tripod legs (Fig. 16:11), and a few bowl (Fig. 15:22) and low-necked jar rims.[310] More distinctive are the stirrup jar mentioned above and a brazier handle, pierced near the body end.[311]

Late Helladic IIIC–Geometric Pottery

Very little pottery found by the survey is distinctively LH IIIC in date, but approximately 15 sherds fall in the range of late LH IIIB–IIIC. Most of these come from Hora *The Palace of Nestor*, but isolated examples were noted at POSIs D2 and I3. The coated deep bowl makes its first appearance in Messenia late in LH IIIB,[312] and some coated belly handles and body sherds among our material could come from coated deep bowls

[299] Fig. 15:4: B93-90721612-02, Fig. 15:15: C92-166-07 (rims); B92-090-011, B92-101-06, Fig. 16:14: L94-170-06 (foot with stem).

[300] I92-005-09, K94-901352-01.

[301] B93-90321209-07, C92-166-15 (rims); C92-151-02 (base).

[302] B92-090-04, I92-9010141-02, K94-901121-04 (rims); D93-901132-02, K94-901272-03 (handles); Fig. 16:16: B92-090-13 (base).

[303] Fig. 15:5: B92-109-02; see Dickinson, Martin, and Shelmerdine 1992, P3790, fig. 9:56.

[304] B93-90721410-01 (basin); B93-90720707-05, B94-90740516-12 (shallow angular bowl rims); D93-901133-21 (shallow angular bowl base).

[305] Fig. 15:18: B92-092-09; B93-90720406-05; I92-9010145-03.

[306] C92-150-12 (rhyton); K94-901121-06 (tripod foot).

[307] B92-093-05.

[308] I92-005-04 (collar neck); Fig. 15:7: K94-901252-03 (horizontal everted rim); B94-90740612-11, Fig. 15:9: K94-901131-03 (flaring rims).

[309] Semicoarse: inclusions 0.01–0.04 m in length or diameter; coarse: inclusions larger than 0.04 m.

[310] Fig. 15:23: B92-092-03 (pithos); Fig. 16:11: B92-092-08 (tripod); Fig. 15:22: B92-114-04 (bowl); see Dickinson, Martin, and Shelmerdine 1992, P3741, fig. 9:49 (bowl), and P3871, fig. 9:70; B92-114-03 (jar).

[311] Note 298 above (stirrup jar); B94-90740816-01 (brazier).

[312] Examples are known from Nichoria, the Menelaion, and Korakou, among other places. See discussion and references in *Nichoria* II, p. 513 with note 8.

(FS 284).[313] Kylix stems with bulges are unmistakable signs of LH IIIC, but we recovered just three of these, two of them from POSI B7 and the other from an isolated tract (Fig. 16:15).[314] Also suggestive of a LH IIIC or later date are a soft, white fabric and black coating on painted pieces. On these grounds a small horizontal basin rim in a whitish fabric (10YR 8/2), softer than the usual palace ware, may be LH IIIC, as may several kylix fragments and other body sherds coated black on the interior and exterior (Fig. 15:10).[315]

Among our surface material, Submycenaean–Geometric pottery is similarly characterized by its very soft fabric, colors more green or more white in tone than during LH IIIB, and dark, often washy paint.[316] Isolated examples come from most parts of the survey area, but identifiable shapes are few: skyphoi, cups, and kraters predominate, with a few jugs and jars represented. A few body sherds from POSIs I1, I4, and K1 are coated or banded in the washy black paint typical of the Dark Age generally, from the Submycenaean through the Protogeometric period (Pl. 90:a, left).[317] It is, however, impossible on our evidence to show continuity of occupation at Hora *The Palace of Nestor* (POSI B7) from the Bronze Age to the Geometric period.[318] After the two LH IIIC kylix stems mentioned above, only a handful of pieces from this site appear to fall in the Submycenaean–Geometric range, and they are concentrated in a small area just southwest of the site's fence, beyond the Southwestern Building. These are a collar-necked jar rim and a body sherd from a closed shape with spiral decoration (Pl. 90:b; both Submycenaean–Protogeometric in date), a ledge-rimmed bowl rim and a coated skyphos rim (Submycenaean–[Early] Geometric), a coated cup rim (Protogeometric), and an everted bowl rim and a small oval strap handle (Middle/Late Protogeometric–Early Geometric).[319] Fourteen Geometric fragments come from a rather wider area around the palace; they include the ribbed stem of a stemmed cup, several coated bowl rims, and a thin body sherd, probably from a cup, coated on the interior and decorated on the exterior with concentric semicircles above a thick band (Pl. 90:a, at right).[320] A similar concentration of seven Geometric sherds comes from Gargaliani *Ordines* (POSI K1). Diagnostic pieces include an oinochoe rim with a flat strap handle and black paint on interior and exterior, two coated krater stems, and a small shoulder fragment from a closed shape with traces of thin vertical bands on the exterior.[321] Isolated Geometric sherds were also noted at POSIs A2, D1, D2, I1, and I4, while a number of sherds from all over the survey area belong generally to the Geometric–Archaic range. Apart from two or three amphora and other jar rims, the identifiable sherds are from open

[313] B94-90740616-10; C92-150-16.

[314] Fig. 16:15: B92-095-01 (tract); C92-152-02, C92-166-26 (POSI B7).

[315] Fig. 15:10: D93-461-01 (basin); B94-90740516-004, B94-90740616-11, I94-9030181GR-01 (kylikes).

[316] We prefer traditional terminology (Dark Age I–III) to the chronological scheme laid out and explained in *Nichoria* III, pp. 318–322. We are indebted to Dr. Birgitta Eder of the Österreichischen Akademie der Wissenschaften for her assistance in analyzing our LH IIIC–Geometric material.

[317] D94-902442-01.

[318] The work of the Minnesota Pylos Project, however, may clarify the question of post-palatial occupation; see Griebel and Nelson 1993.

[319] C92-145-02 (jar rim); Pl. 90:b: B94-90740708-01 (body sherd); B94-90740616-21 (ledge-rim bowl); B94-90740613-17 (skyphos); B94-90740616-09 (cup); B94-90740613-18 (bowl); B94-90740613-19 (handle).

[320] B94-90740910-01 (stem); B94-90740317-05 (bowl); Pl. 90:a: B94-90740411-01 (body sherd).

[321] K94-901243-02 (rim); K94-901353-01 (stem); K94-901392-01 (shoulder).

shapes (cup, stemmed cup, krater, plate, bowl, and skyphos). Only three sites yielded more than three such sherds: Koryfasio *Beylerbey* (POSI I1; four sherds), Romanou *Romanou* (POSI I4; six sherds), and Gargaliani *Kalantina (2)* (POSI M2; six sherds). Of interest from the last site are a profiled conical foot with two round moldings and a coated bowl rim with a ridge on the exterior just below the rim (Pl. 90:c).[322] From an isolated tract in area B comes a cup fragment, coated on both interior and exterior and preserving the base of a vertical handle (Fig. 16:9).[323]

Prehistoric Artifacts other than Pottery

Several small finds and larger artifacts dating to the Bronze Age were also recovered by the survey teams. (Chipped stone has already been reviewed above, pp. 414–417.) Ground-stone tools include five sandstone saddle querns of normal Mycenaean type from Gargaliani *Ordines* (POSI K1)[324] and isolated examples from a few other sites. Ground-stone tools of note are a Late Neolithic celt and two EH–MH shaft-hole hammer axes, one of sandstone from Romanou *Romanou* (POSI I4) and the other of polished green stone from Gargaliani *Megas Kambos (1)* (POSI D2; Pl. 90:e).[325] Eight terracotta loomweights were recovered from Hora *The Palace of Nestor* (POSI B7). Two are perhaps Middle Helladic, to judge from their fabric (Pl. 90:d: SF1431, SF1387); the others are Late Helladic, of Minoan discoid type (Pl. 90:d: SF1438, SF1419).[326] A coarse, gray, fragmentary spindle whorl or loomweight was found with Late Helladic pottery at Ambelofyto *Lagou* (POSI I21), while a steatite dress weight or spindle whorl of truncated cone shape, vertically pierced, came to light at Koryfasio *Beylerbey* (POSI I1; Fig. 16:6).[327] The latter has a slight recession at the edge of the hole on the larger surface, which may indicate wear. A bigger surprise from the same site was a lentoid sealstone of serpentine (Pl. 90:f). A deer faces right with a branch above its back, and there are two arc lines to the right of the branch. The sealstone belongs to Younger's Mainland Popular Group, which dates to LH IIIA2–IIIB, and there is a very similar example from Nichoria.[328]

Four terracotta figurines also date to LH IIIA–B. From Beylerbey comes a cylindrical fragment from near the base of a standing human figurine, with a black stripe of paint down each side.[329] The other three fragments are from Hora *The Palace of Nestor* (POSI B7). One is the body of a quadruped with the stumps of the tail and rear legs and traces of black paint preserved (Fig. 16:7).[330] Two are human: the lower torso and upper legs of a seated

[322] M94-902311-01 (foot); Pl. 90:c: M94-236-01 (rim).

[323] B92-307-01.

[324] SF0747, SF0922, SF0926, SF0953, SF0955.

[325] SF0885 (celt); SF0746, Pl. 90:e: SF1394 (hammer axes).

[326] Also SF1392, SF1475, SF1486, SF1521.

[327] SF1098; Fig. 16:6: SF0206. Two objects similar to the latter were found at Iklaina *Traganes* (GAC D46): Marinatos 1957, p. 310.

[328] SF0091; see Catling and Hughes-Brock 1992, no. 2001, fig. 10:6, pl. 10:29, showing a quadruped with a branch before it. We thank John Younger for consultation about this sealstone; for definition of the Mainland Popular Group see Younger 1987, pp. 66–71.

[329] SF0018.

[330] SF0107.

figure (Fig. 16:5)[331] and the torso and lower body of a standing woman with arms curved below the breasts and traces of black paint (Pl. 91:a).[332] Quite a few fragments of wall plaster were also recovered from POSI B7, especially to the southwest of the palace, outside the fence that surrounds the archaeological site. Several of these have paint preserved on them. A few are banded, and three show patterns, including one that resembles a flounced skirt in blue-white-red-white-blue (Pl. 91:b).[333] On a much larger scale are two ashlar blocks of sandstone that perhaps originally came from the Palace of Nestor. They were found at Hora *Kalianesi* (POSI B1), about two kilometers from the archaeological site of the palace, and had been recut.[334] The larger (SF190A) has three originally square dowel holes; a round indentation and a notch carved in one long side are secondary cuts.

HISTORICAL PERIODS

Historic Messenia has been something of an "also ran" in terms of archaeological fieldwork (see pp. 393–396 above), an undeserved fate given the compelling history of the region, marked at points by developments unlike those in any other part of Greece. The relative lack of work on Messenian historical sites has made study of the ceramics of the periods discussed here a difficult task, and further analysis will no doubt refine the patterns presented. One conclusion, however, does appear fairly firm at this point: for certain historical periods, settlement patterns in southwestern Messenia do indeed follow a developmental trajectory quite different from patterns in other regions surveyed in Greece. A predominant characteristic of our study area, for example, is the presence of relatively large, often very long-lived sites as the focus for nucleated settlement, rather than the pattern commonly seen elsewhere of cycles of settlement nucleation and dispersion.[335] Atypical political and social conditions in Messenia are probably responsible for the "peculiar" situation so far observed by PRAP. This pattern has had a direct methodological impact on the project, forcing us to experiment with various strategies of "large site" collection and analysis (see pp. 400–402 above).

A brief word should be said about the definition of the PRAP study area with respect to the historical periods. Areas we had originally intended to explore intensively, such as the Classical settlement at Ancient Koryphasion or villages such as Koukounara with their excellent mediaeval documentation, were ultimately not included in our permit area (see pp. 399–400 above). As a result, our emphasis has of necessity become more an analysis of the "hinterland" of political centers that lie outside our study region (Koryphasion, Messene). For much of the historical era, of course, the entire territory of southwestern Messenia formed only a small part of imperial structures ruled from beyond the boundaries of Greece itself: from Rome, Constantinople, Venice, or Istanbul. Given these parameters, the area selected for intensive study, covering a variety of environmental and geographical zones, provides a valid sample of territory, suitable for a wide-ranging historical analysis.

[331] SF0108.

[332] SF1434; see Catling and Hughes-Brock 1992, nos. 2030, 2044, fig. 10:7.

[333] Pl. 91:b: uncatalogued, from B94-90740317; see *Pylos* II, 51 H nws, pp. 86–89, pls. E, O. Other painted fragments include SF1389, SF1390, and SF1391.

[334] SF0190A, SF0190B.

[335] Cherry, Davis, and Mantzourani 1991, pp. 458–462; Jameson, Runnels, and van Andel 1994, pp. 258–259; Runnels and van Andel 1987; Wagstaff and Cherry 1982.

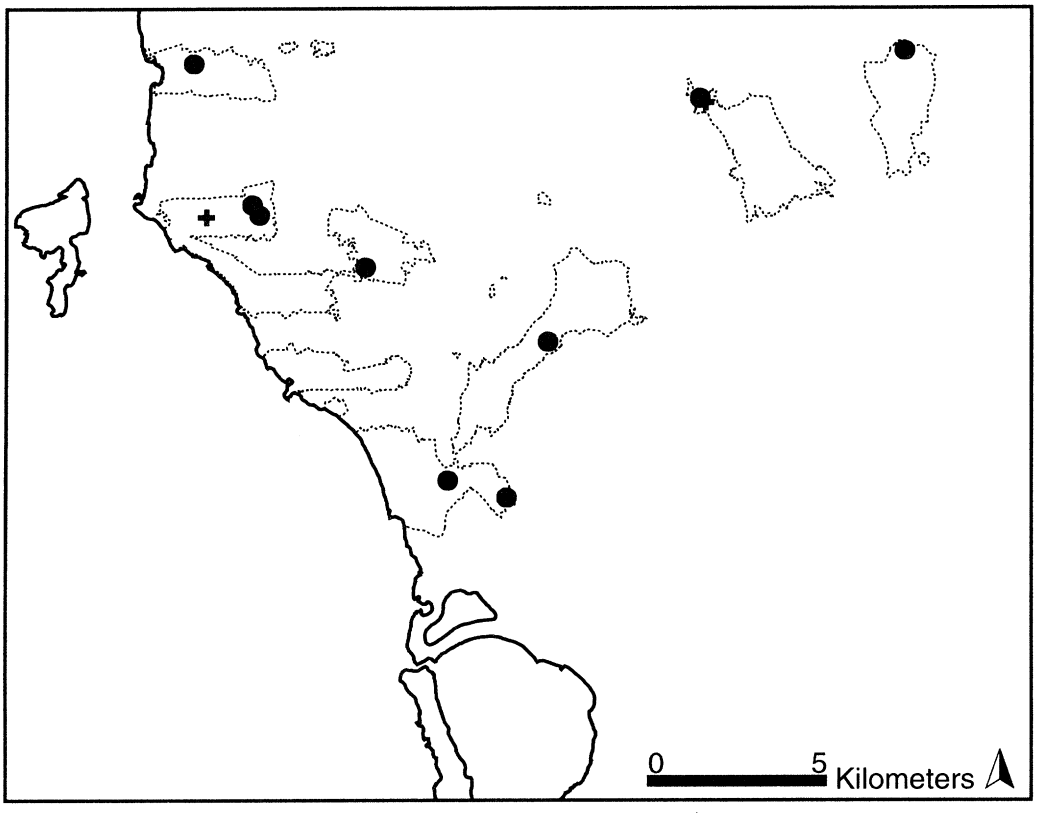

FIG. 17. Distribution of Dark Age and Geometric finds, on-site (circles) and off-site (crosses) (Sebastian Heath)

In this report, the historical era in Messenia will be divided into two components: Archaic through Roman and Early Christian through Early Modern. For each broad period, a preliminary chronological overview of developments in the study region will be outlined, before turning in more detail to several individual sites. The range of sites discussed offers some preliminary sense of the variety of human settlement, and of the material associated with these settlements, within this portion of southwestern Messenia from the Archaic period to the 19th century.

ARCHAIC THROUGH ROMAN SITES AND SETTLEMENT PATTERNS[336]

Overall Patterns and Their Significance

Compared to the evidence for the Dark Age and Geometric periods (Fig. 17), the Archaic and Classical era (7th–early 4th century B.C.) witnessed an increase in settlement

[336] This section of the report is the work of Ann Harrison (Getty Center for the History of Art and the Humanities), Nigel Spencer (Institute of Archaeology, University of Oxford), and Susan E. Alcock. We thank Andrea Berlin (University of Illinois at Urbana-Champaign), Sebastian Heath (University of Michigan), and Kathleen Warner Slane (University of Missouri-Columbia) for their assistance in identifying many of the historical ceramic finds.

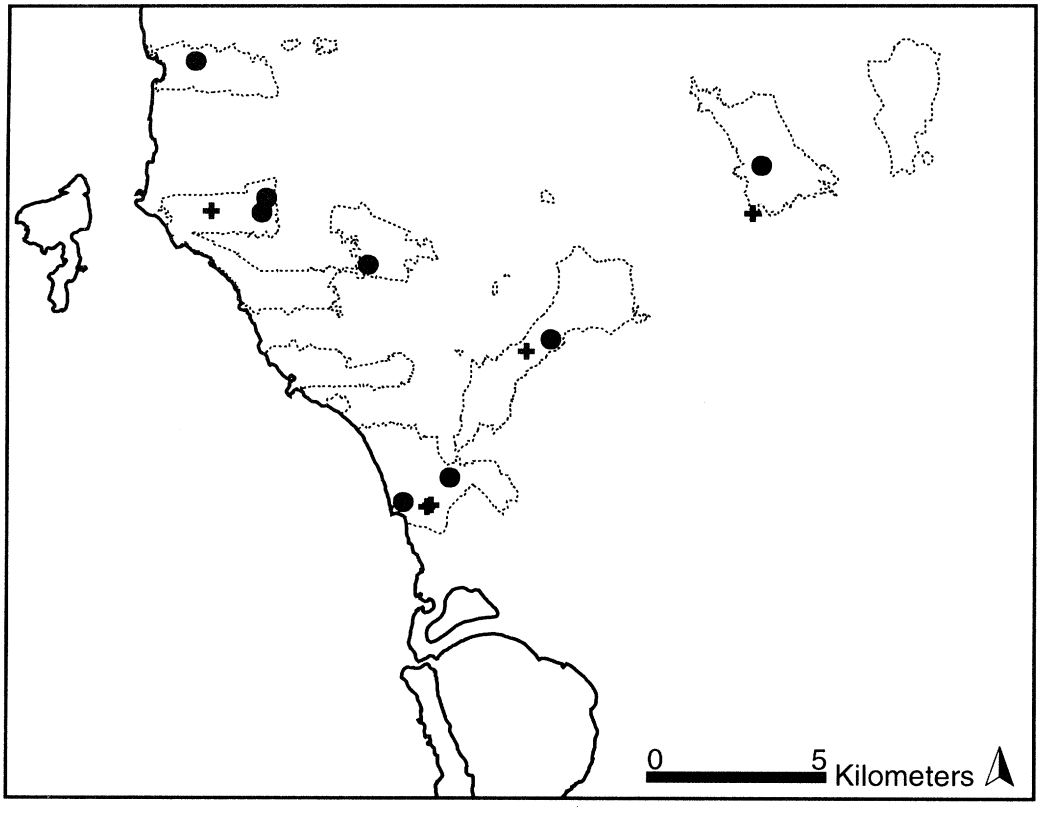

FIG. 18. Distribution of Archaic and Classical finds, on-site (circles) and off-site (crosses) (Sebastian Heath)

and exploitation in the region (Fig. 18). Undoubtedly one of the most intriguing aspects of the historical results to date, however, is the still relative scarcity of Archaic and Classical material, together with a lack of dispersed farmstead settlement, a pattern which has come to be thought characteristic in Greek surveys for this general time span.[337] The period from roughly the 8th to the early 4th century, of course, was the period of Sparta's annexation of Messenia. This is not the place to argue about the likely status (helot or perioikic) of our study area, but the anomalous pattern we have detected must unquestionably be linked in some fashion to Spartan domination and its effect upon local economies and social structures.[338]

The impact of Sparta upon the Messenian landscape also seems confirmed by what happened when that domination ended. Although our ceramic datings again are tentative, it does seem that there was an efflorescence of activity in the Hellenistic era (here dated

[337] Bintliff and Snodgrass 1985, p. 139; Cherry, Davis, and Mantzourani 1991, pp. 327–347; Jameson, Runnels, and van Andel 1994, pp. 383–394 and fig. 4.23 (for the Late Classical–Early Hellenistic period); Osborne 1985; van Andel and Runnels 1987, pp. 158–160; Wright *et al.* 1990, p. 610.

[338] For the best recent discussion of the potential impact of Sparta upon Messenia see Hodkinson 1992. See also Cartledge 1979 and 1985.

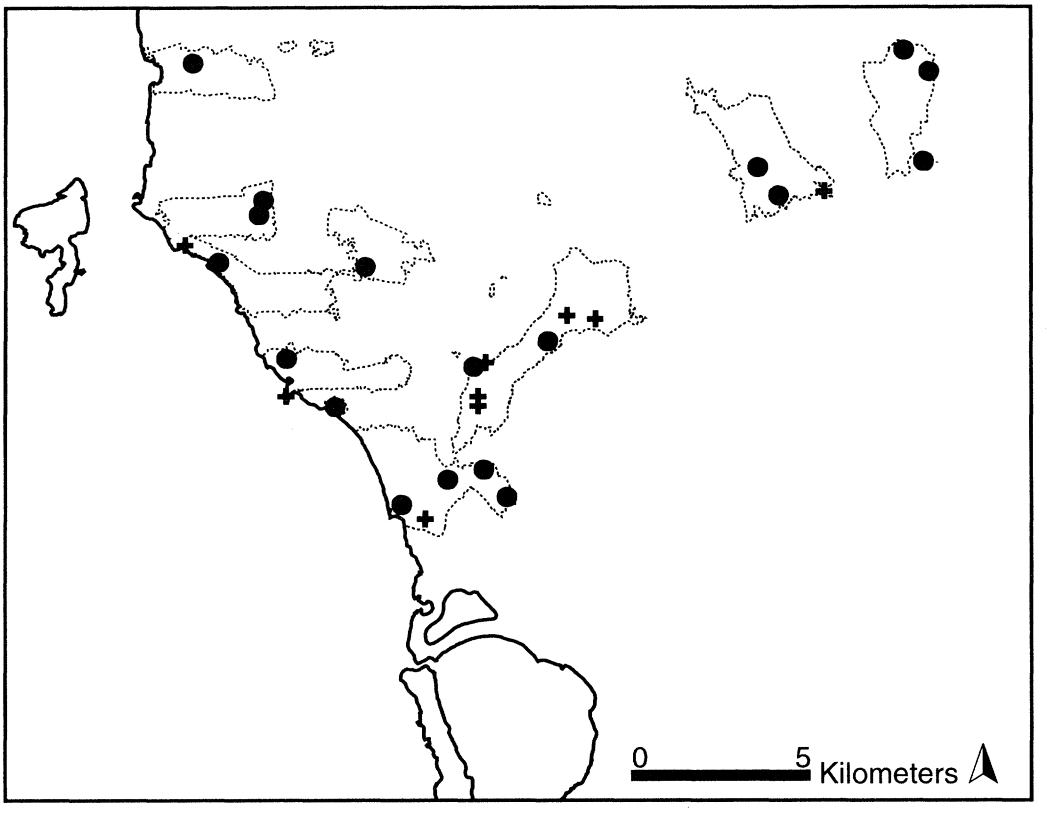

FIG. 19. Distribution of Hellenistic finds, on-site (circles) and off-site (crosses) (Sebastian Heath)

from the later 4th to the 1st century B.C.), following the liberation from Sparta and the founding of Messene (some 20 km to the northeast of our survey territory) as the dominant community in the region (Fig. 19). A similar picture of more intensive settlement and land use appears to characterize the Roman era (1st century B.C. to the 6th century after Christ (Fig. 20). Some emphasis on coastal settlement is also observed at this time, but even Hora *The Palace of Nestor* produced six Roman sherds, including fragments of amphoras, jars, and bowls (Fig. 15:13).[339] The prevalence of Roman-period finds is another intriguing development that may possibly run counter to survey patterns elsewhere,[340] although further study of these ceramics (not least to subdivide this exceptionally long period) is necessary.

Two groups of sites will be examined in greater detail: three small sites (Metamorfosi *Ayios Konstadtinos* [POSI A6], Tragana *Aladina* [POSI C2], Romanou *Glyfadaki*

[339] B93-90711810-02 (amphora toe); B94-90740616-17 (cooking-ware jar rim with vertical oval handle); Fig. 15:13: B93-90722015-01 (bowl, horizontal rim, traces of red paint on rim surface and on exterior at rim, R?).

[340] A possibility already noted through the work of the "Five Rivers" survey around the site of Nichoria: see Lukermann and Moody 1978; Alcock 1993, p. 48.

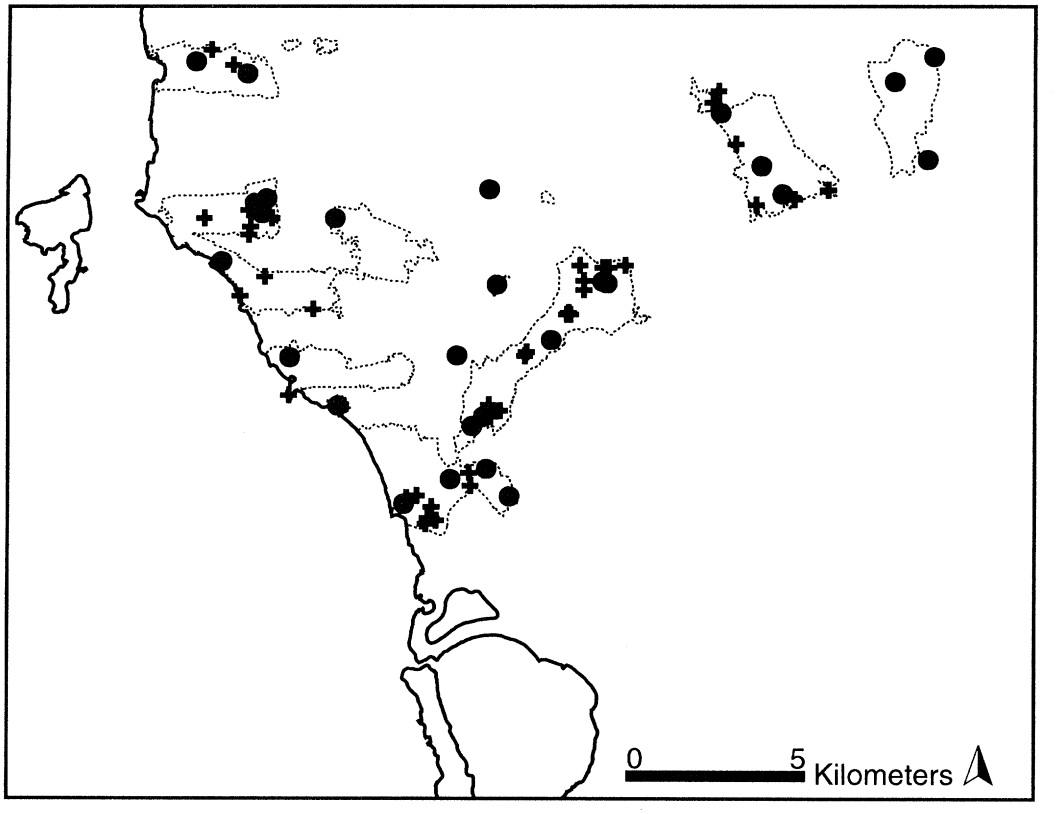

FIG. 20. Distribution of Roman finds, on-site (circles) and off-site (crosses) (Sebastian Heath)

[POSI E1]), and three large (Romanou *Romanou* [POSI I4], Gargaliani *Kanalos* [POSI D1], Marathoupolis *Dialiskari* [POSI G1]). These latter sites, extensive, multiperiod entities,[341] are clearly the dominant element in the Messenian settlement hierarchy, and, perhaps not surprisingly, all had been noted in passing already through the work of UMME or of earlier explorers such as Valmin. The first group of sites to be discussed, however, reveals a previously unsuspected lower level of activity within the region's settlement hierarchy, although each of the three small sites has a unique character.

Work at Select Sites

METAMORFOSI *AYIOS KONSTADTINOS* (POSI A6). Located on the east slope of the Metaxada valley, the site lies immediately around the modern church of Ayios Konstadtinos, about one kilometer north of the ancient settlement at Skarminga (see pp. 477–480 below). Owing to conditions offering poor visibility, only a limited number of surface ceramics and tile were collected (from tract walking in 1992 and from microtract work in 1994); subsurface material was also revealed when a water channel was dug in 1992

[341] Historic periods are abbreviated as follows: Classical (C), Hellenistic (HL), Early Roman (ER), Middle Roman (MR), Late Roman (LR), and Roman (R).

across the northern part of the site. The area of surface scatter has been estimated, with some difficulty, as approximately half a hectare. The material collected represents long-term activity at this hillside location, with the Classical, Hellenistic, Roman, Byzantine, and Modern periods clearly represented. Most ceramics belong to the Hellenistic period and appear to represent a household assemblage; the other predominant period is Byzantine, with finds of both table wares and coarse wares. Near the church are the foundations of two abutting rectangular structures of mortared stonework, probably post-Byzantine–Early Modern habitations, with several evident phases of rebuilding. Built into the west end of this complex were several small, squared limestone blocks; other blocks and a very battered portion of a limestone column were found half buried within the walls of the structure. A revisitation team discovered in 1995 that some clearing had been done in fields around the church, and two large, well-cut limestone blocks were observed, together with several other smaller and less carefully worked ones.[342] In this case, no single determination of site function over time can, or should, be made; the extant foundations, for example, are clearly residential in nature, yet an ecclesiastical structure now dominates this location. Although the various architectural elements observed scattered about the site are suggestive of a "special-purpose", possibly religious function at some previous point in its existence, it is also true that *spolia* from larger centers are known to have been moved and reused throughout this region. Ceramic evidence, especially for the Hellenistic and Byzantine periods, points toward the interpretation of this site as a small, long-lived residential unit, overlooking the Metaxada valley.

TRAGANA *ALADINA* (POSI C2). In 1992 tract walkers discovered a small, dense, well-defined concentration of tile high up on a spur jutting eastward from the Tragana ridge, commanding a fine view over the Alafinorema valley. The scatter of material was some 35 m wide and extended downslope for approximately 65 m, eroding down over three terraces cut into the soft marl bedrock. A 10-meter grid was imposed on the site; all material was counted in each square, but only diagnostic pieces were collected. This material was in poor condition, with several clean breaks testifying to recent plowing or other agricultural activity in the area. One sherd of MH III–LH II date was discovered, and modern material (pottery and tile) was found as well. Most ceramic evidence, however, attests to occupation of the site in Classical–Hellenistic times, possibly extending back into the Archaic period. Fine wares, plain wares, and cooking wares were collected, as well as a loomweight and glazed roof tiles, all of which argue for the identification of this site as an isolated farmstead or seasonal base for agricultural work. As has already been noted, this category of site is common in numerous other surveys in Greece; what is unusual in the case of Aladina is its nearly unique status among PRAP sites.

ROMANOU *GLYFADAKI* (POSI E1). On a slight rise, just 250 m inland from the coast at Bouka and approximately a kilometer southwest of the modern village (and ancient site) of Romanou (see pp. 465–467 below), tract walkers in 1993 discovered a small (0.39 ha), extremely dense, and extraordinarily well preserved ceramic scatter. Later

[342] The column fragment is approximately 0.5 m in diameter, with an 8-cm square dowel hole cut in its center. The exposed segment measured 0.65 m in length. The two blocks observed in 1995 measure 0.6 (L.) × 0.33 (H.) × 0.3 m (max. p.W.) and 0.4 (L.) × 0.25 (H.) × 0.34 m (max. p.W.), respectively.

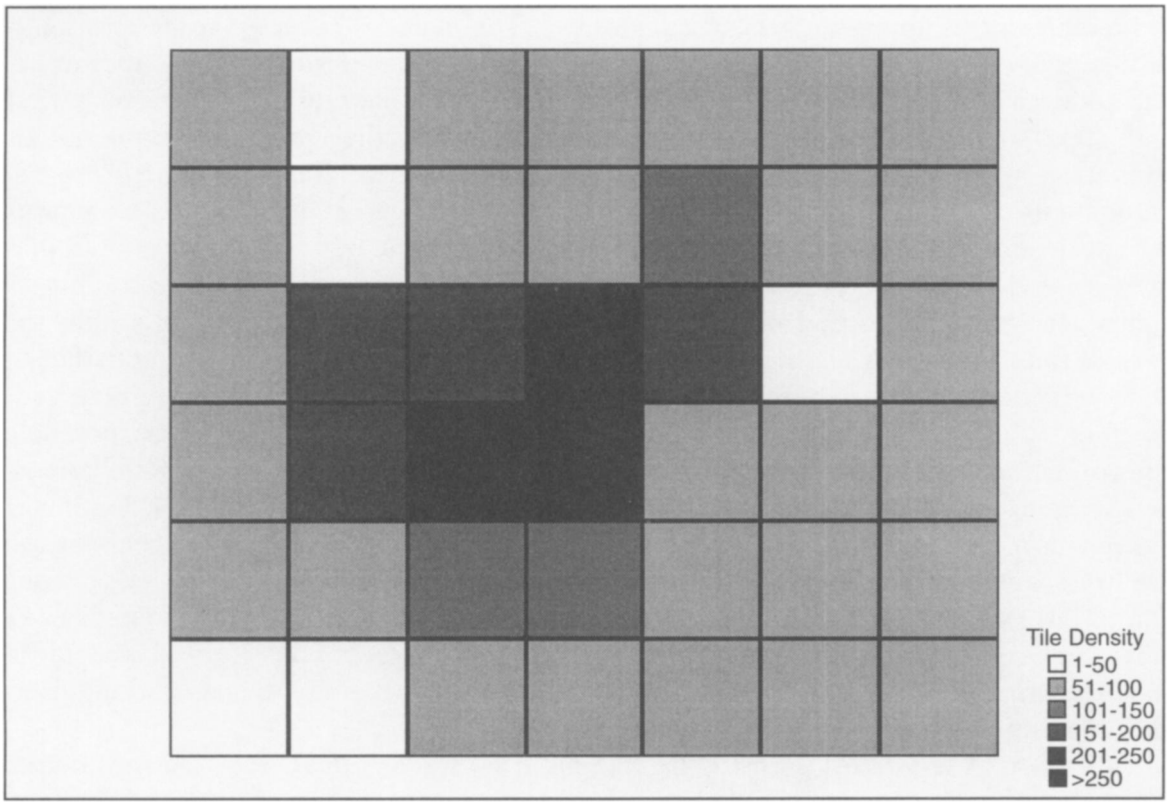

FIG. 21. Romanou *Glyfadaki* (POSI E1). Density of tile (Sebastian Heath). 10-meter grid

in the 1993 season the site was collected on a 10-meter grid. Already during the course of that collection, it became apparent that most pottery and tile was to be found within a clearly demarcated linear strip that ran across the site and was densest in a rectangular area approximately 50 m long and 20 m wide, northeast and southwest of the center of the site (Figs. 21, 22). Notable was the clear and abrupt drop-off in material outside the area in which it was concentrated; for example, three adjacent grid squares held, respectively, 285 sherds and 395 tile fragments, 127 sherds and 362 tile fragments, and 14 sherds and one tile fragment. This falloff pattern was also observed within individual 10-meter grid squares. In some collection units, for example, almost all artifacts were located in only half the square.

The site, largely situated in a relatively flat, open, fallow field, was agreed to be a desirable candidate for geophysical work, in the hope that subsurface features might be found to correspond with the distinct pattern in the distribution of surface material. In 1994 the geophysical team reestablished our grid and examined the densest portion of the site. Geophysical prospection mapped subsurface remains that, in their own distribution, corresponded well with the pattern of ceramic densities. A series of anomalies was discovered that can be interpreted as the foundations of a structure whose south wall can

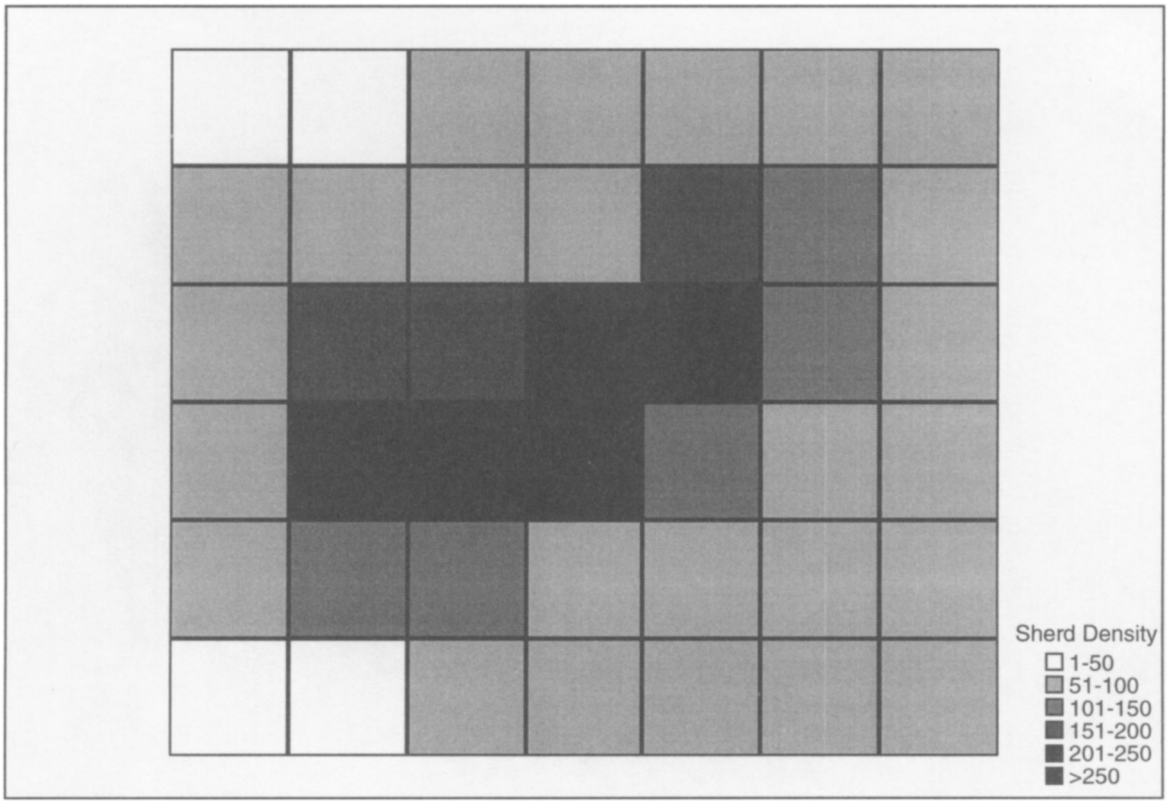

FIG. 22. Romanou *Glyfadaki* (POSI E1). Density of pottery (Sebastian Heath). 10-meter grid

be traced for at least forty meters in the area studied.[343] The weak signal strength of the electromagnetic readings suggests that these walls have been robbed out; moreover, coring at several points along the line of this anomaly struck no foundation blocks. Part of the course of the west wall of the structure, as well as the position of a crosswall, was also detected. The high surface densities of pottery and tile are found inside the area set off by the lines of these walls.

The fragments of pottery recovered at Glyfadaki were both larger and in a better state of preservation than is usual for the surface material in our area. A few Archaic and possible Geometric sherds have been identified, as well as some Early Modern to Modern material, but by far the dominant element in the collection is of the Hellenistic, especially the later Hellenistic, epoch. The pottery of this period constitutes a recognizably domestic assemblage, with amphora fragments (Figs. 23:7, 9; 24:18),[344] cooking wares

[343] Zangger *et al.*, forthcoming.

[344] Fig. 23:7: E93-235-02 (imported amphora, folded rim); Fig. 23:9: E93-235-01 (local imitation[?] of Dressel IA amphora); Fig. 24:18: E93-901321-07 (twisted handle of table amphora).

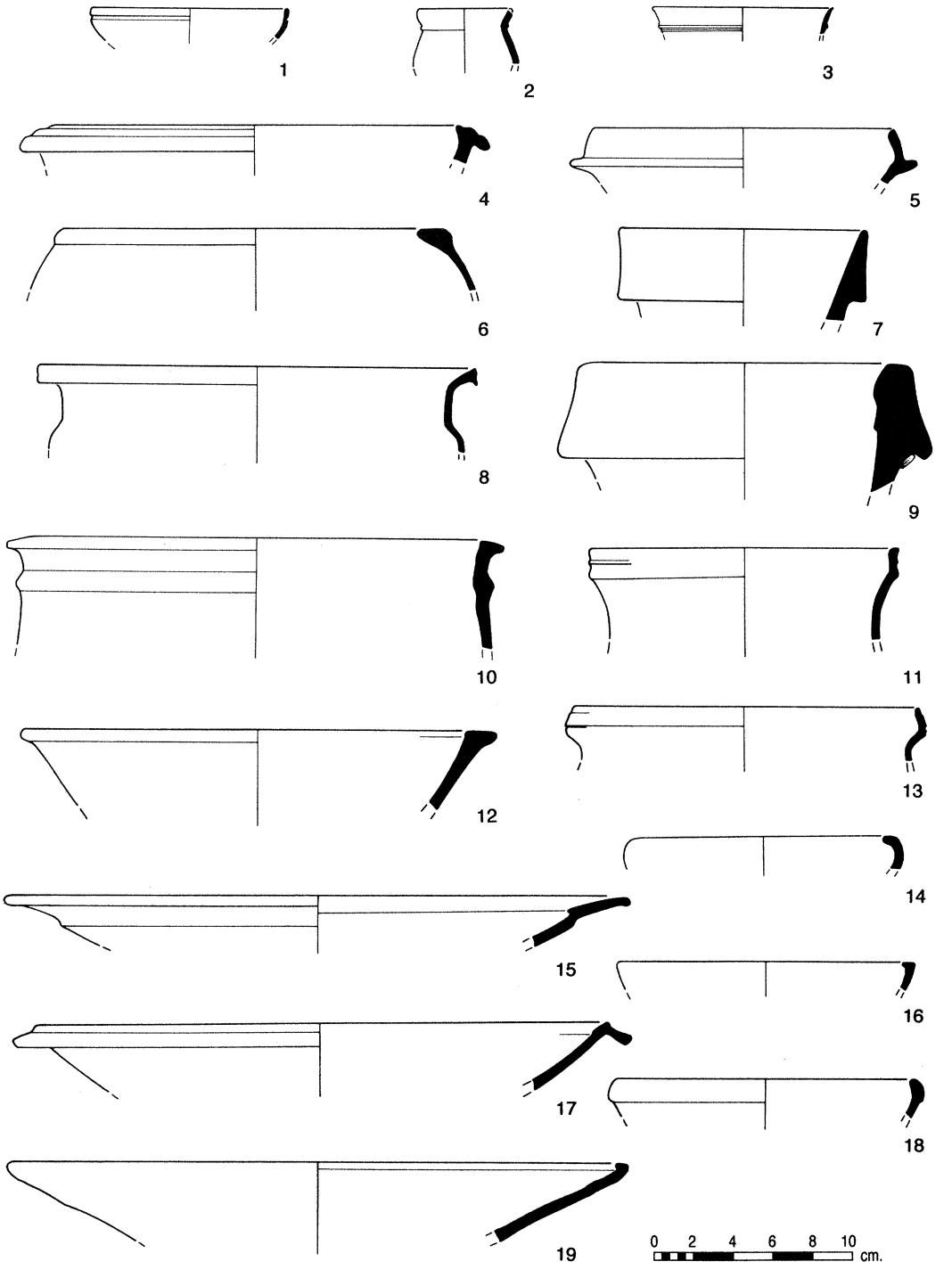

FIG. 23. Pottery from Romanou *Glyfadaki* (POSI E1) and Romanou *Romanou* (POSI I4) (Rosemary J. Robertson). (1) E93-901411-10; (2) E93-901312-02; (3) I93-9041611GR-05; (4) I93-9040471GR-05; (5) E93-901311-13; (6) E93-235-04; (7) E93-235-02; (8) I93-9040471GR-11; (9) E93-235-01; (10) I93-9040441GR-01; (11) E93-901312-05; (12) I93-9040471GR-04; (13) E93-901312-04; (14) I93-9040321VC-01; (15) I93-9040471GR-09; (16) I93-9040312VC-01; (17) I93-9040471GR-01; (18) I93-9040471VC-01; (19) E93-901312-06

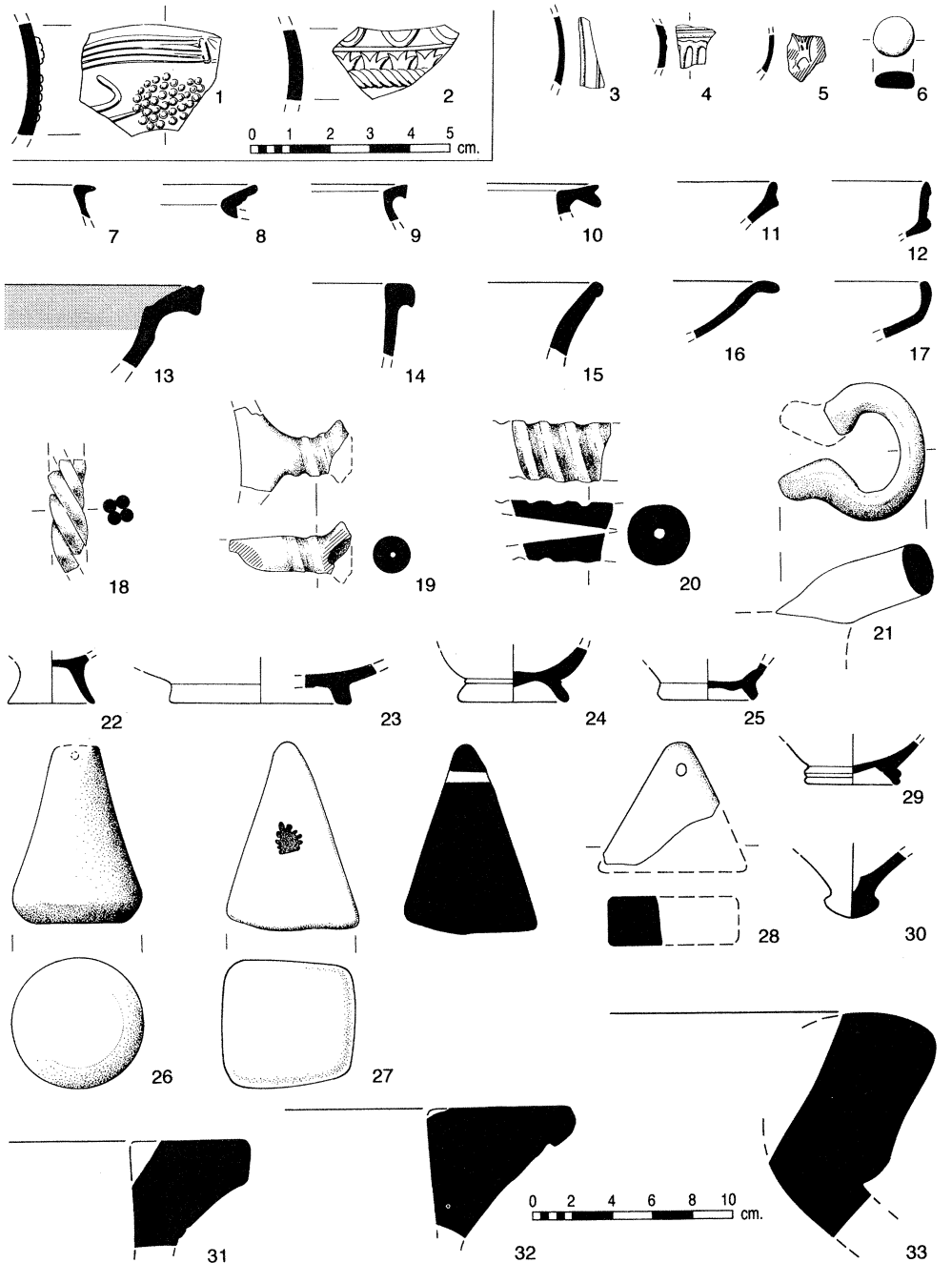

Fig. 24. Pottery and small finds from Romanou *Glyfadaki* (POSI E1) and Romanou *Romanou* (POSI I4) (Rosemary J. Robertson). (1) E93-901411-12; (2) E93-901411-11; (3) E93-901321-05; (4) E93-901221RV-01; (5) E93-901411RV-01; (6) SF0357; (7) E93-901312-03; (8) I93-9040263VC-01; (9) I93-9040453GR-06; (10) I93-9040441GR-02; (11) I93-9040321GR-08; (12) I93-9040453GR-02; (13) E93-901221-01; (14) I93-9040312GR-01; (15) I93-9040542GR-01; (16) I93-9040471GR-02; (17) E93-901321RV-01; (18) E93-901321-07; (19) I93-9040471GR-19; (20) I93-9040551GR-12; (21) E93-901122-08; (22) I93-9040436GR-01; (23) I93-9040471GR-14; (24) I93-9040471GR-12; (25) E93-901411-06; (26) SF0636; (27) SF0954; (28) SF0394; (29) E93-235-20; (30) I93-9040441GR-11; (31) E93-901321-01; (32) E93-901411-01; (33) I93-9040471GR-21

(Figs. 23:6, 13; 24:7, 21),[345] fine wares, including black painted plates, bowls, and cups (Figs. 23:1, 5, 11, 19; 24:13, 17, 25, 29),[346] and a lamp fragment. Pithos rims and large quantities of tile in several fabrics were also collected (Fig. 24:31, 32).[347] Other ceramic material consisted of a token or stopper and three pyramidal loomweights, one with stamped palmette decoration (Fig. 24:6, 26–28).[348] Six fragments of moldmade bowls were also collected, including examples from long-petal bowls, an imbricate bowl, and pieces with vegetal designs (Fig. 24:1–5).[349] Overall, many of the fine wares from this site resemble the pottery from Hellenistic levels at Messene. For example, a small ointment jar is similar in form to shapes from the bath at Messene that are dated to the mid 1st century B.C. (Fig. 23:2).[350] Simple long-petal bowls are also found in the Hellenistic strata of the Messene bath, and, in general, a similar overall assemblage of fine-ware forms is found in the Hellenistic pottery from the Sebasteion at Messene.[351] While the pottery from Glyfadaki requires much further study, so far its closest parallels appear to be from Messene, and indeed our material probably comes from local Messenian workshops.[352]

More analysis of the pottery and geophysical evidence remains to be done, but some conclusions can already be reached about Glyfadaki. It appears to have been a small, independent site, lying near the large contemporary settlement of Romanou but not part of it, and in close proximity to the coastline. Nothing indicates that Glyfadaki possessed a ritual or other special-purpose function; indeed, the ceramic material makes a very clear case for identification of the site as a dwelling place, and a relatively short-lived one at that. While it is difficult to assess the social status of the inhabitants of the site from surface ceramics alone, when taken in conjunction with the size of the structure discovered through subsurface prospection, Glyfadaki emerges as the residence of a reasonably well-to-do individual in the Hellenistic period.[353]

The remaining three sites to be discussed are larger, more substantial settlements; all had been previously observed and to some extent recorded, either through the work of

[345] Fig. 23:6: E93-235-04 (jar with rolled rim); Fig. 23:13: E93-901312-04 (bowed rim of stewpot); Fig. 24:7: E93-901312-03 (triangular rim of jar); Fig. 24:21: E93-901122-08 (horizontal strap handle of basin).

[346] Fig. 23:1: E93-901411-10 (bowl, traces of red on interior); Fig. 23:5: E93-901311-13 (pyxis, traces of black glaze on exterior); Fig. 23:11: E93-901312-05 (bowl); Fig. 23:19: E93-901312-06 (saucer with rolled rim); Fig. 24:13: E93-901221-01 (overhanging rim of krater, matt gray-black slip on interior and top of rim); Fig. 24:17: E93-901321RV-01 (drooping rim of saucer, orange-red slip on interior and exterior); Fig. 24:25: E93-901411-06 (ring foot of bowl, black glaze on interior and exterior); Fig. 24:29: E93-235-20 (bowl/cup).

[347] Fig. 24:31: E93-901321-01 (pithos); Fig. 24:32: E93-901411-01 (pithos).

[348] Fig. 24:6: SF0357 (token or stopper); Fig. 24:26: SF0636 (conical loomweight); Fig. 24:27: SF0954 (pyramidal loomweight with stamped palmette on three sides); Fig. 24:28: SF0394 (triangular loomweight).

[349] Hellenistic moldmade bowls: Fig. 24:1: E93-901411-12 (with grape cluster); Fig. 24:2: E93-901411-11 (floral decoration); Fig. 24:3: E93-901321-05; Fig. 24:4: E93-901221RV-01 (petal bowl?); Fig. 24:5: E93-901411RV-01 (imbricate pattern with leaves).

[350] Fig. 23:2: E93-901312-02; Themelis 1993, pp. 66–67, pl. 41:a.

[351] Themelis 1993, pp. 64–65, pl. 38:b; Themelis 1991, pl. 43.

[352] Themelis 1993, p. 65.

[353] Along the coast just to the west of the site of Glyfadaki, a small rectangular basin (*ca.* 15 × 30 m) was formed by cuttings thought (by Eberhard Zangger) probably to be anthropogenic in origin; the basin may have served the area as a small harbor or dock, as a fishtank, or even as a quarry.

FIG. 25. Romanou *Romanou* (POSI I4). Distribution of Bronze Age finds (Sebastian Heath). Cross indicates location of church

UMME or other, earlier topographical explorations. More detailed work has, however, considerably enhanced, and in some cases totally revised, our understanding of settlement size, function, and periods of occupation.

ROMANOU *ROMANOU* (POSI I4). To the north and east of the modern village of Romanou, in the vicinity of a modern cemetery church, lies a major concentration of material, measuring in all some 38 ha. Part of the site is today undoubtedly lost below the modern village, whose inhabitants now cultivate the surrounding fields. This area was first explored by us in 1992 and was more intensively collected, with a microtract strategy, in 1993. While UMME had reported traces of human activity (and other random finds have been reported from this location), our conclusions about the extent and longevity of the settlement came as a major surprise.[354] The ceramic material collected ranges in date from Early Helladic through Modern. In this long occupation of the site, three chronological stages are particularly noteworthy: Bronze Age, Dark Age–Archaic, and Roman.

[354] UMME 400, 3102; Valmin 1930, pp. 146–148; Skias 1910, pp. 289, 291–292; Daux 1962, pp. 726, 728; Papathanasopoulos 1963, p. 92.

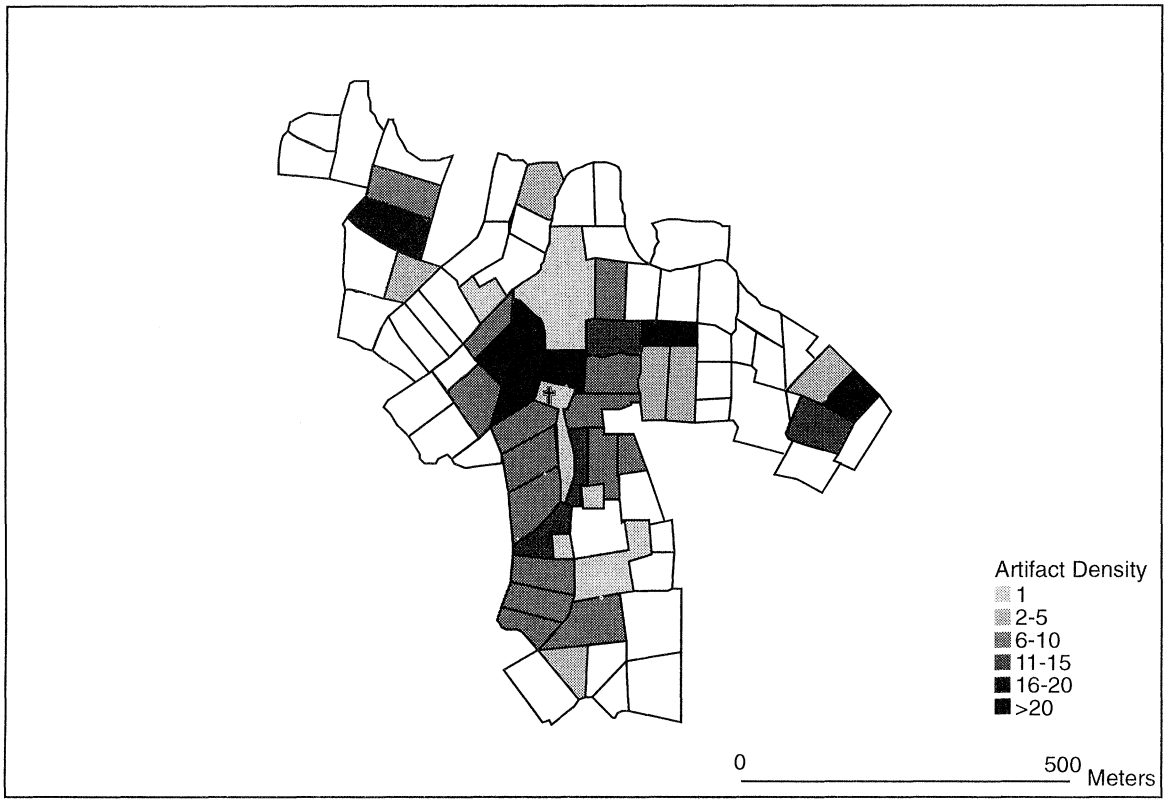

FIG. 26. Romanou *Romanou* (POSI I4). Distribution of Roman finds (Sebastian Heath). Cross indicates location of church

Finds of the different periods were concentrated in different parts of the site. Moderate quantities of Bronze Age sherds and lithics were found largely in a cluster to the south and west of the modern church (Figs. 25 and 24:15, 22, Pl. 89:a). While little Dark Age–Archaic material has been found in the study area generally (see pp. 452–453 above), Romanou provided some finds of this time period, with material collected in the immediate vicinity of the church. The pottery consists chiefly of small worn sherds in a relatively soft fabric. There is, however, a well-preserved fragment of a krater rim of Late Protogeometric–Geometric date that finds parallels in the Dark Age pottery from Nichoria (Fig. 23:10; Pl. 91:c),[355] and a bowl of the Submycenaean period (Fig. 23:12).[356] Much of the pottery collected, however, belongs to the Roman period (Fig. 26). A range of ceramic types is represented: pithos and amphora fragments (Fig. 24:30, 33),[357] cooking wares (Figs. 23:18;

[355] I93-9040441GR-01; Coulson 1983, krater rim, type C, fig. 3:49.

[356] Fig. 23:12: I93-9040471GR-04.

[357] Fig. 24:30: I93-9040441GR-11 (amphora toe, C–HL); Fig. 24:33: I93-9040471GR-21 (pithos with double folded rim, R?).

24:8, 9, 10, 19, 20),[358] and fine wares (Figs. 23:3, 4, 8, 14, 15, 16, 17; 24:11, 12, 14, 16, 23, 24).[359] Two coins were also found at the site, including a bronze antoninianus of Aurelian (Pl. 91:d) and a bronze issue of Constantius II.[360]

Among other finds, large quantities of tile were collected from the site. While most were quite fragmentary and undiagnostic, some fragments of painted tile were also found. In a field to the east of the church several worked blocks, including one more elaborate architectural element, were discovered. Other finds included pieces of what appears to be ore, collected from the northern part of the site. It is also possible that an area just to the east of the church contained a kiln site. Material collected in a small discrete patch here includes large quantities of chunky burnt clay and a possible kiln support. All these discoveries indicate that Romanou, lying in the hinterland of Ancient Koryphasion some 3.5 km to the south, was a much longer lived and extensive settlement, with independent industries, than had previously been suspected.

GARGALIANI *KANALOS* (POSI D1). The site of Kanalos, previously known from the work of UMME, was reexamined in 1993 as part of a more extensive program of sampling in the coastal plain to the west and southwest of Gargaliani (Pl. 87:a).[361] One of the goals of the intensive work in this particular area was to examine the wider region of Kanalos, and indeed two additional sites (POSI D2 and D3) were identified on a series of low knolls to the north in the Megas Kambos region.

The main topographical feature of the locale where Kanalos is situated is a deep streambed running northeast–southwest, similar to many which dissect the whole coastal plain and discharge their seasonal flows into the sea to the south of Marathoupolis. At Kanalos the streambed splits, creating a tongue-shaped interfluve (approximately 15 m high) that forms the acropolis of the site. The site was initially tract walked, before a 10-meter grid, in the form of an irregular rectangle approximately 85 m by 130 m, was laid over the acropolis and the immediately adjacent fields. Given increasing threats to the

[358] Fig. 23:18: I93-9040471VC-01 (stewpot, R); Fig. 24:8: I93-9040263VC-01 (stewpot, everted rim, MR); Fig. 24:9: I93-9040453GR-06 (cooking pot, C–R); Fig. 24:10: I93-9040441GR-02 (stewpot, ER); Fig. 24:19: I93-9040471GR-19 (frying pan handle, MR–LR); Fig. 24:20: I93-9040551GR-12 (frying pan handle, ER–MR).

[359] Fig. 23:3: I93-9041611GR-05 (beaker, ER); Fig. 23:4: I93-9040471GR-05 (bowl, everted rim, black glaze on interior and exterior, HL–R); Fig. 23:8: I93-9040471GR-11 (krater, everted rim and neck, black paint on exterior, HL–R); Fig. 23:14: I93-9040321VC-01 (bowl, inturned rim, black glaze on interior and exterior, C–HL); Fig. 23:15: I93-9040471GR-09 (plate, HL–R); Fig. 23:16: I93-9040312VC-01 (bowl, inturned rim, A–C); Fig. 23:17: I93-9040471GR-01 (bowl rim, traces[?] of black glaze on interior and exterior, HL–R); Fig. 24:11: I93-9040321GR-08 (bowl, C–R); Fig. 24:12: I93-9040453GR-02 (dish, dark red-black slip on exterior, possible imitation of Eastern Sigillata A Hayes form 33?, ER); Fig. 24:14: I93-9040312GR-01 (krater, flattened and everted rim, black and red stripes on interior, A); Fig. 24:16: I93-9040471GR-02 (bowl/plate, black glaze on interior?, HL–R); Fig. 24:23: I93-9040471GR-14 (ring base of bowl, A); Fig. 24:24: I93-9040471GR-12 (ring base of bowl, HL–R).

[360] The coin of Aurelian (SF0029) bears the radiate image of the emperor on the obverse with the legend IMP C AURELIANUS AUG; on the reverse is Sol Invictus with two captives (*ca.* A.D. 270–275). The coin of Constantius II (SF0030) dates *ca.* A.D. 351–355 and shows the head of the emperor on the obverse, a soldier spearing a fallen horseman on the reverse.

[361] GAC D15; McDonald and Hope Simpson 1961, pp. 236–237, 252.

site, our intent in 1993 was to focus on the acropolis ridge of Kanalos as a first step in site investigation; it should be understood that this grid collection did not embrace the entire area of high surface densities at this location. The total extent of the settlement cannot yet be defined since our permit did not include Kanalos in 1994 or 1995.

The intensive survey of both the immediate surrounding area and the acropolis itself proved particularly revealing of the fairly recent deterioration of the site, demonstrated by significant discrepancies between our findings and those of McDonald and Hope Simpson some thirty-five years before. First, the "Turkish brickwork" that McDonald and Hope Simpson saw surrounding the spring at the foot of the acropolis is no longer evident.[362] The "well-known" tumulus some 400 m southeast of the acropolis, suggested to be of MH date by the Minnesota team and apparently still in existence thirteen years ago when a brief report on the site was made by the Greek Archaeological Service, also seems now to have been destroyed.[363]

On the acropolis, we noted three rock-cut rectangular tombs (all of different orientation and now empty) and a few large stone cover slabs lying nearby. In the eroded eastern side of the acropolis scarp a fourth tomb, a disturbed tile grave with protruding bones, was visible. These particular features may not have been noticed by McDonald and Hope Simpson because of pine cover (now cleared) on the hilltop. A report by the Greek Archaeological Service notes that the landowner at this site was said to have "uncovered" a number of very large stone slabs on the acropolis; these were probably the cover slabs of prehistoric graves. Middle and Late Helladic ceramics and human bone were also reported.[364] An unfortunate consequence of the clearing of the acropolis has been the encouragement of illicit activity at this site; since 1992 a number of freshly dug holes and pits have appeared near the tombs.

Fragments of walling were also noted on the acropolis. The Minnesota team reported stretches of possibly prehistoric walls along the east and especially the west edges, and to the northeast lay a number of "good squared, hammer-dressed poros blocks," tentatively identified as the remains of a Late Classical or Hellenistic temple.[365] Many large boulders belonging to UMME's "prehistoric fortifications" are still to be seen along the western scarp of the acropolis, but it cannot be determined whether this is indeed a "Cyclopean" wall, as indicated on McDonald and Hope Simpson's sketch plan, or merely a natural formation. Along a terrace on the eastern edge of the acropolis, brush presently obscures a line of stones, probably the remains of a wall, running for *ca.* 45 m. The dating of both these possible walls remains open to question. As for the area of the potential "temple" at the northern and highest end of the acropolis, McDonald and Hope Simpson had described the poros blocks as forming a right-angled corner. No such corner exists today; it would appear that a bulldozer cut that created an agricultural terrace at this end of the acropolis disturbed these blocks, a few of which we discovered tumbled downslope.

[362] McDonald and Hope Simpson 1961, p. 237.
[363] McDonald and Hope Simpson 1961, p. 237; Papakonstantinou 1989.
[364] Papakonstantinou 1989.
[365] McDonald and Hope Simpson 1961, p. 236 and ill. 7.

This acropolis area was occupied at various points between Neolithic and Early Modern times (historical periods represented include Geometric–Archaic, Hellenistic, Roman, Byzantine, and Early Modern), although at present only a portion of the ceramic material collected from Kanalos has been studied in detail. This portion does, however, include some of the finds from the northern acropolis, the "temple" area in which the poros blocks were found. Large quantities of tile were found in this location, much of which was comparatively well preserved, retaining large parts of profiles, and a large proportion comprises painted red and black fragments.[366] The suggestion that a temple of historical date stood at Kanalos is lent some preliminary support by these finds, although further study of the material from this area and the remainder of the acropolis is required. The site continues to be threatened by the expansion of market gardening in this area and by associated bulldozing of irrigation channels and access roads.

MARATHOUPOLIS *DIALISKARI* (POSI G1).[367] The coastal site at Dialiskari, in the northern part of our study region, has been known for nearly a century, if never before systematically studied (Pl. 85:d). In 1929 Valmin recorded several ancient architectural elements built into modern houses: in one case a column base supported the porch of a modern house (the "Column House"); elsewhere ancient blocks and a Roman-period mosaic have been integrated within another house (the "Mosaic House"; Fig. 27).[368] Additional features were observed by tract walkers in 1993 and through more intensive microtract collection in 1994. These include a limestone quarry some 500 m to the south of the site, cuttings for salt production in the rocky coastline, a group of seven rock-cut graves at the northern edge of the site, and several unfluted monolithic columns, together with other architectural members. Most impressive, perhaps, were the remains of a polygonal brick structure with at least four preserved sides and an exposed cross section of a Roman hypocaust system.

The hypocaust structure seems to have been first uncovered by a bulldozer cut; other dangers to this site are posed by increasing coastal development, especially in the form of large holiday homes. Such destructive activities made careful and detailed work at Dialiskari a high priority. One component of our investigation was the mapping of all extant architectural features with an electronic TotalStation (Fig. 28). Geophysical prospection was also undertaken at Dialiskari in 1994 and 1995. In the field directly next to the exposed hypocaust section, geoelectrical techniques detected the existence of anomalies, reflecting the presence of "caverns" or of preserved walls of the hypocaust system.[369]

Intensive collection of the site revealed a well-defined zone of artifacts and architectural fragments some 600 × 1000 m in extent (approximately 35 ha), with a rapid falloff in density characterizing adjacent tracts. Ceramic finds from Dialiskari date primarily to

[366] As an indication of quantities, square 111 held 15 red and 2 black painted tiles; square 112, 2 red and 1 black; square 113, 1 black; square 121, 10 red and 5 black; square 131, 7 red; square 132, 9 red and 2 black.

[367] This section of the report is the work of Sharon E. J. Gerstel (University of Maryland at College Park and Dumbarton Oaks).

[368] UMME 406; Valmin 1930, pp. 136–140. The site of Dialiskari has been linked to the settlement of Erana mentioned by Strabo (8.348); Liritzis 1969.

[369] See Zangger *et al.*, forthcoming.

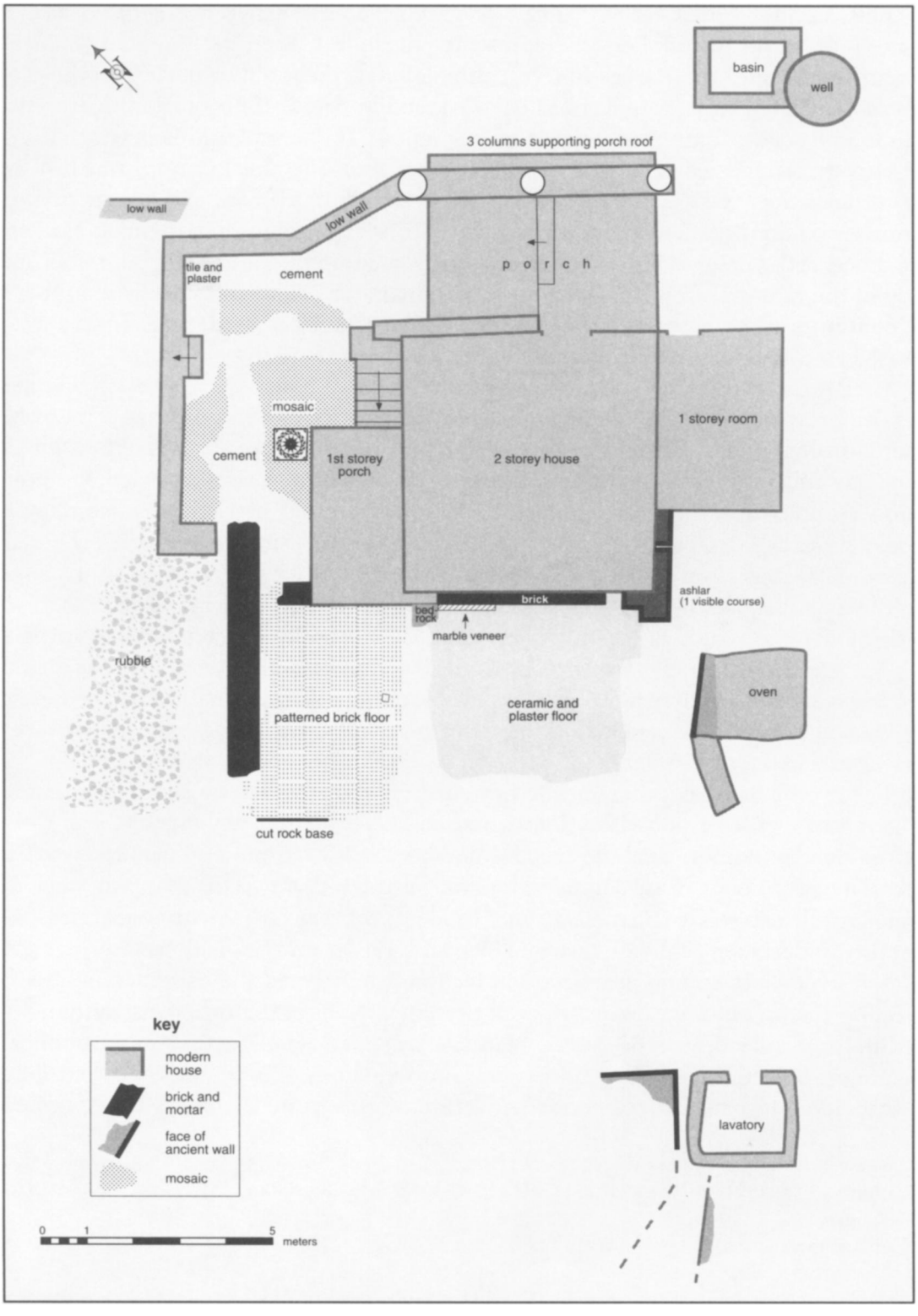

FIG. 27. Marathoupolis *Dialiskari* (POSI G1). The "Mosaic House" (Rosemary J. Robertson and Kalliope Kaloyerakou)

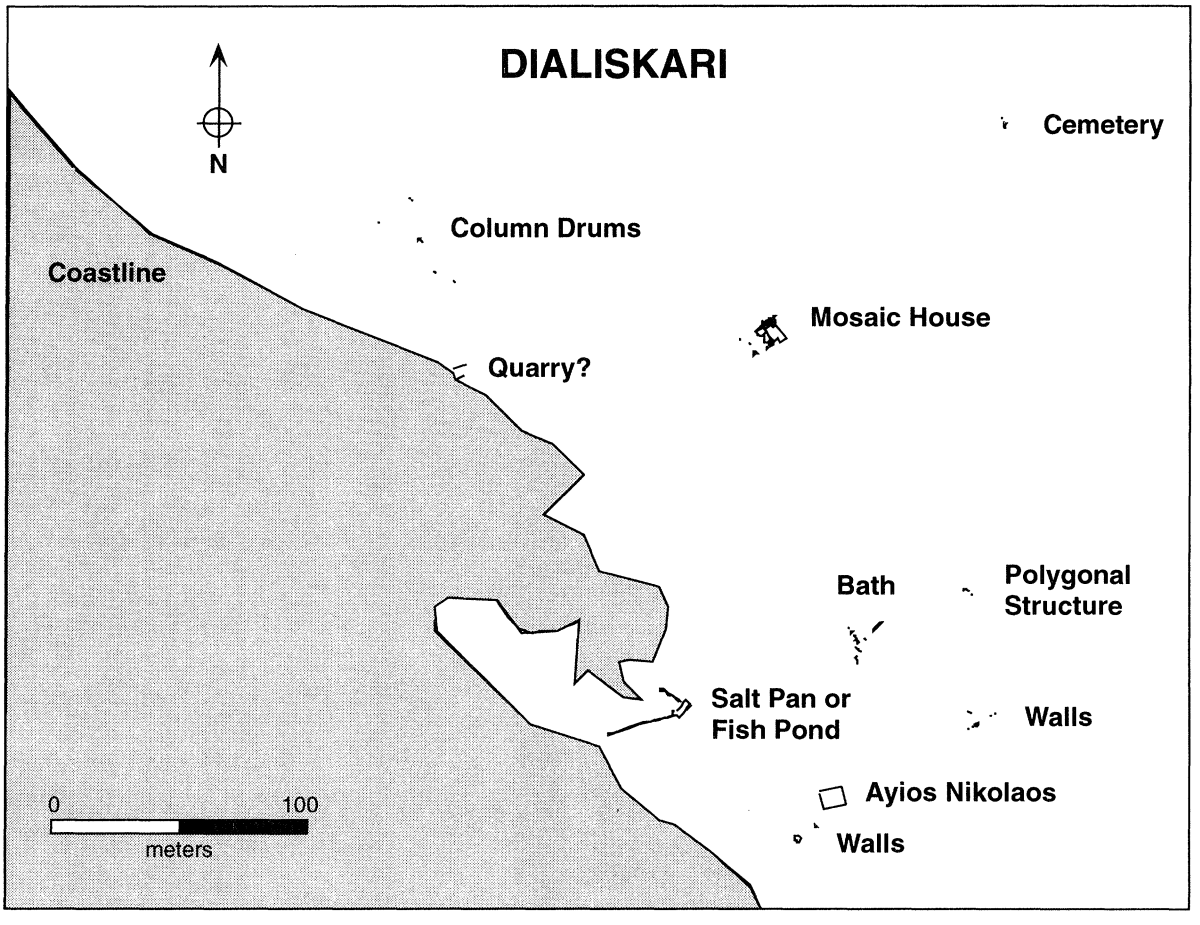

FIG. 28. Marathoupolis *Dialiskari* (POSI G1). TotalStation plan of extant architectural remains (David L. Stone)

the Late Roman period (4th–early 7th century after Christ), although traces of earlier occupation were observed.[370] Roman pottery was found in high concentrations adjacent to the remains of the hypocaust as well as in tracts surrounding the "Mosaic House" and the "Column House". Not surprisingly, given the maritime location of this site, the condition of surface finds varies from excellently preserved fine wares to coarse wares so abraded by the sea that they can be identified only on the basis of their fabric. Fine wares include both African Red Slip and Late Roman "C" Ware. Among these types several forms predominate. The majority of diagnostic rims correspond to Hayes Form 50 (Fig. 29:1);[371] Form 99, Type A (Fig. 29:2);[372] and Form 104, Type B (Fig. 29:3),[373] as well

[370] Material of Hellenistic and Early Roman date awaits further study.

[371] G94-9010961GR-01; Fig. 29:1: G94-9010951VC-01; Hayes 1972, pp. 69–73.

[372] Fig. 29:2: G94-9011161GR-01; G94-9011181GR-02 [two joining sherds]; Hayes 1972, pp. 152–155. According to Hayes, Type A appears in the 6th century after Christ.

[373] G94-9011041GR-02; Hayes 1972, pp. 160–166. Type B appears *ca.* A.D. 575–600.

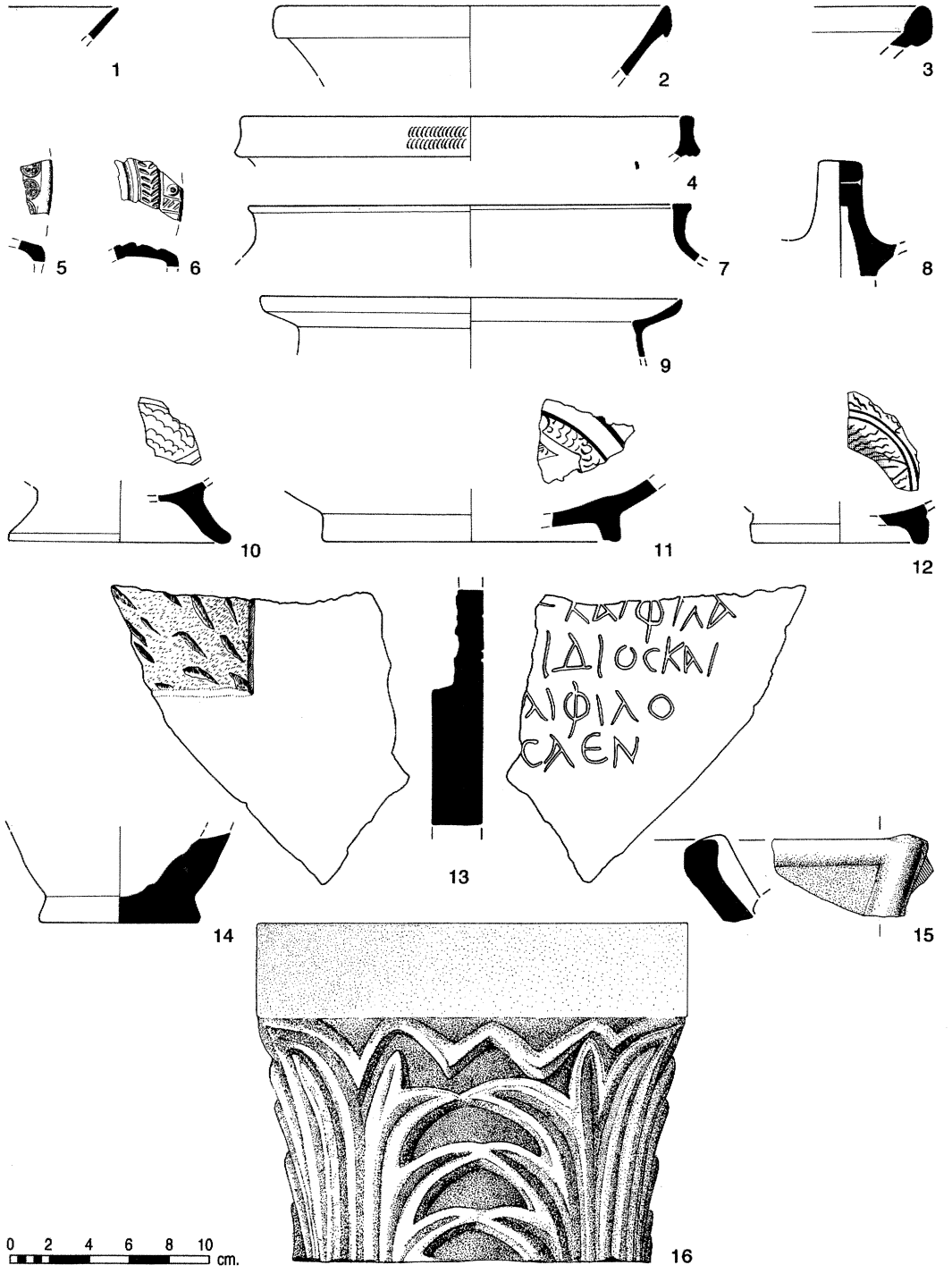

FIG. 29. Roman and Byzantine pottery and small finds from Marathoupolis *Dialiskari* (POSI G1) and Metamorfosi *Skarminga* (POSI A4) (Rosemary J. Robertson). (1) G94-9010951VC-01; (2) G94-9011161GR-01; (3) G94-9011041GR-02; (4) G94-9011181GR-01; (5) G94-9011041GR-01; (6) G94-9010961RV-02; (7) A94-9042061GR-16; (8) A94-9044201GR-06; (9) G94-9010961RV-01; (10) A94-9044201GR-10; (11) A94-9044201GR-13; (12) A94-9042061GR-01; (13) SF0671; (14) A94-9042061GR-08; (15) A94-9044201GR-28; (16) SF0857A, B

as to Late Roman "C" Ware, Form 3 (Fig. 29:4).[374] Few diagnostic cooking wares were collected. One exception was a fragment of a Middle Roman cooking pot with a wide everted rim (Fig. 29:9).[375] Numerous amphora fragments and other coarse sherds with combed decoration on the body confirm the occupation of this site between the late 4th and the late 6th centuries after Christ. Two fragments of decorated Late Roman lamps were also found at Dialiskari (Fig. 29:5, 6).[376]

In addition to these ceramic vessels, a variety of Roman tile fragments are associated both with the hypocaust and with adjacent structures. Portions of hypocaust support tiles were found in several tracts, as was one *tegula mammata* with a preserved spacer.[377] Paving tiles preserved in their entirety are characterized by deeply incised intersecting diagonal lines on their lower surface.[378]

Surface finds from this site were not limited to objects made of clay. One of the most interesting discoveries is a marble plaque bearing a Greek inscription on one side and carved for secondary use on its reverse (Fig. 29:13). The fragmentary inscription has been dated probably to the 2nd–4th centuries after Christ and appears to be a private inscription.[379] Other stone finds include mosaic tesserae discovered in the immediate vicinity of the hypocaust and adjacent to the "Mosaic House".[380] These small cubes range from off-white stone to a single green glass tessera. Many pieces of wall revetment or *opus sectile* fragments were recovered from tracts associated with the above-mentioned structures, and eleven fragments of Roman glass were also retrieved by the survey team.[381]

In addition to these finds associated with direct surface collection, a number of sherds and marble fragments were gathered, presumably from the area of the site, by a private

[374] G94-9011272VC-01; G94-9010981GR-01; Fig. 29:4: G94-9011181GR-01; Hayes 1972, pp. 329–338.

[375] G94-9010961RV-01. See Riley 1979, pp. 263–265: Middle Roman Cooking Pot III, dated mid-2nd to mid-3rd century; Hayes 1983, p. 122, figs. 5 and 7, ribbed cooking pot Type II or ribbed casserole Type II. For a similar cooking pot from the second half of the 2nd century after Christ, see Williams and Zervos 1985, pl. 12:29. For a probable 2nd-century context closer to Messenia see Bailey 1993, no. 57, p. 229.

[376] Fig. 29:5: G94-9011041GR-01; Fig. 29:6: G94-9010961RV-02. The first belongs to the well-known category of lamps with figured discus and rim decorated with herringbone and panels, manufactured in Athens and at other Greek sites in the 4th century after Christ; see *Agora* VII, nos. 702, 719, 801, 861, and others. The second fragment is African Red Slip ware or a close imitation; see Hayes 1972, Type II, pp. 311–314, dated mid-5th to mid-6th century.

[377] A number of round tiles from hypocaust supports were collected. Two entire tiles are G94-9010961RV-03 and G94-9010961RV-04. These tiles have a diameter of 0.195 m and a uniform thickness of 0.04 m. *Tegula mammata*: G94-9010961RV-06.

[378] For example, G94-9010961RV-07. Paving tiles from the floor of the hypocaust are characterized by intersecting diagonal finger marks on the lower surface. The tiles measure 0.29 × 0.26 m, with a uniform thickness of 0.07 m. The Munsell reading is 5YR 6/8 (reddish yellow).

[379] SF0671. We thank Diane Harris, Department of Classics, University of Cincinnati, who will publish this inscription, for these preliminary comments.

[380] Tesserae measuring approximately 1 cm^3 were found in fields in the vicinity of the hypocaust, the "Column House", and the "Mosaic House"; SF0836 is a fragment of floor paving with three tesserae still in their setting bed.

[381] SF0802, SF0805, SF0811, SF0812, SF0816, SF0817, SF0819–SF0822. The glass was studied by Kate Pretty (University of Cambridge).

resident of modern Dialiskari.[382] The ceramic finds correspond to those typically found in surface collections at the site. Included in this collection, however, were two small limestone column capitals with "spiky acanthus" decoration, one preserved in its entirety but only a fragment of the lower edge of the second (Fig. 29:16, Pl. 91:e).[383] These capitals, along with the inscription recarved for use as a screen, were most likely marble furnishings from a villa or bath complex.[384] Other stone vessels and architectural fragments associated with this site await further study.

The features and finds from the site support the identification of Dialiskari as a Late Roman villa. The quantity of Roman fine wares and amphora fragments, as well as its architectural remains—portions of a bath complex, domestic architecture and its furnishings, and productive facilities—are indicative of a vital seaside residence of the later Roman period.

Early Christian through Early Modern Sites and Settlement Patterns[385]

Early Christian and Byzantine Messenia

Life in the Early Christian and Early Byzantine Peloponnesos was punctuated by destruction and natural disaster.[386] The Herulian invasions of the 3rd century, Visigothic pillaging of the 4th century, and the incursions of the Vandals in the 5th century must all have exacted a heavy toll. Depopulation resulting from these events would have been compounded by severe earthquakes in the 6th century (especially A.D. 522 and 551) and the outbreak of bubonic plague (A.D. 541–544). Despite this gloomy picture provided by textual sources, archaeological evidence suggests that some thriving communities existed within the southwestern Peloponnesos in the 6th and 7th centuries after Christ. The remains of a five-aisled basilica in the modern village of Ayia Kyriaki near Filiatra, slightly to the north of the PRAP survey region, bear witness to a considerable Christian population in the mid 6th century after Christ.[387] To the south of the survey area, Early Christian remains have been found approximately two km north of Methoni, where exploration and excavation inside a cave revealed a large cemetery complex complete with arcosolia and shaft graves.[388] In addition, the finds associated with the furnishings of the Late Roman villa at Dialiskari, specifically the small limestone capitals and screen fragment

[382] These finds were transferred to the Hora Museum by a representative of the 7th Ephoreia of Prehistoric and Classical Antiquities, and we have studied them with the kind permission of Xeni Arapoyianni.

[383] Fig. 29:16: SF0857A, B; Pl. 91:e: SF0857A, B, SF0858. The preserved base diameter of SF0857A, B is 0.17 m; p.H. 0.17 m.

[384] Pallas (1966, pp. 192–194) refers to the monolithic stone columns of the "Column House" depicted in figure 25 of Valmin 1930, p. 139, as "μέλη προερχόμενα ἐκ παλαιοχριστιανικῆς βασιλικῆς." There is, however, no reason to presume that these architectural members were part of an ecclesiastical structure. They, along with the marble capitals found at Dialiskari, were probably part of a peristyle or triclinium. In the absence of any obvious Christian symbols, one may hypothesize that the recarved marble plaque was used as a screen within a domestic setting.

[385] This section of the report is the work of Sharon E. J. Gerstel.

[386] For the best brief history of post-classical Messenia see Topping 1972.

[387] Pallas 1962, pp. 122–125. Unfortunately, the remains of the basilica were recently demolished by local residents. This incident of destruction was reported to the 5th Ephoreia of Byzantine Antiquities.

[388] Pallas 1963 and 1969.

(p. 474 above), may have been reused within a Christian context. All these sites are located along the coast, a topographical preference that would alter as the disastrous historical circumstances mentioned above increasingly drove inhabitants inland. The basilica at Filiatra seems to have been destroyed in the earthquake of A.D. 551, and intensive surface collection at Dialiskari failed to produce any material evidence that could be dated after the 7th century.

Changes in demographic patterns owing to Slavic settlement in the Peloponnesos in the 7th and 8th centuries are well documented.[389] The assimilation of these peoples by the 10th century and the relative stability of the region facilitated a time of prosperity in the Middle Byzantine period (the 10th to the 12th century after Christ). At this time, western Messenia fell under the local control of the archbishopric of Hristianoupolis (to the north of the PRAP study area at present-day Hristianou).[390] Located in the foothills of Mount Aigaleon, Hristianoupolis may have been connected to other small settlements of the region by a series of roads running along the base of the mountains. This period of relative prosperity is evidenced by architectural remains at Kalamata, Filiatra, Hristianou, and Samarina (near Androusa), all towns outside our study area.

Despite the increase in economic stability, in the Middle Byzantine period the coast of Messenia was threatened by piratical raids. Topping states that "on the condition of the rural population we have no direct testimony. . . . Much of the population of the coastal plains and towns must have abandoned their fields and workshops to seek refuge in the mountains."[391] This observation seems to be borne out to some extent by the results of PRAP (Fig. 30). According to our preliminary analysis of ceramic finds, for example, mediaeval settlement at the site of Skarminga, some 13 km from the sea, dates from the Middle Byzantine period. The same can be said of Kavalaria, a settlement close to the present town of Hora (for these sites see pp. 477–481 below). Significant coastal settlement along the Ionian Sea (as at Marathoupolis *Dialiskari* [POSI G1] and Romanou *Glyfadaki* [POSI E1]) did not continue into the Middle Byzantine period, an apparent sign of the relative abandonment of the coastline at this time (also see pp. 413–414 above).

Frankish, Venetian, and Turkish Messenia

The post-Byzantine history of Messenia is characterized by rapid changes in power as the local population submitted to one foreign overlordship after another. Information on demography and land use in the period of Latin occupation (the Frankish era, 13th–15th centuries) is provided by a number of fiscal censuses of serfs and properties in the region. Both village names and architectural structures of the period remain, specifically a large number of fortresses tied to the Frankish system of land management.

Sources critical for the analysis of southwest Messenia include the inventories of the estates of the Acciajuoli family. This prominent banking family, originally from Florence, had extensive land holdings in the Peloponnesos. For example, the 1354 inventory of properties belonging to Niccolò Acciajuoli provides the very names of the villagers and

[389] See, for example, Topping 1972, p. 65.

[390] For information on the important late-11th-century church of Ayia Sotira, and for a short history of this archbishopric, see Stikas 1951.

[391] Topping 1972, p. 66.

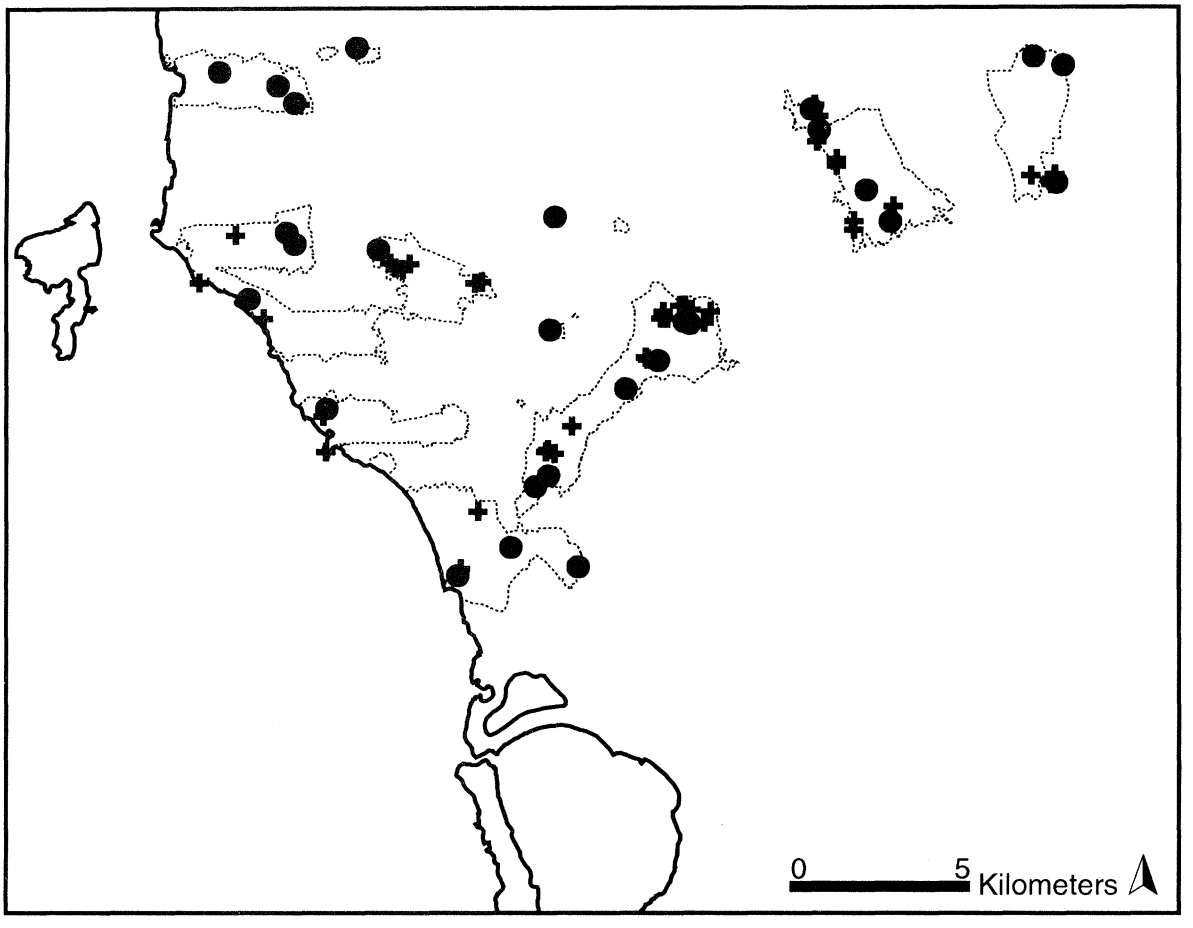

FIG. 30. Distribution of Byzantine finds, on-site (circles) and off-site (crosses) (Sebastian Heath)

their families, as well as an account of their livestock.[392] One of the original goals of our survey was to compare this documentary evidence with the archaeological record of selected sites, such as Kremydia. Unfortunately, work in the areas mentioned in these documents was not possible (see pp. 399–400 above), and our plans to integrate textual and archaeological evidence for mediaeval habitation in western Messenia were curtailed. Despite these problems, the survey was able to gather evidence for continuity of settlement between the Middle Byzantine and the Frankish periods. Based on preliminary ceramic analysis, our two principal Byzantine sites, Metamorfosi *Skarminga* (POSI A4) and Hora *Kavalaria* (POSI B2) both seem to have still flourished in the early Turkish period (A.D. 1460–1685).

[392] Fourteenth-century inventories of estates in the region of the survey indicate that Kremydia, for example, had 57 active hearths and 21 deserted hearths. Topping suggests that this village, around the year 1354, had 312 inhabitants. See Longnon and Topping 1969, pp. 73–77.

Venetian hegemony over Messenia was threatened in the 14th and 15th centuries by an influx of Albanian immigrants. Between 1460 and 1685 all the regions of the Morea, including the twin trading centers of Methoni and Koroni in Messenia, fell into the hands of the Turks. Ottoman censuses of this period point to a depopulation of the region. This drop in population was not reversed by a three-decade-long reestablishment of Venetian control over Messenia (1685–1715). A renewal of Ottoman overlordship led to the second Turkish occupation of the region from 1715–1821, only to be ended by the Greek War of Independence (1821–1829). At this point, little can be observed of these vicissitudes in the survey record, although at Tragana *Hasanaga* (POSI C4), a small hilltop site with walled enclosures nearby, there is evidence of habitation during the Venetian occupation and in the second period of the Turkish occupation.[393]

To give some sense of the range of settlement types and of material discovered for these periods, four sites will be examined in greater detail.

Work at Select Sites

METAMORFOSI *SKARMINGA* (POSI A4). The church of the Transfiguration (Ayia Sotira), with its copious spring, is situated at the southern end of the Metaxada valley, near the road leading from Metamorfosi to Vlahopoulo, approximately 20 km inland from the sea (Pl. 87:b).[394] Tract walking in this area revealed an extensive surface scatter, with a maximum extent of some 900 × 1180 m (an actual occupied area of approximately 40 ha), spread over both slopes of a small ravine. In 1994, more intensive microtract collection identified traces of occupation ranging from the Archaic to Modern periods, with substantial evidence for occupation in the Roman and, especially, the Byzantine eras (Figs. 31, 32).[395] Diagnostically Roman pottery was collected primarily in the southeastern sector of the site and included numerous coarse- and cooking-ware sherds in an orange fabric associated with Messenian pottery of this period.[396]

Ceramic remains from the surface of fields near the church and spring of Ayia Sotira attest to the existence of a small community contemporary with and dependent upon this ecclesiastical structure.[397] Finds from a number of tracts in all parts of the site may

[393] Byzantine pottery from PRAP has been studied by Sharon E. J. Gerstel, Early Modern (18th–19th-century) ceramics by Kim Shelton (Greek Archaeological Society). In Istanbul, research on our behalf by Fariba Zarinebaf-Shahr (Department of History, University of Illinois-Chicago) has found full documentation for our study area from the 15th through 18th centuries. Siriol Davies (University of Birmingham) has also been successful in uncovering in Venice rich archives pertaining to the late 17th and early 18th centuries.

[394] Ayia Sotira is mentioned by UMME as a large mediaeval site (UMME 23). See also McDonald and Hope Simpson 1969, p. 152.

[395] Although McDonald and Hope Simpson (1969, p. 152) state that "a few sherds of thick 'oatmeal' ware (less thoroughly fired than the mediaeval variety) and other thinner wares of gritty fabric appear to be prehistoric," we have not yet identified any definite prehistoric ceramics at this site. Some two dozen lithics were collected, however, including a chert flake-core assemblage (with three cores) and a Bronze Age denticulated sickle element (SF0930).

[396] Munsell 5YR 7/8.

[397] The multiphase church of Ayia Sotira is being studied by Aristea Kavvadia of the Greek Ministry of Culture. Kallimachos Antonakos of the 5th Ephoreia of Byzantine Antiquities has offered us helpful comments on this structure and other churches of western Messenia.

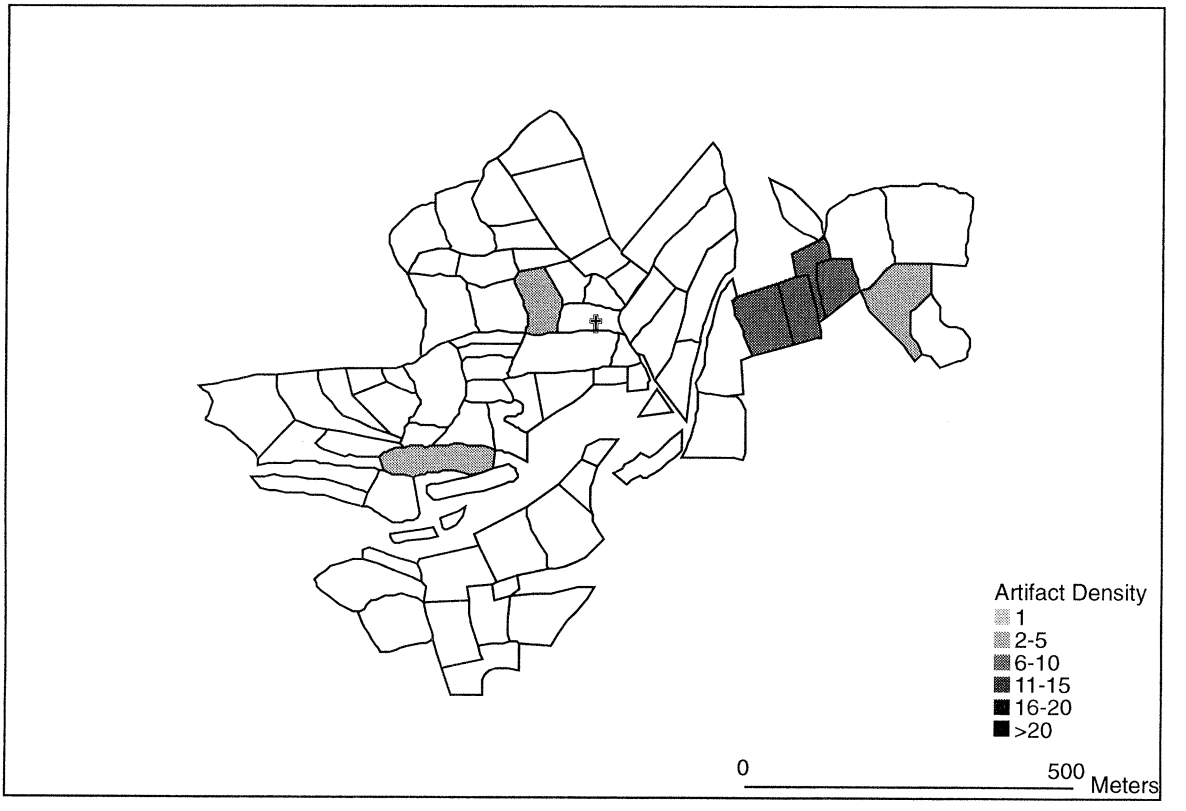

FIG. 31. Metamorfosi *Skarminga* (POSI A4). Distribution of Roman finds (Sebastian Heath). Cross indicates location of church

be preliminarily dated to the 12th–15th centuries after Christ. High concentrations of diagnostic Middle and Late Byzantine (12th–13th centuries) sherds were found especially in two fields, one immediately to the west of the church, the other at the western edge of the site, on the southern side of the valley. Lead-glazed ring-based bowls decorated with a sgraffito design are characteristic of the fine wares collected at Skarminga. These bowls were generally decorated with crude, deeply scored concentric circles.[398] Only on rare occasions were there the intricate patterns normally associated with fine Byzantine sgraffito ware of the 12th–13th centuries (Fig. 29:10–12, Pl. 91:f).[399]

Middle Byzantine cooking pots are among the most common finds at this site. This class of vessels was characterized by gritty fabric, short, thickened rims, and flat bases

[398] A94-9042061GR-02; A94-9044201GR-08.

[399] Fig. 29:11: A94-9044201GR-13 (sgraffito tondo perhaps decorated with the limb of an animal); Fig. 29:10: A94-9044201GR-10 (flaring pedestal foot; interior of the vessel decorated with a portion of the body of a feathered bird); Fig. 29:12: A94-9042061GR-01 (light green glaze over white slip; decorated with a tondo containing wavy lines surrounding a leaf blade).

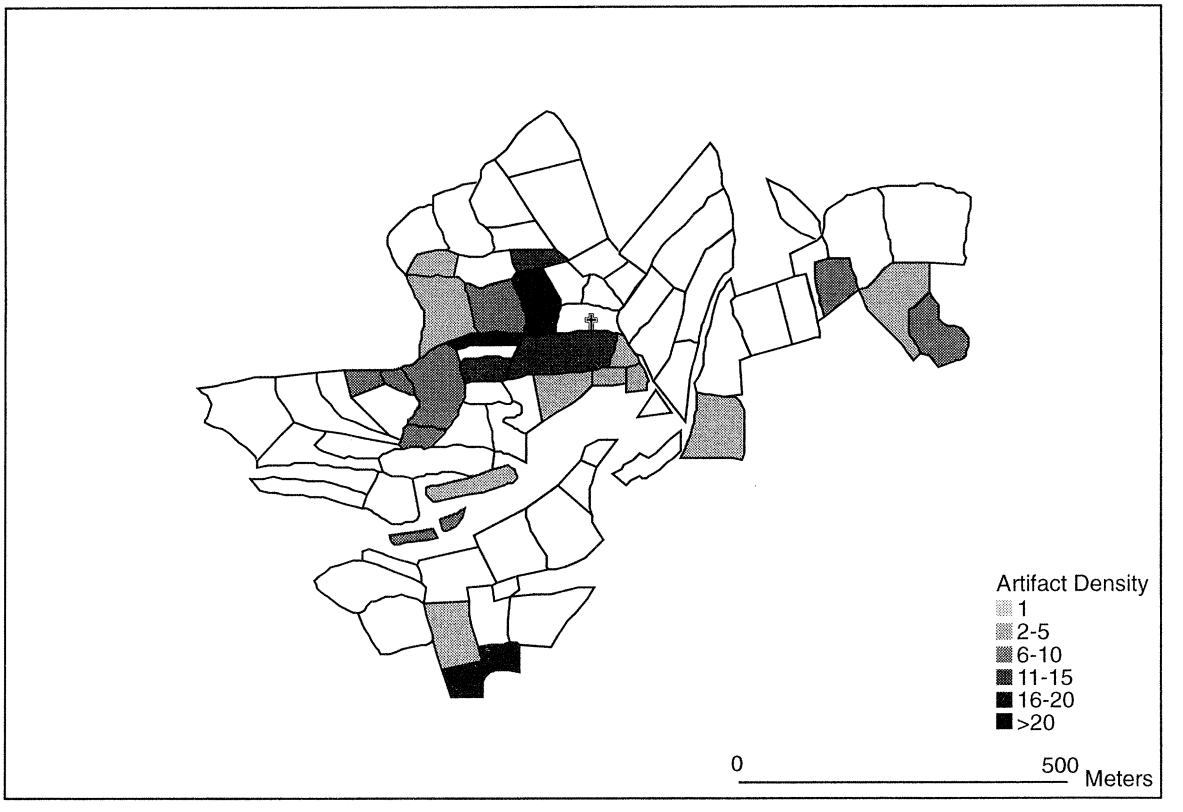

FIG. 32. Metamorfosi *Skarminga* (POSI A4). Distribution of Byzantine finds (Sebastian Heath). Cross indicates location of church

(Fig. 29:7).[400] Numerous coarse-ware fragments were also retrieved from the site, including one rim of a portable pithos with an attached lug, dated to the 12th century (Fig. 29:15).[401] Segments of the bases of flat-bottomed coarse-ware jugs were found in a number of tracts, as were fragments of jugs with matt-painted decoration (Fig. 29:14).[402] A stem of a Byzantine double-saucered lamp, decorated with a yellowish green glaze over a white slip, was pierced, presumably for ease in storage (Fig. 29:8).[403] One unusual find was the body fragment of a globular vessel with deeply incised geometric decoration (Pl. 91:g).[404]

[400] A94-9042061GR-16; vertical rim with flat lip of a cooking pot (Diam. 0.17 m). See Rosser 1983, p. 383 (P1739), from a deposit dated to the mid 12th–early 13th century.

[401] A94-9044201GR-28. See MacKay 1967, pl. 69:141; Sutton 1990, fig. 27:l.

[402] Fig. 29:14: A94-9042061GR-08; A94-9042061GR-09; A94-9042061GR-10; A94-9042061GR-11. All the bases, with portions preserved of the walls of the vessels, are wheel ridged on the interior surface; base diameters range from 0.075 to 0.10 m. The Munsell reading is uniformly 10YR 8/4. See Rosser 1983, p. 380 (P1690–P1695) for flat-based jugs from Area II. The structures in this area, according to the final report, were erected in the 10th century and were abandoned approximately 100 years later (p. 358).

[403] A94-9044201GR-06, corresponding to Broneer Type XXXVII; see *Corinth* IV, ii, p. 125.

[404] A94-9042551GR-01.

While its fabric is suggestive of a Byzantine date, no comparanda have yet been discovered. During this phase of occupation, the settlement appears to have been a small village. One published documentary source testifies to the size of this community: in the Grimani Census, taken in A.D. 1700 under Venetian auspices, the settlement (known as Scarmega) was home for 54 residents (or ten families).[405]

A third phase of occupation at Skarminga is linked to a probable Turkish construction found at the western end of the site. One corner of a rectangular structure, with waterproof mortar preserved on its interior, remains from what was probably a water-storage tank. This structure was connected to a substantial and lengthy water channel, one section of which is lined with stone, running eastward for at least 150 m in the direction of the church and spring. All these elements were mapped using a TotalStation in the summer of 1994. According to local residents, this structure was a "bath" (Loutra is the local toponym). Today, the entire site of Skarminga is intensively cultivated, with modern irrigation systems exploiting its admirable water supply. Other features to be noted, although their date remains unsure, are segments of stone-walled trackways (*kalderimia*) running east from the area of Skarminga. One section of this network was destroyed during the summer of 1994 by the building of a new road to the church of Ayia Sotira.

HORA *KAVALARIA* (POSI B2). Kavalaria is the toponym for the area around the Early Modern church of Ayios Nikolaos on the outskirts of Hora along the main Hora–Pylos road. Ayios Nikolaos is a wide single-aisled church, similar to many in western Messenia; both the large size of the church and its architectural decoration suggest that this structure had served as the main ecclesiastical focus of a community. While the precise date of the church remains uncertain, the year 1709 is carved on a block now immured over its present arched western entrance; that date may be associated with the first construction phase of the present structure. Population data recorded for Kavalaria reported 120 residents in 1689, according to the Corner Census, and 254 people in 1700, according to the Grimani Census of Venetian holdings in Messenia.[406] In 1992, however, tract walkers picked up numerous tiles at this location that are rather earlier than the 17th century and may be loosely characterized as "Frankish", i.e., possibly of 13th–early-15th-century date.[407] The recovery of a number of human bones, and this abundance of roof tiles of the mediaeval period, suggested that there was a substantial cemetery of this era, perhaps associated with an earlier phase of the church. In any case, the density of these finds warranted further, more intensive collection, and in 1994, microtracts were established in the area around the church, extending east and south across a shallow valley as far as the site of Kalianesi (see p. 481 below); in total, an area of approximately 340 × 390 m, covering approximately 7 ha, was investigated. Although much of the pottery collected was Turkish–Early Modern (i.e., 15th–19th centuries), a substantial number of Byzantine sherds points to a phase of occupation earlier than the Frankish

[405] Panayiotopoulos 1987, p. 262.

[406] Panayiotopoulos 1987, p. 262.

[407] These tiles, found in excavated contexts associated with the period of Latin occupation, are generally characterized by a rough and uneven lower surface, finger grooves on the upper surface, and a fabric with many stone inclusions. Few cover tiles were observed. Pan tiles have sharply tapered edges and are rectangular in shape.

period, in the 12th–14th centuries. Material of the Byzantine period was concentrated in close proximity to the church of Ayios Nikolaos. Diagnostic sherds included several small fragments of "green and brown painted ware", ring bases with green glaze, and small flat-based storage vessels of a type found at a number of sites within the PRAP study area.

HORA *KALIANESI* (POSI B1). Lying immediately to the south, just across a valley from the church of Ayios Nikolaos at Kavalaria, are the remains of a small (*ca.* 0.14 ha) settlement and cemetery site; the single vineyard that comprises the site was collected on a 10-meter grid. Owing to the worn state of the artifacts, ceramic finds were often undatable; the principal periods of occupation, however, appear to be Hellenistic–Roman, with sherds also identified from the Byzantine, Early Modern, and possibly the Turkish periods. Finds were primarily of cooking ware, with few fine pieces represented. Also associated with this site is a single Venetian tornesello, on the obverse of which is the typical cross *pattée* surrounded by a legend with six legible letters: ... RIO.DUX. These letters can only correspond to the coinage of Antonio Venier, Doge of Venice from 1382 to 1400.[408] The reverse side of the coin is decorated with the lion of Saint Mark. Two large worked sandstone blocks were discovered in piles of stone cleared from the field. Both pieces, which perhaps originally came from the Palace of Nestor (see p. 454 above), may have been used as cover slabs for graves.[409] Human bone was collected in several parts of this site; the owners of the vineyard reported that they had previously found large fragments of skull and human bone here.

TRAGANA *HASANAGA* (POSI C4). A knoll to the east of the modern village of Tragana revealed traces of relatively recent settlement on its summit and at its foot. The local toponym for this place is Hasanaga, a settlement mentioned as a village in the territory of Navarino in Venetian censuses of the late 17th century, as a *tchiflik* in William Gell's *Itinerary of the Morea* (published in 1817), and as home to five families by the French *Expédition scientifique de Morée* in 1830.[410] On the hilltop a small but dense scatter of pottery was discovered through tract walking in 1992 and in more intensive collection during 1994. Most pottery can be dated no more closely than to the 18th or 19th century (the Early Modern era), but some can be specifically assigned to the late 17th–early 18th century and the late 18th–early 19th century, the times of Venetian occupation and of the second period of Turkish occupation of the Peloponnesos.[411]

On the knoll top extensive stone field walls (some mortared, some of dry-wall construction) probably are built from the remains of collapsed buildings, and it seems likely

[408] SF0028. The legend typically found on the obverse of Venier's torneselli is + ANTO'.VENERIO.DUX. See Stahl 1985.

[409] SF0190A (0.65 [L.] × 0.52 [p.W.] × 0.11 m [Th.]); SF0190B (0.65 [L.] × 0.49 [p.W.] × 0.11 m [Th.]).

[410] In 1689, thirty-seven inhabitants were noted at "Cassanaga": twelve men, four boys, fourteen women, and seven girls. In 1700, at "Cassan Aga," two families (seven residents) were recorded: Panayiotopoulos 1987, pp. 226, 262, 300. See also Gell 1823, p. 61; Bory de Saint-Vincent 1836, p. 158; Sauerwein 1969, Ortsverzeichnis/Navarino, no. 18.

[411] One piece of pink creme ware with tan glaze on the interior and cobalt blue glaze on the exterior (C94-9040483VC-01) dates to the late 17th–early 18th century. C94-9040483GR-03 = late 18th century; C94-9040483GR-04 = early 19th century; C94-9040021GR-01 = late Turkish occupation, *ca.* 1800.

that stone-built structures once covered the flattish summit. Bedrock cuttings, possibly manmade, may be remnants either of a water channel or of bedding trenches for walls. The crest of the knoll, especially on the east, is today ringed by vegetation (maquis and bamboo) that masks the remains of a retaining wall, now impeding erosion of the deposit atop the hill. A sizable olive press, however, was found embedded in slope wash; two other presses were also found nearby.

At the foot of this hill are two compounds, one to the east and one to the north. The walls enclosing both are built in similar style, with small mortared limestone blocks (either roughly rectangular or irregular in shape) capped by a beveled mortar molding (Pl. 92:a). The enclosure to the east originally was associated with a building of which only foundations now remain; it was subsequently remodeled and now surrounds a more recent two-story house. This house, still occupied, possesses a second-floor entranceway, and is not dissimilar in style to provincial elite Ottoman residences.[412]

SUMMARY AND PROLEGOMENON

The publication of the two parts of this preliminary report[413] marks the end of the first major phase of the Pylos Regional Archaeological Project. These two papers outline the principal results of field research conducted from 1991 through 1995, both archaeological and natural scientific, as they are relevant to the social-cultural evolution and historical development of the part of western Messenia that has been the focus of our investigations. This part of the report is intended to provide a comprehensive discussion of methods employed by PRAP and a history of its fieldwork, together with a detailed discussion of several of the more significant archaeological sites investigated by our teams and a summary of characteristic types of artifacts collected and analyzed. We have also made available on the WorldWideWeb a complete catalogue of archaeological sites defined by PRAP and descriptions of representative finds from each. The publication of both print and electronic resources now allows diachronic study of the development of material culture in western Messenia from the time of the first indications of a human presence in the Palaeolithic period until the Greek War of Independence in 1821. Generalizations about the relationship of the Pylos area, with its own peculiar geographical and historical trajectory, to the rest of Greece are also possible. These conclusions will be of immediate value to others conducting archaeological research in the Mediterranean but will also be of interest to a far wider audience.[414]

[412] See Arel 1993. The date of various structures at Hasanaga cannot yet be determined precisely. The present two-story house is said to have been built in the early 20th century, but an Ottoman census of the early 18th century (unpublished) refers to a two-story house and associated enclosures at Hasanaga. It is possible that modern constructions have imitated the style of earlier buildings.

[413] See Zangger *et al.*, forthcoming, in addition to this paper.

[414] In addition to these resources, intended largely for a specialist audience, members of PRAP have collaborated to write a synthesis of our researches that we intend to be accessible to general readers: Davis, in press.

The patterns of settlement that can be reconstructed from the data collected by PRAP differ in several important ways from those reported by other regional surveys in Greece, including those that have examined other parts of the Peloponnesos. This is most obvious for the historical periods. For these periods, PRAP's systematic fieldwork in part confirms the impressionistic picture sketched by UMME on the basis of much less intensive investigations. Evidence is lacking for a marked oscillation between nucleated and dispersed settlement, a feature characteristic of many other surveyed regions, including Boiotia, the Nemea Valley, the southern Argolid, and the islands of Keos and Melos. Large, long-lived villages were more typical in the Pylos area, some of which were first occupied in early prehistoric times and continue today to be a focus of settlement.

Such an apparent continuity in the location of settlement, however, does not mean that patterns of settlement and land use remained static through time. Significant changes occurred at critical junctures in the history of western Messenia, developments attested not only in documentary sources but in aspects of the material culture examined by PRAP. The end of Spartan domination and the foundation of Messene in the 4th century B.C., for example, are marked by notable growth in the number and size of settlements. The distribution of artifacts found both on-site and off-site, moreover, documents a general inland shift in the focus of habitation after the Late Roman period, when major coastal settlements were by and large abandoned. Detailed analysis of such historical patterns will allow us to examine methodological assumptions critical to the practice of regional studies. In particular, archival research sponsored by PRAP, in conjunction with regional archaeological data, will result in a more sophisticated and nuanced understanding of the relationship between numbers of archaeologically visible sites, archaeologically determined site size, and regional population levels.

On the prehistoric side of the ledger, new insights have also been gained. Geoarchaeological research[415] has aided in the documentation, for the first time in Messenia, of Palaeolithic remains and has clarified the nature of several tumulus burials and tholos tombs (see Appendix).[416] Furthermore, the density of settlement and intensity of land use in the third millennium B.C. in this part of the Peloponnesos does not appear to have been so great as in, for example, the Argolid or Corinthia, a difference reflected in a palynological record that points to major land clearance only *ca.* 2000 B.C.[417]

Fieldwork has also provided opportunities for combining textual with purely archaeological information about the Mycenaean period. We have shed new light on the structure of settlement and land use at the time of the Palace of Nestor, in the 13th century B.C.; it is now apparent, for example, that a three-tier hierarchy of settlement existed in LH IIIB. Geophysical, geomorphological, and archaeological investigations on the Englianos Ridge leave no doubt that the palace itself stood at the center of a large community.[418] Several

[415] See Zangger *et al.*, forthcoming.

[416] It is clear that previously published distributions and descriptions of prehistoric monumental burials in Messenia must be used with the greatest caution.

[417] Palynological analyses, conducted by Sergei Yazvenko (then at the University of Waterloo) will be described in Part II of this report (Zangger *et al.*, forthcoming).

[418] Geomorphological studies by Zangger and an extensive program of remoting sensing organized by Falko Kunhke (Polytechnic University of Braunschweig) support the archaeological conclusions described in

large towns under the control of the Palace can now, with greater conviction, be identified with toponyms recorded in the Linear B texts, and smaller satellite villages in their vicinity appear to have been dependent on them. Some evidence for an expansion in the geographical scope of the power of the Palace of Nestor community can be seen: in patterns of construction and disuse of monumental tombs; in changes in the role played by border communities on the far side of Mount Aigaleon, such as Maryeli *Koutsouveri* and Metaxada *Kalopsana*; in hints of significant differences between settlement along the western coast of Messenia and in the inland valleys that lead ultimately to the Pamisos valley; in an expansion of agriculture in the 14th and 13th centuries, particularly in olive cultivation; and possibly also in the construction, at approximately the same time, of an artificial harbor at the mouth of the Selas River.[419]

The preceding remarks outline some of the principal general conclusions that our research thus far appears to support. With the completion of this stage of the project, members of PRAP now turn to more detailed analyses of data. Continuing research has two immediate objectives:

1. To complete the study of artifacts collected by PRAP and to refine their dating.
2. To make project records, photographs, and drawings available to other scholars in the form of an electronic archive, accessible via the Internet.

Beyond these general and more technical goals, individual members of PRAP will author a series of specialist reports.[420] Topics to be considered in detail include the following:

1. The history of settlement and land use in western Messenia in specific periods (e.g., Palaeolithic, Mycenaean, Archaic through Hellenistic, Roman, and Byzantine) and the factors, environmental, economic, social, political, or ideological, that influenced decision making about the location of settlement and other activities.
2. The histories of several individual sites (e.g., Romanou *Glyfadaki*, Marathoupolis *Dialiskari*, Romanou *Romanou*, and Hora *The Palace of Nestor*), including the relationship between subsurface structures and surface distributions.
3. The distributions of particular types of artifacts (e.g., lithics, Mycenaean pottery, imported Roman fine ware) and deductions that might be drawn about the nature of the economic systems responsible for their distributions.
4. Comparison of rich Venetian and Ottoman archival data on settlement and land use with material-cultural remains of the 15th–early 19th centuries (notably, the settlements of Hasanaga, Skarminga, and Kavalaria, and the distribution of Early Modern pottery).

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this part of our preliminary report and, furthermore, have detected *ca.* 50 m northwest of the citadel of the Palace of Nestor the remains of what is probably a fortification wall. At present, it seems to us most likely that this wall belongs to the Early Mycenaean fortification system explored by Blegen and described in *Pylos* III, pp. 8–18.

[419] Evidence for the harbor has been examined by Zangger and Jost Knauss, evidence for expansion of olive cultivation by Yazvenko: see Zangger *et al.*, forthcoming.

[420] All the following reports will emphasize the integration of archaeological and natural scientific evidence. Other specialist reports published by natural scientists associated with PRAP will consider more technical aspects of geomorphological, palynological, remote-sensing, and soil-science studies.

5. The extent to which erosion and other geomorphological processes have affected our perceptions of the surface archaeological record, and thus the extent to which patterns of settlement and land use based on present artifactual distributions are biased by differential geomorphological histories within the PRAP study area.
6. Detailed examination of our own data alongside that of UMME, collected three decades earlier, permitting us to compare differing survey techniques and the effects of intensive modern agriculture on the surface archaeological record.
7. Models to explain the formation of the surface archaeological record (e.g., the relationship between recent land use and surface artifactual densities; the processes that have created low density artifactual distributions; the archaeological correlates of different types of past land use).

After the completion of this second stage of the program, we envision a final published summary of all research sponsored by PRAP.

APPENDIX: THE LOCATION AND DATING OF MONUMENTAL BURIALS[421]

At the end of the Middle Helladic and beginning of the Late Helladic periods, western Messenia was home to the earliest tholos tombs yet discovered in Greece; it has, furthermore, been argued that this distinctive form of Mycenaean elite burial derived from, or at least was strongly influenced by, the custom of burial in tumuli (burials under or inside roughly circular mounds of earth or stones) during earlier stages of the Middle Bronze Age.[422] An abundance of tholoi and tumuli has been reported in southwestern Greece, many located in or near the parts of Messenia that have been the focus of research by PRAP.[423]

These monumental tombs continue to attract considerable attention from scholars. A recent study by Sylvie Müller has systematically examined tumuli, constructing a typology for them and analyzing evidence for regional and chronological variation in their form.[424] Müller's study has served to emphasize the great diversity in tumulus features. In some instances the tumulus was heaped over a single central tomb; in others, graves were dug into an artificial mound from its surface. Some mounds were surrounded by a low stone "peribolos" wall; others had no such revetment. Tumuli are generally, but not always, found in small groups. The burials in Messenia acquired special forms, e.g., built cists with apsidal ends and burials in pithoi radiating from a central cist. Such variability demands explanation.

The introduction of tumuli in Greece has frequently been attributed to migrations of new settlers from the north, tholoi, to influence from Crete.[425] Less traditional studies have attempted to explain the spread of these forms of burial as reflections of increased competition among Middle Bronze Age elites, as a deliberate attempt to accentuate (through conspicuous display

[421] This appendix is the work of J. Bennet and J. L. Davis.

[422] E.g., Hammond 1967, Korres 1984.

[423] Indeed, one distribution map requires a special inset at enlarged scale so as to display all the definite and possible examples: Müller 1989, p. 2, fig. 1.

[424] Müller 1989.

[425] Müller 1989. Müller begins her study with the assumption that "La manière de prendre soin des morts constituerait pour un groupe ethnique un moyen fondamental d'exprimer son identité et d'implanter, au propre et au figuré, le tissu de son organisation sociale dans le territoire qu'il occupe."

of wealth) distinctions among social classes, or as an expression of altered cosmologies. Tumuli and tholoi have been viewed as "forms of corporate burial reflecting kin groups linked together in a community,"[426] grave constructions above ground "as symbols of personal or family status, or as some type of territorial marker,"[427] and objects in graves as clues to changes in social organization.[428] Ancestor cults established at prehistoric tombs may have served in historical times to legitimize the control of land.[429]

Any attempt by Aegean prehistorians to distinguish between competing explanatory frameworks, however, is doomed to founder without more detailed information concerning the dates of these tombs. Their precise locations and their relationship to contemporary settlements are also in most instances uncertain. Distribution maps of tumuli and tholos tombs as now published are likely to be inaccurate.[430] Published dates are not always justified.[431] Not all published tumuli are burial tumuli,[432] nor are all mounds with burials constructed by human agency.

It was among PRAP's initial goals to relocate all known tumuli and tholoi, as part of our inventory survey, and to fix their locations on large-scale maps. Secondly, we hoped that intensive surface investigations would allow unexcavated graves to be more precisely dated. In the event, we found cause to question the dating of some within our study area. This was perhaps to be expected. More surprising was our discovery that several tumuluslike mounds, one previously thought to cover an unexcavated tholos tomb, are not burial mounds at all but natural features, artificially modified by recent agricultural practice.[433] The two sites discussed in more detail below illustrate each of these points and exemplify our results.

PYRGAKI *TSOUKA* (POSI I19). The site of Tsouka ("hill" in Albanian) is located near the southwestern end of a ridge that extends westward from the Aigaleon range, north of and roughly parallel to the Englianos ridge. Here in 1961 UMME reported the existence of a Middle Helladic burial tumulus, 9 × 12 m in diameter and approximately 5 m high.[434] Bones, fragments of pithoi, and white stone slabs, interpreted as cover slabs for graves, protruded from the "nearly vertical sides" of the mound, which supported on top a trigonometric marker, installed by the Greek Army (Pl. 92:b).[435]

In the summer of 1991, we found the site approximately as it had been described by UMME, and in 1993 we systematically examined its remains. The knoll consisted of two distinct parts: a central cylinder (H. *ca.* 5.4 m) with nearly vertical scarps, roughly in the middle of a lower mound

[426] Dabney and Wright 1990, p. 49.

[427] Nordquist 1990.

[428] Graziadio 1991.

[429] E.g., Coldstream 1976; Snodgrass 1982; Antonaccio 1995. Specifically for Messenia see Alcock 1991b.

[430] It is for this reason that it is difficult to accept Müller's generalization that most tumuli are "localisé[s] en général sur le sommet d'une acropole voisine."

[431] It is dangerous to assume that tumuli are Middle Bronze Age in date without corroborating artifactual evidence; burial in mounds continued long after the Middle Helladic period (e.g., Dakoronia 1987), throughout historical periods (e.g., Morris 1992, pp. 51 [Roman tumuli], 132–135 [Archaic Greek tumuli]).

[432] This problem is by no means unique to Greece. One recent study, for example, has noted that fifty percent of the prominent piles of stones on the island of Hvar in Croatia that have been identified as tumuli lack any trace of burials; most may be cairns of stones from the clearing of fields; see Gaffney and Stançiç 1991.

[433] See also Zangger *et al.*, forthcoming.

[434] McDonald and Hope Simpson 1961, p. 237.

[435] McDonald and Hope Simpson noted that the diameter of Tsouka had already been cut back by cultivation (1961, p. 237); they considered the site to be in danger of destruction.

(Diam. *ca.* 14 m). In the scarps of the central cylinder, parts of two human skeletons were visible, associated with fragments of tiles and large storage jars. Fragments of historical tiles were plentiful, but there was relatively little pottery to be found. The earliest tiles were Hellenistic; others were difficult to date but could be Roman, Byzantine, or even Modern. Several glazed sherds were either Byzantine or Turkish, while amphora fragments appeared to be of Roman or Byzantine date. No prehistoric remains were discovered, and the association of tile with both skeletons and of glazed pottery with one suggests that both burials are historical in date.[436] Geomorphological investigations suggest that the knoll is entirely a natural formation. This site should, in our opinion, be removed from the corpus of MH tumuli.

HORA *KOUKOUYERA* (GAC D56). At Koukouyera, McDonald and Hope Simpson[437] noted what they believed to be a large artificial mound (Diam. 21–27 m, H. 7.0 m), a probable burial mound covering a tholos tomb, "planted with grain to the very top, where there is a concrete survey post" (Pl. 92:c). By 1991, the surrounding field had long since been bulldozed and olive trees had replaced the grain (Pl. 92:d). This destruction did, however, have one positive result: it is now clear that the mound is not an artificial construction. There is no evidence that the area was ever used for burial, and geological investigations concluded that the hill is entirely natural.

Reinvestigation of each of these sites emphasizes the dangers lurking for anyone who attempts to make sense of the published distributional patterns of tumuli in Messenia without initiating new fieldwork. These two examples by no means stand alone.

Reevaluation of the data has important consequences for understanding the development of prehistoric western Messenia. If Koukouyera is *not* the location of a Mycenaean tholos tomb, then there were only two tholoi near the Palace of Nestor, further emphasizing its prominence within the region.[438] Both are located on the spine of the Englianos ridge, one at the Palace of Nestor itself (Tholos IV), the other adjacent to the road leading from Hora to the coast (Tholos III, the Kato Englianos tholos [POSI C5]). Tholoi are found in locations farther west, bordering the fertile alluvium between Koryfasio and Romanou (the Voidokoilia, Tragana, and Haratsari [Osmanaga] tholoi) and to the south at Myrsinohori and Koukounara. However, with the removal of Koukouyera, only on the Englianos Ridge are such tombs found inland within the area systematically examined by PRAP. None has been verified at Gargaliani or Valta or in any of the valleys immediately east of Mount Aigaleon (e.g., those of Metaxada or Maryeli).

On the other hand, recognition that the burials at Tsouka belong to a historical period raises the possibility that the practice of placing burials in prominent locations continued to be employed in historical times, perhaps to emphasize claims to rural land or, perhaps even metaphorically, to evoke the legendary past of Messenia by mimicking an older form of burial. As a result of the fieldwork of PRAP, we can be certain for the first time that some sites like Tsouka were not closely associated with adjacent settlements, but a natural eminence like Tsouka may have served as the natural functional equivalent of a manmade tumulus or tholos, being located in a prominent position and obvious to travelers and to farmers as they worked their fields.

Finally, the fate that has befallen the site of Tsouka since it was first described by UMME emphasizes the urgent need for fieldwork. Müller has written: "En effet, la structure même

[436] Scarcely two weeks after completing our studies at Tsouka, we returned on August 8, 1993, to find that the entire outer mound had been leveled by a bulldozer, leaving only the inner cylinder with its geographic marker intact.

[437] McDonald and Hope Simpson 1961, p. 240.

[438] The so-called "Grave Circle" immediately southwest of the Palace of Nestor should probably be added to the list.

d'un tumulus le condamne soit à disparaître du paysage à plus ou moins long terme, selon la vitesse d'érosion ou de sédimentation et l'intensité des travaux agricoles, soit à subir les assauts des fouilleurs clandestins." To this sentiment we can only add our full agreement. Each and every monumental, or otherwise prominent, burial in the Messenian landscape is a valuable element or a potentially valuable element in a pattern of past mortuary behavior. The destruction of any is an irretrievable loss to prehistory.

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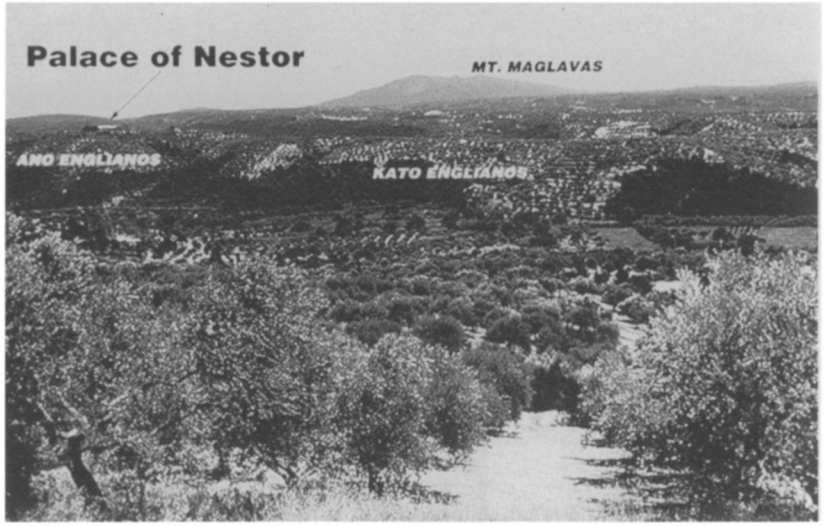
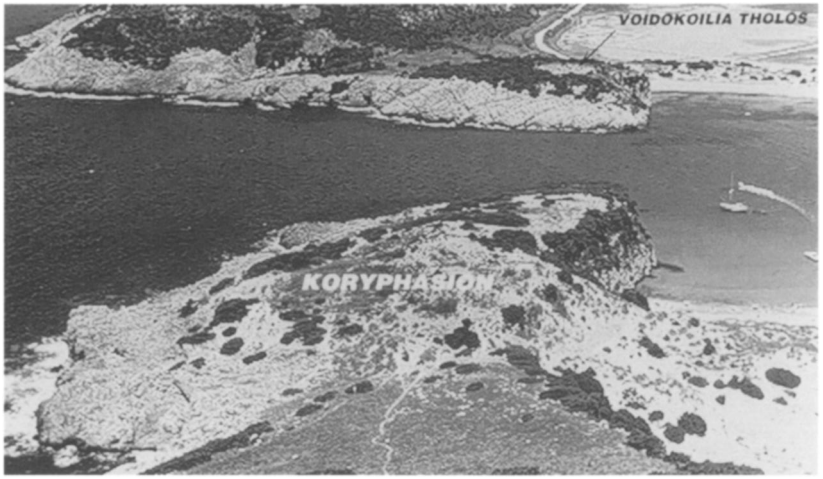
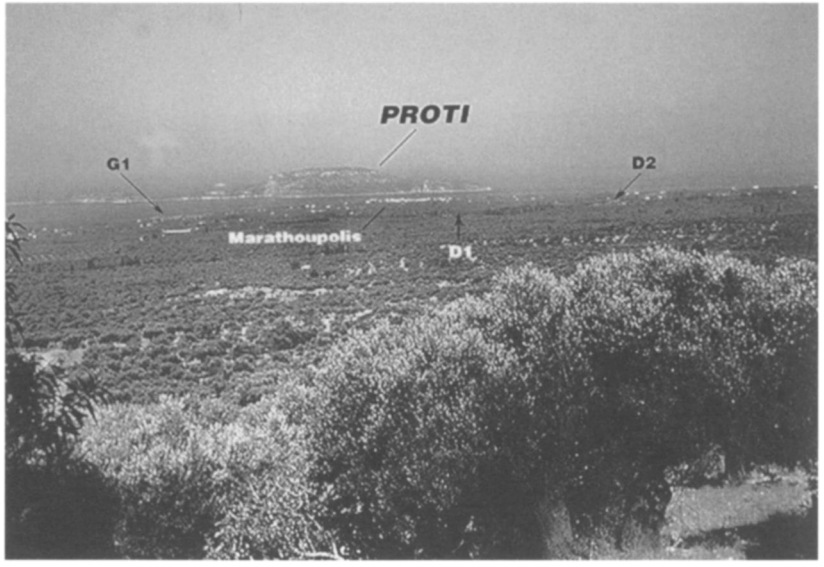


a. The Englianos Ridge, Lower (Kato) and Upper (Ano), from the northwest

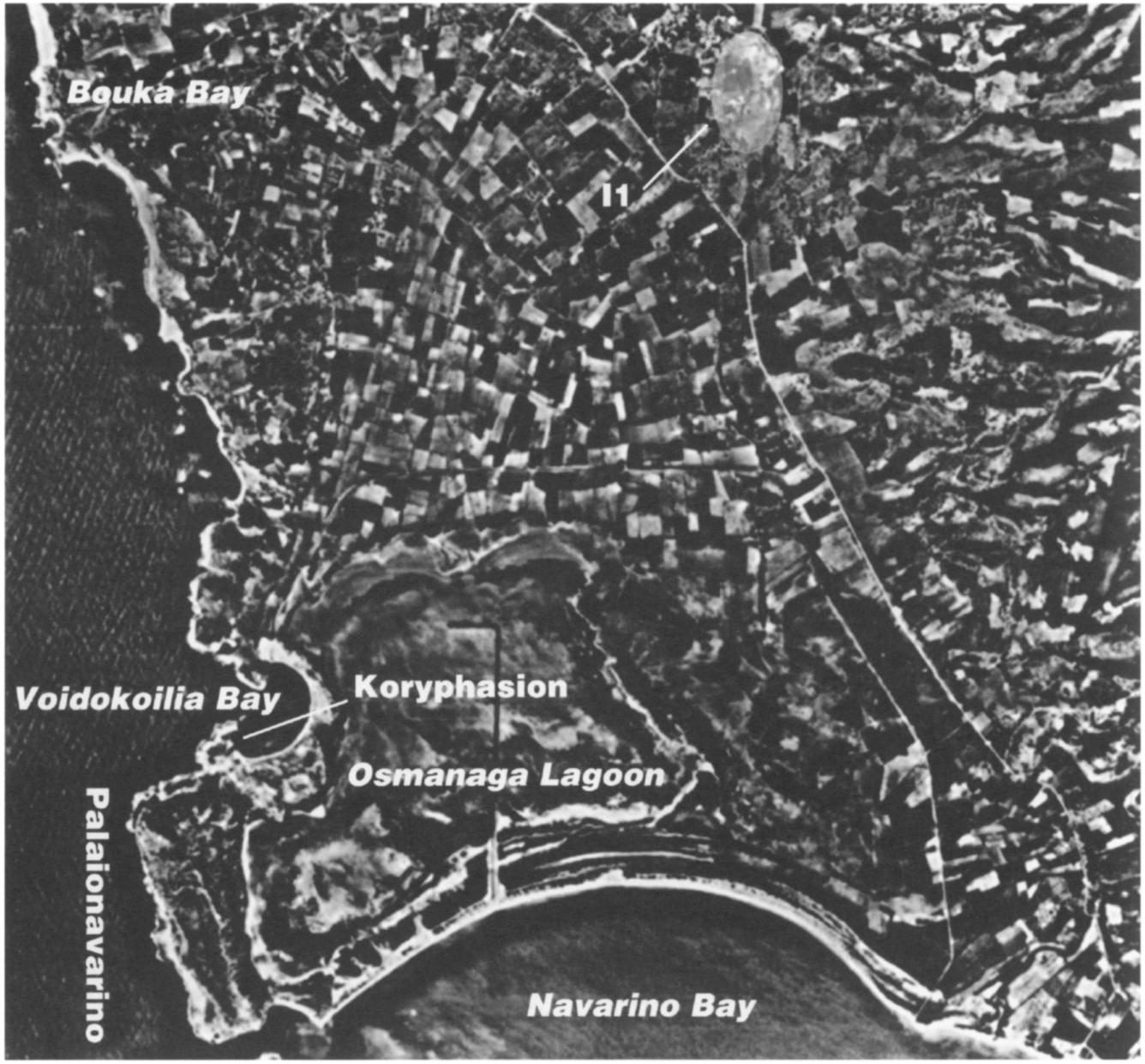


b. Ancient Koryphasion, the bay of Voidokoilia, and the Voidokoilia tholos, from the south

c. Kalopsana (POSI A2) and the valley of Metaxada, from the northeast

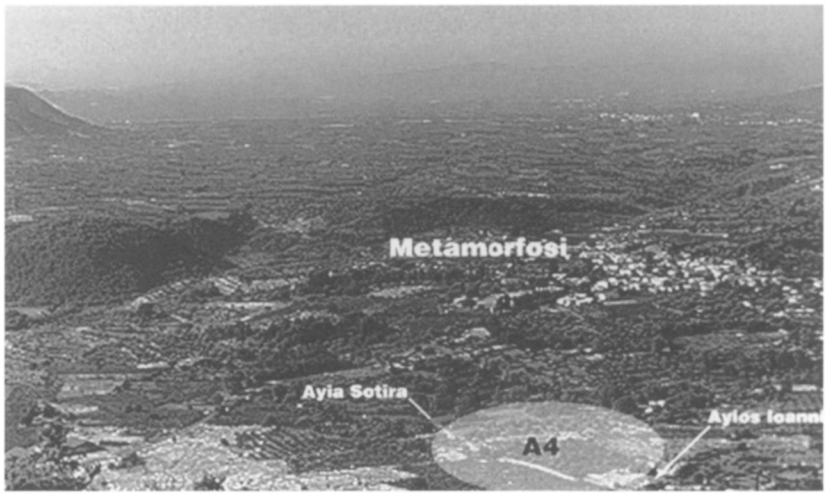


d. The island of Proti and the coast of western Messenia near Marathoupolis, including the sites of Gargaliani *Kanalos* (POSI D1), Gargaliani *Megas Kambos (1)* (POSI D2), and Marathoupolis *Dialiskari* (POSI G1), from the southeast

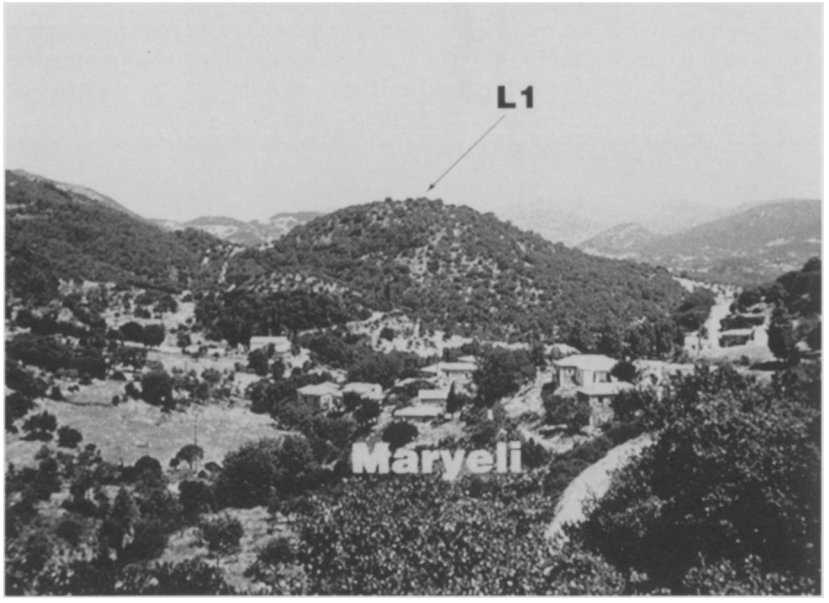


Detail of UMME air photograph showing the site of Beylerbey (POSI I1) in the upper right corner

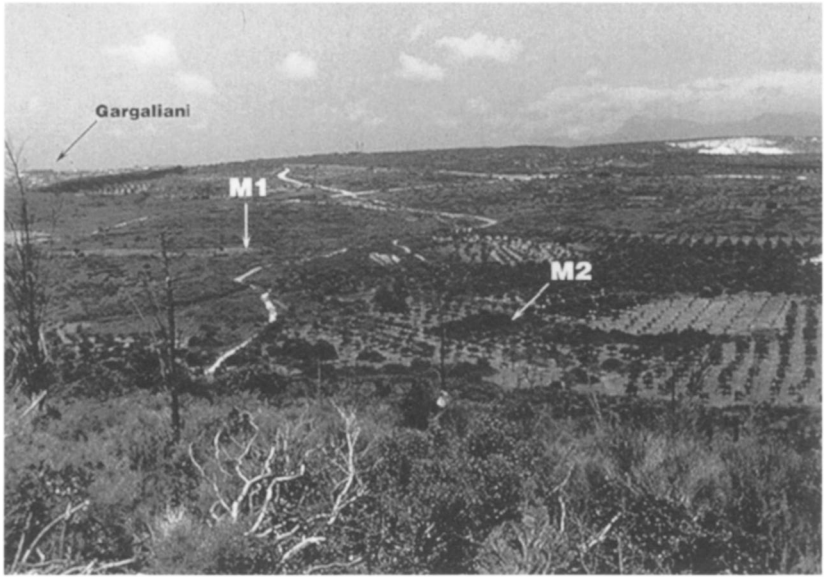
a. The acropolis of Gargaliani *Kanalos* (POSI D1) from the north, including (center) part of the so-called Cyclopean wall



b. The site of Metamorfosi *Skarminga* (POSI A4) near the village of Metamorfosi, from the northeast



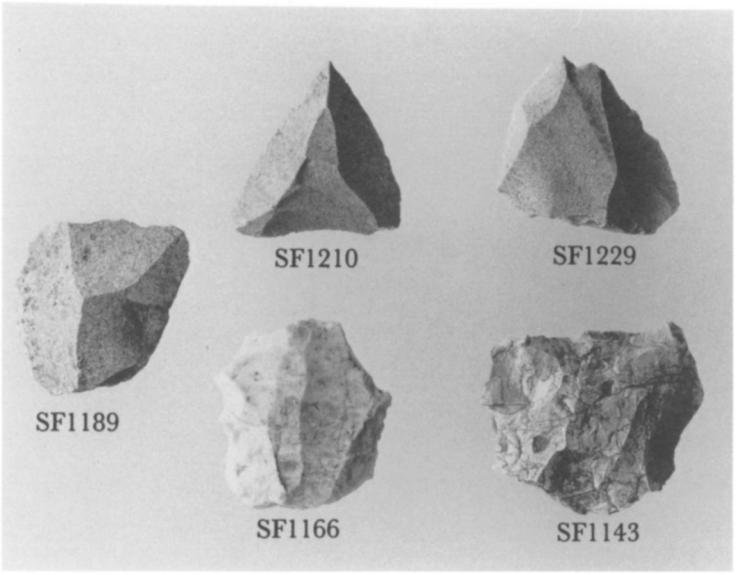
c. The village of Maryeli and the site of Koutsouveri (POSI L1)



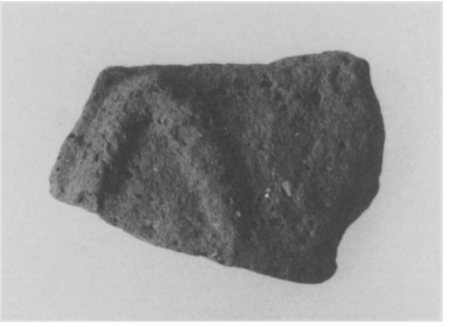
d. Uplands between Gargaliani and Lefki, from the west, showing the sites of Gargaliani *Kalantina (1)* (POSI M1) and Gargaliani *Kalantina (2)* (POSI M2)

a. The island of Proti, the coast north of Marathoupolis, and the site of Gargaliani *Ordines* (POSI K1) at the mouth of the Langouvardos gorge

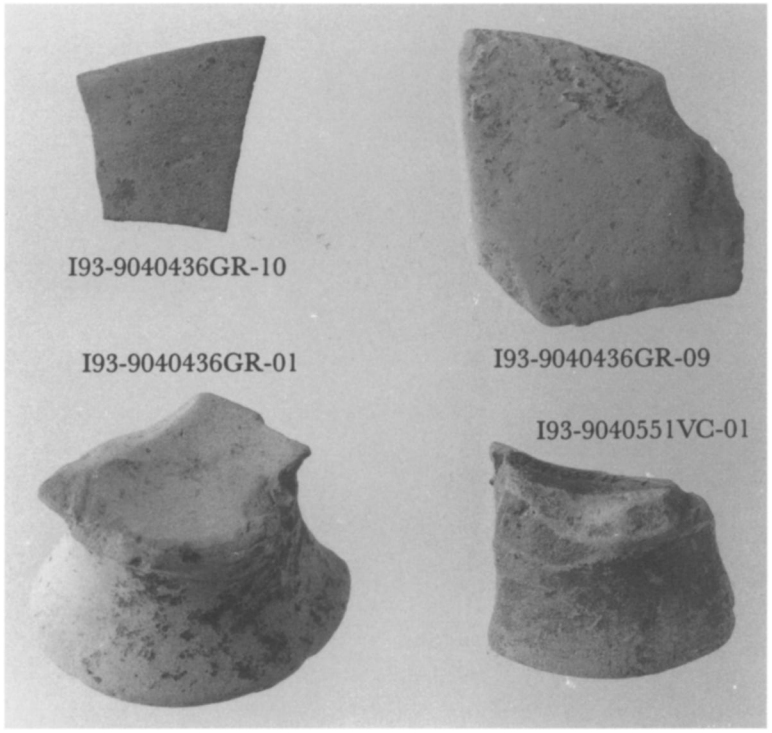
c. The Palaeolithic site at Vromoneri *Vergina Rema* (POSI I28)



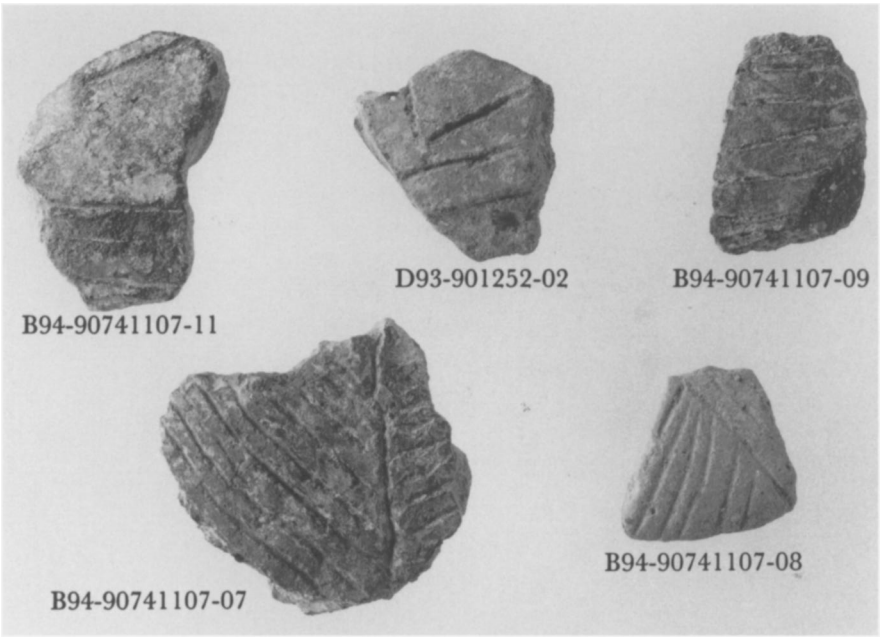
b. Middle Palaeolithic chipped stone from Vromoneri *Vergina Rema*: SF1210 (Levallois point); SF1229 and SF1143 (Levallois flakes); SF1166 and SF1189 (not in Levallois technique). Scale 2:3



d. Possible EH II sauceboat rim from Vromoneri *Nozaina* (POSI I20): I93-920111-09



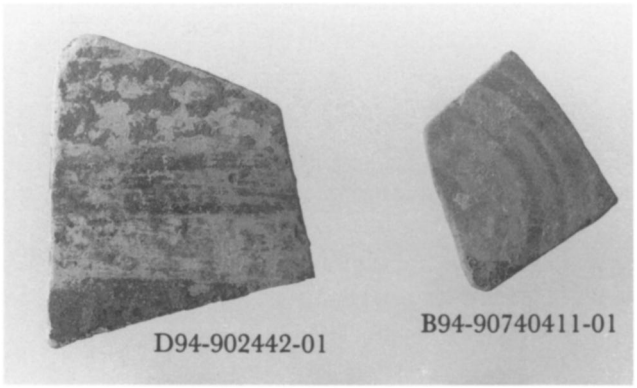
a. EH II pottery from Romanou *Romanou* (POSI I4)



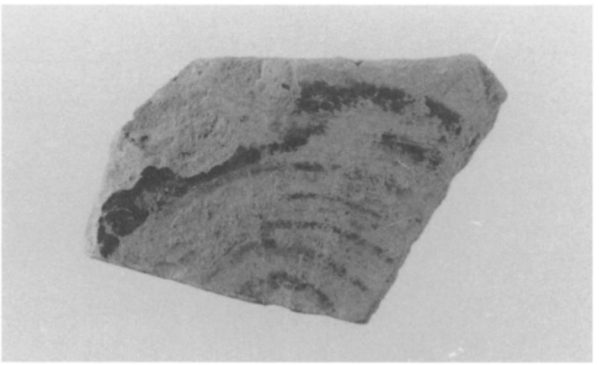
b. MH incised sherds. Scale 2:3

c. EH handle from Gargaliani *Ordines* (POSI K1): K94-901452-04

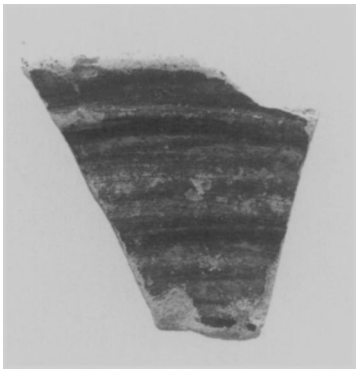
d. Possible spinning bowl from Maryeli *Koutsouveri* (POSI L1): L94-9012664-01



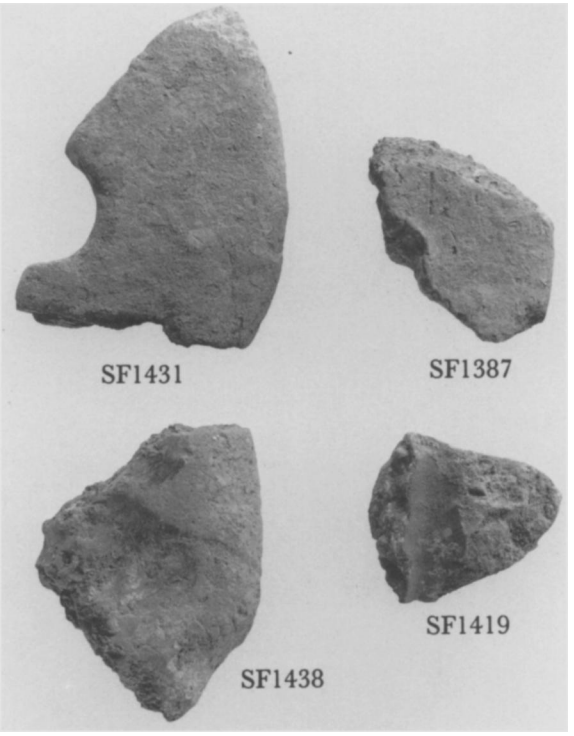
a. Geometric sherds



b. Submycenaean–Protogeometric sherd from Hora *The Palace of Nestor* (POSI B7): B94-90740708-01



c. Geometric–Archaic bowl rim from Gargaliani *Kalantina (2)* (POSI M2): M94-236-01



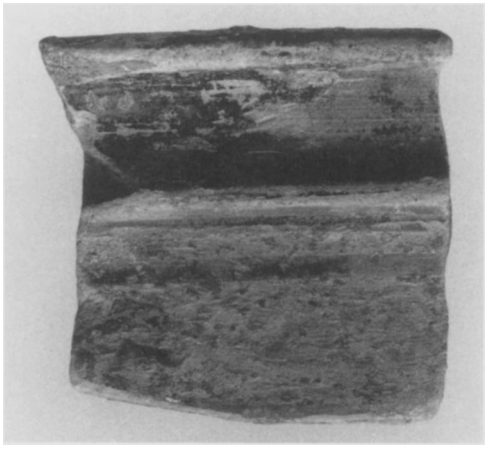
d. Loomweights from Hora *The Palace of Nestor* (POSI B7)

e. Early Helladic–Middle Helladic shaft-hole hammer axe from Gargaliani *Megas Kambos (1)* (POSI D2): SF1394

f. Mycenaean sealstone from Koryfasio *Beylerbey* (POSI I1): SF0091

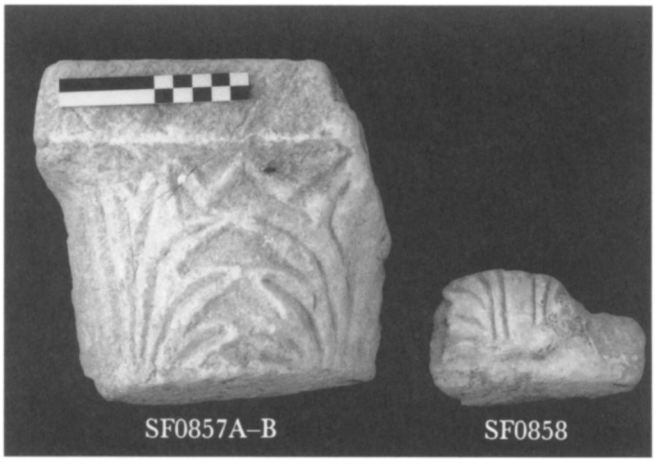
a. Mycenaean figurine from Hora *The Palace of Nestor* (POSI B7): SF1434

b. Mycenaean painted plaster from Hora *The Palace of Nestor* (POSI B7), from B94-97040317

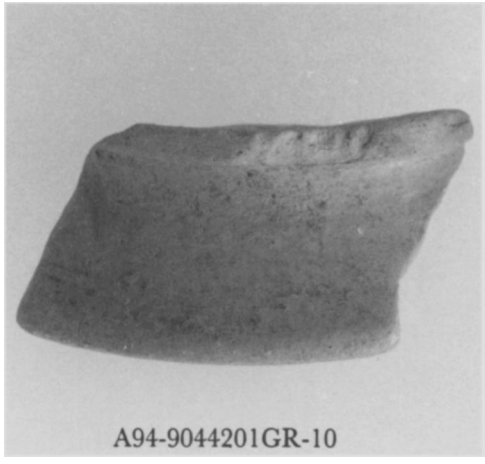


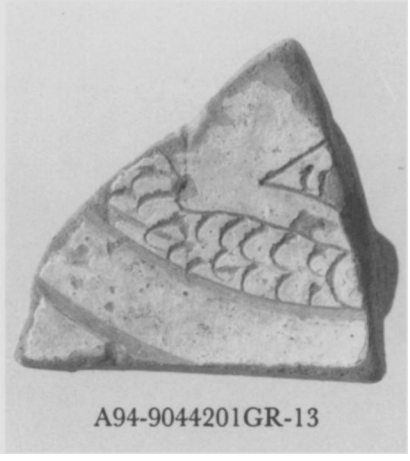
c. Romanou *Romanou* (POSI I4), Dark Age krater rim: I93-9040441GR-01

d. Romanou *Romanou* (POSI I4), bronze antoninianus of Aurelian: SF0029



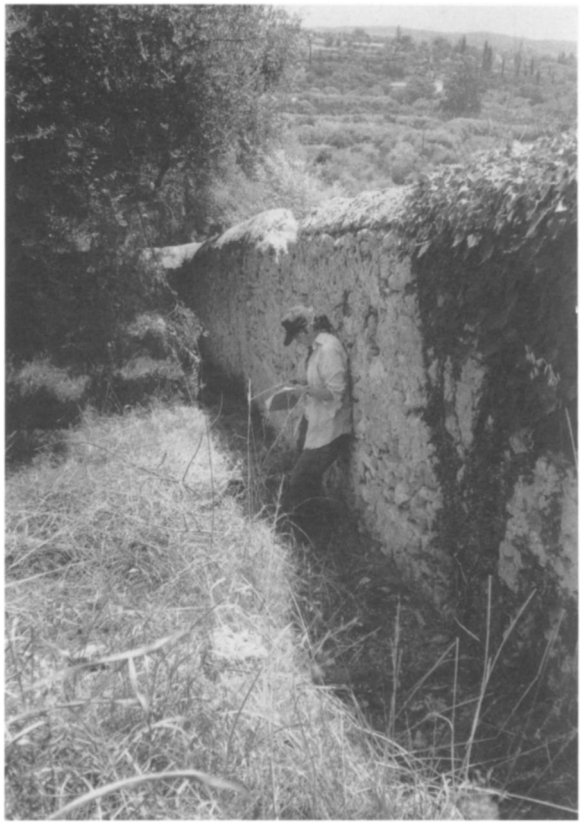
e. Marathoupolis *Dialiskari* (POSI G1), limestone column capitals with "spiky acanthus" decoration





f. Metamorfosi *Skarminga* (POSI A4), Byzantine sgraffito ware

g. Metamorfosi *Skarminga* (POSI A4), body fragment of a globular vessel: A94-9042551GR-01



a. Tragana *Hasanaga* (POSI C4), looking southeast toward modern Koryfasio: compound wall with beveled molding

b. Pyrgaki *Tsouka* (POSI I19), after bulldozing in 1993

c. UMME photograph of Koukouyera (*AJA* 65, 1961, pl. 78:b; courtesy of the Archaeological Institute of America and R. Hope Simpson)

d. Koukouyera in 1991