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LASITHI

A HISTORY OF SETTLEMENT ON A HIGHLAND PLAIN IN CRETE

BY

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Εἰς τὸν λαὸν Ἁγιόύ Γεωργίου, Λασιθίου
and for Harriet

PREFACE

It is a pleasure to acknowledge the help and advice which have made this study possible. In 1973 I began this project with the encouragement of the American School of Classical Studies at Athens in the form of the Eugene Vanderpool Fellowship. In Crete, the cooperation of the officials of the Greek Archaeological Service, namely Drs. Costas Davaras, Stylianos Alexiou, and Angeliki Lembessi, helped me to carry out the field work and museum study at Herakleion and Agios Nikolaos which form the basis of this study. Mercy Seiradaki (née Money-Coutts) has been a special source of information on J. D. S. Pendlebury's excavations in Lasithi. The British School of Archaeology at Athens has generously allowed me to examine the unpublished material from the Lasithi excavations. In Lasithi the work was shared by Abigail Camp, who drew the profiles and maps (Figs. 1–4, Maps 4–14), Allaire Brumfield, David Walton, David Callahan, Gail Johnston, and Kay Lukens.

This study was the subject of my dissertation for the Department of Classical Archaeology at the University of Pennsylvania. At Pennsylvania, Professors Keith DeVries, who supervised the work, Rodney S. Young, G. Roger Edwards, and James D. Muhly gave me much helpful advice. From the beginning, Professor Michael H. Jameson has stimulated me to study the archaeological remains from a wide historical and cultural perspective.

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Finally, I must thank my friends in the village of Agios Georgios, Lasithi for their generosity and spirit.

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ABBREVIATIONS AND SELECTED BIBLIOGRAPHY

D. = diameter
EM = Early Minoan
H. = height
LM = Late Minoan
LN = Late Neolithic
m. = meter(s)
max. = maximum
MM = Middle Minoan
pres. = preserved
Th. = thickness
W. = width

AJA = *American Journal of Archaeology*

Ann = *Annuario della R. Scuola Archeologia di Atene*

A. of C. = J. D. S. Pendlebury, *The Archaeology of Crete*, London 1939

"Arkades" = D. Levi, "Arkades, una città cretese all' alba della civiltà ellenica," *Ann* 10–12, 1927–29 [1931], pp. 1–710

BCH = *Bulletin de correspondance hellénique*

BICS = *Bulletin of the Institute of Classical Studies of the University of London*

BSA = *Annual of the British School at Athens*

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ILN = *The Illustrated London News*

JHS = *Journal of Hellenic Studies*

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ΚρητΧρον = Κρητικὰ Χρονικά

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GLOSSARY

Asches, ἀσχές. Sewn goatskin sacks, used in Lasithi for carrying liquid by pack animal.

Boudée. During Venetian rule, the amount of land which could be sown by 30–35 *mouzouria* of grain.

Chamolaia, χαμολαία. *Daphne oleoides.* An aromatic plant.

Chonos, χῶνος. A karstic sinkhole. On the Mainland, a *katabothros*.

Dichtamo, δίχταμο. *Origanum dictamnus.* An aromatic herb found on the mountains of Crete, used to make tea which is said to have medicinal properties. See E. Phrangaki, Συμβολὴ εἰς τὴν δημώδη ὁρολογίαν τῶν φυτῶν, Athens 1969.

Ducat. Here, a Venetian gold coin.

Gazette. A Byzantine coin worth two *soldi*. See Spanakis, p. 142, note 366.

Gerani, γερανί. A wooden lever with a counterweight used to lift water in a pail from a well. The Near Eastern *shaduf* (Pl. 9:a).

Gourna, γούρνα. A stone basin.

Hyperper, ὑπέρπυραν. A Byzantine gold coin.

Kalderimi, καλδερίμι. A cobbled road.

Kampos, κάμπος. In Lasithi, the flat land of the central plain.

Langada, λαγκάδα. The name in Lasithi for the Aposelemis River valley which runs northward from the Diktaian range to the coast.

Limne, λίμνη. The westernmost part of the Lasithi plain, which is subject to severe flooding during the winter.

Linies, λίνιες. The Venetian canals in the plain, dug to drain the standing water from the fields.

Mandra, μάνδρα. A sheepfold or corral, constructed of stones and brush.

Metochi, μετόχι. In Crete, a building and land some distance away from one's village. A temporary structure used seasonally for sheepherding and farming. A rural farmstead.

Mouzouri, μουζούρι. A Venetian measure of wheat, equal to 16 *okades*, taken in a standard copper container. The area of land which could be sown by this amount of grain.

Oka (*okades*), ὀκά. 1.25 kilos.

Pediada, πεδιάδα. The plain in central Crete between the Diktaian and the Idaian mountain ranges.

Peripheria, περιφέρεια. A region, specifically the area around a village, which is owned and used by the villagers.

Prinari, πρινάρι. *Quercus ilex.* Holm oak.

Rizovounes (*rizes*), ῥιζοβουνές (ῥίζες). The foothills around the edge of the Lasithi plain.

Sideropetra, σιδερόπετρα. The gray limestone of Crete.

Sirica. Erysiphe graminis, or *oidium moniloides*. A wheat disease. See P. Tennadiou, Λεξικὸν φυτολογικόν, Athens 1914, p. 314; Spanakis, p. 133, note 282.
Stara. A Venetian measure of capacity, weighing 83.3 kilos, used for wheat.
Vouna, βουνά. The high peaks of the Diktaian range.
Xerokampos, ξηρόκαμπος. The rocky, dry, eastern part of the Lasithi plain.

The reader is referred to the following glossaries for additional words:
B. Kornarou, Ἐρωτοκριτός, Ἔκδοσεις Δορικός, Athens 1973, with a glossary by S. Xanthoudidou, pp. 477–744.
J. D. S. Pendlebury, *The Archaeology of Crete*, London 1939, pp. 33–34.

A NOTE ON THE TRANSLITERATION OF MODERN GREEK

Modern Greek spellings have been transliterated according to the following convention, with exceptions as noted:

β = v	κ = k
γ = g	ξ = x
δ = d	ϕ = ph (except for E*f*endi)
ϵ = e	χ = ch (except for *Kh*avgas)
η = e	

INTRODUCTION

The intent of this study is to document and discuss the history of ancient settlement on the Plain of Lasithi in Crete. This area was chosen because it was geographically well defined, and well known archaeologically, and thus could be intensively surveyed with a thoroughness that would permit us to examine certain economic and historical aspects of ancient settlement on the plain.

In an effort to interpret the archaeological record of the area I have drawn upon environmental, historical, and ethnographic sources.[1] Chapter I describes the natural environment of Lasithi. Because the plain is located high in the Diktaian mountain range, the life of the villagers there follows a basic seasonal pattern which I assume to have changed little since antiquity. The core of this study is Chapter II, in which the archaeological evidence and settlement patterns in Lasithi from the Neolithic through the Late Roman period are discussed. Two basic questions are asked: How did the ancient inhabitants in Lasithi live? And what is the historical meaning in the successive transformations of the settlement patterns on the plain? Chapter III documents the exploitation of the plain by the Venetians as a source of grain in the 15th and 16th centuries. Chapter IV, drawing on the descriptions of Lasithi by the early travelers and the older villagers living in the plain today, gives an account of the area before the introduction of mechanization early in this century. This chapter describes the economic relations of Lasithi with other parts of Crete in the 19th and early 20th centuries. Both Chapters III and IV provide historical insights which may be of help in understanding Lasithi, in particular during the Late Minoan period.

In the past, most archaeologists in Crete have concentrated their efforts on the populous coastal centers. This study affords a different view. Crete is an island of mountains, and it will be apparent that the civilized centers which grew up along the coasts of the island had their roots in these mountains, in upland areas such as Lasithi. Furthermore, the changing patterns of settlement on this plain serve as an indication of the course of ancient civilization on the island as a whole.

The Survey

In 1973, an intensive survey of Lasithi was undertaken during the months of June through September. The survey was carried out by a group of three or four persons who walked, at intervals of ten to thirty meters apart, over the land. The periphery of the plain and all the slopes to a height of 200 m. above the surface of the plain were covered in this manner. The middle of the plain was traversed at various points until we were satisfied that there were no traces of ancient settlement on the plain, with the exception of two Late Roman sites (see below, and Map 14).

[1]Transliterated terms appearing in italics in the text are defined in the Glossary.

The archaeological sites in Lasithi produced potsherds, stone artifacts, traces of ancient walls, or a combination of all of these. During the survey our first step on discovering a site was to ascertain its extent. The size of each as given in Chaper VI is based on a visual estimate of the area heavily littered with sherds or other artifacts. Basic information about the site (toponym, location, description, size, elevation, vegetation, water source, soil type, cultivation, ancient features, and the date and type of artifacts) was recorded in a field notebook. Our procedure for sherding a site was to walk over its entire area, looking for the diagnostic shapes and features (see Chapter VII) of each time period until we felt that we had defined the chronological range of the site. Several of the larger sites were revisited repeatedly to search for traces of specific periods of occupation. The surrounding landscape and location of a site often suggested that certain specific activities might have been carried out there. These interpretations are recorded in Chapter VI. The work of drawing, photographing, and describing the collected artifacts took place on the site itself. Finally, at intervals, a guard from the Archaeological Museum at Agios Nikolaos and I picked up the material from the sites and transported it to Agios Nikolaos for storage in the museum.[2]

It is appropriate at this point to assess the completeness of our findings. Some of the sites may have been inhabited for a longer period of time than that indicated in Chapter VI, as ceramic evidence of a certain time period can, on occasion, be missed or go unrecognized during a survey. I believe, however, that no major settlements in Lasithi are absent from the catalogue in Chapter VI.

One might ask, however, whether ancient sites along the edge of the plain have been covered over by a heavy build-up of soil, or by the modern villages. The extent of such soil build-up in Lasithi since Minoan times is visible at two points at the base of the mountain slopes. Within the village of Kaminaki (Pl. 11:a) LM I sherds from the site of Agia Paraskevi (61) were discovered at a depth of 1.50 m. below the present ground level. At Platellais (22) the road cutting through the site shows walls and MM III–LM I sherds at a depth of 0.60 m. below the present surface of the ground (Pl. 17:a). Thus the possibility exists that around the base of the mountains evidence of some sites may have been covered over, but it should be noted that at both the sites described above sherds were also visible on the surface.

The possibility of settlement in the middle of the plain may be discounted. We know that during the Venetian and Turkish periods (Chapters III, IV) the floor of the plain was uninhabitable because of severe natural flooding. There is no reason to sup-

[2]The pottery from the earlier excavations and the survey in Lasithi is located in the following museums: Archaeological Museum in Herakleion, from sites 5, 6, 9, 11, 69(?); Stratigraphical Museum at Knossos, from sites 4, 5, 10, 32; Archaeological Museum at Agios Nikolaos, from sites 1, 3, 15, 18, 19, 20, 21, 22, 25, 27, 37, 42, 43, 44, 46, 49, 50, 51, 53, 54, 61, 62, 64, 70, 71. Sherds from the remaining sites were not picked up owing to the termination of the survey permit.

The number in parentheses which follows each site name in the text, e.g. Psychro Cave (66), is the catalogue number assigned to that site during the survey of the plain, following a pattern already established by Pendlebury. This number appears on the period maps (Maps 4–15) at the location of the particular site.

pose that in this respect Lasithi was any different in antiquity (see Chapter I). Furthermore, settlements were generally absent around the northwest portion of the plain both in ancient times and in the Venetian period (Map 15), which suggests that flooding conditions had not changed significantly through time.

Earlier Archaeological Exploration

The Plain of Lasithi first aroused the interest of archaeologists late in the 19th century. Drawn by finds from the cave (66; Pl. 11:b) above the village of Psychro, the archaeologists J. Hazzidakis, President of the Syllogos at Candia (now the Archaeological Museum at Herakleion), and F. Halbherr, an Italian scholar, conducted a small excavation at the cave in 1886.[3] Eight years later, in 1894, Arthur Evans and A. Taramelli visited and described Lasithi on separate occasions.[4] In 1896, Evans revisited Lasithi. At the site of Papoura (4) he noted terracotta cult figurines and a tholos tomb. From there he journeyed to the site of Karphi (5; Pl. 14:a) where he excavated several tombs below the settlement. Continuing along the north side of the plain, he climbed to the hilltop site of Kastellos (12; Pl. 12). He dug at the nearby cave of Trapeza (11) where he found various votives, including a fragment of a miniature gold double ax. In that same year, Evans also excavated in the Psychro Cave (66).[5] The cave was eventually the site of large-scale excavations in 1899 under D. Hogarth.[6]

In the spring of 1914, Richard Dawkins excavated at the site of Kato Kephali (69; Pl. 10:a) near the village of Plati. He revealed a part of a large LM I settlement which had also been occupied in the LM III and Archaic periods.[7]

Following a visit to Lasithi in 1935, John Pendlebury decided to carry out a program of excavations at different sites in the area in order "to ascertain the distribution of antiquities in this (northern) part of the district of Lasithi."[8] During the years 1936–1939, Pendlebury directed large-scale excavations at three sites and trials at seven others in the vicinity of the village of Tzermiado. In a systematic manner, he first dug at the Neolithic–Middle Minoan cave of Trapeza (11) in 1936, then in the following year at the EM II–MM III settlement of Kastellos (12), and finally at the LM IIIC settlement of Karphi (5) in 1938/1939.[9] Trial excavations were conducted in several small caves, at the Geometric settlement of Agios Georgios Papoura (4), at an Archaic site at Donades (6), and at the Archaic–Hellenistic sites at Kolonna (8) and Kerasa (9).[10]

[3]F. Halbherr and P. Orsi, "Scoperte nell' antro di Psychro," *Museo de Antichità Classica* 2, 1888, pp. 905–910.

[4]Evans' description is in the newspaper *The Academy*, of June 13 and 20 and July 4 and 18; Taramelli, "Ricerche archeologiche cretesi," cols. 402–408.

[5]"Further Discoveries of Cretan and Aegean Script," *JHS* 17, 1897, pp. 305–357.

[6]Hogarth, "The Dictaean Cave."

[7]Dawkins, "Excavations at Pláti in Lasithi, Crete."

[8]"Karphi," p. 57.

[9]"Trapeza"; "Kastellos"; "Karphi."

[10]For bibliography on these excavations, see sites nos. 11, 4, 6, 8, and 9, respectively, in the Catalogue of Sites (Chapter VI). These sites will be published by the author in "J. D. S. Pendlebury's Excavations on the Plain of Lasithi. IV. The Iron Age Sites," *BSA* 75, 1980 (in press).

In conjunction with the excavations, a partial survey of the plain was undertaken.[11] By 1939, Pendlebury had excavated sites with occupations dating from the Neolithic through Hellenistic periods, with the exception of Late Minoan I. He uncovered a range of archaeological sites in Lasithi so as to follow the course of settlement within the area. This interest is apparent in an article, "Lasithi in Ancient Times," in *BSA* 37, 1936/37, pp. 194–200, which gives a summary history of the plain in antiquity. In 1938, he had decided to begin excavations at Papoura, when World War II, in which he was killed, cut short his work. This study is an attempt to carry out his intention.

[11]See "Trapeza," pp. 9–13; "Kastellos," pp. 1–2.

I

THE PLAIN OF LASITHI

On the island of Crete, the upland plain of Lasithi is located within the Diktaian mountain range, about 45 kilometers southeast of Herakleion (Map 1). From the dry north coast of the island one reaches Lasithi by turning southward at Chersonesos, into the Aposelemis River valley (Map 2) which penetrates 12 kilometers into the mountainous center of the island. The dusty villages of Potamies, Avdou, and Gonies are strung along the valley in a landscape of olive trees (Pl. 2:a). Reaching the base of the Diktaian mountains, one begins to climb the foothills. At the village of Mochos (elev. +400 m.) one passes the first of several small plateaus. Olives, grain, grapes, and currants are dry farmed on the Mochos plateau.

One continues to climb into an increasingly rocky landscape of limestone covered with scrub of *prinari*, broom, and thyme. At an elevation of +620 m., one reaches the village of Krasi, located on a second plateau planted in olives and wheat. Situated at the site of a mountain spring, the village is shaded with large plane and walnut trees. As one nears the monastery and village of Panagia Kera (elev. +660 m.) one comes upon the sound of running water from springs high above the village. The monastery is surrounded by green gardens, cypress, pear, and almond trees.

Above Kera, the last line of olive trees is left behind. The air is cool, and the mountainside is now a steep scree covered with patches of deep green *prinari* and yellow broom. Finally, coming over the pass at Selli, one catches sight of Lasithi (Pl. 3).

Lasithi is an oval-shaped plain surrounded by mountains (Pl. 4). The surface of the plain measures 11 km. east-west and 6 km. north-south.[1] It is covered with fields of grain and plots of vegetables such as potatoes and cabbage, which are irrigated by means of thousands of windmills. At a median elevation of +840 m., the plain is divided into two areas by a limestone hill called Kephala. The larger area on the west is known as the *Kampos*, while the drier, rocky portion to the east is called the *Xerokampos* (Map 3). A river, the Megalos Potamos, enters Lasithi from the Khavgas gorge (Pl. 6:a) in the southeast corner, runs across the plain, and drains at the western end into a large natural sinkhole known as the *Chonos* (Pl. 5:a). The water reappears outside the mountains ringing Lasithi at the western base of the Diktaian range, near the ancient city of Lyttos (Map 2).

Mountains encircle Lasithi on all sides. On the south the Diktaian range rises over the plain to an altitude of 2,148 m. On the east, Mt. Aloïda closes the gap between Dikte and a lower mountain chain which runs along the northern edge of the plain. On

[1]The *Kampos* of Lasithi including the *Xerokampos* and smaller side valleys is given as 110–120 sq. km. in N. Stavrakis, Στατιστικὴ τοῦ Πληθυσμοῦ τῆς Κρήτης, Athens 1890, p. 37.

the west, a spur of the Diktaian range completes the circuit. These mountains define the geographical borders of Lasithi. They do not, however, totally isolate the inhabitants of the plain from the rest of Crete. Perhaps the primary lesson to be learned from this study is that distance and mountainous terrain are not the barriers that they appear to be. Throughout the year the villagers in Lasithi make constant trips higher into the mountains and down to land on the coast for festivals, sheepherding activities, and crop harvests (see Chapter IV).

All the villages in Lasithi are connected with the outside world by mountain paths and roads. On the north, the modern road from Herakleion enters at the saddle known as Selli (Map 3). Another newly paved road leaves the plain from the northeast corner and winds some 40 kilometers along mountain valleys down to Agios Nikolaos on the Gulf of Mirabello. The south coast of the island is reached by longer paths through the Diktaian range. In addition to the entrance at Selli, another natural pass is located at the northwest corner of Lasithi, at Tsouli *to* Mnema (Pl. 7:a). There, a *kalderimi* takes one to the central part of the island in less than three hours' walk. Thus Lasithi is scarcely a day's walk from coastal centers at Herakleion (Knossos), Mallia, and Hierapetra (Hierapytna).

There are a number of smaller plains set around the edge of Lasithi. The largest of these is Katharo (elev. +1,200 m.) which is joined to Lasithi by the Khavgas gorge (Pl. 6:a). From the slopes of Mt. Dikte rainfall and melting snow collect in Katharo and empty into Lasithi through this gorge. Another plain, Limnarkaro (elev. +1,100–1,200 m.), is located south of the village of Agios Georgios (Pl. 4). Many smaller plains and valleys can also be found in the mountains behind other villages.

Lasithi is the only area in Crete over 800 meters in elevation which is permanently settled all year round. The present-day villages, located along the base of the mountains (Map 3), are connected by an asphalt road which enters Lasithi from the north, at Selli, and runs clockwise around the edge of the plain. Following the road from the north, the 16 villages are Pinakiano, Lagou, Tzermiado, Marmaketo, Mesa Lasithi, Mesa Lasithaki, Agios Konstantinos, Agios Georgios, Koudoumalia, Avrakontes, Kaminaki, Magoula, Psychro, Plati, Agios Charalambos, and Kato Metochi. According to the government census of 1971, these villages had a total population of 5,229.[2]

Geology

The mountains surrounding Lasithi are composed of gray limestone, known locally as *sideropetra*. The mountain limestone rests upon a stratum of schist, which protrudes from the lower slopes around the edge of the plain in the area between Tzermiado and Marmaketo, at Mesa Lasithi and Mesa Lasithaki, and between Agios Georgios and Kaminaki. Rain water sinks into the porous limestone mass of the mountains to the impermeable layers of schist. In the areas where the schist is exposed the water seeps out in the form of springs. The modern villages, like the ancient settlements, tend to be located in these areas.

[2]These figures are from the Ἐθνικὴ καὶ Στατιστικὴ Ὑπηρεσία τῆς Ἑλλάδος.

In geological terms Lasithi is a karstic basin.[3] The plain consists of a red-brown Quaternary alluvium which has been formed by the dissolution of the mountain limestone. This soil washed down from the mountainsides in the Pleistocene and Holocene eras, and created the plain and surrounding foothills.[4] Borings into the plain indicate that the depth of the alluvium is from 30 to 70 m. The hypothesis of Hogarth in 1899[5] that Lasithi had at one time been a lake is disproved by the geological formation of the alluvium.[6]

The surface of the plain slopes gradually from east to west, and also from south to north, so that the elevation of the plain at the Khavgas gorge is +870 m. and at the *Chonos*, 11 kilometers to the northwest, +814 m. Water in Lasithi is presently available from wells on the *Kampos*, from springs along the slopes, and on the *Xerokampos* from deep wells and cisterns built in the Venetian period.

Climate

Because Lasithi is over 800 meters above sea level it enjoys a climate which is distinctly non-Mediterranean. Summer temperatures are cool by Greek standards, averaging 20° to 30° C. Winters are cold, ranging from 5° to 10° C. Lasithi receives an annual average of 0.38 m. of snow which often blankets the plain for up to a week at a time.[7] The area receives an abundant rainfall (averaging 1.15 m. per year) which occurs mainly between the months of October and February. One can appreciate the richness of Lasithi by contrasting it with the town and district of Hierapetra on the south coast of Crete (Map 1), which receives 0.53 m. of rain annually.[8]

Vegetation and Land Use

The land available for use in Lasithi can be divided into three zones: the mountains, the foothills, and the plain.

Large tracts of land in the mountains surrounding Lasithi consist of bare rock face, scree, and thin layers of rocky red soil with a low cover of plants characteristic of a garigue landscape: broom, thistles of various types (*agkathia*), and many varieties of aromatic plants, including *chamolaia*, thyme, and *dichtamo* (an herb native to the Diktaian range and elsewhere in Crete). Occasional low oak trees (*prinaria*) appear on the margins of this landscape. Seasonal flowers such as the mountain crocus (*Crocus sieberi var. sieberi*) occur as well.[9] This area is used primarily for sheepherding. Because of the

[3]The principal geological study of Lasithi is that of P. Psarianos in "Καρστικὰ φαινόμενα τῆς Ἑλλάδος," on which my account is based.

[4]Cf. H. and M. Van Effenterre, *Mallia, site et nécropoles*, pp. 18–19 and pl. 1.

[5]Hogarth, "The Dictaean Cave," p. 95.

[6]Psarianos, "Καρστικὰ φαινόμενα τῆς Ἑλλάδος," pp. 106–107.

[7]These figures, based on records kept for the years 1968–1977, were kindly prepared for me by Mr. Emmanouel Belibanis of Agios Georgios, who records the local weather statistics for the Greek Meteorological Service.

[8]M. Wagstaff, "The Physical Geography of the Myrtos Region: A Preliminary Appraisal," Appendix I in *Myrtos*, p. 276.

[9]P. Davies, "The Flowers of Lasithi," *BSA* 38, 1937/38, pp. 146–148.

nature of the landscape, Lasithi supports large herds of sheep and goats, estimated to number about 20,000. [10]

At the base of the mountains there are foothills (Pl. 13), *rizovounes*, which consist of limestone and schist spurs that have a substantial depth of soil. The foothills are covered in places with holm-oak forest and are extensively terraced for the cultivation of wheat, barley, pulses, and grapes. Fruit trees, as well as walnut and almond trees, are part of this landscape. Among the more common fruits grown are apple, plum, pear, and cherry. Within the foothills are small valleys (Pl. 11:a) which are set back from the flat of the plain. These valleys constitute an important part of the agricultural *peripheria* of each village,[11] as they complement the village holdings on the plain. Because the latter is subject to flooding, these well-drained terraced areas are planted with various crops, especially fruits and wheat. In addition, these valleys are good grazing areas.

On the plain itself the soil may be silty, sandy, or heavy with clay. The soil of the *Kampos* is extremely rich. The fields on the plain are planted in various grains (mainly wheat), legumes, and crops requiring irrigation, such as potatoes and cabbage.

Because of the high elevation at which Lasithi is located, the olive and the carob tree do not grow there. The olive generally does not grow above +600–800 m. in the Mediterranean area.[12] Outside Lasithi (Pl. 14:b) the olive horizon can be seen below the site of Karphi (5). Attempts early in this century to cultivate a small number of trees proved to be unsuccessful, and such efforts were therefore abandoned (see Chapter IV).

The inhabitants of the plain have adapted to the conditions in Lasithi by combining a life of farming with pastoralism. In the spring (March–May), the planting of potatoes, cucumbers, beans, onions, and the grafting of fruit trees begin. Summer (June–August) is the time of the major harvests of wheat, barley, oats, beans, potatoes, and plums. In the fall (August–October), the fruit trees (apples and pears), grapes, and nuts (walnuts and almonds) are harvested. During the months from October to December much of the plowing and sowing for the following year is done. By December the agricultural year in Lasithi is over, for the most part.

With the onset of winter in November, the flocks are driven down to warmer areas. This is necessary because the lambs, newly born in the fall, are not able to survive the cold, and the available grazing lands will soon be covered with snow.

During the winter many of the villagers leave Lasithi for other residences in the lowlands. There they own land, part of which is planted in olives which will be harvested in the winter months. This seasonal move of the villagers serves to complement their subsistence in Lasithi.

[10]Spanakis, "Τὸ Λασίθι, ἄλλοτε καὶ σήμερο," p. 29 and note 54.

[11]Dawkins, "Excavations at Pláti," pp. 3–4.

[12]See F. Pansiot and H. Rebour, *Improvement in Olive Cultivation*, Food and Agricultural Organization of the United Nations, Study 50, Rome 1961, especially pp. 40–44.

II

THE HISTORY OF SETTLEMENT IN ANTIQUITY

The island of Crete was first settled along the coast, at sites such as Knossos and the cave of Gerani near Rethymnon, during the 7th millenium B.C. (Map 1).[1] For a period of over two thousand years these Neolithic communities lived by means of farming, fishing and animal husbandry. Toward the end of the 4th millenium B.C. the inhabitants of Crete began to settle in inland areas of the island.[2] At this time during the Late Neolithic period, new sites, notably caves, were occupied in the mountainous central portion of the island. The foundation of these new sites across Crete has been interpreted as a sign of an expanding population.[3] The first settlement on the Plain of Lasithi occurred during this period and appears to have been part of this island-wide phenomenon.

Late Neolithic–Early Minoan I

The earliest evidence of habitation in Lasithi consists of 15 archaeological sites dated to the Late Neolithic or Early Minoan I periods (Map 4). Two of the sites are caves, and 13 are open settlements. The excavations of the two caves, at Trapeza (11) and Psychro (66), provide us with information as to how these early settlers lived. At Trapeza the inhabitants kept sheep and/or goats, used large clay vessels for cooking and storage, and, as the presence of obsidian blades and marine shells indicates, had some form of contact with the coast.[4] From the habitation level at Psychro the bones of domesticated oxen (or calves), caprines, hogs, piglets, and dogs were recovered.[5]

Thirteen sites of the LN–EM I period were discovered in Lasithi during the survey (Map 4). These sites usually consisted of a small concentration of dark burnished sherds, flakes and blades of obsidian and chert, and ground-stone implements including axes. The type of site favored by these first settlers was a spot high above the plain at the juncture of the soil-covered foothills and the limestone face of the mountains. The site of Katsoucheiroi (71) in Plate 11:b illustrates this preference. Today these sites seem impossibly out of the way, but in that period the foothills would have been wood-

[1] Knossos: Evans, 1964, pp. 137–240; Gerani: Δελτ 25, B′ 2, 1970 [1973], pp. 474–476.

[2] See R. Trevil, "Les sites néolithiques de Crète occidentale," *BCH* 94, 1970, p. 23.

[3] *Bronze Age Migrations in the Aegean*, R. A. Crossland and A. Birchall, edd., Sheffield 1973, pp. 20 and 43. The highland plain of Tripolis in Arkadia, which was already well populated in the Early Neolithic period, offers a notable contrast to settlement in Lasithi; see R. Howell, "A Survey of Eastern Arcadia in Prehistory," *BSA* 65, 1970, pp. 103–108.

[4] "Trapeza," pp. 22–23 and 31–33. Two other small caves near by have yielded LN–EM I sherds: at Argoulia ("Trapeza," pp. 10–11) and Meskine ("Kastellos," p. 6).

[5] W. Boyd-Dawkins, *Man*, November 1902, pp. 162–165.

ed, while the mountain face was probably bare or covered in parts with garigue.[6] Thus the sites would have been at the edge of the timber line, on open land suitable for grazing. Most were also located near one of the natural entrances to Lasithi.[7] The small amount of material accumulation on the surface suggests that these sites were used for short periods of time. Burials from this period are also known, in a rock shelter at Kastellos (12) and a shallow cave at Skaphidia (11).

Why did these early settlers come to Lasithi? The excavation of the Neolithic settlement at Knossos provides us with a suggestion. At Knossos at this time the inhabitants were farmers who kept herds of caprines, cattle, and pigs.[8] During the Late Neolithic period, the size of the site at Knossos increased, probably because of a growth in population.[9] In addition, the stone ax became a popular tool at Knossos during this period.[10] Richard Dawkins, the excavator at Palaikastro in East Crete (Map 1), observed that of the 98 Neolithic stone axes found by the expedition in the general area of that site 89 came from the mountainous region to the south.[11] The distribution of these axes suggests that they may have been used to clear the wooded foothills. In Lasithi, four of the LN–EM I sites produced similar stone axes. It may be conjectured that as a result of a rising population at the coastal sites of the island in the Late Neolithic period, settlers first came to Lasithi and began clearing the land there.

The archaeological evidence from Lasithi tells us something of the way in which the settlers lived. In small groups, these people brought with them herds of sheep and/or goats and settled at the entrances to the plain along good grazing land. It has been observed that at Late Neolithic sites in Lasithi a large open jar was the most common ceramic shape.[12] The sherds from these jars were frequently blackened by fire.[13] Today in Lasithi it is an invariable daily routine of the shepherds, after milking their herds, to boil the milk in order to make cheese in large metal cauldrons (Pl. 9:b) similar to the large Late Neolithic jars. Perhaps the Late Neolithic containers were used similarly. From archaeological evidence it appears likely that the earliest inhabitants in Lasithi were seasonal pasturalists.

The recently excavated EM I-II site of Debla in West Crete (Map 1) may offer an instructive parallel to the LN–EM I sites in Lasithi. Located high (*ca.* +540 m.) in the foothills of the White Mountains, the small settlement of Debla produced obsidian

[6]F. Chapouthier and R. Joly, *Études crétoises*, IV, *Fouilles éxecutées à Mallia, Exploration du palais. 2*, Paris 1936, pp. 18–19.

[7]For a list of the routes, see "Trapeza," pp. 8–9. Route 1 enters near the sites of Vidiani (1) and Mouri (74); route 6 at Plakamoura (24); route 7 at Platanomouri (32); route 8 at Alexenia (37); route 9 at Poros (39) and Vasilikou Ridge (40); and route 11 at Katsoucheiroi (71).

[8]J. D. Evans *et al.*, "Knossos Neolithic, Part II," *BSA* 63, 1968, p. 269.

[9]*Idem*, "Neolithic Knossos, the Growth of a Settlement," *Proceedings of the American Philosophical Society* 37, 1971, pp. 95 and 109, note 2.

[10]J. D. Evans, *op. cit.* (footnote 8 above), p. 239.

[11]R. M. Dawkins, "Excavations at Palaikastro IV," *BSA* 11, 1904, p. 260.

[12]See A. Furness, "The Neolithic Pottery of Knossos," *BSA* 48, 1953, p. 128; Evans, 1964, p. 225.

[13]See "Trapeza," pp. 332–333.

blades, stone rubbers, and clay spindle whorls, as did the Lasithi sites. Because organic remains were recovered at Debla, we know that the upland settlers there grew barley, oats, and wheat. Debla is described as " . . . a small agricultural community very possibly occupying the site on a seasonal basis, during the summer, and utilizing local pasture and cultivable soils for cereals."[14] The earliest sites in Lasithi may represent similar communities.

Early Minoan II-III

In the succeeding EM II-III period, settlement in Lasithi grew and consolidated. In this period five large settlements were situated around the edge of the plain (Map 5). Four of the sites were new at this time. These EM II-III settlements were larger than any of the earlier sites on the plain. The communities in Lasithi were relatively small, however, in comparison to contemporary coastal sites, such as Myrtos or Vasiliki (Map 1). The preserved portion of the settlement at Myrtos, for example, is substantially larger than a site such as Katsoucheiroi (71). The neighboring sites of Trapeza (11) and Kastellos (12) illustrate the local growth in population. At Trapeza, excavation revealed that the LN–EM I settlement there became a burial place in the EM II–MM I period. During that time Kastellos was the nearest large settlement. Consequently one infers that during the EM I period the inhabitants abandoned the cave at Trapeza for the hilltop site of Kastellos, and one suspects that the move was related to the greater living space which the latter site offered. If this sequence of events in Lasithi is any indication, the expansion of Early Minoan settlements in East Crete may also be a continuing phenomenon rather than a new one.[15]

The Early Minoan settlements in Lasithi were usually located on the tops of steep hills (Pl. 12) near the edge of the plain. One wonders if the choice of this type of site was not dictated by the forested landscape as much as by any desire for defensibility. The new size and continuity (EM II–LM I) of these Early Minoan settlements may indicate that the practice of a more sedentary form of agriculture had increased in importance.

The custom of burial in Early Minoan Lasithi was inhumation, usually on the slopes below a settlement or in a nearby cave. Thus, for example, below the settlement of Efendi Christou (64) there was a burial site at Pigadistria (65; Pl. 11:a). Excavation at the cave sites of Trapeza (11) as noted above and of Psychro (66) has shown that they became places of burial in the Early Minoan period.[16] The nearby contemporary settlements, Kastellos (12; Pl. 12) and Katsoucheiroi (71; Pl. 11:b), were probably the communities responsible for the burials.

The Early Minoan communities in Lasithi lived by means of a combination of farming, herding, and hunting. The foothills and perhaps the elevated eastern portion of

[14] P. Warren and J. Tzedhakis, "Debla, an Early Minoan Settlement in Western Crete," *BSA* 69, 1974, p. 336.

[15] *Contra*, *Myrtos*, pp. 271–272.

[16] See "Trapeza," p. 23; *CCO*, p. 5.

the plain were probably covered with woods of oak, as hypothesized for the Dikte region to the south.[17] The *Kampos* may have been marshy for part of the year and covered with reeds, grass, and low brush.[18] It may also have been used for grazing. The Early Minoan settlers kept domesticated cattle, caprines, pigs, dogs, cats, and fowl (EM–MM I).[19] Deer, hares, and eagles were hunted. Textiles were woven at Kastellos, as spindle whorls found at that site indicate.[20] Potters in Lasithi produced a local imitation of the popular East Cretan Vasiliki Ware.[21] The Early Minoan settlements were located nearer to the plain than the sites of the preceding period and may have cultivated the adjacent area of the plain.

During this period, the communities in Lasithi had relations with other areas of Crete. Two ivory figurines, a monkey and a human head (the latter probably an import from the Near East), from Trapeza indicate that the settlers probably visited trade centers, such as Mallia (Map 2), on the north coast.[22] Obsidian blades and marine shells from various sites on the plain also point to the north coast. Bronze daggers and cutters from Psychro and Trapeza and a gold diadem from Psychro were probably manufactured elsewhere; three of the daggers are of a type most commonly known in the Mesara.[23] The inhabitants of Lasithi appear to have participated in the general prosperity of the Early Minoan period.

Middle Minoan I

The population in Lasithi continued to grow during the MM I period. Three large settlements were founded at this time, raising the number of major settlements in Lasithi to seven (Map 6). In contrast to the earlier hilltop site, a low slope at the edge of the plain was favored. In the Plati area, for example, the LN–EM II site of Katsoucheiroi, situated 100 m. above the plain, was abandoned, presumably for the new MM I site at Plati (69) below it (Pl. 11:b). Considerations of space and proximity to arable land may have been factors which influenced this choice. Several of the new sites (nos. 15, 27, and 50) were established within 20 minutes' walk of older settlements, indicating, perhaps, that the new settlers were from the older sites. The EM II settlement at Kastellos had expanded by the MM I period: all the trenches dug on the site yielded MM I sherds, whereas the incidence of EM II pottery was more restricted.[24]

[17] O. Racham, "The Vegetation of the Myrtos Region," Appendix II in *Myrtos*, p. 290.

[18] Low brush or savannah may have covered the plain of Katharo in the Pleistocene period, according to Bockschoten and Sondaar, "On the Fossil Mammalia of Cyprus I," *Proceedings of the Koninkl. Nederl. Akademie van Wetenschappen* (Amsterdam) 75, 1972, pp. 335–336, and "The Pleistocene of the Katharo Basin (Crete) and its Hippopotamus," *Birdragen Tot de Dierkunde* 33, 1966, pp. 17–44.

[19] Marinatos, "Προτομινωϊκὸς θολοτὸς τάφος," pp. 123–125; "Trapeza," p. 131.

[20] "Kastellos," p. 55.

[21] "Trapeza," pp. 48–49.

[22] *Ibid.*, p. 97 and pl. 14, no. 7; p. 121 and pl. 19, no. 15.

[23] Daggers: Hogarth, "The Dictaean Cave," p. 110, fig. 42; K. Branigan, *Copper and Bronze Working in Early Bronze Age Crete* (*SIMA* XIX), Lund 1968, p. 60; "Trapeza," pp. 104–108. Cutters: *CCO*, p. 23. Diadem: *CCO*, p. 5. Demargne, "Antiquités de Praesos et de l'antre Dictéen," *BCH* 26, 1902, pp. 581, 583, no. 6.

[24] "Kastellos," pp. 8–9 and 24.

The custom of burying the dead in a pithos began in MM I in Lasithi. At Kastellos the dead were buried near by in pithoi outside the Trapeza Cave in this period.[25] Later, in the MM III period, pithos burials were dug into the lower slopes of Kastellos itself.[26] The cemeteries belonging to the settlements of Kastellon (50), Efendi Christou (64), and Plati (69) have been identified at three nearby sites: Stou Petra (51), Pigadistria (65), and Meliskipos (70), respectively. The last two sites produced evidence of pithos burials. Caves and rock shelters were also used for burials in this period: at Trapeza (11), at the cave of Meskine,[27] and in crevices at Augousti (46). In the cave of Trapeza were found offerings, some of which were imported: a few sherds of MM II pottery, an Egyptian scarab of the Twelfth Dynasty, and eleven Chamaizi juglets presumably purchased at Mallia, where they are found in large numbers.[28]

The most popular sanctuary in Lasithi during the Middle Minoan period appears to have been at the Cave of Psychro (66; Pl. 11:b). The votives from the cave indicate that Psychro was a well-attended shrine by the MM III A period.[29] Hogarth's excavations of the cave give us some idea of the nature of a local cave shrine in the MM III–LM I period.[30] On the floor of the cave was a stuccoed altar, around which ran an enclosure wall. Near the altar were found a libation table, lamps, stone bases for double axes, and much ash. Bones in the ash are taken to be signs of animal sacrifice, including bulls, sheep/goat, deer, and a boar.[31] The worshippers in the cave left votives which included bronze figurines of humans and animals, bronze swords, and agricultural tools (sickles, chisels, and an adze).[32] Large pithoi and numerous conical cups held offerings of food from the local farmers.[33]

A second type of shrine, the peak sanctuary, attracted worshippers in the Middle Minoan period. At Karphi (5; Pl. 14:a), offerings left on the peak included clay figurines of humans and animals, a terracotta human limb, and vases of stone and clay.[34] These types of votives are known from other Cretan peak sanctuaries of the period. It is interesting to note that today the villagers of Lasithi climb up each year on the eighth of August to the peak of Mt. Efendi Christou (elev. +1,558 m.) within the Diktaian range, where they spend the night. The celebration of a service there the following morning, in a small stone chapel, honors Christ's ascension from the mountain and his metamorphosis into the Holy Spirit.

[25] *Ibid.*, p. 40.

[26] *Ibid.*, p. 15.

[27] "Trapeza," p. 86 and, for Meskine, "Kastellos," p. 6.

[28] "Trapeza": MM II, p. 43; scarab, p. 99; Chamaizi pots, p. 76. At Mallia, *BCH* 82, 1958, p. 828.

[29] J. Forsdyke, *Catalogue of the Greek and Etruscan Vases in the British Museum* I, London 1925, pp. 100–102.

[30] Hogarth, "The Dictaean Cave," pp. 94–95.

[31] Boyd-Dawkins, *op. cit.* (footnote 5, p. 9 above), pp. 162–165.

[32] *CCO*, pp. 8–13, 24–26, 57–59. Fig. 9:f (p. 25) is an adze; cf. J. W. Shaw, "Minoan Architecture," *Ann*, n.s. 33, 1971, pp. 47–49.

[33] Evans, in *P. of M.* II, p. 135 and note 1, reports that these cups contained carbonized offerings.

[34] "Karphi," pp. 97–98, pls. 32, nos. 3 and 4, and 34; N. Platon, "Τὸ Ἱερὸν Μαζᾶ καὶ τὰ Μινώικὰ Ἱερὰ Κορηφῆς," ΚρητΧρον 5, 1951, pp. 142–144; C. Davaras, *Guide to Cretan Antiquities*, Park Ridge, N.J. 1976, *s.v.* Peak Sanctuaries, with individual entries.

Middle Minoan III

In the MM III period, population in Lasithi reached an apex. Major settlements in the plain numbered a total of ten (Map 7). New sites (nos. 46, 61, and 72) were established on the edge of the plain itself. There is some evidence for literacy on the plain, in the form of MM III–LM I Linear A tablets, said to be from Papoura (4). During the survey it was noticed that invariably the periphery of a Middle Minoan site was defined by the distribution of thick oval brazier legs, characteristic of the MM III–LM I period.[35] Thus it appears that the Minoan sites in Lasithi reached their maximum size at this time.

Small sites are so numerous in Lasithi during this period (Map 7) that we may discuss them as a separate group. The coarse sherds on most of these sites, however, can be dated no more precisely than MM III–LM I.[36] Two types of sites are distinguishable: those which consist of sherds and the remains of walls, and those which are simply concentrations of sherds. On the first type of site, the walls were constructed either of natural blocks of *sideropetra* laid in courses (Pl. 16:c) or of irregularly shaped boulders (Pl. 16:a). The former construction was used for the walls of buildings, the latter for retaining walls. In many cases, the retaining walls form a rectangular terrace, the surface of which is strewn with sherds.

The first type of small site frequently consisted of more than one structure, as at Platellais (22), Stous Skarveli (30; Fig. 1), and Vigla (29). Located at a considerable height above the plain, many of these settlements enjoyed a pleasant view of the landscape. Others (nos. 22, 30, and 38), however, are located at the level of the plain. The site of Agia Pelagia (38; Pl. 13), for example, is situated at the mouth of the Poros gorge which carries a heavy winter runoff from Mt. Dikte. It is now, and must have been in the Bronze Age, surrounded by a sea of mud during the winter. Similarly, several (nos. 29, 33, and 36) of the sites are at such altitudes (in excess of 1,100 m.) that it is difficult to believe that they were inhabited in the winter. By way of example, it may be pointed out that the farmsteads (*metochia*) located today at the sites of Katharo (33) and Pervola (36) are deserted during the winter.

Agricultural practice in modern-day Lasithi provides a clue to the use of these small Middle Minoan sites. Most villagers cultivate land within an hour's walk of their village. The farmers, however, also own land (e.g. in Limnarkaro and Katharo) which lies more than an easy walk from the village. This land will frequently have a structure, called a *metochi* (Pl. 8), built on it. In Crete, a *metochi* is used to store produce and tools and, at harvest time, is used as a temporary residence. In some cases, a small garden may be kept at the *metochi*, permitting it to be used as a seasonal farmstead. It is likely that some of the small Middle Minoan sites also were *metochia*.[37] Several were

[35] Hood–Cadogan–Warren, *BSA* 59, 1964, pp. 52–53 and fig. 2A.

[36] These sites appear on the MM III map (Map 7) only; no distinction between MM III and LM I is possible.

[37] For a rural area such as Lasithi, I believe it is best to avoid the use of the word villa, with its misleading connotations of luxury. On this type of site see G. Cadogan, *BICS* 18, 1971, p. 146.

situated within view of a larger contemporary settlement, and one imagines that the farmstead belonged to one of the inhabitants of the main settlement. The structure at Kakadiavatos (56), for example, looks back across a valley to the contemporary community at Kastellon (50).

Late Minoan I

The evidence for the LM I period in Lasithi is more difficult to interpret. As before, the new settlements were established on locations at the edge of the plain. The hilltop sites of Kastellos (12) and Efendi Christou (64) were deserted in this period, probably for the LM I settlements at Agia Anna (13; Pl. 12) and Agia Paraskevi (61; Pl. 11:a) below them. The problem is that LM I pottery is noticeably scarce in Lasithi (cf. Chapter VII). Five major settlements (Map 8) yielded a few LM I sherds, while two others, Plati (69) and Agia Paraskevi (61), produced substantial evidence of LM I habitation. The best known LM I settlement is at Plati (Pl. 10:a); it was partially revealed by excavation in 1913.[38] Plati appears to represent an expansion of the MM–LM community on the hill of Ano Kephali, 50 meters away (Pl. 10:a).

Why does Lasithi reveal such tentative signs of LM I habitation during a time of general prosperity on Crete? The shrine at Psychro did yield LM I votives: some pottery, sword blades, double axes, and seals.[39] Dawkins noted that a number of the (now lost) baskets of pottery from Hogarth's excavation at Psychro resembled a MM III–LM I pottery deposit from Zakros.[40] Pendlebury also noticed a paucity of LM I sherds in Lasithi, and suggested that the smaller sites had been deserted for larger settlements on the plain.[41] This does not explain, however, why LM I is so scantily represented at most of the larger settlements as well. One possible factor worth considering is emigration. If the Neopalatial sites at Knossos and Mallia were centers of prosperity, perhaps a rural area like Lasithi suffered from their attraction. Today, during the present period of economic growth, this phenomenon is observable in the local villages on the plain.[42] Whatever the causes (see p. 16 below), from the evidence at hand it does appear that Lasithi lost some of its population in the LM I period.

The movement of the LM I settlements down onto the plain is significant. This type of village growth is a common occurrence in Greece today. In the villages of Lasithi one notices that the older houses are invariably in the upper part of the village, while the new houses are usually located lower down, nearer the road which runs around the plain. The hillside village of Pobia in the Mesara (Map 1) was studied by G. Burgel who described how, after World War II, the village expanded down the slope to the plain as a

[38] Dawkins, "Excavations at Pláti". Note that Dawkins published a single LM I vase, and said of the site, "Except this vase there was practically no painted pottery" (p. 6).

[39] LM I pottery: Herakleion no. 2148, and G. Maraghiannis, *Antiquités crétoises* I, Candia [1915], pl. 30. Blades: *CCO*, p. 24. Axes: *CCO*, p. 44. Seals: *CCO*, p. 69.

[40] R. M. Dawkins, "Pottery from Zakro," *JHS* 23, 1903, pp. 248–249.

[41] "Kastellos," p. 15.

[42] Kolodny, "Ἐγκαταστάσις καὶ ἐξελίξις."

result of a growth of population, political security, improved health conditions, and a greater use of the plain.[43] In Messenia, a similar shift in the village of Karpophora has been described.[44] At Karpophora, the resettlement along the floor of the valley corresponded to the first large use of the fertile land in the valley and the linking of the village economy with that of the region because of the opening of a new road. The result for the village was the introduction of cash crops, a centralization of their economy, and a subsequent rise in population. While no specific conclusion can be drawn from these examples, it will be noted that Lasithi in the LM I period does appear to offer a rough parallel. Perhaps the most important point is that in each of the above cases the move of the village was in response to external forces of economic centralization.

The excavators of the palace at Mallia on the north coast of Crete (Map 2) have suggested that during the LM I period the plain of Lasithi served as a regular source of large amounts of grain for Mallia.[45] Because Mallia was a large community situated on a dry, thin coastal plain, the excavators suggested that Lasithi and Mallia may have been linked economically in the same way that a classical Greek mountain city would have been linked to its own harbor town (e.g. Lyttos and Chersonesos). This important hypothesis is probably correct, with two qualifications. The estimated agricultural yield they give for the Plain of Lasithi is excessive, for it is based on the assumption that the entire surface of the plain was drained and was as productive as it is today. This is improbable, for prior to the clearing of the *Chonos* in this century, the plain was subject to seasonal flooding which regularly destroyed the crops on the *Kampos*, much to the distress of the Venetian and early 20th-century farmers on the plain (see Chapters III, IV). One also must be careful in using the economic analogy of a classical *polis* and its harbor town, for the political implications would be misleading, as the actual situation in Lasithi during the Classical period, described below p. 22, illustrates.

Certainly there is plenty of evidence in Lasithi of trade with Mallia and other centers in the LM I period. As we have seen, the MM Chamaizi pots, found at Trapeza (11) and Kastellos (12), probably came from Mallia. Items of bronze, such as the tools from Kastellos and votives from Psychro (66), presumably were manufactured outside Lasithi.[46] Luxury goods, such as the gold, silver, and ivory objects from Psychro, also would have been purchased elsewhere.[47] One imagines that the inhabitants in Lasithi journeyed frequently to the Minoan centers, and there exchanged local produce (probably cheese, grains, and other crops) and raw materials (such as meat, wool, and wood) from the plain for locally unavailable items. Some form of taxation may have been levied by the palatial centers. The luxury items at Psychro, however, probably indicate that the people of Lasithi were recompensed for the goods they brought to the coast.

[43] Burgel, *Pobia, Étude géographique d'un village crétois*, pp. 10–12.

[44] S. Aschenbrenner, "A Contemporary Community," in *The Minnesota Messenia Expedition*, W. A. McDonald and G. R. Rapp, Jr., edd., Minneapolis 1972, p. 49.

[45] H. and M. Van Effenterre, *op. cit.* (footnote 4, p. 7 above), pp. 28–53.

[46] "Kastellos," pp. 46–47.

[47] *CCO*, pp. 55–56, 67–68.

Moreover, the apparent evidence of emigration and the pattern of settlement suggest that the area was an active member in a larger economic system, centered at the palatial sites.

Late Minoan II

Pottery in Lasithi which could be definitely called Late Minoan II was not recognized by Pendlebury or by us. Possible reasons for this are discussed in Chapter VI.

Late Minoan III A-B

In the succeeding LM III A-B period, the population of Lasithi dropped sharply. Four of the major LM I settlements were deserted, while the rest, with one exception, yielded only slight evidence of LM III habitation (Map 9). The exception was the site of Plati (69) where a LM III architectural complex was built over the LM I settlement. Plati and the new LM III site at Agia Paraskevi (61) appear to have been the only two substantial settlements on the plain. A number of the smaller MM III–LM I farm sites, such as Vasilikou (43) and Kakadiavatos (56), do yield signs of LM III occupation. There is evidence, however, that burials continued at earlier cemeteries (Map 9).[48] To the east of Agia Paraskevi, a new burial ground for larnakes was opened up at Koutsounari (61). The cave sanctuary at Psychro produced pottery, seal stones, figurines, daggers, and arrowheads, all probably dating to the LM III A-B period.[49] A number of the bronze weapons (one-piece spearheads, arrowheads, daggers, and a knife) dedicated at Psychro, have better known parallels at the LM II-III A1 warrior tombs at Knossos.[50]

The key to a historical reconstruction of this period in Lasithi is the precise date of the LM III material found at the settlement sites (cf. Chapter VII). At Kastellos (12) excavation produced a handful of sherds from stirrup jars and goblets which can be dated to Late Minoan III A2 or III B.[51] In Hogarth's excavation at Psychro, pottery from the LM III A2-B period was well represented.[52] Almost all of the surveyed sites of this period produced fragments from goblets, the hallmark of Late Minoan III B. The pattern which emerges in Lasithi is that of either a desertion or a severe reduction of settlement at some point within the LM I–III A1 period, followed by a reduced (re)settlement of some sites and the foundation of others in Late Minoan III A2-B. It should be noted that this pattern in Lasithi is similar to the sequence of events postulated

[48] "Kastellos," pp. 44–45. A larnax burial, probably of the LM III A period, is reported from Trapeza.

[49] *CCO*: pottery, p. 56; seal stones, p. 69; figurines, pp. 8–10; daggers, p. 13; arrowheads, p. 29, nos. 114–119.

[50] *CCO*: spearheads, p. 27, fig. 10, nos. 97, 98; arrowheads, p. 29; daggers, p. 14, fig. 2, no. 56, and pl. 13; knife, p. 22, fig. 6:A. Cf. M. R. Popham and H. Catling, "Sellopoulo Tombs 3 and 4, Two Late Minoan Graves near Knossos," *BSA* 69, 1974, p. 227, fig. 16, nos. 4, 5, and pp. 244–245. Further on arrowheads: M. F. S. Hood and P. de Jong, "Late Minoan Warrior-Graves from Ayios Ioannis and the New Hospital Site at Knossos," *BSA* 47, 1952, p. 270, fig. 12.

[51] "Kastellos," p. 44.

[52] The pottery from Hogarth's excavations at Psychro, most of which is stored in the Herakleion Museum, will be published by the author.

elsewhere on Crete during this time, that is, a destruction or desertion of settlements in Late Minoan I B, followed by a later reoccupation.[53]

In Lasithi, at the site of Plati (69), a large complex of LM III houses was built around a central court (Pl. 10:a). Dawkins compared the architectural arrangement and the portico of House A at Plati to the central court and Tripartite Shrine at Knossos. The southeasterly orientation of the Plati court, however, differed from the usual north-south arrangement of the palace courts. This unique orientation may be explained if one looks at a map of Lasithi (Map 9): the court at Plati faces toward the sanctuary at Psychro.[54] A comparison with the contemporary LM III houses at Gournia in East Crete may be more revealing. The site of Gournia is similar to Plati in that several large LM III A2-B houses were built there, over a LM I settlement.[55] House A at Plati resembles house *He* at Gournia. Both houses were built with well-dressed masonry, massive threshold blocks, and a long entrance hall. Because of its architecture, house *He* at Gournia is usually regarded as a Mycenaean construction. At this time in Lasithi the new architecture at Plati must have been an imposing site, in contrast to other settlements on the plain. It is difficult to avoid the conclusion that Mycenaeans lived at Plati among the remnants of the Minoan population in Lasithi.

From the LM III A2-B period at Knossos,[56] four Linear B tablets mention offerings of oil and figs for Diktaian Zeus and Dikte.[57] As we know from other tablets,[58] an official resided, in many cases, at the shrine to which offerings were sent. The Mycenaeans at Plati probably controlled the Diktaian sanctuary at Psychro (66). Mycenaean officials stationed at various locations on Crete appear to have been members of garrisons which were probably responsible for enforcing the flow of tribute from those areas to Knossos. We can be fairly certain that the local population on the plain at that time was supplying tribute, probably grain, wool, and sheep, to Knossos. The situation in Lasithi would have been similar to that under the Venetians (cf. Chapter III). Certainly, both regimes established quotas of wheat production, and sent local representatives to the plain to enforce collection. It is interesting to note, however, that the plain reveals no sign of any hydraulic engineering works such as those which characterized the Mycenaean kingdoms on the Mainland.

[53]Desborough, pp. 167–168. Traces of tephra from the eruption of Santorini have been found in Lasithi; see G. Boekschoten, "Quaternary Tephra on Crete and the Eruptions of the Santorini Volcano," *Opera Botanica* 30, 1971, pp. 40–41.

[54]Cf. J. W. Graham, *The Palaces of Crete*, Princeton 1962, p. 75, note 3, who notes the palatial examples.

[55]H. B. Hawes, B. Williams, R. Seager, E. Hall: *Gournia, Vasiliki and Other Prehistoric Sites on the Isthmus of Hierapetra, Crete*, Philadelphia 1908, map after p. 26.

[56]Cf. most recently E. Hallager, *The Mycenaean Palace at Knossos*, Stockholm 1977, pp. 89–94.

[57]J. Chadwick, J.T. Killen, J.-P. Olivier, *The Knossos Tablets*, Cambridge 1971, Fp 1 and 7, F 866 and Fh 5467. Chadwick hypothesized that the name Lasithi might occur on the Knossos tablets, in "Relations between Knossos and the Rest of Crete at the Time of Linear B Tablets," Πεπραγμένα τοῦ Γ' Διεθνοὺς Κρητολογικοῦ Συνεδρίου I, Athens 1973, p. 44. The source and history of the name are traced by J. Thomopoulou, "Τὸ ὄνομα Λασίθι," who considers it an ancient Greek word.

[58]For example, Fp 363 and Am 281. Cf. F. R. Adrados, "Les institutions religieuses mycéniennes," *Minos* 11, 1970 [1972], pp. 192–193.

Late Minoan III C

In the LM III C period, Lasithi, like a number of other areas of Crete,[59] suffered another loss of population. Perhaps four sites in Lasithi continued to be occupied in this period (Map 10). Plati was probably inhabited, as the tholos tomb near it resembles those at the LM III C site of Karphi.[60] At some point in the 12th century B.C. a single large settlement was established in Lasithi on top of a high mountain peak at the site of Karphi (5; Pl. 14:a). As the material culture of the site was a mixture of Minoan and Mycenaean elements,[61] Karphi was probably settled by both Mainland Greeks and the Minoan population remaining in Lasithi.[62] The choice of the site certainly suggests that the inhabitants were concerned about their security.

As many of the votives from Psychro at this time are paralleled at Karphi, we can be fairly certain that some of the visitors to the cave came from Karphi.[63] Both sites reveal signs of foreign contact. Some of the bronze and iron implements from Karphi are imitations of Cypriot types.[64] Similarly, the pottery shows Cypriot influence.[65] At Psychro, votives of a foreign nature include fibulas of Italian type, knives with parallels in central Europe, Baltic amber, and an Egyptian bronze statuette.[66] This evidence contradicts the common characterization of Karphi as an isolated community.[67] One suspects that not all the citizens of Karphi made an honest living from the soil; some may have tried their hand at piracy.[68] During troubled times, the towns of Aegean seafarers have commonly been located high in the mountains.[69]

How did the Karphi community-at-large make a living? This high (*ca.* 1,250 m.) peak is surrounded by a rocky mountainous landscape and must have been extremely

[59]Desborough, p. 191, and Popham, "Some Late Minoan III Pottery," pp. 334–335.

[60]"Karphi," p. 111; I. Pini, *Beiträge zur minoischen Gräberkunde*, Wiesbaden 1968, p. 90, no. 39; "Kastellos," p. 2.

[61]"Karphi," pp. 137–139; Desborough, pp. 172–176. Mycenaean helmets, preserved in the form of perforated boars' tusks, are known at Karphi; see "Karphi," p. 133.

[62]In the manner that Lyttos was settled; cf. Aristotle, *Politics*, 1271b: " . . . the Lyctians were colonists from Sparta, and the settlers that went out to the colony found the system of laws already existing among the previous inhabitants of the place; owing to which the neighbouring villagers even now use these laws in the same manner, in the belief that Minos first instituted this code of laws . . . " (trans. H. Rackham, Loeb Edition, London and New York 1932, pp. 148–149).

[63]Tankard: *CCO*, p. 56, and "Karphi," p. 19 and note 47. Several bronze knives: *CCO*, p. 18 and "Karphi," pl. 28, nos. 518 and 548. Ivory and bone points: Hogarth, "The Dictaean Cave," p. 113, fig. 48 and "Karphi," p. 127, pl. 28:4. Four Italian-type fibulas: *CCO*, p. 36 and "Karphi," pl. 28, no. 171. Flat hoop rings: *CCO*, p. 39 and "Karphi," pl. 28. Razor: *CCO*, p. 51, no. 222 and "Karphi," pl. 28:2, no. 510.

[64]Bronze: H. W. Catling, *Cypriot Bronzework in the Mycenaean World*, Oxford 1964, pp. 211, note 47, and 214, IV. Iron: A. M. Snodgrass, *The Dark Age of Greece*, Edinburgh 1971, pp. 250–253.

[65]Desborough, p. 27.

[66]Listed in *CCO*, pp. 74–75.

[67]Desborough, pp. 127–128; *CCO*, p. 130; Snodgrass, *op. cit.* (footnote 64 above), p. 249.

[68]Pendlebury suspected that the inhabitants of Karphi may have made a living by brigandage; "Karphi," p. 140. Sea shells were recovered from eleven rooms; "Karphi," p. 133. Cf. *Odyssey* XIV.199–234, where Odysseus claims to be a Cretan pirate.

[69]See the remarks of J. T. Bent in 1885 (*Aegean Islands: the Cyclades*, rev. ed., Chicago 1965) on such mountain seafaring villages as Apeiranthos on Naxos, pp. 354–358, and Pholygandros, pp. 198–200.

cold during the winter months.[70] From the excavation we know that the economy of Karphi was based on extensive sheepherding, the cultivation of grain and olives, and perhaps a limited amount of (deer) hunting. Stone querns and pounders for the grinding and processing of food were reported from almost every room in the settlement. Spinning and weaving implements (spindle whorls, spools, loomweights, and bobbins) were found in at least half the rooms of the settlement. Olive pits were found in one room. Sickles were discovered in two rooms.

Sheepherding practices in present-day Lasithi may provide some insight into LM III C life at Karphi. Fifty to sixty years ago, much of the land around Karphi was owned by the Spanakis family from Tzermiado near Karphi. They are said to have grazed flocks of about 10,000 (total) sheep and goats there. In the winter they pastured their herds in the lowlands outside Lasithi, near Krasi on the north coast, and to the east around Neapolis. This example is typical of Lasithi. For reasons given in Chapter I, sheepherding in Lasithi is a seasonal activity. Perhaps, then, we can assume that some of the inhabitants of Karphi also descended to lower areas during the winter with the flocks of the community.

The olive pits found at Karphi also suggest that the inhabitants of the settlement made use of land outside Lasithi. As explained in the Introduction, olives do not grow on the plain. The nearest olive cultivation is located some 400 meters below Karphi on the north slope of Mt. Selena (Pl. 14:b) near the village of Kera. In order to overcome this deficiency today, the villagers of Tzermiado, for example, own houses at Avdou, Gonies, and Potamies (Map 2) where they live while harvesting the olives on their land in the valley. This too suggests that Karphi was occupied seasonally, during the milder months of the year.

Where did the inhabitants of Karphi go during the winter? In Lasithi there were no contemporary settlements the size of Karphi. In a valley outside Lasithi, there is another LM III C settlement at Siderokephali, which may have provided winter quarters. This large site (Pl. 14:b) is located one and a half kilometers away, and about 500 meters below Karphi. In 1894, Taramelli visited Siderokephali, and noted there a small rectangular tholos tomb similar to those excavated at Karphi.[71]

Protogeometric, Geometric and Archaic

By the end of the 2nd millenium B.C. the community of Karphi had begun to settle on the nearby site of Papoura (4; Map 11). Papoura is one kilometer to the southwest of Karphi and has the advantage of being nearer to the surface of the plain (Pl. 15:a). The site of Papoura has an unassailable north face and an unimpeded view down the Aposelemis valley (Map 2), the natural approach to Lasithi from the north coast of the island. During the Protogeometric and Geometric periods, the population of Lasithi was

[70]Pendlebury writes " . . .the site must have been almost unbearably cold in winter. Even in July the hill is often covered in cloud, and several times excavation has been impossible owing to the cold. In winter drifts of snow feet deep lie on it" ("Karphi," p. 139).

[71]Taramelli, "Ricerche archeologiche cretesi," pp. 402–405.

concentrated on this large site. During the Geometric period, Papoura was at least twice the size of Karphi, suggesting that the population in Lasithi had increased during the Early Iron Age. The cemetery of the Papoura settlement consisted of tholos tombs located to the east of the site. One of these tombs (Pl. 5:b) was excavated by Pendlebury, who noticed its resemblance to the nearby LM III C tholoi at Karphi.[72] During the later Geometric and Archaic occupation of Papoura, terracotta figurines and vases were deposited at the Karphi tombs, perhaps as offerings to ancestors.[73]

During the Geometric and Archaic periods the area of Lasithi enjoyed a certain fame in the Greek world. The Mainland poet Hesiod sang (*Theogony*, 481–484) of Zeus, the father of the gods, who was born in a cave on wooded Mt. Aigaion near the city of Lyktos. Lyttos (or Lyktos) is located on a hill immediately west of a natural entrance (the pass of Tsouli *to* Mnema) to the Plain of Lasithi (1; Map 2). One can stand on the top of the pass and see the site of Lyttos, two hours' walking distance away (Pl. 7:b). From Lyttos, one can journey to the sanctuary at Psychro in about three and a half hours. The Psychro cave (Pl. 11:b) is the one to which Hesiod refers. During the Early Iron Age the Psychro cave was a popular shrine, receiving a large number of votive offerings,[74] which included imported Corinthian aryballoi and a fibula of an island or East Greek type.[75]

During the Archaic period the inhabitants of Papoura began to settle at separate sites around the edge of the plain (Map 12). By the end of the 7th century B.C. there were five substantial communities in Lasithi. At Donades (6) a portion of a building, which was destroyed by fire at the end of the 6th century B.C., was excavated by Pendlebury.[76] Two larger buildings of the Archaic period at Kolonna (8) were also partly excavated.[77] In addition, many smaller sites, probably farms, were dispersed around the plain. In the Late Archaic period, the inhabitants of Papoura, perhaps the ancient Δάτταλλα (cf. Chapter VI), brought literacy to their community by hiring a scribe named Spensithios to remember and write down their laws.[78] These laws presumably date to the time of the synoecism of their community which, as we have seen from the patterns of settlement in Lasithi, apparently took place at Karphi in the 12th century B.C.

The inhabitants of Lasithi in the Archaic period were aware of their past. Most of the Archaic sites were located on top of old Minoan settlements. More significant, the Minoan cemetery sites at Stou Petra (51) and Pigadistria (65) were again used for burials, as the Early Iron Age material from those sites indicates. Similarly at the Psy-

[72]Cf. *ILN*, March 5, 1938, p. 384.
[73]Tombs M1, 2, 4–6, 8, 15 at Karphi.
[74]*CCO*, pp. 8–10, 26, 35–36, and 56–57.
[75]*CCO*, pp. 56 and 36.
[76]*ILN*, March 5, 1938, pp. 384–385.
[77]*JHS* 58, 1938, p. 233; *ILN*, March 5, 1938, p. 412, figs. 4 and 5.
[78]L. Jeffery and A. Morpurgo-Davies, "ΠΟΙΝΙΚΑΣΤΑΣ and ΠΟΙΝΙΚΑΖΕΝ: BM 1969, 4-2-1, A New Archaic Inscription from Crete," *Kadmos* 9, 1970, pp. 118–154.

chro cave (66) there is no appreciable break in the record of offerings from the LM III through the Archaic period. In the Late Hellenistic period, the Minoan past was still remembered, as can be seen on the extraordinary "Eteocretan" inscription from Psychro (Pl. 18:a).[79] On this inscription, below the Greek text, were inscribed three letters whose forms clearly were meant to imitate the Minoan (Linear A) alphabet.

Classical and Hellenistic

Following the Archaic period, Lasithi lost much of her population. Classical and Hellenistic settlement in the plain was sharply reduced (Map 13). The large Early Iron Age settlement at Papoura was deserted. A single site, Augousti (46), was a substantial community. Three other sites produced a small number of black-glazed sherds, evidence of limited use. At Kolonna (8), one of the buildings excavated by Pendlebury appears to have been an establishment for the dyeing and weaving of wool in the 3rd century B.C.[80] Surprisingly, there is less evidence for settlement in Lasithi during Classical and Hellenistic periods than at any other time in antiquity.

A literary passage of the early 3rd century B.C. confirms this archaeological picture. Theophrastos wrote of Crete:

> If, then, it is true (as proof of which they allege that formerly the hills were inhabited and produced both corn and fruit, the land having been planted and cultivated for that purpose; that there are in fact on the hills of the Ida range and on others, plateaus of considerable extent of which nowadays they cultivate not one, because they are unproductive; while formerly as had been said they not only cultivated them, but dwelt upon them so that the island had a large population; and that at the time showers occurred, but much snow and storm did not . . . .[81]

Lasithi, the largest upland plain in Crete, must have been one of the areas referred to by Theophrastos. If he is to be believed, the climate in Crete became colder at some point prior to the early 3rd century B.C., and had a severe effect on areas of high altitude, such as Lasithi. As a result, Lasithi would have been uninhabitable during part of the year, like the plain of Katharo today.

Nevertheless, the depopulation of Lasithi in the Classical and Hellenistic periods may not have been a phenomenon confined to the highland areas of Crete. Moreover, the archaeological record from Psychro implies that the desertion of Lasithi had already begun in the 6th century B.C., appreciably earlier than Theophrastos. Other areas of Crete also show depopulation in the 6th century.[82] In the Mesara plain, a similar reduc-

[79] Marinatos, "Γραμμάτων Διδασκαλία," pp. 226–231, Tafel 1, and R. Stieglitz, "The Eteocretan Inscription from Psychro," *Kadmos* 15, 1976, pp. 84–86.

[80] *ILN*, March 5, 1938, pp. 384 and 412; Pendlebury, "Lasithi in Ancient Times," p. 199.

[81] Translated in J. Wood, *Theophrastus's On Winds and Weather Signs*, London 1894, pp. 27–29. I am indebted to Professor G. Huxley for bringing this passage to my attention.

[82] On this question, see P. Faure, *Fonctions des cavernes crétoises*, Paris 1964, pp. 92–93 and 104; *Demeter*, p. 182 and note 4.

tion in the number of independent settlements during the Hellenistic period has recently been explained as the result of the political consolidation of the area under the city of Gortyn.[83] Is it possible that the process hypothesized for the Mesara in the Hellenistic period began earlier in other parts of Crete?

By the 6th century B.C. Lyttos was the most powerful city in the central *Pediada* area of Crete.[84] For the Hellenistic period, inscribed border treaties indicate that Lasithi lay within the territory of Lyttos. The boundary line between the lands belonging to Lyttos and to Lato has been reconstructed in two studies[85] with the aid of two treaties (*IC* I, 6 and 16.5) which list the place names, mountains, rivers, and valleys along the line (Map 2). Both studies are probably generally correct in placing the western boundary of Lato along the mountains at the eastern edge of Lasithi. The reconstructions rest on the identification of the toponym Χαμβρίτρασον, ἃι ὕδωρ ῥεῖ, cited in a treaty between the cities of Lato and Olous (*IC* I, 16.5, lines 63–64), as the Khavgas gorge in Lasithi (Map 2).[86] Considering the size of the Khavgas gorge (Pl. 6:a) it is certainly plausible that it would be one of the natural features to be named in the area. A border treaty[87] of the 3rd century B.C. specifically identifies Lyttos as the city-state which neighbored Lato on the west, making it certain that Lasithi was along the eastern edge of the territory of Lyttos at that time.

The depopulation of Lasithi may well be connected with the acquisition of the area by Lyttos. Aristotle (*Politics*, 1271b) tells us that the people of Lyttos subjugated the inhabitants of their region. The inhabitants were reduced to the status of serfs (περίοικοι) who were obligated to pay rent for their land. They also farmed and cared for livestock on public land, the produce of which went to the state. The Arkadians, who lived south of Lyttos (Map 1), were military allies of Lyttos, probably involuntarily.[88] It may be no coincidence, then, that Arkades was also deserted during the 6th century.[89] We know that the territory of Lyttos was defended by armed forces, as the border treaties attest.[90] It may have been under these pressures that the inhabitants of Lasithi began to desert the area during the 6th century B.C.

Roman

The tumultuous period of intercity hostility during the 3rd and 2nd centuries on Crete was brought to an end in 69 B.C. by the three legions of the Roman consul Quintus Caecilius Metellus. Crete, as a Roman province, entered a time of stability and

[83] I. Saunders, "Settlement in the Hellenistic and Roman Periods in the Plain of the Mesara, Crete," *BSA* 71, 1976, pp. 131 and 136.

[84] The evidence is gathered in *IC* I, p. 179.

[85] Faure, "Aux frontières de l'état de Lato"; Van Effenterre and Bougrat, "Les frontières de Lato," pp. 1–53, and plate A, opp. p. 16.

[86] Van Effenterre and Bougrat, p. 14, lines 60–62.

[87] *IC* I, 16.6; Van Effenterre and Bougrat, p. 9.

[88] See Jeffery and Morpurgo-Davies, *op. cit.* (footnote 78, p. 21 above), p. 126.

[89] See *CCO*, p. 148.

[90] E.g. *IC* I, 9.1.

prosperity. Beginning in the 1st century B.C., the island was gradually repopulated with new settlers.[91] Lasithi was again a populous area by the 4th century after Christ (Map 14); it is likely that the resettlement had begun centuries earlier, but we cannot be certain (cf. Chapter VI). Lamps of the 1st or 2nd century after Christ are known from the Psychro cave.[92] A single large settlement at Kardamoutsa (3) dominated the plain in the 4th century (Pl. 15:b). Smaller communities (34, 42, 46, and 59), consisting perhaps of several houses, and a plethora of small sites, probably farmsteads, also existed in Lasithi at this time. The area was as populous during the 4th through 7th centuries after Christ as at any time during antiquity.

Roman settlement in the plain was exceptional in two respects. First, during times of security the settlements in Lasithi generally tended to be dispersed around the periphery. During the Roman period, however, the population appears to have been concentrated at Kardamoutsa; one wonders if Roman colonization was responsible for the singular size of the site. Second, several of the Roman sites were located on the alluvial surface of the plain. The site of Vounos (14; Pl. 10:b), for instance, was situated on the *Kampos* itself (Map 14). Similarly, in the Mesara it has been noticed that new Roman sites were established for the first time on the alluvium of the plain, rather than on the slopes.[93]

Roman engineers had a long tradition of land reclamation in Italy, notably in a number of upland basins in Umbria. The largest of these basins, the Fucine Lake in the area of the Campi Rosei, was successfully drained under Claudius in A.D. 52 and kept cleared of subsequent natural blockage.[94] One is tempted to hypothesize that some form of artificial drainage existed on the Lasithi plain in the Roman period that might explain this new pattern of settlement. Certainly the Romans were well aware of the natural water drainage from Lasithi, for the vast aqueduct which supplied Lyttos, and in turn ran down to Chersonesos on the north coast, drew its water from the outlet of the sinkhole in Lasithi near Kastamonista (Pl. 1).

[91] *A. of C.*, p. 365.
[92] Herakleion no. 2161 and *CCO*, p. 56, no. 247.
[93] Saunders, *op. cit.* (footnote 83, p. 23 above), p. 136.
[94] K. D. White, *Roman Farming*, Ithaca, N.Y. 1970, pp. 70–71 and 148–172.

III

THE VENETIAN PERIOD

The Venetian period in Lasithi is of particular interest because it was a time when the effects of foreign domination on the people and the plain can be historically documented.[1] As will be seen, the Venetian rulers viewed Lasithi primarily as an exploitable source of grain.

Following the Fourth Crusade and the conquest of Constantinople in 1204, the island of Crete fell into the possession of the Republic of Venice. Over the next two centuries, the Cretan populace repeatedly rose up in arms against the Venetian government, whose representatives were located in Candia (Herakleion). Because of its inaccessibility Lasithi served as a center of refuge for the insurgents. In the late 13th century (1283–1299) the Venetians reacted by banning settlement on the plain.[2] A second decree[3] in 1341 forbade settlement and cultivation in the area, and set a fine of 100 gold *ὑπέρπυρα*. These decrees apparently were ineffective, for they were followed by a third and harsher proclamation[4] in 1364. This decree ordered that all houses in Lasithi be razed, and specifically forbade any insurgents from settling, planting crops, or grazing flocks or horses in the plain. Punishment, this time, was the loss of a foot.

The subsequent desertion of Lasithi lasted until the year 1463. In that year, because of impending military campaigns against the Turks, the Venetian Senate lifted the ban on settlement on the plain and in other mountain strongholds in Crete so that they might be cultivated in grain for use by the gathering armies.[5] In 1465 the Senate specifically ordered the Candia government to ensure that Lasithi be planted in wheat, and that all herding there be forbidden.[6] Because of local opposition to the plan, almost fifty years passed before part of the plain was cleared of forest in 1514.[7] This land was divided into 342 *boudées*, each of which was subdivided into 8 1/2 fields that were leased publicly. The land rental was to be paid with a portion of the wheat crop.

[1]It is possible to present a history of Lasithi during the Venetian period only because of Stergios Spanakis' fine work, *Συμβολὴ στὴν ἱστορία τοῦ Λασιθίου*. My account is drawn from the original Venetian documents published in his book.

[2]S. Theotoki, "*Θεσπίσματα τῆς βενετικῆς γερουσίας* 1281–1385," in *Μνημεῖα τῆς ἑλληνικῆς ἱστορίας* II, i, Athens 1936, p. 41.

[3]Proclami Duca di Candia, busta 14, folio 1, State Archives, Venice; Spanakis, pp. 10–14.

[4]F. Cornelius, *Creta Sacra*, Venice 1755, II, p. 348; Spanakis, pp. 15–16.

[5]Cornelius, *op. cit.*, II, p. 392; H. Noiret, *Documents inédits pour servir à l'histoire de la domination vénitienne en Crète de 1380 à 1499*, Paris 1892, p. 488; Spanakis, pp. 17–18.

[6]Proclami Duca di Candia, busta 14, folio 1, State Archives, Venice; Spanakis, p. 14.

[7]S. Spanakis, *Μνημεῖα τῆς κρητικῆς ἱστορίας* III, Herakleion 1953, p. 58.

Probably to bring more of the plain under cultivation, the Senate decided in 1548 to colonize Lasithi with Venetian settlers from Nauplion and Monemvasia.[8] The colonists were granted 368 *boudées* of unclaimed land. This land was to be cultivated and was not to be sold or expropriated. In turn, the settlers were exempt from *corvée* labor (on the construction of the walls of Candia and in the fleet) and the ten-percent government tax.

The Senate also ordered the Candia government to see that these new fields doubled the grain yield from Lasithi. In a Senate document[9] of 1545, ten settlers were given land averaging 550 *mouzouria* per grant, with the obligation of turning over half their wheat harvest to the grain warehouse in Candia, for which they were to be paid up to eight *gazettes* per *mouzouri* of wheat. The Senate also set a new goal of approximately 7,000 *mouzouria* for the grain yield from Lasithi, that of the preceding year having been about 5,000 *mouzouria*. Finally the Senate resolved to attempt cultivation of the marshy western part of Lasithi, setting aside 1,500 gold *ducati* to be used in a way which engineers were to specify after an inspection of the plain. Consequently, it was decided that the 468 *boudées* of land remaining in Lasithi were also to be leased. An account[10] of 1592 placed the total annual yield of the plain at 10,000 to 12,000 *mouzouria* of wheat.

Following the colonization of the plain, Venetian documents described life in Lasithi in some detail. High in the mountains, the plain was said to be accessible only by a few narrow paths, on which two men could not walk abreast except with difficulty.[11] From Candia the commonest route to Lasithi was through the pass at Selli, said to be the only path on which one could ride a horse.[12] The plain was described as exceedingly fertile and cultivated entirely in wheat. The western portion of the plain, however, was a marshland.[13] Grapes, which were apparently forbidden on the plain, were grown on the foothills.[14] The mountains, including the Kephala, were covered with wild holm oak.[15]

The settlers in Lasithi lived in small hamlets on the foothills around the edge of the plain. A cadaster[16] of 1582 recorded 1,054 persons living in 40 "*metochi*" in Lasithi (Map 15). These "*metochi*" were small, temporary settlements (averaging about 25 inhabitants). The construction of larger permanent houses was prohibited in order to dis-

[8]K. Sathas, *Documents inédits relatifs à l'histoire de la Grèce au moyen âge*, Paris 1841–1914 (reprint Athens 1972), VII, p. 376; Spanakis, pp. 20–23.

[9]Sathas, *op. cit.*, pp. 412–414; Spanakis, pp. 24–29.

[10]Cf. Spanakis, *loc. cit.* (footnote 7, p. 25 above).

[11]Spanakis, pp. 82 and 111, note 2.

[12]Codex 918 (8392), Mss. Ital. Cl. VII, San Marco Library; Spanakis, p. 82.

[13]"Terreni paludosi," cf. Sathas, *op. cit.*, (footnote 8 above), p. 376; Spanakis, p. 30.

[14]Codex 889 (7798), p. 139, Mss. Ital. I. VII, San Marco Library; Spanakis, pp. 79 and 90. Ampelou as a toponym for the area at Selli occurs in a document of 1343; cf. Spanakis, pp. 18–19.

[15]In 1633, a proposal was made to cut 1,000 logs of holm oak in Lasithi. These logs were to be six to seven feet long and a half foot thick; see Codex 918 (8190), folio 1R, Mss. Ital. Cl. VII, San Marco Library; Spanakis, p. 74.

[16]Codex 156 (6005), folio K 58, Mss. Ital. I. VI, San Marco Library; Spanakis, pp. 35–72 and note 238.

courage the inhabitants from cultivating crops other than wheat, such as vines and certain (probably fruit) trees.[17] These settlements around the plain were shown on a map of Lasithi (Pl. 2:b) drawn in 1630 by the Venetian Francesco Basilicata.[18] Settlements at Marmaketo (Marmachioti), Agios Konstantinos (Costatin), and Agios Georgios (Zorsi), and the warehouse (Magazeno) of the Venetian tax official were identified by name. A number of natural features were also named. The path from Candia was shown wending its way up the valley of Cardamuza and over the pass at Selli. The depiction of forests as small wooded patches on the mountains may indicate the extent of deforestation.

Events in Lasithi did not proceed as planned by the Venetian Senate. In 1572 the Proveditor General Marin Cavalli journeyed from Candia to Lasithi, and was alarmed at what he saw.[19] The inhabitants in Lasithi were farming wherever they wished. In disregard of their agreement, the colonists had leased their land to others, and no record was being kept of those who were using it. In addition, the settlers were ruining the mountainsides by burning the trees and were failing to pay the government for their use of the wood. While he was in Lasithi Cavalli made a list of the settlers, which he left with the process server there. In his report to the Senate he also recommended that a surveyor and accountant be sent to Lasithi to divide up the land into fields of 10 *boudées* to be numbered and recorded in a catalogue.

Venetian troubles in Lasithi, however, had only just begun. A report[20] from Candia, dated soon after 1574, gives us some idea of the uncertainty of the yearly harvest in Lasithi. According to the report, 10 years previously Lasithi had been settled by about 400 families who were rich and prosperous farmers. At that time the Venetians had, in some years, been collecting in excess of 30,000 *mouzouria* of wheat from the plain. At the time of the report, however, the number of families had diminished to no more than 200 because of consistently bad harvests. The families on the plain were described as poor, needy, and unable to pay the 25 *stara* of wheat which they annually owed the government. Because of their hardship, the families hid their small harvests so that they might be able to feed their children. According to the report, the other 200 settlers had abandoned the plain for other parts of the island where they would not be plagued by hunger and poverty. The Venetian writer of the report recommended that an official with some authority be sent to the plain at harvest time so that more wheat might be collected. A later document,[21] probably of 1595, recorded that a Venetian tax

[17] " . . . alcune casupole, habitatione solamente per reduto delli huomeni, et animali, et questo no(n) si poter fabricar casa grande, et cio per essur stato prohibito, dall' Eccmo Conso de X per la qual cosa gli viene obstrato di no(n) poter fabricar case, piantar vigne ne nussuna fossa d'albori . . . ." Codex 918 (8392), folio 38R, Mss. Ital. I. VII, San Marco Library; Spanakis, p. 82.

[18] Cf. Spanakis, *op. cit.* (footnote 7, p. 25 above), V, pl. 53. Plate 2:b is from the 17th-century atlas of Crete by Francesco Basilicata and appears here through the courtesy of the Historical Museum of Herakleion, Crete and the kindness of Mrs. L. Kastrinogiannakis.

[19] Codex 918 (8392), Mss. Ital. I. VII; Spanakis, pp. 32–33.

[20] Codex 918 (8392), folio 6R–8R, Mss. Ital. I. VII; Spanakis, pp. 73–80.

[21] Spanakis, p. 89.

official had been appointed to live in Lasithi. His residence,[22] which included buildings for grain storage, was located at Moros, on the southern side of the Kephala (Pl. 2:b).

The documents gave two reasons for the crop failures in Lasithi. The first was a disease, called *sirica*, which afflicted the wheat. In a bad year the entire harvest could be destroyed. A more serious problem, however, was the flooding of the plain. Every winter the rainfall ran off the surrounding mountain slopes onto the plain and caused the banks of the river to overflow. The water gathered at the western end of Lasithi, at the sinkhole (Pl. 5:a), and backed up onto the plain. When the sinkhole was plugged with rocks, trees, or branches, the water could back up as far as the Kephala. During most years the water sat on the plain for 12 to 15 days. With heavy rains, if the sinkhole was blocked, the flood might last for as long as 50 days. This flooding could be disastrous for the wheat crop. If at the time of the flooding the sown wheat had not sprouted, the crop was lost. If sprouted, the wheat was able to survive underwater for up to 15 days, provided that the temperature did not go below freezing.[23]

Because of these conditions, Venetian hopes for a fully productive plain were rarely fulfilled. A document[24] of the late 16th century calls the northwest portion of the plain a lake, where ten out of twelve fields were useless because of the floods. The Proveditor General Isepo Civran wrote in 1639 that the Venetian income in wheat from Lasithi was about 13,000 *mouzouria* yearly, but that the return was uncertain because of the torrential flooding, mists, and hoarfrost which destroyed the wheat.[25] According to Civran, Lasithi had produced only 6,000 *mouzouria* of wheat in 1639, and 3,000 in the preceding year. In addition, the quality of the wheat was so poor that it was used for hardtack on board the Venetian ships.

Concerned by these problems, the Venetian Senate sent engineers to Lasithi. In 1630, the engineer Francesco Basilicata journeyed to the plain and submitted a report (cf. Pl. 2:b). In it Basilicata referred to a plan whereby the plain would be divided into many parts, giving the flood waters time to drain easily at the sinkhole. The flooding and *sirica* would thus be eliminated and the plain would be fruitful as in past good years when it was called "a granary of the city of Candia."[26]

The Venetian solution to the problems in Lasithi, as effected, was first mentioned specifically in a report[27] written by the engineer Nicolo Zen in 1633. Zen described an orthogonal grid of ditches, crisscrossing the surface of the plain. As the ditches in Zen's plan do not appear on Basilicata's map, their construction can be dated to the years 1631–1633. In Lasithi, Zen wrote, the *Kampos* was surrounded by a ditch at the corners of which were stone pillars marking the periphery. This portion of the plain was subdi-

[22]Cf. G. Gerola, *Monumenti veneti nell' isola di Creta*, Venice 1905, III, fig. 52.

[23]Spanakis, p. 134, note 285.

[24]Codex 918 (8392), Mss. Ital. I. VII; Spanakis, p. 81.

[25]Relazioni LXXX, State Archives, Venice; Spanakis, pp. 109–110.

[26]Codex 1683 (8976), folio 10V, Mss. Ital. I. VII, San Marco Library; Spanakis, pp. 84–89 and note 312.

[27]Codex 310 (8190), folio 1R–4R, Mss. Ital. I. VII, San Marco Library; Spanakis, pp. 92–109.

vided by other ditches into 193 1/2 rectangular plots of land (*boudées*), each of which was about 35 *mouzouria* in area. Each *boudée* was said to yield between 26 and 60 *mouzouria* of wheat annually. At the corner of each plot was a pillar which bore the number assigned to that particular *boudée*. In addition to acting as boundaries, the ditches served to lead the flood water off the fields. The result of this new engineering project was that the winter flooding was limited to about 30 *boudées*. Even though the drainage continued to depend on the amount of rainfall and the condition of the sinkhole, these ditches must have improved the cultivation of the plain. This great network of ditches, called *linies*, survives today (Pl. 15:b) as evidence of the exploitation of Lasithi by a distant empire.

IV

THE NINETEENTH AND EARLY TWENTIETH CENTURIES

by H. BLITZER

THE EARLY TRAVELERS

> The villages of the Lasethe basin lie dotted around its margin upon small eminences and spurs that extend from the enclosing height, and the habitations are for the most part surrounded by clusters of fruit trees and some vines, the fruits being chiefly pears and apples, such as are natural to a very temperate region like Northern Europe; for the olive does not grow in it, from its elevation and aspect.
>
> –T. A. B. Spratt, *Travels and Researches in Crete*

Of the travelers who passed through Crete in the 19th century, Pashley (1837), Spratt (1865), and Perrot (1867) provide us with substantial contemporary details of the Plain of Lasithi and its environs.[1] It is not clear that Pashley himself traveled to the Lasithi area, for, although the route on his map shows him passing through the center of the plain, in his text there is no description of Lasithi, but rather a census listing of the 17 Lasithiote villages.[2]

Spratt described Lasithi as a "perfect oasis embosomed amidst stern sterile hills." Both he and Perrot understood the mountain basin to be subject to flooding, a problem which, according to them, was alleviated only by intermittent drainage into the *Chonos* at the western end of the plain. Spratt noted the existence of 15 villages within Lasithi, in addition to small farms and hamlets, and remarked that the plain was "extensively cultivated and even populous," despite its high mountain location. Perrot, however, claimed that the Lasithi villages were poor.

According to Spratt, the villages produced a substantial amount of fruit (as quoted above), and the excellence of these products was also remarked upon by Perrot. Neither of these visitors, however, noted the types of crops grown on the floor of the plain. There are only Spratt's description of widespread sheepherding activity in Lasithi, which may have included grazing on the flats, and his earlier remark on the extent of cultivation within the plain.

In remarking on the absence of the olive, Spratt wrote that in consequence the inhabitants possessed large flocks, with which they were obliged to descend to the

[1]Robert Pashley, *Travels in Crete* I and II, London 1837; Captain T. A. B. Spratt, *Travels and Researches in Crete*, London 1865, I, pp. 99–103; Georges Perrot, *L'Île de Crète*, Paris 1867, pp. 117, 127.

[2]Pashley, *op. cit.*, II, pp. 321–322.

lowlands for pasturage in the winter season. He also stated that other villagers followed, in this seasonal descent, in order to avoid the severity of the winter.

Pashley, in listing the census of his time, wrote of 490 families in the plain (each family consisting of roughly five individuals), or a total of 2,450 inhabitants distributed among 17 villages. Spratt, 30 years later, wrote that *circa* three to four thousand people lived in Lasithi.

In the 19th century the Lasithi plain appears to have been characterized by the cultivation of certain undefined crops, its use for the grazing of flocks, the absence of the olive and other Mediterranean crops such as carob, the growth and prosperity of fruit trees and vines, and a significant flooding problem on the floor of the plain. The relative economic importance of individual crops during the 19th century is not discernible in the travelers' descriptions. Spanakis recounts from various sources, however, that in the 19th century sheepherding was the most common and thus the most important means of livelihood in Lasithi.[3] It would seem, then, that a combination of farming and animal husbandry supported the population of the Plain of Lasithi in the century preceding our own.

Lasithi in the Early Twentieth Century

As recollected by elderly villagers in the Plain of Lasithi today, life in the early 20th century was characterized by φτόχια, or poverty.[4] Prior to the introduction of electricity (in 1964/65), the 16 Lasithiote villages appeared at night along the perimeter of the plain as faintly glimmering areas whose illumination was achieved by means of *lichnaria*, or oil lamps. Communication within the plain and extra-plain contacts were maintained by travel on foot or by means of a pack animal (mule, horse, or donkey). Water for village use was provided by natural springs (see Chapter I) and, more frequently, by wells dug into the floor of the plain. Irrigation, practiced at that time in limited amounts, was achieved by means of the *gerani*, or pole-and-bucket lever (Pl. 9:a).

A villager's perception of the plain at that time included the division of its *peripheria* into the following areas, some of which, in actual fact, had no clear visual boundaries: the *Kampos* (Pl. 4), the actual flat of the plain in the west; the *Xerokampos* (Map 3), the smaller eastern portion of the plain, characterized by all as irregular in topography and having limited water supplies; the Kephala (Map 3), the low limestone hill which visually divided the *Xerokampos* from the *Kampos*; the *Limne*, the westernmost part of the *Kampos*, which was irregularly flooded during the rainy season; the *Chonos*, the sinkhole at the western end of the *Kampos* into which drained the winter runoff; the *rizovounes*, the low hills which ring the perimeter of the plain; and the *vouna*, the

[3]Spanakis, "Τὸ Λασίθι, ἄλλοτε καὶ σήμερο," p. 29.

[4]The information in this chapter is drawn from conversations with elders in all parts of the Plain of Lasithi. As a mosaic it reflects perceptions common to many of the inhabitants of the plain, although differing opinions were encountered. All discussions and conversations were carried out in Greek by H. Blitzer, who is responsible for any errors of interpretation. The author wishes to thank the elderly Lasithiotes for their patience and generosity.

high peaks of the Diktaian range (Pl. 3). In addition to these recognized areas, the small valleys nestled in the foothills (see Chapter I) were viewed as the landholdings of the particular villages situated near by.

Two large pieces of land, Limnarkaro (Pl. 4), a plain owned by the village of Agios Georgios (Map 3), and Katharo, a very high plain located southeast of Lasithi (Pl. 6:b), were also part of the inhabitants' local geographical vocabulary. Katharo was used only for grazing in the spring and summer months (see below), and was owned, for the most part, by the villagers of Kritsa and Tappes, two sheepherding villages east of Lasithi (Map 2). The final element in this local geography consisted of *metochia*, distant landholdings of the Lasithiotes located in places such as Katharo, as well as in areas of lower elevation. Many of these *metochia* were to be found (as still today) in the *Pediada*, in the areas of Episkopi and Kastamonitsa, along the north coast of Crete, in Chersonesos, and on the south coast of Crete in the region of Tsoutsouros.

The two most widely used means of access to and egress from the plain in the early 20th century were via Selli and Tsouli *to* Mnema (Map 3). Selli, known as Ampelos to the locals, gave access to the *Langada*, the long, deep Aposelemis River valley running to the north coast (Map 2), from which one then turned west to Herakleion. The use of Tsouli *to* Mnema permitted the traveler to descend immediately onto the *Pediada*, near ancient Lyttos, and then to Herakleion via Episkopi. According to most villagers, a trip to the area of Herakleion from Lasithi took nine to ten hours on foot or by pack-animal from either of these points, although there are villagers (robust ones!) who claim to have made the trip in six to seven hours. This is not to say, however, that other pathways were not used as well.

There existed in the beginning of this century a number of widely used footpaths and *kalderimia* going out of the Lasithi plain, each of which deposited the traveler on a different side of the plain exterior.[5] The paths within the plain itself ranged from single-lane goat paths (*monopatia*) to larger, cleared *dromakia* (with all of the cobbles cleared away) to *kalderimia*. Paths alongside the already established Venetian *linies* (see Chapter III) running north-south and east-west in the plain were used for travel to and from the fields.

The frequent present-day rate of contact with the rest of Crete (especially with the north coast) appears to have been equaled in the early 20th century, despite the absence of mechanized transport and sophisticated roads. As many as twenty times per year (according to villager estimates), trips would be made to Herakleion to sell products of the plain and to procure those items unavailable in Lasithi. Primary among the latter were olives and olive oil, staples of Greek life totally missing from the Lasithi landscape (see Chapter I). Although elders recall a small number of olive trees planted near villages on the plain in the early part of this century, it was noted that with the onset of heavy snowfall (an occurrence more common then than now), the branches of those olive trees would break, and the trees would then be lost. In addition, all remarked that the poor quality and limited quantity of the fruit produced by the trees did

[5]Spanakis, pp. 136–137 and note 317.

not warrant the planting of olives in greater numbers. Thus, the substantial number of fields owned by Lasithi villagers at lower elevations, outside the plain, were needed to provide them with one of the vital elements in their annual food consumption.

Except for the olive and salt, the Plain of Lasithi was almost self-sufficient in terms of basic food production. If one were to compare those products available on the plain with those necessarily procured from below, the list might appear as follows:

Available in Lasithi	Available Below
Demetriaka: wheat, barley, oats	Olives, olive oil
Osprea: lentils, beans, peas, fodder of sorts	Salt
Milk	Sugar
Cheese	Tea
Fruits: apple, pear, cherry, plum	Coffee
Nuts: almond, walnut	Fish
Meat	Carob
Garden crops: onions, scallions	Figs
Honey	

In addition to foodstuffs, supplies for the craftsmen in the Lasithi villages were procured from the north coast, mainly from Herakleion and Agios Nikolaos. Among these were metals (iron, tin, lead, copper), processed wools (the wool from Lasithi sheep having been sent down to be processed), various unavailable kinds of wood, straw baskets (for cheese-making), dyes (for the cloth used in the manufacture of *vraches*, or traditional mountain dress), and processed leathers (for bootmaking). Pottery was brought up to the plain from villages in the *Pediada* and from the region of Ierapetra. Among the Lasithi craftsmen at the beginning of this century were stonemasons and house builders, carpenters, smiths, stone carvers for ecclesiastical decorations, tailors, dyers, fullers, shoemakers and bootmakers, saddle makers, ironworkers, bellmakers, men who made the combs for the household weaving looms, and many others. Each one of these craftsmen, however, also worked in some way with the land.

If one were to reconstruct the appearance of the plain at the beginning of this century according to village elders, it would appear quite different from the aspect of today. According to most, the *Kampos*, or flat of the plain, contained no trees whatsoever. Some state that not all the plain was cultivated, and all agree that during the rainy season water collected in the western part of the plain, or *Limne*, for as much as a month at a time, making cultivation there difficult, if not impossible. In addition, in the memory of older shepherds, the *Limne* was sometimes used for the grazing and watering of the herds.

No windmills were visible on the surface of the plain, for that mechanism was not extensively used until the early years of the 1920's. All irrigation was produced with the *gerani* (Pl. 9:a), whose use entailed remaining in the fields all day to accomplish the watering of not more than one or two *stremmata* per family per day (all who have

experienced this backbreaking labor are in agreement on this). It is no surprise, therefore, that the major agricultural products of the Plain of Lasithi as late as the beginning of the 20th century were dry crops such as wheat and legumes. The potato, presently the most important and thirsty cash crop in Lasithi, did not become common until well into the century, with the coming of windmills and motor power to pump water from the vast resources of the water table. Thus a problem of the Plain of Lasithi in the late 19th and early 20th centuries was the inability to utilize an enormous underground water supply.

The passage of the Lasithiotes out of the plain to the landholdings where they maintained olive orchards or other crops was carried on in addition to a great deal of traffic back and forth with the flocks. According to elders in the plain today, a majority of the inhabitants in the late 19th and early 20th centuries depended in some way on the products of sheepherding. Even poor families are recalled as owning some proportion of the flocks on the plain, although they might not have participated in the herding. Spanakis reports that the flocks (sheep and goat together) in Lasithi a century ago and even later are estimated to have numbered over 50,000.[6]

Elderly inhabitants recall that in October and November shepherds from the plain migrated to the *metochia* below and kept their flocks in the lowlands until the spring rains had replenished the greenery of the Lasithi plateau and snows and cold had diminished. With the departure of these shepherds, those remaining in the villages consisted mainly of older men and women and younger women with children still in school. Winter demands in terms of agricultural labor were few, and the remaining inhabitants of the plain were able to maintain themselves with supplies brought up by pack animal, in addition to stores accumulated during the year.

During the olive harvest at the lowland *metochia* those left behind in Lasithi would journey down to help in the collection. Some elders remember that after the harvest mules and donkeys would wend their way up the *kalderimi* through the *Langada*, laden with *asches* filled with olive oil varying in weight from 45 to 60 *okades* per *asche*. Salt was brought up to the plain in large balls and then pounded in stone *gournas*, which were located in the common work area of virtually every household.

If the Lasithiote family owned and herded a substantial number of sheep and/or goats, a return to Lasithi in April would include the opening of the family *metochi* in the uplands. These farmsteads, located in Limnarkaro, Katharo, or in other smaller valleys above the elevation of the plain, were the sites of intensive labors beginning in April and terminating in October with the onset of cold weather. These seven months revolved around the manufacture of cheese from the vast quantities of milk produced by the herds at that time. The cheese, known as *kephalotyri*, was a basic source of income for the shepherd, as it was sold or traded in Herakleion for needed goods.

The upland *metochi* consisted of a stone building with several hearths for the boiling of milk (Pl. 9:b) and a special storage area, dug into the hillside, where the cheese

[6]Spanakis, "Τὸ Λασίθι, ἄλλοτε καὶ σήμερο," p. 29.

was kept cold for the duration of the season. A living area for the entire family of the shepherd permitted full households to make this seasonal move. Food for the sheep-herding family was provided by a large kitchen garden maintained at each *metochi* (Pl. 8). A combination of vegetables, products from fruit and nut trees, and a grain crop planted every year in the vicinity of the upland *metochi*, in addition to the milk products of the herds, supported the family throughout the season.

These recollections of agricultural and sheepherding life in Lasithi define a time of simple living and demanding relationships with the land. With the advances of the last half century the face of the land has been changed, and lifestyles have been modified accordingly. It is worthwhile to remember such a past.[7]

[7]S. Spanakis and N. Calvert, "Τὸ Λασίθι καὶ οἱ μύλοι τοῦ," Ἀμάλθεια 4, 1973, pp. 257–273. Recollections of the elderly inhabitants are not without humor in regard to the poverty of the early 20th century in Lasithi. Witness a reference to monotonous diets in the following *mantinada*, or song:

Πότε θ' ἐρθὴ ἡ 'Αγί' Ἰοαννού	The Feast of St. John, when will it come?
Νὰ πάμε στὸ Λασίθι.	That we may go to Lasithi,
Νὰ μὰς τὸ ξαναψήσουνε	So they will roast again for us
Βραστὸ τὸ κολοκύθι.	The boiled *kolokithi* (squash).

V

CONCLUSION

With the historical perspective provided above, we may now make some suggestions about the role of Lasithi in the history of the island.

Lasithi represents an important part of Crete, for the geography of the island is dominated by great mountain ranges, broken throughout into fertile valleys and plains. Abundant perennial water in these areas sustains extensive agriculture, sheepherding, and, until recently, a relatively large segment of the island's population. This region has also been an important source of timber, wheat, minerals, fruit, meat, wool for textiles, cheese, and milk. Like many Mediterranean lands, Crete is a combination of sea coast and mountains, which together have historically formed a single economic system.[1] The highland interior of Crete has probably contributed more to the growth of the coastal centers of the island than has previously been recognized.

The economic roots of the Bronze Age palace centers of Crete are to be sought in the mountainous interior of the island. Such a relationship appears to have existed between Lasithi and Mallia in the Middle and Late Minoan periods, and between Lyttos and the plain during the Archaic through Hellenistic periods. The prehistoric luxury items and specialized goods found in Lasithi certainly came from the coasts, from Mallia or other centers. Since the large community at Mallia, however, did not, in all likelihood, live exclusively off the products of the surrounding coastal plain, it seems probable that Mallia procured a substantial portion of its agricultural produce from Lasithi. It may be no coincidence, then, that the palace center at Mallia did not develop until permanent farming and sheepherding communities had already been established, probably as early as the Early Minoan II period, in Lasithi.

Crete has attracted foreign invaders throughout its history. Once established, these rulers have been quick to exploit the island, particularly areas of natural richness such as Lasithi. The systems of tribute recorded in the Mycenaean tablets from Knossos, the laws of the Dorian city-states, and the Venetian Senatorial decrees are remarkably single-minded in this respect. During the Mycenaean and Venetian periods, either a local garrison or warehouse, or both, was established on the plain to oversee the effective collection of revenue. Historically, the reaction of the local inhabitants appears to have been to desert the plain, an occurrence documented for the Late Minoan III, Classical, and Venetian periods.

[1]Cf. F. Braudel, *The Mediterranean* I, New York 1972, esp. pp. 23–53 on the historic importance of mountain regions in the Mediterranean, and pp. 85–92 on transhumance, "one of the most distinctive characteristics of the Mediterranean world."

The history of settlement on the Plain of Lasithi serves, therefore, as an indicator of the unfolding of civilization on the island, and provides us with an example of the adaptation and use of an environment in the Greek world which has gone relatively unnoticed.

VI

THE CATALOGUE OF SITES

The sites in this catalogue follow the order of Pendlebury's list in *BSA* 36, 1935/36, pp. 9–12, beginning at the northwest corner of the plain and proceeding clockwise around the edge.

Following the format suggested by W. A. McDonald and R. Hope Simpson in *AJA* 65, 1961, pp. 221–224, each entry in the Catalogue of Sites includes a site number, the nearest modern village, site name, map coordinates of the location, bibliography, map numbers, description of the site, pottery and stone summary, and periods of ancient occupation. The description of the site gives the location, size, visible remains, and, in some cases, the possible use of the site. All measurements are metric. Measurements of a site are given north-south by east-west. Boldface numbers refer to specific sherds which have been catalogued in Chapter VII. All pottery shapes are understood to be fragmentary, unless otherwise stated.

References to the maps of the various periods indicate those on which the sites may be found. As the site name and number may include more than one specific location, sometimes the position on the maps may be seen to vary slightly from one period to another.

1. Pinakiano: Moni Vidiani. V 404 H 214. Map 4.

On the mountain slope about 25 meters northeast of the Vidiani monastery, there is an area (20 × 20 m.) of pottery and worked stone on a natural terrace (Pl. 10:a). Below the site are manmade terraces walls which extend down the slope and onto the plain, the location of the *mettochio di Vidi* mentioned in the Venetian cadaster of 1582 (Spanakis, p. 72). In the Late Neolithic or EM I period the site may have been used as a seasonal camp.

Handmade burnished sherds: cup fragment **1**. Flakes of flint and obsidian are common.

LN–EM I.

2. Pinakiano: Tou Stavrakou *o* Lakkos. V 414 H 214. "Trapeza," p. 9; *A. of C.*, p. 325. Maps 7, 12, 14.

A kilometer east of Vidiani, the site (150 × 150 m.) occupies the top and southeast slope of a ridge that juts out into the plain. Pendlebury reported Archaic and Roman sherds. The Minoan pottery is confined to the south slope of the ridge, the Archaic pottery to the ridge as a whole, and the Roman pottery to a small area in the plain. The largest area of occupation appears to date to the Early Iron Age. On the south slope

there is an artificial terrace supported by a retaining wall of boulders. On top of the terrace, three walls inclose an area of 10.85 × 5.20 m. The retaining wall is dated Minoan by the Minoan sherds on the terrace.

MM I–IIIA cup, brazier legs of the round (LM III?) and thick, oval (MM III?–LM I) variety, spool, Orientalizing or Archaic cup, Late Roman flanged bowl **82**. Grind stone and stalagmite fragment from the south slope.

MM I–III, LM III, Archaic, Late Roman.

3. Pinakiano: Kardamoutsa. V 418–424 H 214–217. "Trapeza," p. 9. Maps 7, 12, 14.

Situated a half kilometer west of the village of Pinakiano, the site sits on the spur of Agios Georgios (Pl. 15:a, b). Pendlebury reported walls and sherds, the latter of the Geometric and Archaic periods, which are visible on the east slope of the site. Roman sherds cover an area of 100 × 500 m. on top of the spur. A bronze double axe, inscribed with two characters of Linear A and said to have come from the site, was acquired by Evans.

Thick, oval brazier leg (MM III?–LM I), Geometric lid **57**, Orientalizing sherd decorated with petaled rosettes, Archaic relief pithoi, Classical black-glazed sherds including cup rim **68**, many loomweights, Late Roman plate rim **85**. Used obsidian flakes.

MM III?, Geometric, Orientalizing, Archaic, Classical, Late Roman.

4. Pinakiano: Agios Georgios Papoura. Ancient Δάτταλλα? V 422–426 H 224–226. *AJA* 11, 1896, p. 455; Taramelli, "Ricerche archeologiche cretesi," p. 407; "Trapeza," p. 10; *ILN*, 1938, p. 384, and *CCO*, pp. 113–114 and note 1. Maps 11–13.

This large settlement of the Protogeometric-Archaic period is located on the ridge one kilometer north of Pinakiano (Pl. 15:a). Seventy meters above the plain, the site looks down on the pass of Selli (Pl. 2:a), the natural entrance to Lasithi from the north. Walls and pottery are found on the ridgetop and on the south and east slopes over a total area of 200 × 400 m. In "Trapeza," p. 10, Pendlebury refers to Middle Minoan through Roman sherds on the site, Archaic predominating. The status of the site in the Minoan period is uncertain: Pendlebury calls Papoura a LM site ("Kastellos," p. 15) but excludes it from his list of LM sites in *A. of C.* Minoan sherds visible on the site are rare: we saw three round (LM III?) brazier legs and a conical cup. Evans bought a Linear A tablet, said to be from the site (W. Brice, *The Inscriptions in the Minoan Linear Script of Class A*, Oxford 1961, pl. 27: IV, 7).

In 1937, Pendlebury excavated a trial trench on the south slope of Papoura ("Kastellos," p. 1). The unpublished pottery from the trial is mostly Protogeometric, Geometric, and Archaic. While the size of the site during the Bronze Age is questionable, it seems certain that Papoura was a city during the Protogeometric and Geometric periods (Pl. 5:b). Black-glazed sherds are rare on the site, so that perhaps by the 5th century B.C. Papoura had been abandoned as a settlement. Later material, consisting mostly of

votive terracotta plaques and black-glazed sherds of the 5th and 4th centuries B.C. (*A. of C.*, p. 351), appears to be concentrated on the southeast slope, probably the site of a shrine. Boardman publishes several plaques from the shrine (*CCO*, pp. 113–114). A plaque of a goddess with a polos and upraised arms, said to be of the 6th century B.C., appears in S. Alexiou, "Ἡ μινωϊκὴ θεὰ μεθ' ὑψωμένων χειρῶν," ΚρητΧρον 12, 1958, pl. ΙΓ': fig. 1, opp. p. 288. Another Archaic plaque is illustrated by P. Faure in "Sur trois sortes de sanctuaires crétois," *BCH* 91, 1967, p. 130, fig. 10. The coin of "Akontion" reported in *JHS* 57, 1937, p. 140, found near Papoura, is probably from the city of Olous (Olontion) as Dr. Alan Walker has suggested to me. Finally Pendlebury notes Roman sherds and coins from the south slope of the site (*A. of C.*, p. 372).

The ancient name of the site may have been Δάτταλλα. A late Archaic bronze mitra, inscribed with letter forms similar to those of Archaic Lyttos, has recently been published (Jeffery and Morpurgo-Davies, *op. cit.* [footnote 78, p. 21 above]). The inscription records the hiring of a scribe for the community of the Δαταλεῦσι. The place name Δάτταλλα has previously been placed in the area of Lasithi because it is one of the names which occurs on the western border of the city of Lato. At the time when the mitra was inscribed (*ca.* 600 B.C.), the site at Papoura was the largest settlement in this area (between Lyttos and Lato) of Crete, thus making the identification probable. A previous identification of the site as Ἐρῶνος, named in the treaty (*IC* IV, 179, line 6) of 183 B.C., made by P. Faure ("La Crète aux cent villes," ΚρητΧρον 13, 1959, p. 208) has no evidence in support of it, and can be disregarded.

MM?, Protogeometric, Geometric, Orientalizing, Archaic, Classical.

5. Pinakiano: Karphi. V 432 H 234. "Karphi"; Seiradaki, "Pottery from Karphi"; V. Desborough, pp. 172–177; *idem*, *The Greek Dark Ages*, New York 1972, pp. 120–121. Maps 6, 7, 10, 12.

About 1,400 meters north of the village of Lagou, the site was excavated and published by Pendlebury ("Karphi"). The pottery from the site was subsequently published by Mercy Seiradaki (née Money-Coutts). In the Middle Minoan period the peak of Karphi (Pls. 14:a, b, 15:a) was a sanctuary (N. Platon, "Τὸ ἱερὸν μαζᾶ καὶ τὰ μινωϊκὰ κορυφῆς," ΚρητΧρον 5, 1951, pp. 119–120). Karphi is a large settlement occupied about 1150–1000 B.C. Mrs. Seiradaki has related to me that she remembers several sherds from Karphi decorated with compass-drawn concentric circles, presumably to be identified as Protogeometric, and so the occupation of the site may continue for a certain period of time in the 10th century B.C.

MM, LM IIIC.

6. Pinakiano: Donades. V 427 H 218. "Kastellos," p. 1; "Trapeza," p. 10; *ILN*, 1938, pp. 384–385; *A. of C.*, p. 341. Map 12.

Immediately east of Pinakiano, an Archaic settlement extends 50 × 70 m. over the mountain slope. Two rooms of an Archaic building were excavated by Pendlebury

(*ILN*, 1938, pp. 384–385). His pottery notes from the excavation record a few sherds of LM I and the rest Archaic, with perhaps some Geometric. A 7th-century B.C. terracotta plaque which depicts a female head wearing a polos is illustrated in *ILN*, 1938, p. 385, pl. 4. The pottery from the final occupation of the rooms dates to the 6th century B.C.

Archaic.

7. Lagou: Kephali. V 432 H 218. Maps 9, 12, 14.

At the edge of the plain, the site sits on the top and south slope of the low ridge where the village of Lagou is situated. The site appears to cover an area of 60 × 60 m., unless it extends under the village. Roman sherds were found on the ridgetop, while LM III, Geometric, Archaic, and Roman pottery came from the slope. Kephali may be an Early Iron Age cemetery. In 1582, there was a small settlement at Lagou (Spanakis, p. 72).

Round (LM III?) brazier legs, LM IIIA2–B goblet stem, base of a Geometric burial pithos, conical cup and miniature pithos, both probably Protogeometric (Δελτ 21, Β′ 2, 1966 [1968], p. 408), 6th-century B.C. terracotta figurine of a female with upraised arms and wearing a polos (Alexiou, *op. cit.* [under No. 4 above], p. 289, pl. ΙΓ′: fig. 4), and 6th-century (after Christ) dish.

LM III, Protogeometric, Geometric, Archaic, Late Roman.

8. Lagou: Kolonna. V 434 H 220. "Trapeza," p. 10; *JHS* 58, 1938, p. 233; *ILN*, 1938, p. 412, figs. 4 and 5. Maps 12, 13.

At the east edge of the village of Lagou, the site extends from the first fields in the plain up the slopes to the north over an area of *ca.* 100 × 100 m. Pendlebury excavated two buildings of the Archaic and Archaic-to-3rd-century B.C. periods at Kolonna (*ILN*, 1938, p. 412). The latter building was first occupied in the 7th century; two of its rooms were incorporated into a neighboring building in the 5th century, and in the 3rd century B.C. it served as a dyeing and weaving establishment.

The sherds from the Kolonna excavations are stored in Box 1740 U, Kolonna 3, in the Stratigraphical Museum at Knossos. The sherds are apparently from both buildings, and date to the 7th–3rd centuries B.C. (Pl. 18:c, d): Orientalizing kotyle rim **58**, 7th-century dinos rim **59**, Archaic jug rim **63**, Orientalizing and Classical cup rims **61**, **62**, **69** and bases, e.g. **70**, lekanis base **64**, and 4th-century kantharos fragment **72.**

Orientalizing, Archaic, Classical, Hellenistic.

9. Lagou: Kerasa. V 433 H 218. *ILN*, 1938, pp. 385, 412; "Trapeza," p. 10; *A. of C.*, pp. 341, 361. Maps 12, 13.

A small valley less than a kilometer east of Lagou, Kerasa is the site of a cemetery of the Archaic–Hellenistic period. Pendlebury excavated one of the tombs when it was revealed during the construction of the asphalt road (*ILN*, 1938, pp. 385, 412). These tombs are situated along the road on the west side of Kerasa. Other tombs were re-

vealed during the construction of the new church to the east of Lagou. The pottery from the tombs dates to the Archaic and Hellenistic periods. The cemetery probably belonged to the settlement at Kolonna (8).

Within the valley of Kerasa, *ca.* 500 m. northeast of Lagou, is a small (30 × 30 m.), Late Roman site. In 1582, there was a small settlement in Kerasa (Spanakis, p. 72 and note 273).

Archaic, Hellenistic, Late Roman.

10. Tzermiado: Gaitanou. V 424 H 223. "Trapeza," p. 10. Maps 12, 13, 14.

This Archaic–Classical settlement is located on the top and south face of a ridge about 200 meters west of Tzermiado. Because of their massive regular construction, several walls on the slope, in service as retaining walls, appear to be ancient. In 1977 the site was razed in the construction of a new school. There was a settlement at Gaitanou in 1582 (Spanakis, p. 72).

Archaic and Classical sherds, reported by Pendlebury, in Box 341 in the Stratigraphical Museum at Knossos include several fragments of Classical black-glazed ware, rim 73 of a Classical tray, and a skyphos rim of the 5th century B.C. There are also Late Roman sherds on the site.

Archaic, Classical, Late Roman.

11. Tzermiado: Trapeza Cave. V 445 H 217. "Trapeza," pp. 13–131; "Kastellos," pp. 2–6. Maps 4–6, 9.

In the foothills about 200 meters northeast of Tzermiado (Pl. 12), the cave of Trapeza was excavated by Pendlebury ("Trapeza"). The site was a settlement in the LN–EM I period, and used for burials in the succeeding EM II–MM I period by the inhabitants of the nearby site at Kastellos.

Burials are known in the area of the site. On the terrace outside the cave, the remains of a LM IIIA larnax burial were found ("Kastellos," p. 3). A half kilometer north of Tzermiado, the cave of Skaphidia produced burials of the LN–Subneolithic period ("Kastellos," p. 5). Some 400 meters east of Skaphidia, the cave of Meskine yielded a few Neolithic sherds, and some MM I–III pithos burials ("Kastellos," p. 6). At the north edge of Tzermiado, the cave of Argoulia produced sherds of the Neolithic–LM periods which are now in the Ashmolean Museum at Oxford ("Trapeza," p. 10).

LN–MM I, LM IIIA.

12. Tzermiado: Kastellos. V 456 H 215. "Kastellos," pp. 7–56; *ILN*, 1938, p. 384. Maps 4–9, 12.

On the top of a steep conical hill one kilometer west of Tzermiado (Pl. 12), this site was a burial place in the Neolithic period, and a large (*ca.* 100 × 40 m.) settlement in the EM II–MM IIIA period. Scant traces of occupation in the LM I (*A. of C.*, p. 233), LM III ("Kastellos," p. 44) and Archaic ("Kastellos," p. 46) periods were noted.

Pendlebury excavated parts of the site ("Kastellos," pp. 7–56). In the Middle Minoan period, pithos burials were dug in the lower slopes of the hill ("Kastellos," p. 15). A few fragments of LM III jars and goblets were found.

LN–MM IIIA, LM, Archaic.

13. Tzermiado: Agia Anna. V 452 H 212. "Trapeza," p. 11. Maps 7–9, 12–14.

Directly east of Tzermiado, the site sits on the low ridge where the church of Agia Anna is located (Pl. 12). Sherds cover an area of 200 × 100 m.: mediaeval and later pottery on the southern end, Archaic–Hellenistic to the north, Roman on the west slope, and Minoan over the entire area. A small area directly southeast of the church produced many Classical black-glazed sherds and two pyramidal loomweights. The wide distribution of thick, oval brazier legs over the site indicates the settlement was a substantial one during the MM III–LM I period. Two silver coins from Lyttos, said to be from the area of Tzermiado, may come from this site, cf. G. Le Rider, *Études crétoises*, XV, *Monnaies crétoises du V^e^ au I^er^ siècle av. J.-C.*, Paris 1966, p. 225. Pendlebury noted MM–LM, Archaic, Hellenistic sherds; Hellenistic and Roman coins.

MM I–III ribbed cup, low MM III conical cup **34**, MM III–LM I conical cup **40**, LM I rounded cup, LM IIIA cup fragment decorated with an iris V pattern, LM III kylix stems, LM IIIA2–B goblet stem, Late Geometric–Orientalizing cup rim **60**, Orientalizing–Archaic krater rim **56**, Archaic pithos fragment with a sphinx depicted in relief **67** (Pl. 18:b), Classical black-glazed sherds, and Hellenistic bowl rim **76**. Two used obsidian flakes.

MM III–LM III, Orientalizing–Hellenistic, Late Roman.

14. Tzermiado: Vounos. V 443 H 194. "Trapeza," p. 11. Map 14.

This site, located in the middle of the plain about 600 meters west of the Kephala, is called Vounos because it sits on a low mound, no more than a meter in elevation above the plain (Pl. 10:b). On the mound an area (50 × 50 m.) is coered with pottery and rooftiles. Pendlebury dated the pottery to the Roman period; we recognized two fragments of African Red Slip Ware: a bowl rim of the 5th or early 6th century after Christ and a dish rim of the 4th or 5th century.

One kilometer north of Vounos, in an area (V 443 H 206) known as Mires, a field on the south bank of the Megalos Potamos has Roman pottery scattered over an area of 30 × 30 m.

Both sites were probably small farm sites of the Roman period.

15. Marmaketo: Phakidia. V 456 H 207. Dawkins, "Excavations at Pláti," p. 4; "Trapeza," p. 4. Maps 6–8.

The site sits on a flat rock outcropping 20 meters above the plain immediately north of Marmaketo (Pl. 12). Sherds cover the top of the outcropping over an area of

80 × 60 m. Pendlebury classified it as a MM I–LM I site. The site appears on the cadaster of 1582 as *Mettocchio Marmachiotti*, and on the Basilicata map of 1630 (Pl. 2:b).

MM sherds are conspicuous; EM II–MM IA bowl, thin (MM I?–II) and thick, oval (MM III?–LM I) brazier legs, straight-sided and carinated cup fragments, e.g. **28**, saucer rim **32**, MM III bowl **33**, LM I rounded cup **44**. One used obsidian blade. Pl. 20:a.

MM I–LM I.

16. Marmaketo: Agios Iannis. V 459 H 207. Map 14.

Some 300 meters east of Marmaketo on the southwest side of a small hill (Pl. 12), where the church of Agios Iannis is situated, there is a concentration (20 × 20 m.) of Roman sherds. The pottery appears to be Early Roman: a Çandarli Ware bowl and a lamp medallion with what appears to be a molded cock's tail similar to *Demeter*, p. 50, fig. 19, J 34 (1st century after Christ). The site may have been a farm in the first three centuries after Christ.

17. Agios Konstantinos: Ligizo. V 449 H 195. Map 14.

On the northwest side of the Kephala, the site consists of an area (60 × 150 m.) of sherds on the plain between the hill of Monakos Kephalos and the Kephala. The sherds are Roman, and some glazed examples may be Mediaeval.

18. Agios Konstantinos: Moni Kroustellenia. V 463 H 196. "Kastellos," p. 2. Maps 6–8, 12–14.

Minoan pottery is visible around the base of the hill on top of which is built the Kroustellenia Monastery. Pendlebury saw pithos burials and Archaic sherds east of the monastery. The *floruit* of the site appears to be the MM III–LM I period, to judge from the wide distribution of thick, oval brazier legs. A possibility which cannot be dismissed is that the site is the cemetery for the settlement of Charakia (20) 200 meters to the south across the Megalos Potamos.

MM bridge-spouted jar and carinated and conical cups, MM I straight-sided cup **26**, LM I cup **43**, Archaic globular aryballos, three Classical black-glazed sherds, 5th or 6th century (after Christ) bowl.

MM I–LM I, Archaic, Classical, Late Roman.

19. Agios Konstantinos: Vromiades. V 468 H 197. Maps 9, 10.

On the west slope of a hill 300 meters east of the Kroustellenia Monastery, the site consists of a concentration (40 × 40 m.) of LM III sherds.

Three round (LM III?) brazier legs, LM IIIA2–B goblet stem, conical cups with incurving rim, coarse krater **52**.

LM IIIA2–B.

20. Agios Konstantinos: Charakia. V 465 H 193. "Trapeza," p. 11. Maps 4–6, 7, 12, 14.

The site is on the hilltop (75 × 50 m.) at the northeast edge of Agios Konstantinos. Most of the pottery, from a modern cutting in the hill for the road to Mesa Lasithi, was EM II–MM I. The Roman sherds are confined to the first fields east of the hill. Pendlebury reported Archaic sherds and foundations north of the village. Charakia appears to have been settled during the LN–MM III and Archaic periods.

Neolithic carinated bowl **2**, EM I–II incised bowl **11**, shallow dish **13**, EM II cup **14**, MM I cup **23**, MM I–III carinated cups and tumblers, e.g. **27**, **29**, African Red Slipped bowl of the 6th or 7th century after Christ. An obsidian blade.

LN–MM III, Archaic, Late Roman.

21. Agios Konstantinos: Skallopoula. V 459 H 190. Map 4.

On the south slope of the Kephala, immediately southwest of the village, the site is an area of 30 × 30 m. of handmade burnished sherds, great quantities of used and unused obsidian flakes, several flint flakes, and many stone rubbers (Pl. 19:a). The site probably represents a small settlement of the LN–EM I periods.

Late or Subneolithic bowl **3**, cups **6** and **12**, goblet stems, lug handle, spatula fragments (Pl. 19:a).

LN–EM I.

22. Mesa Lasithi: Platellais. V 467 H 198. "Kastellos," p. 1. Maps 7, 12.

About 200 meters west of Mesa Lasithi the site sits on the south slope of the hill of Kastellos, only a meter or so above the present level of the plain. Walls and pottery are exposed by the modern road cutting for a length of 100 meters in an east-west direction. The shale and soil of the hill lie on top of the site, in places a meter in depth (Pl. 17:a), so that the north-south extension of the site is visible for only 40 meters. The prehistoric (MM III–LM I) pottery is found all over the site, while the Archaic sherds appear to be confined to the western portion. Pendlebury reported Archaic sherds.

Two separate traces of ancient walls are visible in the road cutting. The east wall is preserved to a height of three courses of large natural blocks of *sideropetra*. Fifty meters to the west, an irregularly coursed wall is met by a cross wall on the east edge.

Many thick, oval (MM III?–LM I) brazier legs, one round (LM III?) example, MM III coarse storage jar **36**, oval-necked amphora **38**, a black-painted fragment, probably of a Geometric or Archaic pithos (Pl. 20:c).

MM III–LM I, Archaic.

23. Mesa Lasithi: Vrina. V 473 H 213. Map 7.

One kilometer north of the village, the site (30 × 30 m.) is located on the slope of Mt. Psarokorphe about 40 meters above the plain and three minutes' walk west of the *kalderimi* to Mesa Lasithi. On a plateau, the site looks north over the small valley north

of the village. The tops of wall foundations, of *sideropetra* blocks, can be seen. Vrina may have been the site of a farmhouse of the MM period.

MM brazier legs, MM straight-sided cup, MM III–LM I conical cup, Trickle Ware pithos (*BSA* 59, 1964, p. 83), and post-Roman glazed sherds.

MM III, post-Roman.

24. Mesa Lasithi: Plakamoura. V 476 H 212. Map 4.

On a western slope of Mt. Psarokorphe, the site is two minutes' walk above (west of) the Mesa Lasithi–Mirabello *kalderimi* where it begins to climb out of the valley. A concentration (20 × 20 m.) of sherds about 25 meters above the valley floor, the site may represent a camp datable to the Subneolithic–EM II period.

Handmade pottery similar to that of site No. 21: EM I–II Fine Gray Ware and cup rim probably from an EM I chalice like Marinatos, "Προτομυναϊκὸς θολοτὸς τάφος," pl. 4:12, 13.

LN–EM I.

25. Mesa Lasithi: Diaselo. V 469 H 201. Map 14.

In a low saddle about 200 meters northwest of Mesa Lasithi, the site consists of an area (60 × 60 m.) of Roman sherds.

Two fragments of a bowl of Hayes's form 3 (cf. **79**; 6th century after Christ), flanged bowl of the 7th century **84**, and post-Roman glazed sherds.

Late Roman.

26. Mesa Lasithi: Psygika. V 474 H 208. Map 7.

The site is located 600 meters north of the village, on the same ridge as the church of the Archangel Michael (Pl. 17:b). On a terrace at the north side of the ridge, walls and pottery are found over an area of 40 × 40 m. Three walls of large natural blocks of *sideropetra* inclose a rectangular area of 2.90 × 8.45 × 4.30 m. On the west side, two parallel walls (Pl. 17:b) set off at 2.30 m. are bounded by an area of stone flagging to the north, as for a terrazza, a common feature of Minoan villas, cf. G. Cadogan, *BICS* 18, 1971, p. 146. Psygika may have been a farm establishment of the MM III–LM I period.

Many coarse sherds; one thin, oval brazier leg (MM I?–II), fragments of a lamp, conical cup, jar, all probably MM III–LM I.

MM III–LM I.

27. Mesa Lasithi: Armi. V 472 H 203. "Kastellos," p. 2. Maps 7, 10.

About 100 meters north of the church of the Archangel Michael, sherds (50 × 50 m.) cover the top, east and west sides of the ridge. A small settlement of the MM and LM III periods, Armi is immediately west of the Mirabello *kalderimi* from Mesa Lasithi. Pendlebury described the site as being contemporary with Karphi. Larnax burials and

LM III sherds (*A. of C.*, pp. 314, 263) located about 200 meters to the east, under the modern road at the west edge of the village of Nikophordo, may represent the cemetery of Armi.

MM brazier legs, conical and ribbed cup fragments; LM III kylix stems, krater ring feet (cf. Seiradaki, "Pottery from Karphi," p. 23, fig. 15, no. 2) and a pithos sherd decorated with a rope pattern (cf. *ibid.*, pl. 1:a) all of which may be LM IIIC.

MM III, LM IIIC?

28. Mesa Lasithi: Dichalo. V 483 H 197. Maps 6, 7.

One kilometer east of the village and 300 meters into a narrow gorge between the deserted village of Zmaliano and Mesa Lasithi, an area (20 × 20 m.) of sherds is located on a low terrace next to (south of) the stream bed. Dichalo may have been a field house of the MM period.

MM brazier legs, carinated cup with ribbing, bowl.

MM.

29. Mesa Lasithi: Vigla. V 487 H 199. "Kastellos," p. 2. Maps 6–8.

Almost two kilometers east of the village, the site sits on top of a prominent hilltop known as Vigla, which is about 160 meters above the plain. The path to the village of Tappes runs along the base of the hill on the south. Walls and pottery on the top and south terraces cover an area of 50 × 50 m. Because of its splendid view and hilltop situation, the site reminds one of the villa site at Pyrgos (G. Cadogan, *Palaces of Minoan Crete*, London 1976, pp. 149–152).

Brazier legs of MM I–LM I types, MM carinated and low cups, MM III–LM I conical cup, and rim **47**, probably from a LM I ogival cup.

MM I–LM I.

30. Mesa Lasithi: Stous Skarveli. V 485 H 192. Map 7.

On a low hill at the edge of the plain about 500 meters southeast of Mesa Lasithi, the site (100 × 50 m.) consists of three separate architectural structures (Fig. 1). A large building (a) has exterior walls of limestone boulders laid in irregular courses, the crevices between the boulders being filled with small stones. The northern wall is preserved to a height of four courses. On a terrace to the southwest, a second structure (b) appears to be a separate room or building. Three retaining walls form an elevated platform (c) to the south. The surface of the platform consists of flat limestone outcropping, probably trimmed level, which abuts an artificial terrace on the west, supported by retaining walls. The site may have been a MM III–LM I farmstead, with two buildings (a, b) and a threshing floor (c).

Many coarse sherds: MM III?–LM I brazier legs, MM cup fragments. An obsidian blade, three ground stones.

MM III.

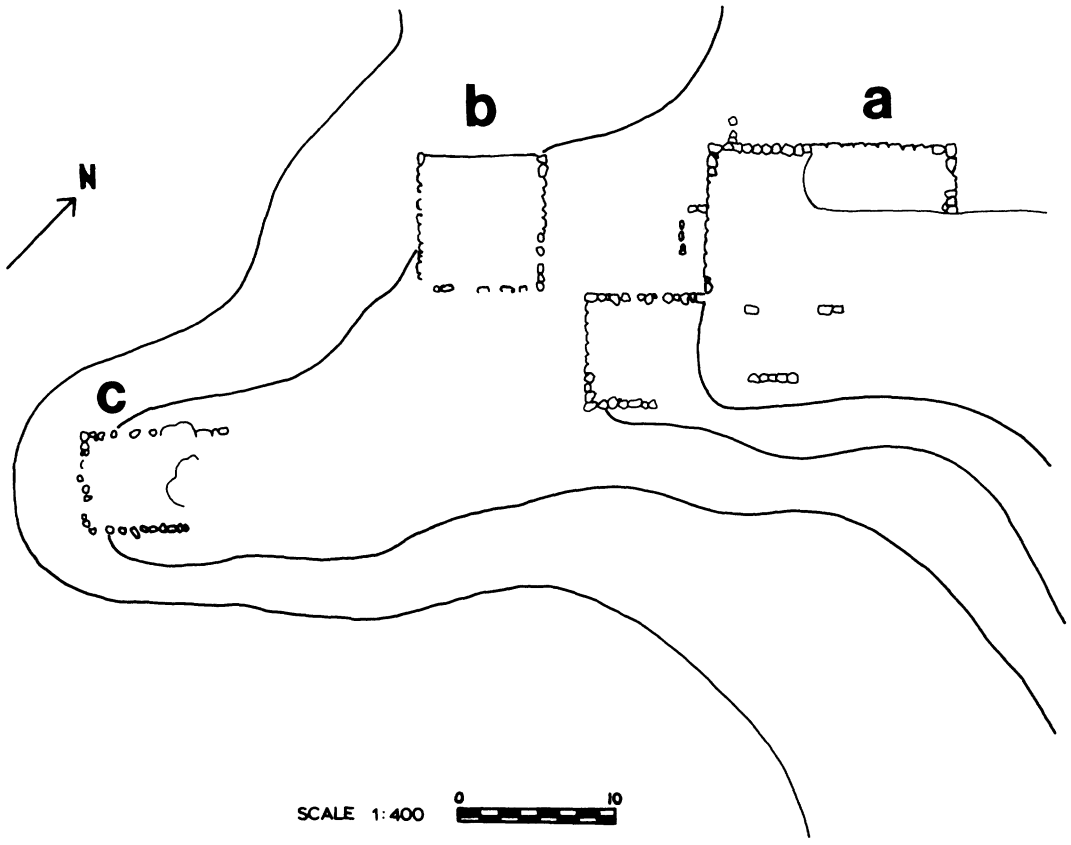


FIG. 1. Plan of Stous Skarveli (30)

31. Mesa Lasithi: Maxa. V 485 H 184. Maps 7–9.

About 200 meters northeast of the mouth of the Khavgas gorge, there is a small (20 × 20 m.) terraced area covered with sherds, on the lower slope of Mt. Aloïda. Some 30 meters above the plain, the site is the only terraced area on the steep, bare mountain slope, suggesting that the terracing itself may be Minoan, perhaps for a small field house.

Thick, oval (MM III?–LM I) brazier legs, conical cup, LM cup rim, LM III kylix stem.

MM III–LM III.

32. Katharo: Platanomouri. V 495 H 167. Map 4.

At the northwest end of the plain of Katharo, the site is located on the west bank of the Makelatis river, just before it falls into the Khavgas gorge. The southern slope of

a low hill has pottery and worked stone over an area of 50 × 50 m. This site, probably a settlement of the LN–EM I period, was discovered by Sinclair Hood, who kindly told me of its location.

This site is rich in worked stone. Red flint, probably from the area of Pethianos, one kilometer to the south, is prevalent. Stone: scraper and utilized flakes, core of red flint and blade, utilized flakes of obsidian.

Sherds, stored in the Stratigraphical Museum at Knossos: biconical spindle whorl, two Late or Subneolithic bowl rims, e.g. **4**.

LN–EM I.

33. Katharo: Katharo. V 528 H 130. Maps 5–8.

At the base of the Diktaian massif, the site is located on a ridge 30 meters above the plain near a well known as Katharo. The site consists of four distinct patches of walls and sherds which are separated from one another by a short distance. The present-day *metochia* on the site follow the same pattern: each hut is a stone's throw from its neighbor.

There are extensive traces of buildings in two areas. Building A appears to be a complex of rooms (Fig. 2). The largest room (9.0 × 20.0 m.) has walls of massive blocks of *sideropetra*, several of which are over two meters in length (Pl. 16:b). Several fragments of potters' wheels were found in the western end of this complex.

The walls of Building B (Fig. 3), 65 meters to the east of A, are of smaller blocks. A step of flat stones marks the lowest point of a street with steps set between house walls, reminiscent of the East Ascent at Gournia (cf. H. B. Hawes, *Gournia*, Philadelphia 1908, p. 24 and plan following p. 26).

MM I–LM I brazier legs, EM II bowl **16**, EM II–MM IA dish **18** and bowl **19**, EM III–MM IA cup base **21**, MM I–III conical cup **30**, MM III conical cup **35**, LM I cup rim like **47**. Fragments of potters' wheels.

EM II–LM I.

34. Katharo: Katharo (Roman). V 514 H 142. "Trapeza," p. 12. Map 14.

About 40 meters below (north of) the Minoan site of Katharo (33), a pottery-strewn area (100 × 60 m.) is the site of a settlement of the 4th–7th centuries after Christ.

Roman sherds include 4th- or 5th-century bowl rim **79**, 6th-century bowl rim **83**, and flat based dish **78**, probably of the 4th century.

Late Roman.

35. Katharo: Digeni Aspa. V 521 H 153. Map 7.

In the central plain of Katharo, an area (30 × 30 m.) of sherds is located directly west of the hill site which contains Pleistocene hippopotamus bones, excavated by Dorothea Bates (*Geological Magazine*, Decade V, ii, pp. 199–200). Near the south side of the river, this site probably was used as a field house in the MM I–LM I period.

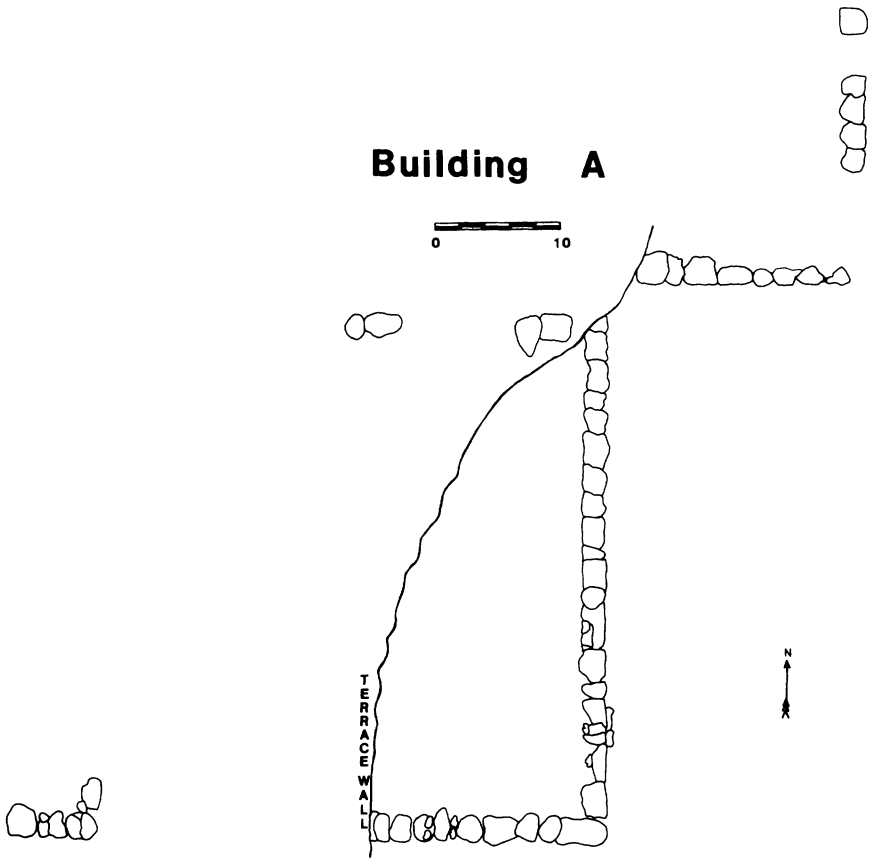


FIG. 2. Building A at Katharo (33)

Mainly coarse pithos sherds; MM brazier leg, several MM III–LM I conical-cup fragments.

MM III.

36. Katharo: Pervola. V 528 H 150. Maps 7, 8, 14.

In the east end of the plain one and a half kilometers southeast of the hamlet of Avdeliakos, an area (40 × 40 m.) of sherds and walls is located on the top and south slope of the ridge east of the church of Agios Georgios. Several massive retaining walls may be Minoan. Pervola was the site of several buildings during the Minoan and Late Roman periods.

Brazier legs of all types, MM conical cup, cup rims probably LM in date; Roman bowl rim (Hayes's form 3) like **79** and flat based dish like **78.**

MM III–LM I, Late Roman.

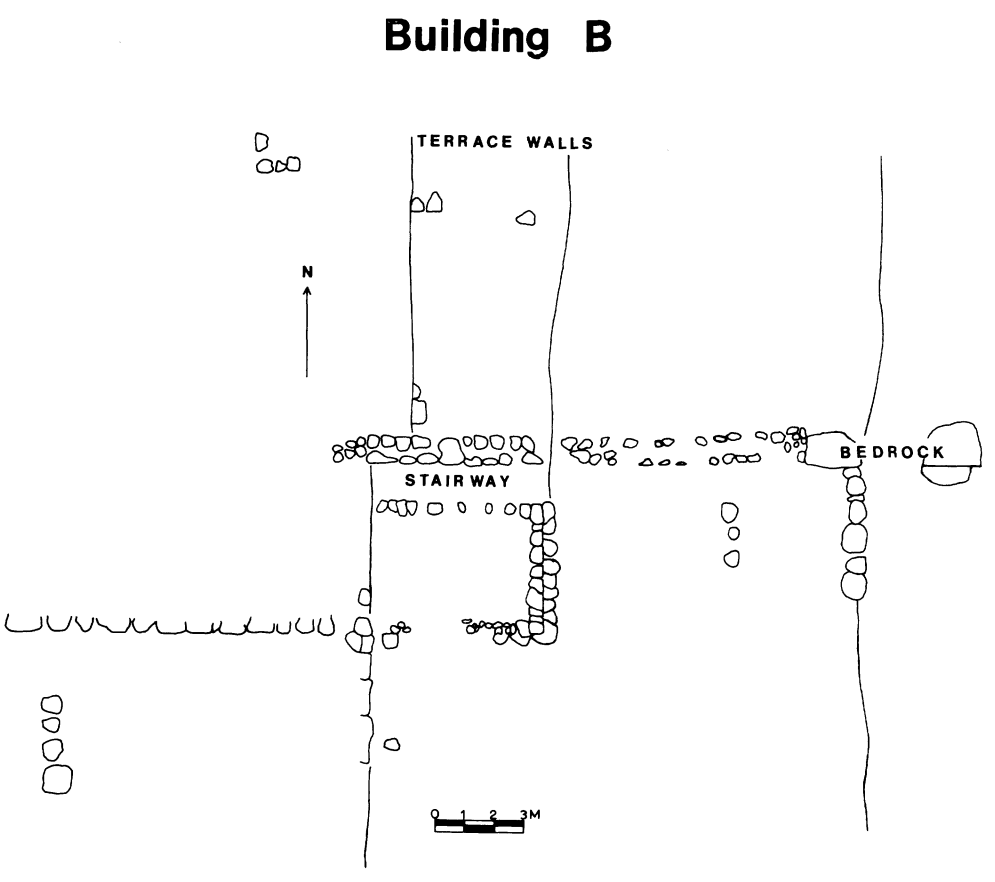


FIG. 3. Building B at Katharo (33)

37. Agios Georgios: Alexenia. V 468 H 175. Maps 4, 7–9.

On the east side of the entrance to the Poros valley which connects Lasithi with the plain of Limnarkaro, the site (100 × 100 m.) is on the terraced slope directly north of the church of Agia Pelagia (Pl. 13). The LN sherds are confined to a small area (3.0 × 3.0 m.) three terraces below the church. Several terrace walls on the site appear to be ancient because of the large size of their blocks.

The site of Alexenia sits at the base of a path which ascends the mountain slope behind (south of) it and leads to the plain of Katharo. This path has stretches of substantial retaining walls along it, which Evans (*P. of M.* I, p. 63) and Pendlebury ("Trapeza," p. 12) called part of a Minoan road system. Recent field workers have been more sceptical, cf. J. E. Fant and W. G. Loy, "Surveying and Mapping," in McDonald and Rapp, *op. cit.* (footnote 44, p. 16 above), pp. 28–30. The Agia Pelagia "road" is similar to the paths and retaining walls above the villages of Avrakontes and Kaminaki.

Directly south of the church of Agia Pelagia is the site of the *metochi* of Alexenia, mentioned in the cadaster of 1582 (Spanakis, p. 71). The site is said to have been deserted about 150 years ago.

Handmade burnished sherds of black, brown, tan, and red, several with Late or Subneolithic wipe marks, black burnished spatula fragment (Pl. 19:b, A), Late or Subneolithic bowl **5** and jar rims, e.g. **7**, EM I chalice rim **8**, MM I conical cup, brazier legs of MM I–LM I date, and LM III kylix fragment.

LN–EM I, MM III–LM III.

38. Agios Georgios: Agia Pelagia. V 465 H 171. Map 7.

On the east side of the entrance to the Poros valley about 300 meters southwest of the church of Agia Pelagia, the site (40 × 40 m.) is spread over the three lowest terraces of the slope (Pl. 13). At the base of the slope, two Minoan walls, constructed of *sideropetra* blocks, form a right angle. The site may have been a farmhouse of the MM III–LM I period.

Sherds generally coarse; thin and thick, oval brazier legs (MM I?–LM I), MM cup and jar fragments.

MM III.

39. Agios Georgios: Poros. V 465 H 169. Maps 4, 9.

About 200 meters south of the entrance to the Poros valley on the west slope at a height of 40 meters above the plain (Pl. 13), the site consists of sherds over an area of 50 × 50 m. At the valley entrance to Limnarkaro, this site may have been used by pastoralists.

Handmade sherds of Red Wiped Ware (cf. Evans, 1964, p. 225), vertically pierced lug handle, cooking-pot rims (EM?), LM IIIA2–B goblet foot, LM IIIB octopus stirrup jar. One used obsidian blade.

LN–EM I, LM IIIA2–B.

40. Agios Georgios: Vasilikou Ridge. V 464 H 178. Map 4.

Two hundred meters north of the entrance to the Poros valley on the west side (Pl. 13), the site consists of an area (40 × 40 m.) of pottery and worked stone. On the top and southeast slope of the first ridge to the north of the entrance, the site extends from the top of the ridge, 10 meters above the plain, to the fields below to the south. Like the preceding three sites, Vasilikou is located at the juncture of pasturage and arable land, and on a natural route from Lasithi to Limnarkaro. The proximity of Poros (39) to Vasilikou Ridge suggests that these two sites may not have been contemporary.

Pottery is scarce in comparison to the large amounts of worked stone. Handmade burnished sherds, including the square rim of a bowl, probably LN; utilized and retouched flints, blades of red and green flint and of obsidian, green flint borer, two ground stones, stalagmite fragment. Post-Roman glazed sherds.

LN–EM I.

41. Agios Georgios: Chonari. V 460 H 173. Maps 8, 9.

At the north edge of a stream bed about 100 meters southeast of the hill Kephali *tou* Vasilikou, the site (20 × 20 m.) consists of sherds scattered over the top of an artificial terrace. A rectangular terrace measuring 10.60 × 12.20 m. is supported on the south by a retaining wall of conglomerate boulders laid in a line. Traces of walls are visible on either side of the terrace. In the MM III–LM III periods, a small farm structure may have stood on the terrace.

Mostly coarse sherds: brazier legs of the thick, oval (MM III?–LM I) and round (LM III?) varieties, conical cup, LM I rounded cup, kylix stem. One used obsidian blade and a ground stone.

MM III–LM III.

42. Agios Georgios: Kephali *tou* Vasilikou. V 459 H 174. "Trapeza," p. 11. Map 14.

About two kilometers southeast of the village, the site (150 × 150 m.) sits on a low hill in the southwest corner of the *Xerokampos* (Pl. 13). Pendlebury reported an ancient well (probably the one along the road to the southwest of the site), Roman sherds, and a Roman Imperial coin. Kephali *tou* Vasilikou was a settlement during the Roman and probably the Mediaeval period. In 1582, a community of 29 persons lived on the site (Spanakis, p. 71).

Late Roman sherds: spirally grooved amphora (Pl. 20:f, E), a Roman brick, and bowl rim (Hayes's form 3C) like **79**. The lid or stopper (Pl. 20:f, F) is probably Mediaeval. Post-Mediaeval glazed pottery is also present.

Late Roman.

43. Agios Georgios: Vasilikou. V 456 H 178. Maps 8, 9.

On a low ridge about one and a half kilometers southeast of the village (Pl. 13), the site consists of sherds and the remains of three separate buildings: north, central, and south (Fig. 4).

The north structure is the least well preserved: one stretch of wall is *in situ*. Modern terrace walls on either side of the structure are made up of blocks from this building.

Within the central building at least five rooms are discernible. The walls are of two types: a) of natural blocks of *sideropetra*, usually a meter or more in length and roughly a half meter in width; b) of smaller, less regularly shaped stones, the over-all width of the wall being larger, *ca.* 0.70–0.80 m. The first type is used internally within the building, the second usually as an external wall.

The southern building is only partially visible on the surface, partially in the bank of the ridge.

These structures may have formed a complex of farm buildings of the LM I–III period. Two ground stone querns and a spherical pounder were found.

Thick, oval (MM III?–LM I) and round (LM III?) brazier legs, LM stirrup jar, and two kylix stems.

LM I–III.

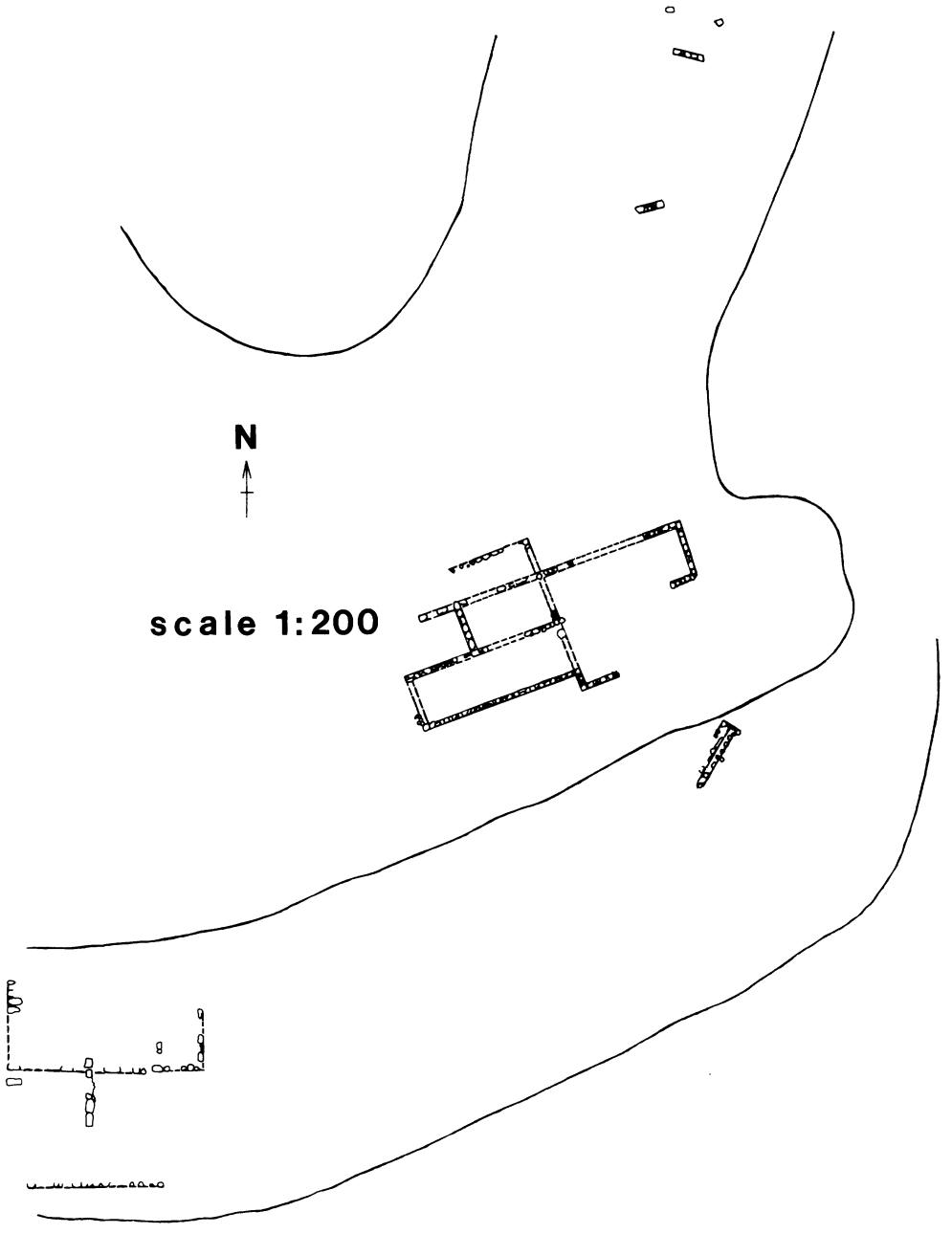


FIG. 4. Plan of Vasilikou (43)

44. Agios Georgios: Edzathmistera. V 455 H 176. Map 12.

On the north side of the road to Kephali *tou* Vasilikou (42) about three quarters of a kilometer east of the village, the site is located on top of a low ridge at the edge of the *Xerokampos* (Pl. 13). Pottery and walls are found over an area of 20 × 20 m. The tops of two walls of *sideropetra* blocks join to form a right angle. Edzathmistera may have been a MM III farm building which was re-used in the Archaic and the Venetian or Turkish periods.

Many pithos sherds, including an Archaic example with stamped bosses, MM conical cup (Pl. 19:d, F), Archaic cup base **66**, and later glazed sherds (Pl. 19:d).

MM III?, Archaic.

45. Agios Georgios: To Klima. V 452 H 177. Map 7.

One kilometer southeast of the village, the site consists of a large (14.70 × 9.60 m.) rectangular terrace constructed of gray conglomerate boulders set into the east face of a low ridge immediately north of the Agios Georgios–Poros road (Pl. 13). Sherds cover the terrace and surrounding area (30 × 50 m.).

Brazier legs of the thick, oval type (MM III?–LM I), MM III–LM I conical cups.

MM III.

46. Agios Georgios: Augousti. V 445 H 190. "Trapeza," p. 11. Maps 6–9, 12–14.

This site (200 × 130 m.) is at the base of the western side of the Kephala, to the north and east of the church of Agios Nektarios. From about 50 meters south of the church, the site extends 200 meters northward to the top of a small ridge. The east-west extent is perhaps from 100 meters into the plain to 30 meters up the side of the Kephala. Pendlebury listed this site as two: Kephala and Augousti (where the church is today). According to Pendlebury, Kephala produced Archaic burials, 4th-century coins, Hellenistic, Roman, and Byzantine sherds and coins, while Augousti yielded MM I vases. The two sites are, in fact, within 100 meters of each other, and their distinctness is marked only by a noticeable thinning of sherds in the area between them. One might expect that these two concentrations represent a settlement and a cemetery. North of the church we found a Classical cup (**71**) with a hole drilled at the base of its wall, a lamp (**74**), and rock-lined pits, suggesting that Augousti also served as a burial place. Neither site can be separated chronologically by the finds. Thick, oval brazier legs occur over the entire area. Perhaps the MM I–LM III and Archaic–Roman settlements were on the slope of the Kephala, and the graves were in the fields below.

As the presence of recent glazed pottery attests, Augousti was a village in the Venetian and Turkish periods, cf. Spanakis, p. 133, note 275.

Brazier legs are mostly thick and oval (MM III?–LM I); a few are round (LM III?). Many Classical and Hellenistic black-glazed sherds and loomweights, LM III kylix stems (Pl. 20:b, d), LM IIIB cup **48**, LM IIIA2–B goblet stem **50**, LM III female figurine **54**, Protocorinthian juglet or aryballos (Pl. 20:d, C), Archaic lekane, e.g. **65**, Classi-

cal cup fragments, e.g. **71**, Classical lamp **74**, Hellenistic kantharos **75**, Early Roman lamp **77**, and Late Roman dishes, e.g. **80**. Two flint flakes.

MM I–LM IIIB, Archaic–Late Roman.

47. Koudoumalia: Kerakoklivo. V 450 H 173. Maps 6, 7.

A half kilometer southeast of the village, the top three terraces on the mountain side, about 50 meters above the plain, are strewn with sherds over an area of 40 × 40 m.

Two brazier legs (MM I–LM I) and MM sherds.

MM I–III.

48. Koudoumalia: Allonaki. V 454 H 153. Map 14.

On the plain of Limnarkaro at its northeast corner, near the entrance to the Poros valley, the site (30 × 30 m.) consists of sherds and wall remains marked by a large stone heap. Allonaki probably represents the site of a Late Roman farm.

Roman red-painted bowl, combed ware of the 7th century after Christ or later, later glazed (Mediaeval?) pottery.

Late Roman.

49. Koudoumalia: Peristera. V 442 H 158. Map 7.

In the northwest corner of Limnarkaro, on the east face of the mountainside, the cave of Peristera is partially filled with boulders. Many of the stalagmites have been deliberately broken off the floor of the cave. On the practice of using stalagmitic fragments in Minoan house shrines, see S. N. Marinatos, "The Cult of the Cretan Caves," *The Review of Religions* 5, 1940/41, pp. 129–130. Villagers report a burial and the discovery of a clay lamp there. The cave may have been used for burials in the MM period.

Several fragments of a MM IB–IIIA bowl.

MM IB–IIIA.

50. Avrakontes: Kastellon. V 438 H 176. "Trapeza," p. 11; *A. of C.*, p. 351. Maps 6–9, 12.

The settlement (150 × 200 m.) occupies the western end and southwest slope of the ridge which separates the village of Avrakontes from the *Kampos*. Pendlebury referred to Classical sherds and Byzantine walls. Along the west side of the ridge, a Cyclopean wall, 60 meters long and preserved to a height of 3 meters (Pl. 16:a), is distinguishable from a modern terrace wall below it. On the saddle above, there are traces of similar walls.

Thick, oval (MM III?–LM I) brazier legs common; some thin, oval (MM I?–II) types. Glossy, red-painted MM I sherds, MM I jug (Pl. 19:f, C) decorated like *A. of C.*, pl. 19:4, d, MM IA bridge-spouted jars, e.g. **22**, MM IA cups, e.g. **24**, and tumblers, e.g. **25**, MM III–LM I oval-mouthed amphora **39**, kylix stems (Pl. 19:f), LM IIIA2–B

goblet stems, and several dark monochrome sherds, probably Archaic. Two used obsidian flakes; three querns.

MM I–LM IIIB, Archaic.

51. Avrakontes: Stou Petra. V 435 H 176. Maps 6–9, 12.

About 300 meters to the west of Kastellon at the base of the ridge, the site (100 × 200 m.) consists of sherds and slabs of stone and terracotta. Several mounds of limestone boulders and slabs in the fields may be the remains of tombs. A bronze double axe (Herakleion Museum, no. 2083), said to be from Trochalou, Avrakontes, is probably from this site (P. Faure, "Les minerais de la Crète antique," *Revue Archéologique* 1966, p. 49, note 5). A human tooth, a molar, was noted. This site is probably the cemetery of the settlement at Kastellon (50).

Brazier legs of all types. Cups are common. Pithos sherds, MM III–LM I cups, kylix stem, and dark monochrome sherds (Geometric–Archaic?).

MM I–LM III, Archaic.

52. Avrakontes: Anadasos. V 443 H 173. Map 7.

About 300 meters south of the village, the site (15 × 15 m.) consists of two sherd scatters on the ridgetop 40 meters above Avrakontes. A retaining wall 10 meters long, of 18 *sideropetra* boulders set side by side, supports the terraced area of the site. On the slope opposite (south of) Kastellon, the site may have been a *metochi* or field house for an inhabitant of that settlement.

Coarse sherds: MM I–LM I conical cups, a Minoan cooking dish.

MM III.

53. Avrakontes: Sto Volaka. V 438 H 172. Map 12.

Twenty meters below (northeast of) a quarry, about 250 meters south-southwest of Avrakontes, the site (15 × 10 m.) is a concentration of sherds of the Minoan and Archaic periods.

One thin, oval (MM I?–II) brazier leg, Archaic cup bases, and bowl or lekanis.

Minoan, Archaic.

54. Avrakontes: Agios Savvas. V 438 H 175. Map 14.

On a small hill 10 meters above the plain at the southwest edge of Avrakontes, the site (30 × 30 m.) consists of sherds scattered around the west side of the church and cemetery of Agios Savvas. The site may have been a farm or field house of the Late Roman period.

A 6th-century (after Christ) dish and bowl **81** dated to *ca.* A.D. 450–600.

Late Roman.

55. Avrakontes: Stou Papa *tou* Porou. V 436 H 171. Map 7.

On a small ridge 30 meters above and 400 meters south-southwest of Avrakontes, the site (10 × 10 m.), a concentration of coarse sherds, may have been a Minoan field house.

Thick, oval brazier legs. MM III?–LM I.

MM III.

56. Avrakontes: Kakadiavatos. V 442 H 166. Maps 7, 9.

One hundred meters above and about 600 meters south-southwest of Avrakontes, the site (20 × 20 m.) consists of walls and sherds at the north edge of a natural plateau. The tops of five walls of *sideropetra* blocks are visible. A single large (9.0 × 5.50 m.) room is set at the edge of the slope; it enjoys a marvelous view of the plain and Kastellon (50) below. Several closely spaced walls along the west side of the room could be storerooms or a stairway. Kakadiavatos was probably a farm or *metochi*.

The story behind the name of the area, Kakadiavatos, is interesting. Kakadiavatos means "ill meeting". During the period of Turkish rule, the women of Avrakontes were in the practice of washing their clothes at a reservoir near the site until one evening when, the women say, their bundles of clothes were pulled out of their arms and torn into pieces by an invisible demon. A similar ancient story is mentioned by M. Nilsson, *Greek Popular Religion*, New York 1940, p. 18.

Thick, oval brazier legs (MM III?–LM I) and LM IIIA2–B goblet stem.

MM III–LM III.

57. Avrakontes: Koerontolakou. V 439 H 166. Maps 6, 7.

About 700 meters south-southwest of Avrakontes, the site (40 × 40 m.) sits on the crown of a small limestone ridge about 140 meters above the plain. Two *sideropetra* walls, forming a right angle, define a room which measures 7.50 × 1.90 m., over the top of which a modern *mandra* is built. One quern and an obsidian flake.

MM I–LM I brazier legs and MM conical cups.

MM I–III.

58. Avrakontes: Lakka *tou* Dragataki. V 437 H 167. Map 4.

One hundred meters directly south of the church of Agios Savvas on a steep slope 120 meters above the plain, the sherd scatter (10 × 10 m.) sits above a small plateau of land and may represent a seasonal camp.

Handmade burnished sherds, several with wipe marks (LN–EM I): small rounded bowl, baking plate (EM?), and tubular Neolithic handles (cf. "Trapeza," pp. 26–28, N 5–7). A retouched, red-flint blade.

LN–EM I.

59. Kaminaki: Magazia (Magazedis). V 428 H 171. "Trapeza," p. 12. Map 14.

Immediately south of the asphalt road 300 meters east of Kaminaki, sherds, reused cut blocks, and rooftiles (100 × 100 m.) litter the lowest slope of the mountain at the edge of the plain. The site of an old church under the modern road is marked by a roadside shrine. Pendlebury refers to Roman walls, sherds, and an aqueduct. The aqueduct is probably a large irrigation ditch built up of cut blocks, whose punched chisel marks resemble those on other Venetian-period constructions in the area. The farmers from Kaminaki relate how their grandfathers remembered *magazia* (warehouses) on the site.

The site is called the "*mettocchio del Magazen*" in the cadaster of 1582 (Spanakis, p. 87).

Roman sherds: red-painted dishes of the 4th to 7th century after Christ, Mediaeval(?) and later glazed sherds.

Late Roman.

60. Kaminaki: Chalepa. V 433 H 164. Map 7.

Midway between the villages of Avrakontes and Kaminaki, sherds are found over an area of 60 × 100 m. at the upper edge of the soil-covered slopes, about 160 meters above the plain. The several distinct concentrations of sherds on the site may represent field houses or *mandres*.

Exclusively coarse sherds: MM III?–LM I brazier legs, MM III–LM I cup.

MM III.

61. Kaminaki: Agia Paraskevi. V 428 H 169. "Trapeza," pp. 11–12. Maps 7–12, 14.

In the area of the village of Kaminaki there are the remains of three settlements. Under and to the south of the village lies a MM III?–LM I settlement; east-southeast of the village the terraced slope above the church of Agia Paraskevi (Pl. 11:a), to a height of about 100 meters above the plain, is covered with sherds, mainly LM III; immediately southeast of the church is a small Early Iron Age site of the Geometric–Archaic period. Within the village, digging for foundations in the largest *kapheneion* south of the main road produced LM I sherds at a depth of 1.50 m. below the surface, confirming Pendlebury's observation that the village sits on a Minoan site.

The cemetery for the MM III?–LM I settlement is located about 500 meters to the northwest at Pigadistria (65). In the LM III period, burial pits for larnakes were dug at Koutsounari in the shale slope below and to the west of the church of Agia Paraskevi. We were shown a fragmentary larnax in a small pit, which had originally been roofed with slabs. Others are said to exist near by.

Pottery: within Kaminaki, LM I rounded cup **46**, MM III–LM I conical cup and bridge spout of a jar; above Agia Paraskevi, for every two thick, oval (MM III?–LM I) brazier legs collected there were five round (LM III?) examples; kylix fragment, LM IIIA2–B goblet base **51**, LM IIIB–C krater base **53**, Geometric(?) krater rim decorated

with stamped concentric circles and sherd decorated with a geometric pattern, Late Roman bowl base. Pl. 20:e.

MM III–LM III, Geometric, Archaic?, Late Roman.

62. Kaminaki: Pinaka. V 429 H 151. Map 7.

In the southeast corner of the Chloros valley at the entrance from Limnarkaro, a concentration (20 × 20 m.) of sherds is on a small saddle next to six *mandres*. At the base of Mt. Stavros, about 300 meters above the plain, the site may have been a Minoan field house or *mandra*.

Few sherds: MM III–LM I cup rim **37**, jar rim, and handle.

MM III–LM I?.

63. Kaminaki: Panegiou. V 424 H 129. Map 7.

The small valley a half kilometer southwest of the village and directly south of the hilltop church of Efendi Christou has three sites within it: (1) above the spring at the base of the valley, (2) halfway between the spring and the saddle to the west of the hilltop of Efendi Christou, and (3) at the top (east) of the valley at the base of the mountain face.

At site 1 there is a retaining wall of five *sideropetra* boulders and sherds (30 × 30 m.). At site 2 plowing has revealed two blocks of wall and sherds (15 × 15 m.). At site 3 there was a concentration of sherds over 10 × 10 m.

Pottery: (1) coarse sherds and MM III?–LM I brazier legs; (2) MM III?–LM I brazier leg, MM bowl rim, MM III conical cup; (3) handmade burnished sherds, LN–EM I bowl base.

LN–EM I, MM III.

64. Kaminaki: Efendi Christou. V 423 H 171. Maps 5–7.

On the hill of Efendi Christou, immediately west of the village, sherds (50 × 150 m.) are strewn over the summit and the topmost terraces to the north and east. Efendi Christou is a steep conical hill (Pl. 11:a) whose summit is about 70 meters above the plain. The topography of the site resembles that of the contemporary settlement of Kastellos (12) across the plain. This may be the site which produced "an apparently votive deposit of bronze weapons, described as similar to those found in such quantities in the cave of Psychro . . . ," according to reports heard by Evans (*AJA* 11, 1896, p. 457).

Sherds are of notably high quality. Thin, oval (MM I?–II) brazier legs outnumber thick, oval (MM III?–LM I) examples. EM II cup rim **17**, many polychrome sherds painted with maroon or red paint, probably MM IB–II (Pl. 19:e), MM IB–IIIA carinated and conical cups, e.g. **31**, and a potter's wheel(?) (Pl. 19:e). Flakes, a blade of obsidian.

EM II–MM III.

65. Kaminaki: Pigadistria. V 424 H 174. Maps 5–9, 11.

Directly west of the church of Agioi Konstantinos and Helena which is west of the village, sherds can be found (150 × 200 m.) over the terraced fields along the edge of the plain (Pl. 11:a). Minoan pottery, mainly MM and LM, is present over the entire site; Geometric sherds appear to be confined to a smaller area (30 × 30 m.) toward the western edge. Limestone slabs similar to those present at Stou Petra (51) litter the site. The presence of fragments of MM and Geometric pithoi and a larnax suggest that the site was a cemetery. The cutting for the nearby asphalt road produced a burial about 30 meters west of the church. Pigadistria probably served as the cemetery for the EM II–MM III settlement at Efendi Christou (64), and later for the MM III–LM I settlement at Kaminaki and the LM III and Geometric settlements of Agia Paraskevi (61).

All types of brazier legs; the most numerous was the thick, oval (MM III?–LM I) type. Many sherds: EM II–MM I bowl **20**, MM cups and pithoi, LM I rounded cups, e.g. **45**, kylix stems, goblet base, LM IIIB kylix rim **49**; Geometric handle decorated with a lozenge chain, banded wall fragment from a pithos, and pedestal of a cup or krater **55**.

EM II–LM III, Geometric.

66. Psychro: Psychro, or Diktaian Cave. V 411 H 179. Hogarth, "The Dictaean Cave"; *CCO*, pp. 1–75; Faure, *op. cit.* (footnote 82, p. 22 above), pp. 151–159; E. Plataki, Ἀμάλθεια 4, 1973, pp. 274–280. Maps 4–12, 14.

The cave is located about 100 meters above the plain on the slope of the modern Mt. Dikte about ten minutes' climb southwest of Psychro (Pl. 11:b). During the Neolithic period the cave was a habitation site. In the Early Minoan period Psychro was a place of burial. From Middle Minoan I until the 7th century B.C. the cave served as an important sanctuary. Worship at the cave revived in the Roman period, perhaps as early as the 1st century B.C. The clay objects from the 1899 excavations in the cave will be published by the author.

Two bits of evidence for later cult in the cave are of interest. A marble block with the figure of a snake sculpted on it is mentioned by Evans ("Further Discoveries of Cretan and Aegean Script," *JHS* 17, 1897, p. 356) and is probably Hellenistic or Roman in date.

A littlé known inscription (Pl. 18:a) from Psychro was published by Marinatos ("Γραμμάτων διδασκαλία"). Written in the Greek alphabet, the inscription is in a non-Greek language reminiscent of the Eteocretan examples from Praisos (R. S. Conway, "A Third Eteocretan Fragment," *BSA* 10, 1903/04, pp. 115–126) except that the last three letter forms closely resemble Linear A. The inscription shows that the sanctity of the cave as a Minoan shrine was not totally forgotten. Marinatos dated the inscription to the late 4th or 3rd century B.C. No other offerings from this period, however, are known from the cave. The revival of cult at the cave probably began no earlier than the second half of the 1st century B.C. Perhaps the inscription dates to this time.

Scholars have argued whether or not the Psychro cave is to be identified with the Diktaian Cave, where, according to literary sources, Zeus was born. The confusion has been resolved by M. Guarducci ("Contributi alla topographia della Creta orientale," *Rivista di Filologia* 18, 1940, pp. 99–107). Only the earliest mention of the birth of Zeus in Hesiod (*Theogony*, 481–484), which speaks of a cave on Mt. Aigaion near Lyttos, probably refers to the Psychro cave. While later authors who treat the birth of Zeus may record an earlier tradition, it is clear that they have in mind another site located further to the east on the island. The Psychro sanctuary which ceases to be visited in the 6th century B.C. is not the Diktaian Cave of the historical era. The cave, however, remains the best candidate for the shrine of Diktaian Zeus mentioned in the Linear B tablets and Hesiod. The desertion of Lasithi in the 6th century B.C. probably caused the discontinuance of cult activity at Psychro. Possibly the emigrants took the cult with them to East Crete where the worship of Diktaian Zeus is well documented in historical times.

67. Psychro: Skallia. V 411 H 181. "Trapeza," p. 12. Map 14.

In the small, well-watered valley directly below the cave of Psychro, sherds are scattered (40 × 40 m.) around the church of Agios Kirilios west of the village. Pendlebury reported walls and Roman sherds. A fragmentary Greco-Roman sarcophagus adorned with a woman's head is reported (Κρητικά Χρονικά 1, 1947, p. 637) to have come from Psychro. It may be from this site or possibly from the cave.

The cadaster of 1582 (Spanakis, p. 88) mentions a small settlement of S. Chirlo and a church in this area.

Dish and bowl fragments, including an African Red Slipped dish of the 6th century after Christ. Glass handle.

Late Roman.

68. Psychro: Mouria. V 406 H 178. Map 7.

About 400 meters west of the Psychro cave, in a level field 80 meters above the plain, sherds are found in an area of 25 × 25 m. The site may have been a field house of the MM III period.

Coarse sherds: cooking-dish rim similar to "Kastellos," p. 31, fig. 11, no. 2 (MM III) and a shallow cup similar to *Mallia*, pl. 12, no. 2a (MM III).

MM III.

69. Plati: Plati. V 405 H 186. Taramelli, "Ricerche archeologiche cretesi," p. 412 and fig. 47; Dawkins, "Excavations at Pláti"; "Trapeza," p. 12. Maps 6–10.

Directly northeast of the village of Plati, the site covers the two hills of Apano and Kato Kephali (Pls. 10:a, 11:b). The conical hill of Apano Kephali has a church on top of it and extensive remains of walls and pottery on its slopes over an area of 100 × 50 m. Kato Kephali, a low rise one minute's walk to the northeast, has sherds over its top

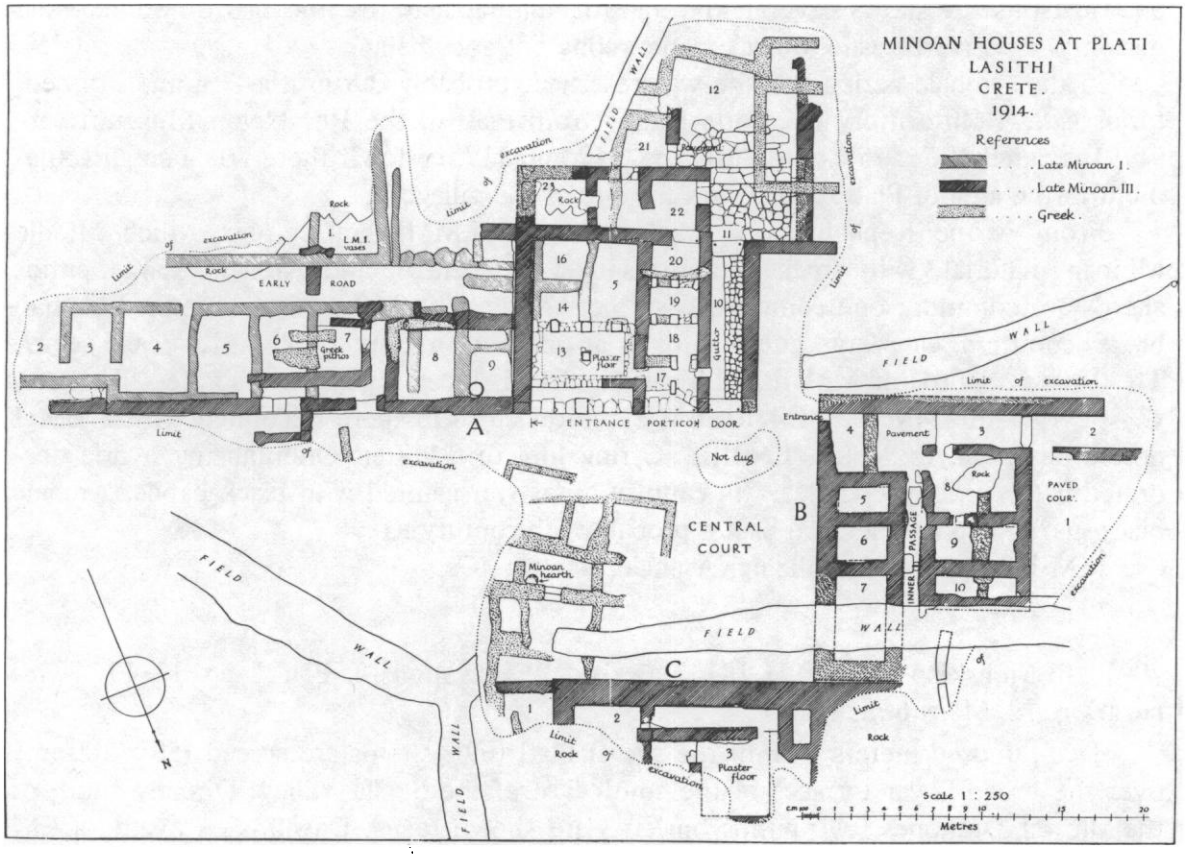


FIG. 5. Plan of site of Plati (69). (Dawkins, "Excavations at Pláti," pl. I.)

(150 × 100 m.). Dawkins' excavations on Kato Kephali exposed a LM I–III and an Archaic settlement. Apano Kephali, the largest Middle Minoan settlement in this area, continued to be inhabited in the Late Minoan period.

On the hill of Apano Kephali, Taramelli saw remains of what he called an acropolis, with walls of large polygonal blocks, a road, access ramp, and entrance. Many of the walls on the hill are of Cyclopean masonry. An example (Pl. 16:c) on the east side of the hill on the third terrace from the summit is preserved to a length of 12.80 m. and height of 1.30 m. The two regular courses of *sideropetra* blocks are visible in the photograph.

The plan of the Minoan settlement excavated by Dawkins on Kato Kephali is not visible today. Dawkins distinguished three periods of occupation on the site: LM I, LM III, and Archaic. The excavated part of the LM I settlement consisted of house walls along each side of a road (Fig. 5), an arrangement which exists at the LM I settlements of Gournia and Palaikastro. The LM III settlement consisted of three houses around a central court. Graham points out that the entrance portico in House A is similar to the

Tripartite Shrine at Knossos and Suite VI at Mallia (*op. cit.* [footnote 54, p. 18 above], p. 71). House A shows several Mycenaean building features: the use of well-dressed masonry, massive threshold blocks, and a long entrance hall.

In the Archaic period the site was resettled, probably during the 7th and 6th centuries B.C. A 6th-century terracotta plaque from Plati in the Herakleion Museum (no. 9179) is dated after 575 B.C. in *CCO*, pp. 112 and 117. In 1582, there was a small settlement in the area of Plati, perhaps on the site of the village.

From Apano Kephali: thick, oval (MM III?–LM I) brazier legs. Much Middle Minoan material, with smaller amounts of Late Minoan and Archaic. Large pithos sherds are common: one complete base measured about 0.80 m. in diameter. Obsidian blades common. One large quern, broken at one end, measured W. 0.41, pres. L. 0.29, Th. 0.10 m. Sherds of MM IB–IIIA carinated and ribbed cups, jar decorated like *A. of C.*, pl. 19:4, d (MM I), MM III–LM I conical cup **41**, sherd decorated with a LM I dotted design, kylix stems, LM IIIB–C ring foot of a krater, Orientalizing hydria decorated with concentric circles, 7th-century dinos rim painted with black bands, Archaic black-glazed cup handles and bases, probably 6th century B.C.

MM I–LM III, Orientalizing, Archaic.

70. Plati: Meliskipos. V 398 H 184. Dawkins, "Excavations at Pláti," pp. 13–17; "Trapeza," p. 12. Maps 6–8, 10.

Two hundred meters west of the site at Plati (69), sherds are spread (50 × 100 m.) over the broad lower terraces of the south face of the Skalia Valley. Directly south of the site, at Drakones, two pithos burials were shown to us. Dawkins excavated a LM IIIC tholos tomb with a larnax at Skalia, the area north of Meliskipos. Meliskipos is the site of the MM I–LM I cemetery for the settlement at Plati. The LM III burial ground may be to the north at Skalia.

Many pithos sherds, a few thin and thick, oval brazier legs (MM I?–LM I), MM I tumbler, MM IB–IIIA carinated cups, clay imitation of a stone cup (P. Warren, *Minoan Stone Vases*, London 1972, p. 255, D 156, EM III–MM I), MM III–LM I conical cup **42**. Two used obsidian flakes and a quern.

MM I–LM III C.

71. Plati: Katsoucheiroi. V 397 H 188. "Trapeza," p. 12. Maps 4, 5.

West of Plati, the site (50 × 100 m.) sits 100 meters above the plain on the highest terrace of the north slope of the Skalia Valley (Pl. 11:b). Pendlebury mentions EM I vases, stone axes and beads on the site. We saw what were possibly the traces of walls and plentiful obsidian in the form of used flakes and blades (Pl. 19:c).

Handmade sherds: fragment of LN wiped ware (Pl. 19:c); EM I–II: incised bowl **9**, goblet stem **10**, and deep bowl **15**.

EM I–II.

72. Agios Charalambos: Pervoli. V 405 H 194. Maps 7, 8, 14.

To the east of Agios Charalambos at the base of the ridge upon which the village sits (Pl. 10:a), pottery and walls can be found (40 × 40 m.) on the low mound at the edge of the plain. Illicit digging on the site is said to have produced double axes of bronze. Bulldozing for a modern road uncovered a natural cave 40 meters northeast of the site. According to Dr. Davaras, the cave apparently was a place of burial, as human bones were found within it.

Thick, oval brazier legs (MM III?–LM I), MM III–LM I conical cups, 6th- to 7th-century (after Christ) bowl rim. Later glazed sherds, including a piece of sgrafitto ware.

MM III–LM I, Late Roman.

73. Kato Metochi: Roussanos. V 392 H 196. "Trapeza," p. 12. Maps 4, 14.

There are two sites between the villages of Agios Charalambos and Kato Metochi. The first at Mesa Roussanos (V 393 H 197) is the one visited by Pendlebury who reported Roman sherds and walls. A small site (70 × 40 m.), it may have been a Late Roman or Mediaeval farm. We saw no Roman sherds. On the hillside directly northwest of the site are two caves the lower of which is said to have produced "cups and dark painted dishes" for the Giamalakis Collection in Herakleion.

The second site at Exo Roussanos is located low on the east slope of a ridge at the base of Mt. Vergadi. The site (40 × 40 m.) may represent a small camp of the LN–EM I period.

Sherds from Exo Roussanos: handmade burnished sherds of black, brown, and red, black burnished collared jar, and the base of a chalice.

LN–EM I, Late Roman.

74. Kato Metochi: Mouri. V 397 H 207. Maps 4, 7, 14.

About 500 meters northwest of Kato Metochi, the site (150 × 150 m.) is located on the top of a low ridge 30 meters above the plain. At the south of the site (a) LN–EM I sherds are found on a small plateau. The main ridge (b) is covered with MM sherds. Roman sherds occur over the entire area.

From a: a red burnished lug handle, quern, flakes of obsidian and flint; from b: thick, oval brazier legs (MM III?–LM I), MM conical cup, base of shallow dish (cf. *BSA* 66, 1971, p. 259, fig. 9, no. 21, late 1st century B.C.).

LN–EM I, MM III, Roman.

75. Kato Metochi: Agios Georgios. V 394 H 211. Map 14.

On the summit of the ridge at the south side of the entrance of Tsouli *to* Mnema, the site (130 × 40 m.) is located on the terraces directly below (east of) the church of Agios Georgios, at a height of 50 meters above the plain. On the lower terraces below the church are the remains of walls and glazed pottery, probably the site of the *mettochio de cono di S. Zorsi* mentioned in the Venetian cadaster of 1582 (Spanakis, p. 69).

Bowl fragments of the 5th to 6th century after Christ.
Late Roman.

76. Kato Metochi: Stournalo. V 390 H 215. Map 14.

Three hundred meters north-northwest of the church of Agios Georgios, the site (50 × 50 m.) sits on the north side of the valley of Tsouli *to* Mnema. The site was probably a farm of the Late Roman period.

5th- or 6th-century (after Christ) bowl or dish rims.
Late Roman.

77. Kato Metochi: Anavriso. V 381 H 215. Map 14.

At the top of the pass of Tsouli *to* Mnema, at a height of about 200 meters above the plain, the site (40 × 40 m.) is located in a small saddle. About ten minutes' walk west of the highest point of the *kalderimi*, the site is next to two *mandres*, a *gourna* and fields of grain which belong to shepherds. The area may have been used in a similar fashion in antiquity, for while the view to the west (Pl. 7:b) and southwards to Lasithi (Pl. 7:a) is pleasant, the amount of cultivable land alone is not worth the climb.

MM cup fragments, Archaic(?) skyphos base, and Late Roman dish rim. Later glazed sherds and a quern were noted.

MM III, Late Roman.

VII

THE POTTERY

CHRONOLOGY

This chapter is divided into chronological sections which set forth the ceramic evidence for dating the sites in Lasithi. Each section consists of a discussion of the distinctive features and diagnostic shapes of the pottery of the period and of problems of dating. Items in the catalogue which follows have been selected as examples of diagnostic shapes or to illustrate the range of shapes in the period. All entries in the catalogue are fragmentary unless stated otherwise. The discussion in each section aims only at distinguishing a group of pottery sufficiently for the purpose of dating. In this study the ceramic shapes which are diagnostic of a period are often the chief criterion for dating a site because a surface survey, unlike an excavation, deals primarily with unpainted and fragmentary pot sherds.

A list of the ceramic groups, or phases, with their approximate dates is provided below:

Late Neolithic–Early Minoan I	3500–2600 B.C.
Early Minoan II–III	2600–2200 B.C.
Middle Minoan I	2200–1700 B.C.
Middle Minoan III	1700–1550 B.C.
Late Minoan I	1550–1425 B.C.
Late Minoan III	1425–1000 B.C.
Protogeometric–Geometric	1000–725 B.C.
Orientalizing–Archaic	725–480 B.C.
Classical–Hellenistic	480–1 B.C.
Roman	A.D. 1–700

Late Neolithic–Early Minoan I

The earliest pottery in Lasithi is handmade, burnished, and commonly varies in color from black, brown, gray, and tan to red. This variation in color occurs in the Late Neolithic pottery at Knossos, in contrast to the darker wares of the Middle Neolithic.[1] Because Rippled Burnished Ware, the hallmark of Middle Neolithic pottery in Crete,[2] is absent in Lasithi, this group of sherds can be dated to the Late Neolithic through the Early Minoan I periods. Sherds of this group are frequently painted a bright red or black on the exterior, while the interior is unburnished and a different color. A second dis-

[1] Cf. Evans, 1964, p. 225.
[2] *Ibid.*

tinctive feature is the presence of irregular striations on the surface of the pottery, as if wiped while wet (Pl. 19:b, 7). This type of surface treatment is characteristic of Late Neolithic Trapeza Ware,[3] and Red Wiped Ware[4] at Knossos.

Early Minoan II–III

The Early Minoan pottery from Lasithi is handmade and burnished or lightly smoothed on the exterior. In color the pottery ranges from brown, tan, and buff to a deep red. In contrast to the EM II fine, buff, painted ware popular at Myrtos,[5] the Early Minoan sherds from Lasithi tend to be of a coarse clay which is burnished and unpainted.[6]

Middle Minoan I

The pottery of this period may be handmade (MM IA) or wheelmade (MM IB). Fine-ware shapes occur predominantly in a fine buff clay. Coarse unpainted shapes are commonly in a clay which has been fired to a dark red color. Monochrome sherds whose paint is streaked irregularly, that is, not painted while on a rotating wheel, are taken as MM I. Brazier legs whose section is a thin oval are common on MM I sites.[7] The presence of MM IA sherds was frequently helpful in distinguishing a MM I phase on a Middle Minoan site. No obvious examples of the MM II style in Lasithi were recognized.[8]

Distinctive MM I shapes include the *tumbler* (**25**), *carinated cup* (**27**, **29**), and a *tall conical cup* (**30**, **31**). Both the carinated and conical-cup shapes continue in the MM III period.

Middle Minoan III

Coarse-ware pottery appears to be popular in this period. Middle Minoan III coarse sherds vary widely in color and may be extremely gritty. Fine-ware shapes tend to be in a soft, buff or orange clay. Brazier legs which are thick and oval in section[9] are legion on MM III sites in Lasithi. Sherds of this period are frequently difficult to distinguish from those of Late Minoan I, as a number of the MM III shapes continue to be used in the later period.

Popular MM III shapes include a *coarse jar* (**36**) and a low (**34**, **35**) and a high (**41**, **42**) type of *conical cup*.

[3] "Trapeza," p. 28.
[4] Evans, 1964, p. 225.
[5] Cf. *Myrtos*, p. 94.
[6] Cf. "Trapeza," pp. 29 and 56.
[7] Cf. Hood–Cadogan–Warren, p. 52, fig. 2A, no. 1.
[8] Cf. similar conclusions by Pendlebury in "Kastellos," p. 15.
[9] Hood–Cadogan–Warren, p. 52, fig. 2A, no. 2.

Late Minoan I

The Late Minoan I style appears to be scarce in Lasithi, as Pendlebury also noted.[10] The most distinctive LM I shape is the *rounded cup* (**43–46**).

The scarcity of LM I ware may be partially explained by the nature of the pottery. LM I sherds do not appear to be distinguishable from MM III examples on the basis of ceramic fabric. Moreover, a number of the unpainted LM I shapes may have changed little from the preceding MM III period. A substantial number of sites in Lasithi are attributable to MM III–LM I, and it is possible that on some sites we did not recognize sherds of the later period. Nevertheless, it is my impression, as it was Pendlebury's, that the reasons above do not fully explain why Late Minoan I appears to be represented so thinly in this area.

As a style Late Minoan II has not been recognized in Lasithi.[11] This may be for two reasons. No site in Lasithi of the Late Minoan I–IIIB period has been excavated and published. Dawkins' excavation report on the LM I–III site of Plati (69) unfortunately published only one pot. Moreover, Late Minoan II as a distinct ceramic phase remains controversial to this day.[12]

Late Minoan III

Fine-ware shapes of the LM III period are usually in a soft, orange or buff clay which is frequently burnished. The three most common shapes are the *kylix*, *goblet* (champagne glass), and *brazier legs* which are round in section.[13] Most kylix stems defy a more precise classification than LM III. The pottery falls into three phases: LM IIIA1, LM IIIA2–B, and LM IIIC.

Shapes characteristic of LM IIIA1, the ledge-rim cup,[14] and the low thin-stemed kylix,[15] were not recognized in Lasithi.

The stems and bases of *goblets* (**50, 51**), datable to LM IIIA2–B,[16] were found on ten sites, Nos. 7, 12, 13, 19, 39, 46, 50, 56, 61, and 65. Fragments of a stirrup jar from site No. 39 (Poros) and a kylix (**49**), decorated with a stylized octopus pattern, can be dated to the LM IIIB period.

LM IIIC pottery before the foundation (*ca.* 1150 B.C.) of Karphi (5) is not well known and was not recognized in Lasithi. The pottery from Karphi is published by

[10] "Kastellos," p. 15.

[11] Cf. Pendlebury, "Lasithi in Ancient Times," pp. 195–196.

[12] Note the difference between the description of the Late Minoan II pottery from the Unexplored Mansion at Knossos (M. R. Popham, *JHS*, *Archaeological Reports for 1972–1973*, pp. 55–59) and as interpreted recently by Dr. W.-D. Niemeier ("Towards a New Definition of Late Minoan II," *AJA* 83, 1979, pp. 212–214). See now, L. V. Watrous, "The Relationship of Late Minoan II to Late Minoan III, A1," *AJA* 85, 1981, pp. 75–77.

[13] Hood–Cadogan–Warren, p. 52, fig. 2A, no. 3.

[14] Cf. M. R. Popham, *The Destruction of the Palace at Knossos* (*SIMA* XII), Göteborg 1970, pp. 68–69 and pls. 1–2.

[15] M. Popham, "The Late Minoan Goblet and Kylix," *BSA* 64, 1969, p. 300, fig. 3.

[16] *Ibid.*, pp. 301–302.

Seiradaki in *BSA* 55, 1960, pp. 1–37; one of the LM IIIC shapes from Karphi, the *krater* **(52, 53)**, was identified on four sites, Nos. 19, 27, 61, and 69.

Protogeometric–Archaic

Pottery from the Protogeometric and Geometric periods in Lasithi is known principally from Pendlebury's excavations at Agios Georgios Papoura (4).[17] The pottery from these excavations, which will be published elsewhere by the author, has a number of specific parallels at the Early Iron Age cemetery of Fortetsa near Knossos.

Orientalizing and Archaic fine ware is normally in a soft, buff clay which may be painted a dull, washy black. Distinctive shapes include the *kotyle* **(58)**, *dinos* **(59)**, and *monochrome cup* **(60–62, 66)**. *Relief pithoi*, e.g. **67**, were found on eight sites, Nos. 3, 4, 8, 13, 44, 46, 61, and 69.

Classical–Hellenistic

The pottery of this period from Lasithi comes largely from Pendlebury's excavations at Kolonna (8)[18] and the surface collection at Augousti (46).

Fine-ware shapes are in a buff or tan, soft clay. Black glaze may be dull or glossy. Two distinctive shapes are the Classical *cup* **(68, 71)** and 4th-century or Hellenistic *kantharos* **(72)**.

Roman

The pottery of the Early Roman period (A.D. 1–300) in Crete is not well known, and consequently little pottery of this period was recognized in Lasithi. The pottery of the Late Roman period (A.D. 300–700), which is better known, is present in large amounts in Lasithi.

Late Roman fine ware is of a hard, red or soft, orange clay. An extremely popular shape, with its variations, is a *bowl* of Hayes's form 3[19] **(79, 81, 83** and Pl. 20:f, I). A second distinctive shape is the *flat based dish* **(78, 80)**.

[17] *ILN*, 1938, p. 384.
[18] *Ibid.*, p. 412, and *JHS* 58, 1938, p. 233.
[19] Hayes, "Late Roman C" ware, pp. 329–338.

CATALOGUE

All dimensions are in meters. Scale of drawings 1:2.

LATE NEOLITHIC–EARLY MINOAN

1. Rim of a cup. Fig. 6

D. 0.12.

Coarse, brown on exterior, black on interior; hard clay.

Cf. "Kastellos," p. 18, fig. 7, N 20 (LN). From Moni Vidiani (1).

LN or Subneolithic.

2. Rim of a carinated bowl. Fig. 6

Fine, black on exterior, brown on interior; hard clay. Well burnished. From Charakia (20).

A popular Middle and Late Neolithic shape; cf. Evans, 1964, p. 227, Type 3B and p. 193, fig. 37, nos. 13–15 (LN).

LN

3. Rim of a bowl. Pl. 19:a

D. *ca.* 0.30.

Gray to brown, soft clay, with small inclusions. Rim is notched along top. From Skallopoula (21).

Cf. "Kastellos," p. 20, no. 43 and pl. 5 (Subneolithic).

Subneolithic.

4. Rim of a bowl. Fig. 6

Coarse, black, possibly burnt exterior, brown interior; hard clay. From Platanomouri (32).

Cf. "Trapeza," p. 29, fig. 7, T 1 (Subneolithic); "Kastellos," p. 18, fig. 7, N 13 (LN).

LN or Subneolithic.

5. Rim of a large bowl. Fig. 6, Pl. 19:b

D. 0.33.

Coarse, dark brown on exterior, gray on interior; hard clay. Lightly burnished on both sides. Wipe marks on exterior. From Alexenia (37).

Cf. "Trapeza," p. 29, fig. 7, T 17 (Subneolithic).

LN or Subneolithic.

6. Base of a cup or chalice. Pl. 19:a

Gray burnished exterior, black burnished interior; hard clay. Gray color extends below the rim on the interior, as if the vessel had been fired in ashes and the interior had not reoxydized; cf. similar treatment in "Trapeza," p. 32, T 7 (Subneolithic). From Skallopoula (21).

Profile similar to "Trapeza," p. 85, fig. 19, no. 805 (EM I). See also Marinatos, "Προτομινωϊκὸς θολοτὸς τάφος," pl. 4, no. 12 (EM I).

EM I.

7. Rim of a jar. Fig. 6, Pl. 19:b

D. *ca.* 0.18.

Gray exterior, black interior; hard clay, with small inclusions. Burnished. Wipe marks on the inside. From Alexenia (37).

Cf. "Trapeza," p. 29, fig. 7, T 103 (Subneolithic).

LN or Subneolithic.

8. Rim of a chalice. Fig. 6

Gray, hard clay with small inclusions; burnished. From Alexenia (37).

Cf. Hood, *The Minoans*, p. 18, fig. 14, top, right (EM IB).

EM I.

9. Wall fragment of an open shape. Fig. 6, Pl. 19:c

Brown to red, hard clay, with small inclusions; burnished exterior, smoothed interior. Exterior surface deeply incised. From Katsoucheiroi (71).

Cf. S. Xanthoudides, "Μέγας πρωτομινωϊκὸς τάφος Πύργου," Δελτ 4, 1918 [1921], pp. 150–151, figs. 8–9 (EM I–IIA); "Trapeza," pp. 34–35, fig. 8, no. 110 (EM II).

EM I–II.

10. Stem of a goblet. Fig. 6, Pl. 19:c

Coarse, reddish brown, hard clay. The stem was made by rolling a flat slab of clay. From Katsoucheiroi (71).

Cf. "Trapeza," p. 85, fig. 19, nos. 804, 805 (EM I–II).

EM I–II.

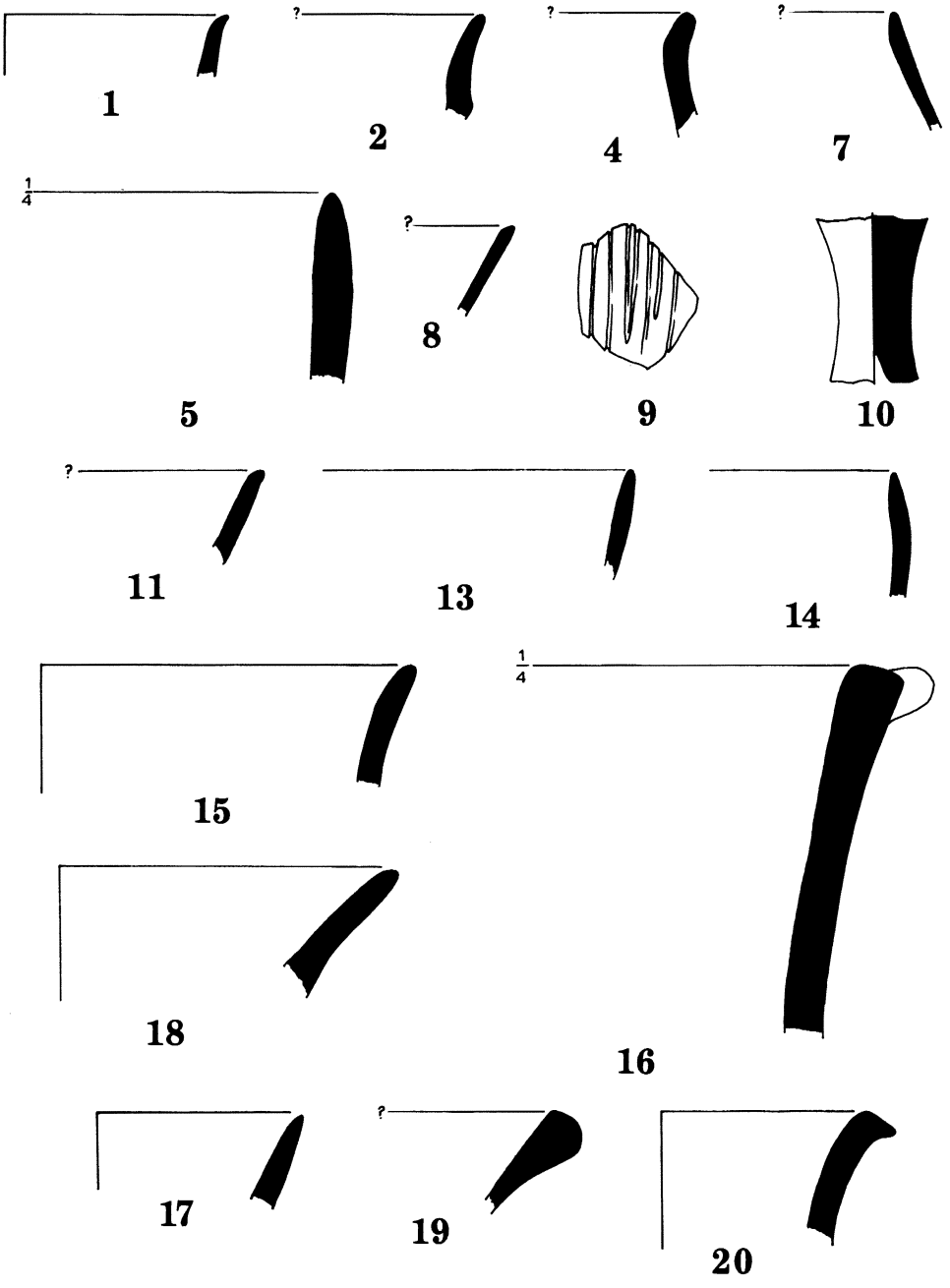


FIG. 6. Profiles: Late Neolithic–Early Minoan

11. Rim of a bowl. Fig. 6

D. *ca.* 0.10.

Gray, hard clay, with small inclusions. Light burnishing has produced black exterior and interior surfaces. Shallow incision below the rim. From Charakia (20).

Cf. "Trapeza," p. 50, fig. 11, no. 301 (EM I–II).

EM I–II.

12. Rim of a goblet. Pl. 19:a

D. 0.11.

Fine, buff, soft clay. Thin walled. From Skallopoula (21).

Cf. *Myrtos*, p. 181, fig. 65, P 376 (EM IIB).

EM I–II.

13. Rim of a shallow dish. Fig. 6

D. 0.17.

Gray to black, hard clay, with specks of white. Interior burnished black. From Charakia (20).

Cf. "Trapeza," p. 50, fig. 11, no. 310 (EM II); *Myrtos*, p. 136, fig. 40, P 36 (EM IIA).

EM II.

14. Rim of a cup. Fig. 6

D. *ca.* 0.10.

Coarse, dark brown, hard clay. Exterior burnished a dark gray; interior burnished less carefully to a tan color. From Charakia (20).

Cf. "Trapeza," p. 57, fig. 13, no. 502 (EM II); *Myrtos*, p. 180, fig. 64, P 358 (EM IIB).

EM II.

15. Rim of a bowl. Fig. 6, Pl. 19:c

D. 0.20.

Fine, buff, soft clay. Painted red on exterior and to below the rim on the interior. From Katsoucheiroi (71).

Cf. "Trapeza," p. 50, fig. 11, no. 302 (EM II); *Myrtos*, p. 171, fig. 55, P 262 (EM IIB).

EM II.

16. Rim of a large bowl. Fig. 6

D. *ca.* 0.40.

Coarse, tan, hard clay, with inclusions. A lug or button handle. Painted dark on exterior. From Katharo (33).

Cf. "Trapeza," p. 50, fig. 11, no. 302 (EM II); *Myrtos*, p. 174, fig. 58, P 273, P 289 (EM IIB).

EM II.

17. Rim of a one-handled cup. Fig. 6, Pl. 19:e

D. 0.10.

Fine, brown, soft clay. Handle stub preserved at rim. Dark paint on exterior. From Efendi Christou (64).

Cf. "Trapeza," p. 57, fig. 13, nos. 501–516 (EM II–III).

EM II–III.

18. Rim of a dish. Fig. 6

D. 0.18.

Coarse, light orange, hard clay. From Katharo (33).

Cf. "Trapeza," p. 50, fig. 11, no. 306 (EM II); *Myrtos*, p. 166, fig. 50, P 169 (EM IIB).

EM II–MM IA.

19. Rim of a bowl. Fig. 6

Gritty, tan, hard clay. Dark paint on exterior. From Katharo (33).

This shape continues into the MM I period but the form here appears to be early. Cf. "Trapeza," p. 50, fig. 11, no. 303 (EM II); *Myrtos*, p. 168, fig. 52, P 207 (EM IIB).

EM II–MM IA.

20. Rim of a bowl. Fig. 6

D. 0.11.

Dark orange, hard clay, with small inclusions. From Pigadistria (65).

Cf. "Trapeza," p. 50, fig. 11, no. 318 (MM I); *Myrtos*, p. 170, fig. 54, P 242 (EM IIB).

EM II–MM IA.

Middle Minoan I

21. Ring foot of a cup. Fig. 7

D. 0.05.

Fine, buff, soft clay. Handmade. Painted black on both sides. From Katharo (33).

Cf. *Kythera*, fig. 36, B 24 (EM III–MM IA); Hood, *The Minoans*, p. 38, fig. 14 (EM III–MM IA cups).

EM III–MM IA.

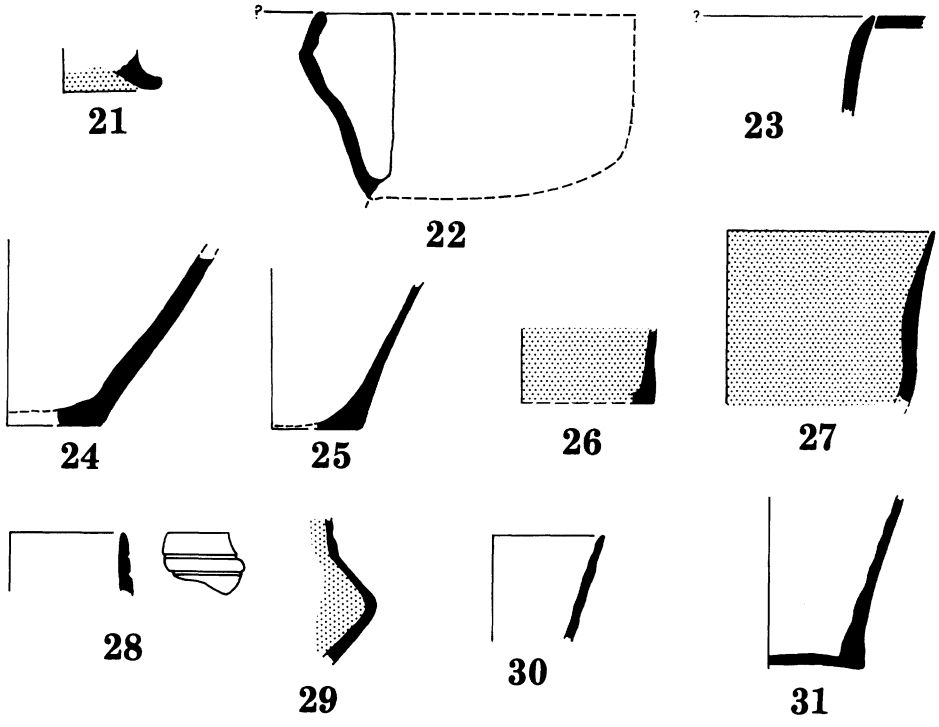


FIG. 7. Profiles: Middle Minoan I

22. Spout of a jar. Fig. 7, Pl. 19:f

Fine, buff, soft clay. Handmade. Painted black on both sides. From Kastellon (50).

Cf. "Trapeza," p. 45, fig. 10, nos. 212–217 (EM III–MM I).

MM IA.

23. Rim of a cup. Fig. 7

D. *ca.* 0.06.

Fine, buff, soft clay. Handmade. Painted red inside and with a black stripe at the rim on exterior. From Charakia (20).

Cf. H. W. and J. D. S. Pendlebury, "Two Protopalatial Houses at Knossos," *BSA* 30, 1928–1930, p. 62 and pl. 12:a, nos. 5 and 7 (MM IA).

MM IA.

24. Base and wall of a cup. Fig. 7, Pl. 19:f

D. 0.05.

Gritty, gray, hard clay. Handmade. Metallic black paint on both sides. From Kastellon (50).

Cf. "Trapeza," p. 60, fig. 14, nos. 531–533 (MM I).

MM IA.

25. Base and wall of a tumbler. Fig. 7, Pl. 19:f

D. 0.048.

Fine, buff, soft clay. Handmade. Black paint on both sides, streaked horizontally on inside, diagonally on outside. From Kastellon (50).

Cf. "Trapeza," p. 60, fig. 14, nos. 524–529 (MM I).

MM IA.

26. Base of a cup. Fig. 7

D. 0.07.

Fine, buff, soft clay. Wheelmade. Painted black on both sides. From Moni Kroustellenia (18).

Cf. "Trapeza," p. 57, fig. 13, no. 522 (EM II–MM I).

MM IB.

27. Rim of a carinated cup. Fig. 7

D. *ca.* 0.11.

Fine, pinkish buff, soft clay. Wheelmade. Dark paint on both sides. From Charakia (20).

Cf. "Trapeza," p. 60, fig. 14, no. 544 (MM I–II).

MM IB–IIIA.

28. Rim of a cup. Fig. 7

D. 0.06.

Fine, buff, soft clay. Wheelmade. Ribbed exterior. Red paint on both sides. From Phakidia (15).

Cf. "Trapeza," p. 60, fig. 14, no. 548 (MM IB–IIIA).

MM IB–IIIA.

29. Wall fragment of a carinated cup. Fig. 7

Fine, orange, soft clay, slipped gray. Black paint on both sides. From Charakia (20).

Cf. "Trapeza," p. 60, fig. 14, no. 527 (MM I).

MM IB–IIIA.

30. Rim of a conical cup. Fig. 7

D. *ca.* 0.06.

Fine, buff, soft clay. Wheelmade. From Katharo (33).

Cf. "Trapeza," p. 60, fig. 14, no. 529 (MM I).

MM IB–IIIA.

31. Base and wall of a conical cup. Fig. 7, Pl. 19:e

Fine, orange, hard clay. Wheelmade: wheel ridging visible on both sides. From Efendi Christou (64).

Cf. "Trapeza," p. 60, fig. 14, no. 533 (MM IB–IIIA).

MM IB–IIIA.

MIDDLE MINOAN III

32. Rim of a saucer. Fig. 8

D. 0.14.

Fine, red, hard clay. Painted a washy red on upper part of exterior and in vertical streaks inside. From Phakidia (15).

Cf. *Mallia*, pl. 37, no. 5 (MM III).

MM IB–IIIA.

33. Rim of a bowl. Fig. 8, Pl. 20:a

D. 0.19.

Fine, buff, hard clay; burnished. Painted black outside with a band inside below the rim. From Phakidia (15).

Cf. *Mallia*, p. 56, no. 39, and pl. 12, nos. 4, 5 (MM III).

MM III.

34. Conical cup. Fig. 8

D. of rim 0.11; H. 0.03.

Coarse, reddish orange, hard clay. Wheel ridging visible on interior. From Agia Anna (13).

Cf. *Mallia*, pl. 37, no. 2 (MM III).

MM III.

35. Conical cup. Fig. 8

D. of rim 0.11; H. 0.022.

Coarse, bright orange, hard clay, gray core. Wheel ridging on interior. From Katharo (33).

Cf. *Mallia*, pl. 37, no. 2 (MM III).

MM III.

36. Rim of a coarse jar. Fig. 8

D. 0.27.

Coarse, reddish orange, hard clay, including mica. From Platellais (22).

Cf. "Kastellos," p. 35, fig. 15, no. 2 (MM III); *Mallia*, pl. 40:2, d (MM III).

MM III.

37. Rim of a cup. Fig. 8

D. *ca.* 0.15.

Fine, buff, soft clay. From Pinaka (62).

Cf. *Mallia*, p. 82, no. 108 and pl. 15, no. 5 (LM IB); *Kythera*, fig. 39, no. 19 and pl. 26 (MM IIIB).

MM III–LM I.

38. Rim of an oval-mouthed amphora. Fig. 8, Pl. 20:c

Min. D. *ca.* 0.11.

Coarse, orange, hard clay. Exterior smoothed or wet slipped. From Platellais (22).

Cf. "Kastellos," pp. 35 and 41, pl. IV:4, no. 3 (MM III); "Palaikastro," p. 223, fig. 14, NP 118 (LM I).

MM III–LM I.

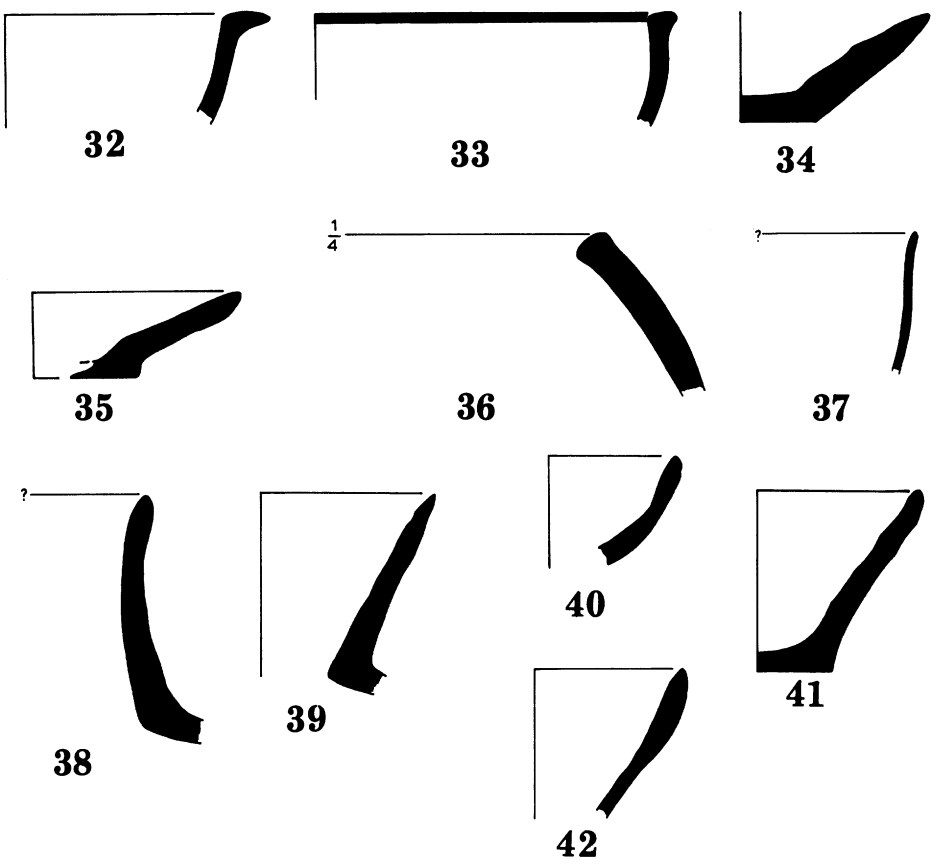


FIG. 8. Profiles: Middle Minoan III

39. Rim of an oval-mouthed amphora. Fig. 8

D. 0.09.

Fine, buff, soft clay. Black paint on the exterior. From Kastellon (50).

Cf. H. and M. Van Effenterre, *Études crétoises*, XVII, *Fouilles exécuteés à Mallia, Le centre politique. 1*, Paris 1969, pl. 63, no. 116 (LM I).

MM III–LM I.

40. Rim of a conical cup. Fig. 8

D. 0.07.

Fine, orange, hard clay. From Agia Anna (13).

Cf. "Kastellos," p. 33, fig. 13, no. 12 (MM IIIB); *Mallia*, pl. 37, no. 10 (LM IA).

MM III–LM I.

41. Conical cup. Fig. 8

D. of rim 0.085; H. 0.048.

Coarse, pinkish orange, soft clay. From Plati (69).

Cf. *Mallia*, pl. 37, no. 9 (LM I); "Palaikastro," p. 222, fig. 13, no. 3 (LM I).

MM III–LM I.

42. Rim of a conical cup. Fig. 8

D. 0.08.

Fine, gray, soft clay. Painted black on both sides. From Meliskipos (70).

Cf. "Palaikastro," p. 222, fig. 13, no. 4 (LM IB); *Kythera*, fig. 84, D 5 (MM IIIB).

MM III–LM I.

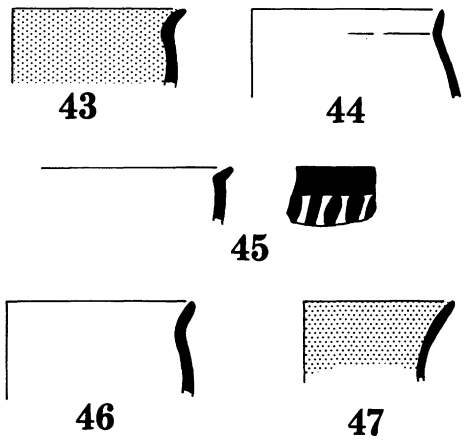


FIG. 9. Profiles: Late Minoan I

LATE MINOAN I

43. Rim of a cup. Fig. 9

D. 0.068.

Fine, light orange, soft clay. Painted black on both sides. From Moni Kroustellenia (18).

Cf. *Mallia*, p. 80, no. 102 and pl. 15, no. 1; "Palaikastro," p. 222, fig. 13, no. 11 (LM I).

LM I.

44. Rim of a cup. Fig. 9, Pl. 20:a

D. 0.10.

Gritty, dark brown, hard clay. Painted black outside, with a little on inside of rim. From Phakidia (15).

Cf. *Mallia*, p. 83, no. 110, pl. 16, no. 3 (LM I); "Palaikastro," p. 222, fig. 13, NP 54 (LM IB).

LM I.

45. Rim of a cup. Fig. 9

D. 0.10.

Fine, buff, hard clay; burnished. Painted red inside and with a leaf pattern on the outside. From Pigadistria (65).

Cf. *Kythera*, pl. 26, no. 24 (LM IA); M. Popham, "Late Minoan Pottery, A Summary," *BSA* 62, 1967, pl. 77:c (LM IA).

LM IA.

46. Rim of a cup. Fig. 9

D. 0.10.

Fine, buff, soft clay. Badly worn. From Agia Paraskevi (61).

Cf. *Mallia*, pl. 37, no. 10 (LM I).

LM I.

47. Rim of a cup. Fig. 9

D. 0.14.

Fine, buff, soft clay. Red band painted below the rim on interior. From Vigla (29).

Probably from an ogival cup, cf. "Palaikastro," p. 222, fig. 13, no. 10 (LM I).

LM I.

LATE MINOAN III

48. Rim of a cup. Fig. 10, Pl. 20:b

Fine, buff, hard clay; burnished. Painted black inside and with pendent concentric semicircles outside. From Augousti (46).

Cf. M. Popham, "Late Minoan IIIB Pottery from Knossos," *BSA* 65, 1970, p. 196, fig. 1, no. 3, pl. 50:a (LM IIIB).

LM IIIB.

49. Rim of a kylix. Fig. 10

D. 0.20.

Fine, tan to buff, hard clay; burnished. Below rim a red band with the tendrils of an octopus pattern. From Pigadistria (65).

Cf. Popham, *op. cit.* (footnote 14, p. 69 above), pl. 40:f (LM IIIB).

LM IIIB.

50. Base of a goblet. Fig. 10, Pl. 20:d

D. 0.05.

Fine, light orange, soft clay. Painted black outside. From Augousti (46).

Cf. Popham, *op. cit.* (footnote 15, p. 69 above), p. 302, fig. 7 (LM IIIB).

LM IIIA2–B.

51. Base of a goblet. Fig. 10

D. 0.06.

Coarse, brownish orange, soft clay. From Agia Paraskevi (61).

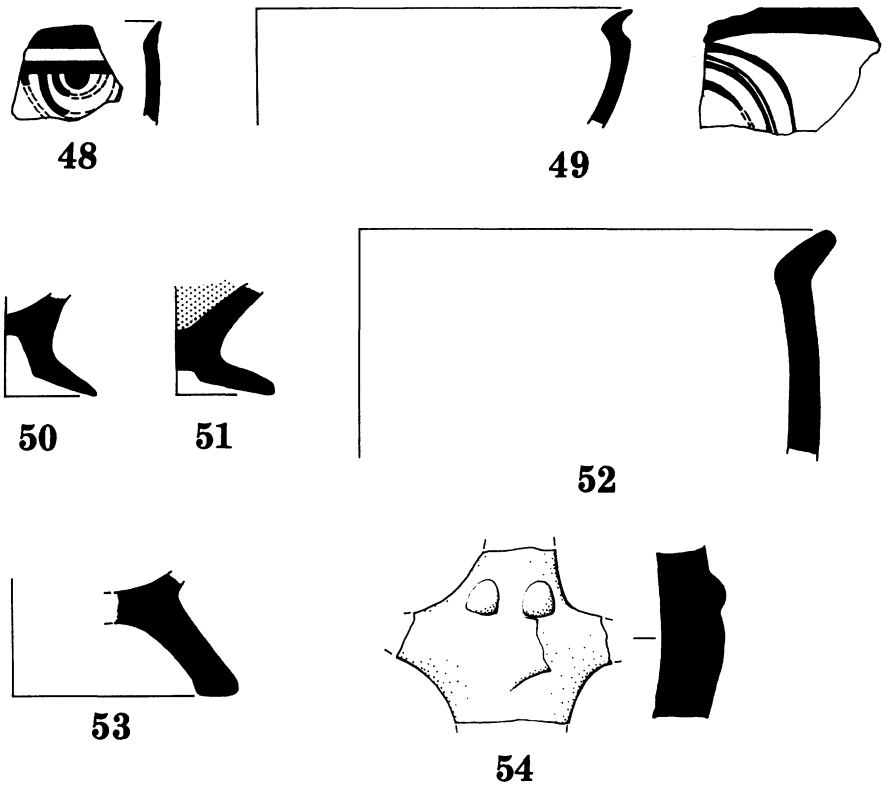


FIG. 10. Profiles: Late Minoan III

Cf. M. R. Popham, *SIMA*, V, *The Last Days of the Palace at Knossos*, Lund 1964, p. 17, fig. 1:c (LM IIIB).

LM IIIA2–B.

52. Rim of a large coarse krater. Fig. 10

D. 0.25.

Coarse, reddish orange, hard clay. From Vromiades (19).

Cf. Popham, "Some Late Minoan III Pottery," p. 325, fig. 5, no. 26 (LM IIIB–C); Seiradaki, "Pottery from Karphi," pp. 23–25 and figs. 15–17 (LM IIIC).

LM IIIC.

53. Base of a large coarse krater. Fig. 10, Pl. 20:e

D. 0.12.

Gritty, micaceous, red, hard clay. From Agia Paraskevi (61).

Cf. Seiradaki, "Pottery from Karphi," p. 23, fig. 15, no. 2 (LM IIIC); Popham, "Some Late Minoan III Pottery," p. 332, fig. 9, no. 62 (LM IIIC).

LM IIIC.

54. Torso of a female figurine. Fig. 10, Pl. 20:d

Preserved H. 0.046; max. Th. 0.017.

Gritty, tan to orange, hard clay. From the stub below the breasts it appears the left arm was folded back on the chest. From Augousti (46).

Cf. Popham, *op. cit.* (footnote 14, p. 69 above), pl. 22:f (LM III).

LM III.

PROTOGEOMETRIC–ARCHAIC

55. Base of a small krater or cup. Fig. 11

D. 0.07.

Slightly gritty, reddish orange, hard clay. From Pigadistria (65).

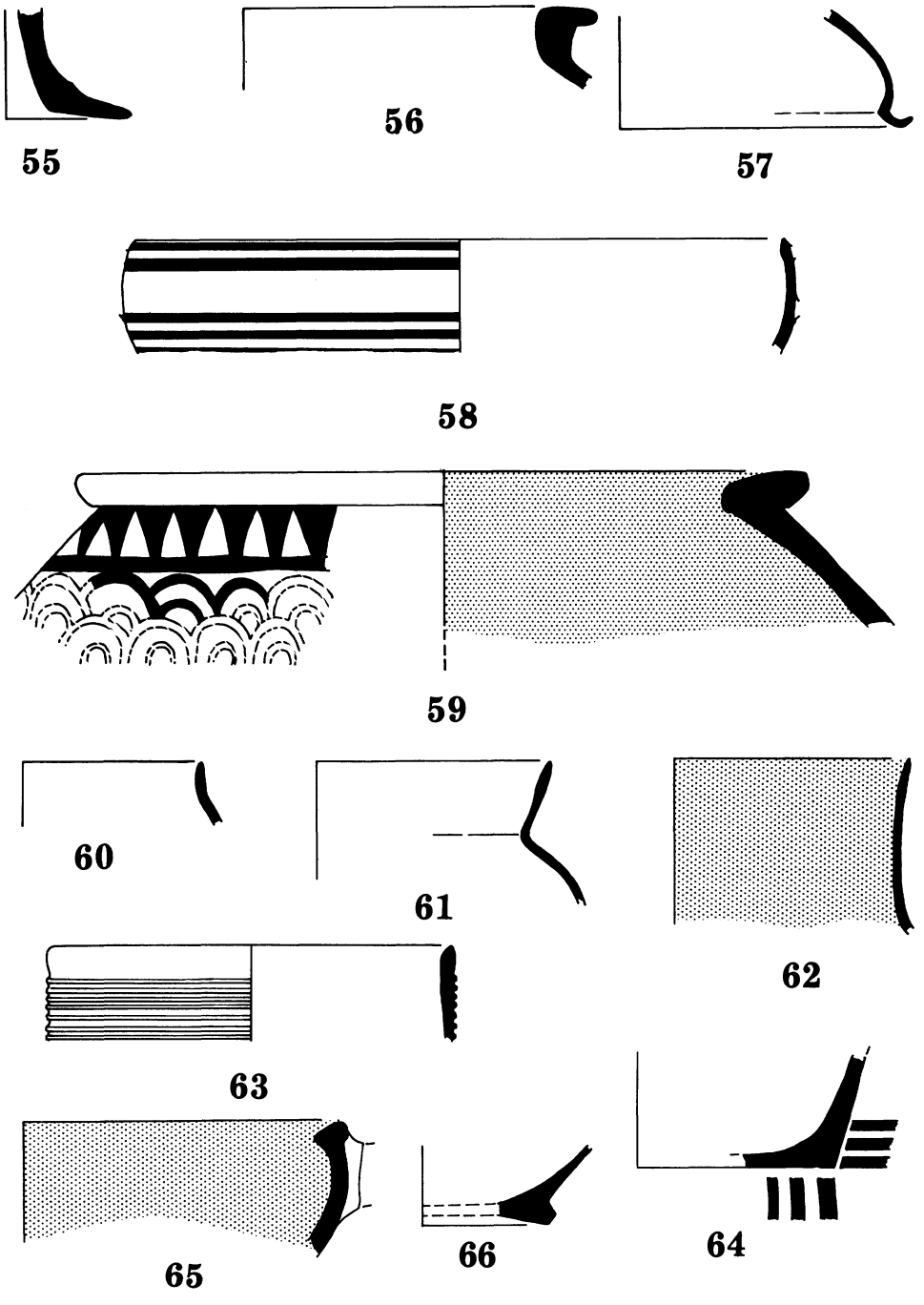


FIG. 11. Profiles: Protogeometric–Archaic

Cf. Coldstream, "Knossos Protogeometric and Geometric Pottery," p. 96, fig. 15, G 122 (Middle Geometric); J. N. Coldstream, *Greek Geometric Pottery*, London 1968, p. 259 and pl. 57:d–f (Geometric).

Geometric.

56. Rim of a krater. Fig. 11

D. 0.20.

Coarse, buff, hard clay. Painted black on both sides. From Agia Anna (13).

Cf. Coldstream, "Knossos Protogeometric and Geometric Pottery," p. 86, fig. 9, F 30 (Late Geometric–Early Orientalizing).

Orientalizing–Archaic.

57. Rim of a lid. Fig. 11

D. 0.15.

Gritty, orange, soft clay, with bits of feldspar. From Kardamoutsa (3).

A shape commonly associated with Early Iron Age burial pithoi; cf. *Fortetsa*, pl. 146, nos. 389 (Late Geometric), 402 (Late Geometric–Orientalizing).

Late Geometric–Orientalizing.

58. Rim of a kotyle. Fig. 11, Pl. 18:c

D. 0.18.

Fine, buff, soft clay. Stub of a horizontal handle. Horizontal bands. From Kolonna (8).

A Cretan kotyle, Fortetsa type B; cf. *Fortetsa*, p. 166, no. 1541, and pl. 104 (Orientalizing).

Orientalizing.

59. Rim of a dinos. Fig. 11, Pl. 18:c

D. 0.25.

Fine, buff, soft clay. Painted black inside and with rays and a scale pattern outside. From Kolonna (8).

Cf. "Arkades," p. 141, fig. 134, and p. 142, fig. 137 (*ca.* 650 B.C.).

7th century B.C.

60. Rim of a cup. Fig. 11

D. 0.10.

Fine, orange, soft clay. Black paint on both sides. From Agia Anna (13). Profile similar to Coldstream, "Knossos Protogeometric and Geometric Pottery," p. 82, fig. 7, F 23 (Middle to Late Geometric).

Probably Late Geometric.

61. Rim of a cup. Fig. 11, Pl. 18:d

D. 0.13.

Coarse, orange, hard clay. From Kolonna (8).

Cf. Coldstream, "Knossos Protogeometric and Geometric Pottery," p. 96, fig. 15, G 106, G 107 (Late Geometric or Early Orientalizing).

Late Geometric–Orientalizing.

62. Rim of a cup. Fig. 11, Pl. 18:d

D. 0.13; H. 0.045.

Fine, buff, soft clay. Weak black glaze inside and out. From Kolonna (8).

The Cretan Late Archaic black-glazed cup; cf. Coldstream, "Knossos Orientalizing and Archaic Pottery," p. 56, fig. 10, L 53–L 57 (*ca.* 500–480 B.C.).

Late Archaic.

63. Rim of a jug or cooking pot. Fig. 11, Pl. 18:c

D. *ca.* 0.11.

Gritty, reddish, hard clay; micaceous. Neck horizontally grooved. From Kolonna (8).

Cf. Coldstream, "Knossos Protogeometric and Geometric Pottery," p. 86, fig. 9, F 27 (Late Geometric–Early Orientalizing); *idem*, "Knossos Orientalizing and Archaic Pottery," p. 41, H 74, and pl. 14 (7th century B.C.).

Late Geometric–Archaic.

64. Base of a lekanis. Fig. 11, Pl. 18:c

D. 0.11.

Fine, gray, soft clay. Interior painted a washy black; bands under and along base. From Kolonna (8).

Cf. Coldstream, "Knossos Orientalizing and Archaic Pottery," p. 43, J 25, and pl. 16 (Late Orientalizing).

Orientalizing or Archaic.

65. Rim of a lekanis. Fig. 11, Pl. 20:d

D. 0.18.

Fine, buff, soft clay. Painted black inside and out. From Augousti (46).

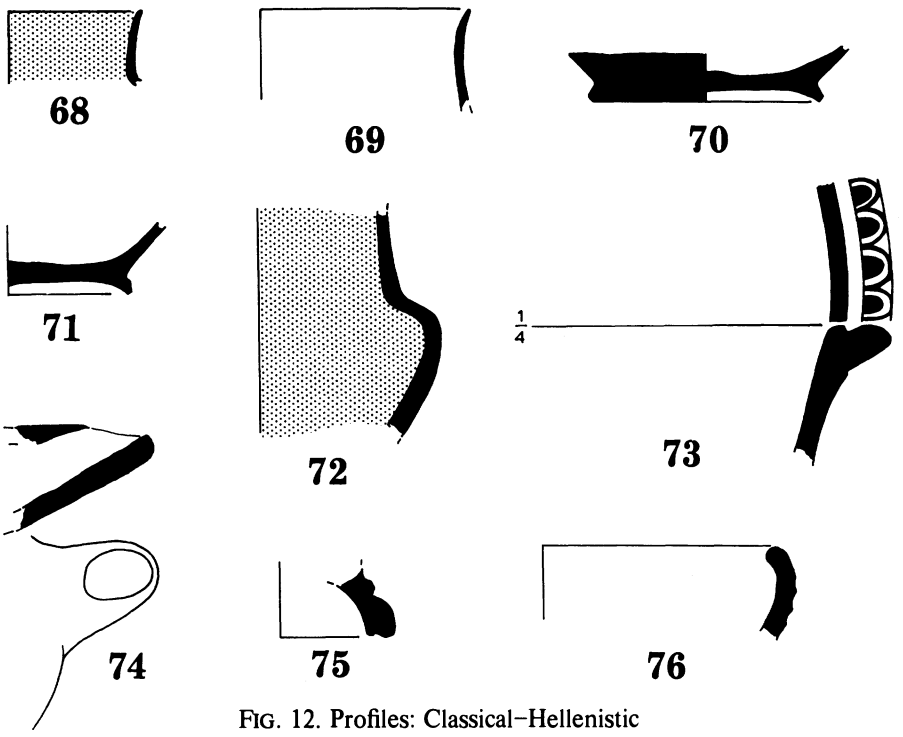


FIG. 12. Profiles: Classical–Hellenistic

Cf. a Cycladic example in J. Boardman and J. Hayes, *Excavations at Tocra* II, [London] 1973, p. 36, fig. 15, no. 2086 (*ca.* 620–590 B.C.); Coldstream, "Knossos Orientalizing and Archaic Pottery," p. 39, fig. 2, H 40, H 41 (Orientalizing).

Orientalizing or Archaic.

66. Base of a cup. Fig. 11, Pl. 19:d

D. 0.07.

Fine, buff, soft clay. Dark reddish paint on exterior. From Edzathmistera (44).

Cf. Coldstream, "Knossos Orientalizing and Archaic Pottery," p. 40, fig. 3, H 58, H 60, J 33 (Orientalizing).

Orientalizing or Archaic.

67. Wall fragment of a relief pithos. Pl. 18:b

Preserved H. 0.16; preserved W. 0.14.

Coarse, orange, hard clay. A winged sphinx (missing her head) in relief. Details are incised by hand. From Agia Anna (13).

Cf. *CCO*, pp. 110–111, no. 503, and pl. 41 (*ca.* 650–600 B.C.).

Late 7th century B.C.

CLASSICAL–HELLENISTIC

68. Rim of a cup. Fig. 12

D. *ca.* 0.07.

Fine, pinkish buff, soft clay. Streaky black paint on both sides. From Kardamoutsa (3).

A low-rim, black-glazed cup, cf. *Demeter*, p. 24, fig. 14, B 19 (late 5th century B.C.); P. Callaghan, "KRS 1976: Excavations at a Shrine of Glaukos, Knossos," *BSA* 72, 1978, p. 7, fig. 5, nos. 10, 11 (5th century B.C.).

5th century B.C..

69. Rim of a cup. Fig. 12

D. 0.10.

Fine, buff, soft clay. Black glaze inside and out. From Kolonna (8).

Cf. Callaghan, *op. cit.* (under **68** above), p. 10, fig. 6, nos. 19–21 (5th century B.C.).

5th century B.C.

70. Base of a cup. Fig. 12

D. 0.06.

Fine, orange, hard clay. Black glaze inside and out. From Kolonna (8).

Cf. Callaghan, *loc. cit.* (under **68** above; 5th century B.C.). From a cup like **68**.

5th century B.C.

71. Base of a cup. Fig. 12, Pl. 20:b

D. 0.065.

Fine, greenish buff, soft clay. Painted a grayish black inside and out. A hole bored through base of wall before firing. Black glaze extends into the hole. From Augousti (46).

The articulated form of the foot may be Atticizing; cf. *Demeter*, p. 23, fig. 13, H 38 (400–375 B.C.). Cup like **68**.

Classical.

72. Shoulder of a kantharos. Fig. 12, Pl. 18:d

Fine, pinkish tan, hard clay. Fine Classical black glaze on both sides. From Kolonna (8).

Cf. B. A. Sparkes and L. Talcott, *The Athenian Agora*, XII, *Black and Plain Pottery of the 6th, 5th, and 4th Centuries B.C.*, Princeton 1970, fig. 7, no. 672 (*ca.* 375–350 B.C.).

4th century B.C.

73. Rim of a tray. Fig. 12

D. 0.38.

Fine, tan, soft clay. Classical black glaze inside and out. Tongue pattern painted on rim. From Gaitanou (10).

Cf. *Demeter*, p. 24, fig. 14, H 76, H 77 (Late 5th–4th century B.C.).

Classical.

74. Spout of a lamp. Fig. 12, Pl. 20:d

Coarse, gray, hard clay. From Augousti (46).

Cf. R. W. Hutchinson, "Unpublished Objects from Palaikastro and Praisos. II," *BSA* 40–41, 1939–1945, p. 40 and pl. 16, no. 1 (*ca.* 450–400 B.C.); *Demeter*, pl. H 106 (4th century B.C.).

Late 5th or 4th century B.C.

75. Base of a kantharos. Fig. 12

Fine, tan, hard clay. Weak black glaze on both sides. From Augousti (46).

Cf. *Demeter*, p. 34, fig. 16, H 89 (Hellenistic).

Hellenistic.

76. Rim of a bowl. Fig. 12

D. 0.12.

Gritty, reddish orange, hard clay. Horizontal paring on exterior. From Agia Anna (13).

Cf. *Demeter*, p. 30, fig. 15, E 19, E 20 (mid-3rd century B.C.); B. Homann-Wedeking, "A Kiln Site at Knossos," *BSA* 45, 1950, p. 178, fig. 15, D (2nd century B.C.).

Hellenistic.

ROMAN

77. Spout of a lamp. Fig. 13, Pl. 20:b

Fine, tan, hard clay. Painted a smudgy gray. Traces of incised decoration on the nozzle. From Augousti (46).

Cf. J. W. Hayes, "Four Early Roman Groups from Knossos," *BSA* 66, 1971, pl. 40:d, no. 62 (1st century after Christ).

Probably 1st century after Christ.

78. Rim of a flat based dish. Fig. 13

Fine, reddish orange, soft clay; slipped a color similar to that of the clay, on both sides. Three grooves on top of rim. From Katharo (34).

Cf. Hayes, p. 92, fig. 14, form 58 B, no. 9 (*ca.* A.D. 290–375).

Probably 4th century after Christ.

79. Rim of a bowl. Fig. 13

Fine, buff, soft clay. Rouletting below rim. From Katharo (34).

Cf. Hayes, p. 330, fig. 67, form 3 C, no. 9 (*ca.* A.D. 460–475).

80. Rim of a flat based dish. Fig. 13, Pl. 20:b

D. 0.25.

Fine, orange, hard clay. Painted red inside and out. From Augousti (46).

Cf. Hayes, p. 104, fig. 17, form 61 A, no 14:7 (*ca.* A.D. 325–420).

4th to 5th century after Christ.

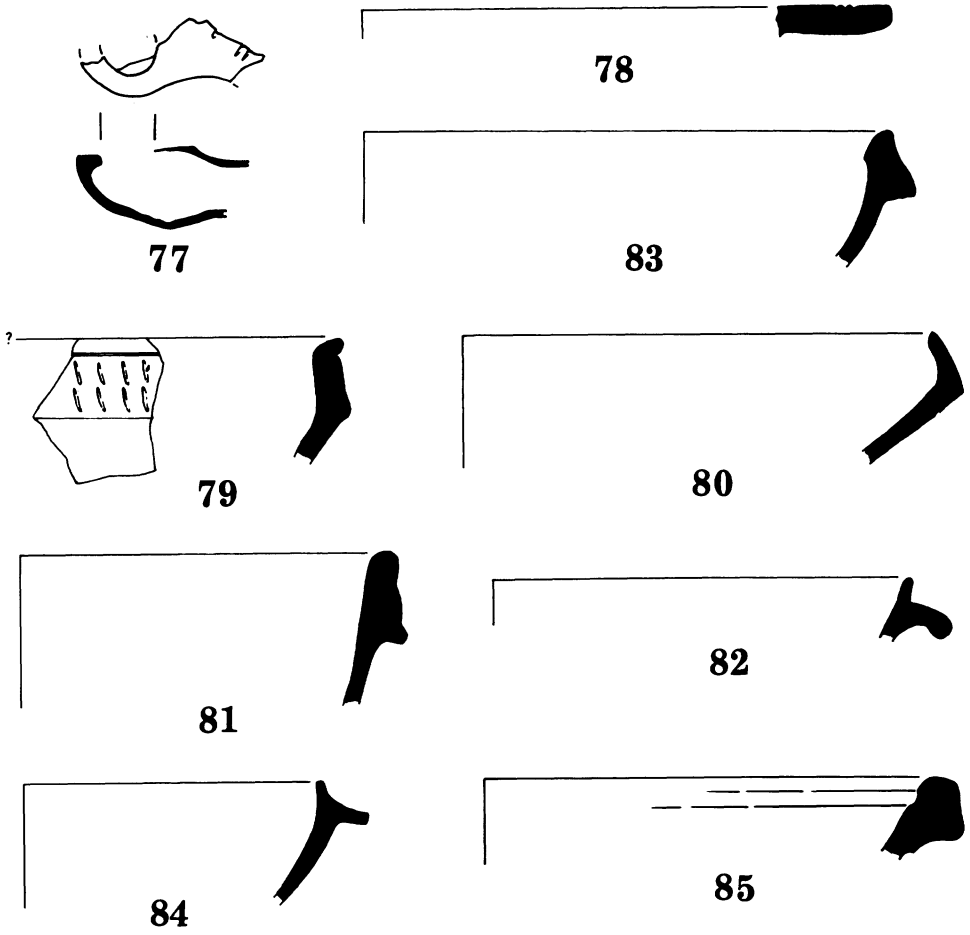


FIG. 13. Profiles: Roman

81. Rim of a coarse bowl. Fig. 13

D. 0.20.

Gritty, dark orange, hard clay; slipped dark gray. From Agios Savvas (54).

Cf. Hayes, p. 330, fig. 67, form 3, C 9 (*ca.* A.D. 460–475).

5th or 6th century after Christ.

82. Rim of a flanged bowl. Fig. 13

D. *ca.* 0.22.

Fine, reddish orange, hard clay. Painted a lustrous red identical in color to that of the clay, inside and out. From Tou Stavrakou *o* Lakkos (2).

Cf. Hayes, p. 142, form 91 A (5th–6th century after Christ).

5th to 6th century after Christ.

83. Rim of a bowl. Fig. 13

D. 0.28.

Fine, gray, hard clay, with small grits. Glazed red inside and out. From Katharo (34).

Cf. Hayes, p. 334, fig. 69, form 3, type F, no. 25 (6th century after Christ).

6th century after Christ.

84. Rim of a flanged bowl. Fig. 13

D. 0.16.

Slightly gritty, red, hard clay. Slipped a light red, except upper part of exterior wall, including flange; cf. Hayes, p. 329. From Diaselo (25).

Cf. Hayes, p. 142, fig. 26, form 91 D (A.D. 600–650).

7th century after Christ.

85. Rim of a plate. Fig. 13

D. 0.25.

Gritty, pink to gray, hard clay. Painted red all over. From Kardamoutsa (3).

Cf. Hayes, p. 344, fig. 71 A (late 6th–7th centuries after Christ).

Late 6th to 7th century after Christ.

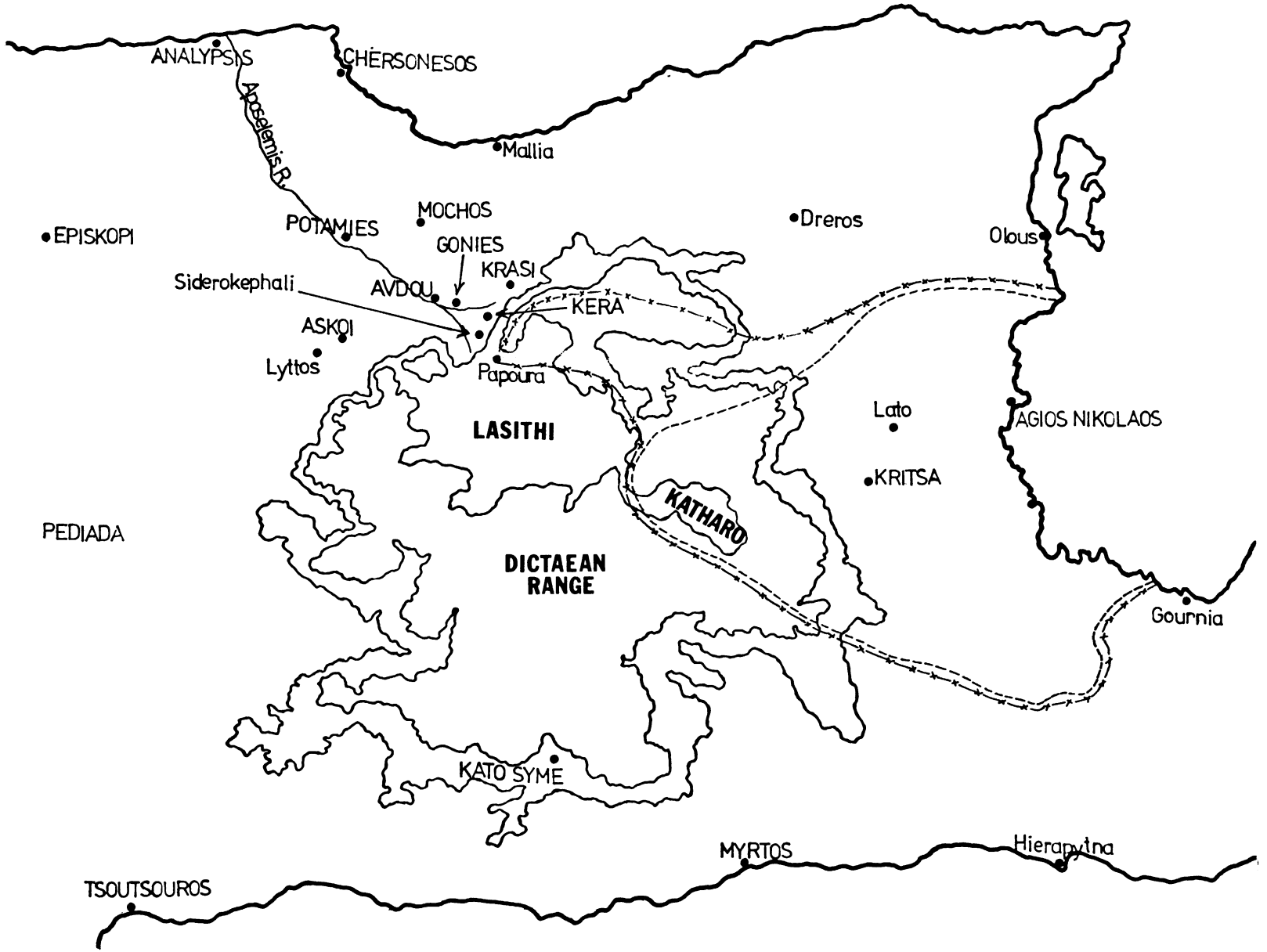
INDEX

Numbers in **bold face** and names in *italic type* refer to the sites catalogued in Chapter VI.

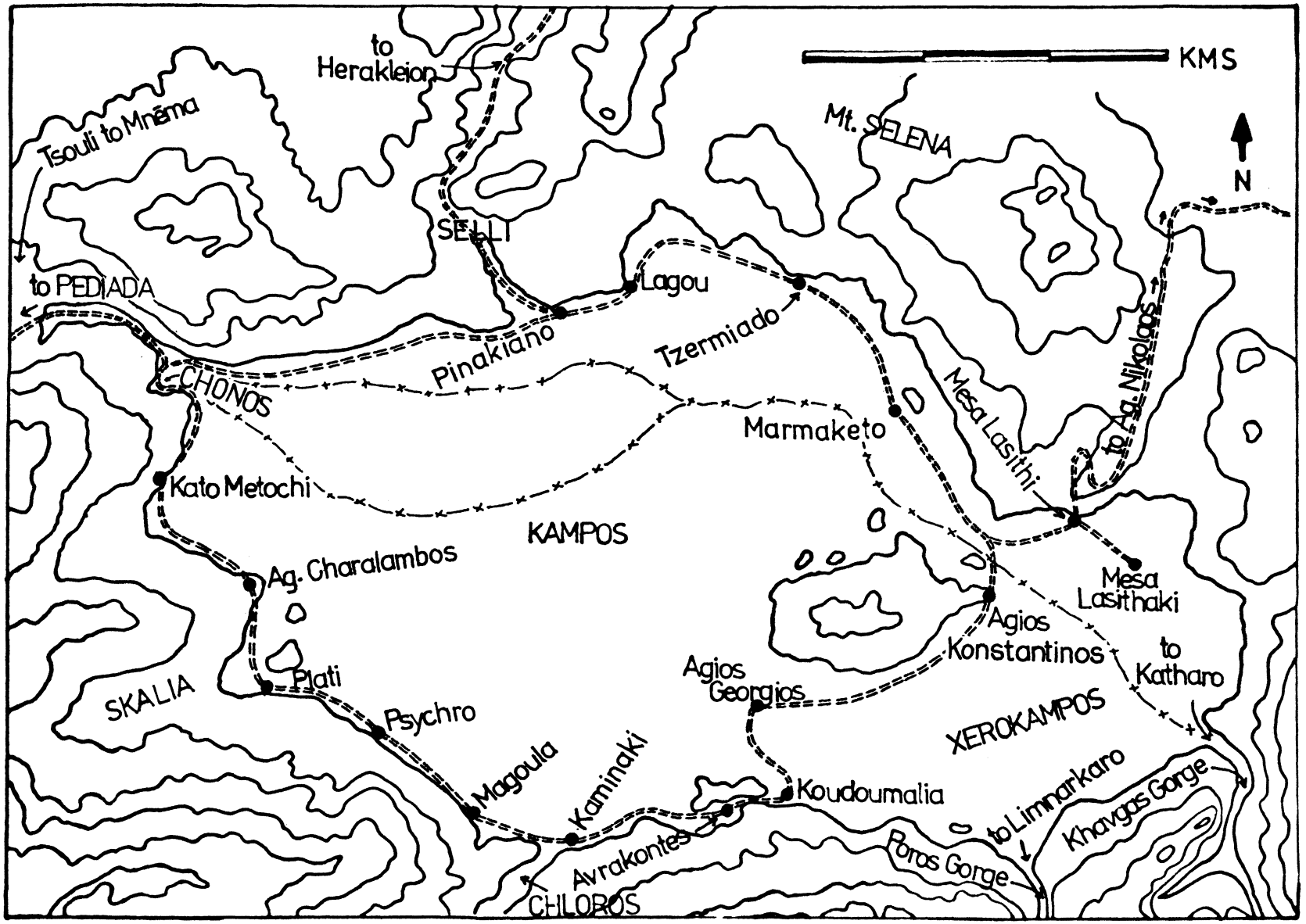
MAPS

CRETE

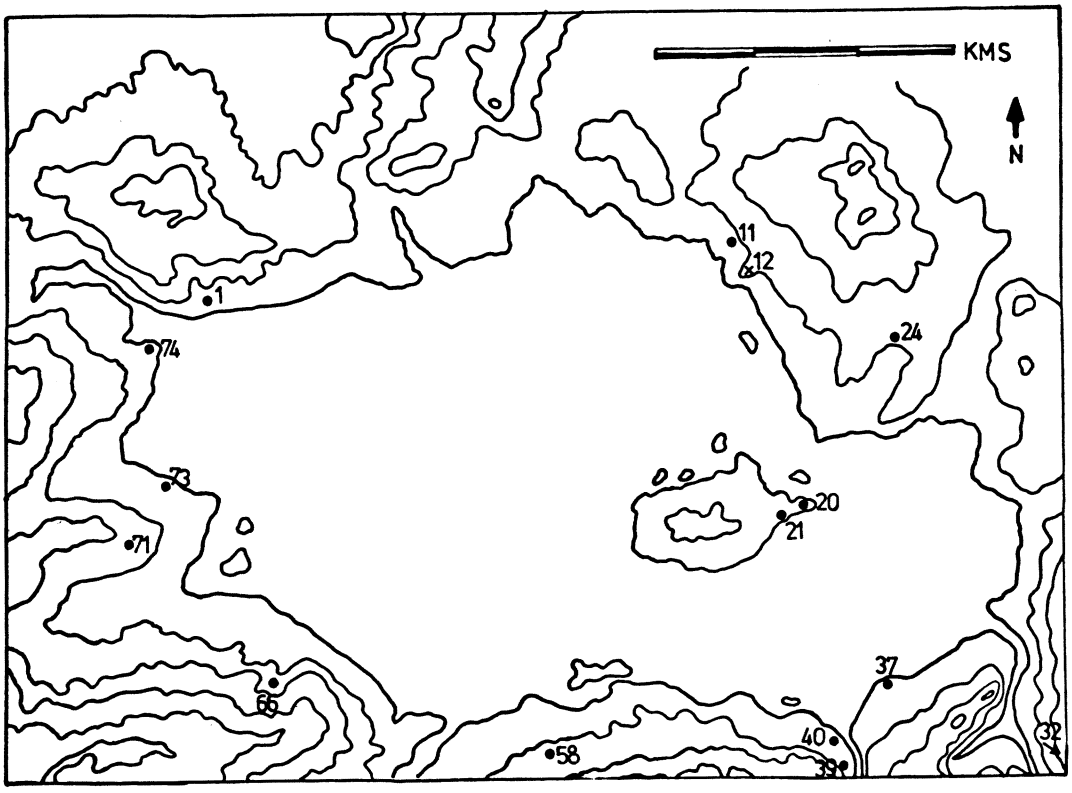
MAP 1. Crete



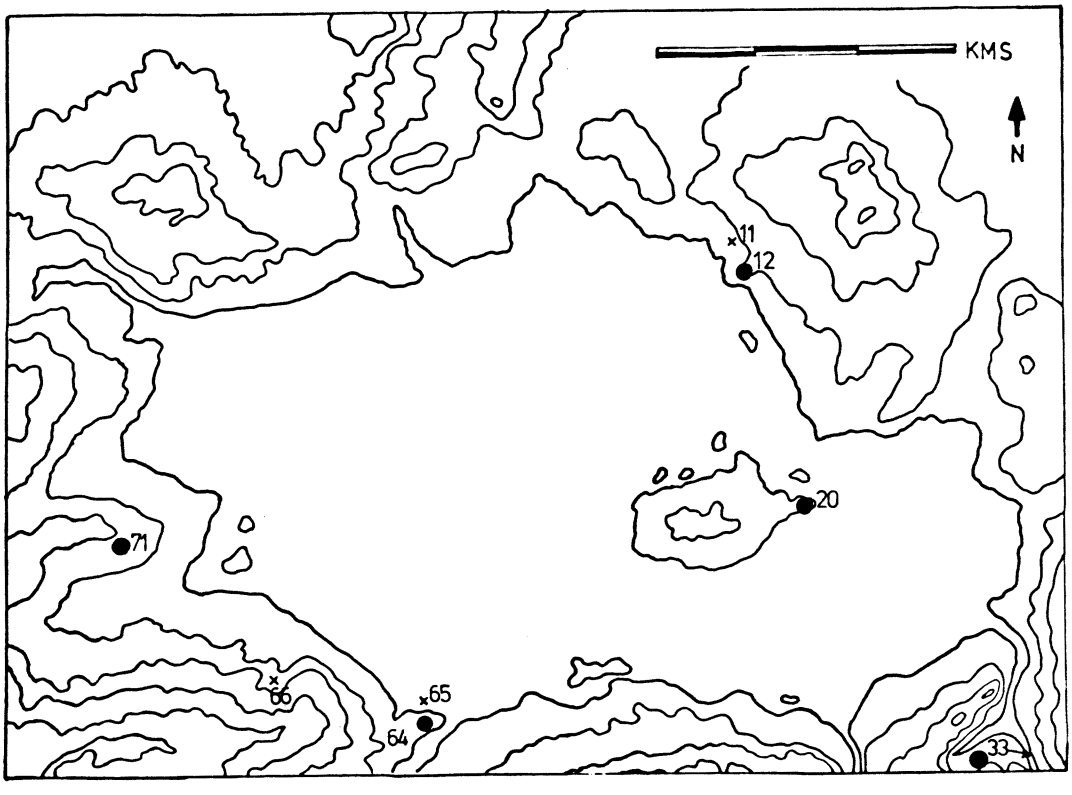
MAP 2. Regional map of Lasithi showing ancient sites



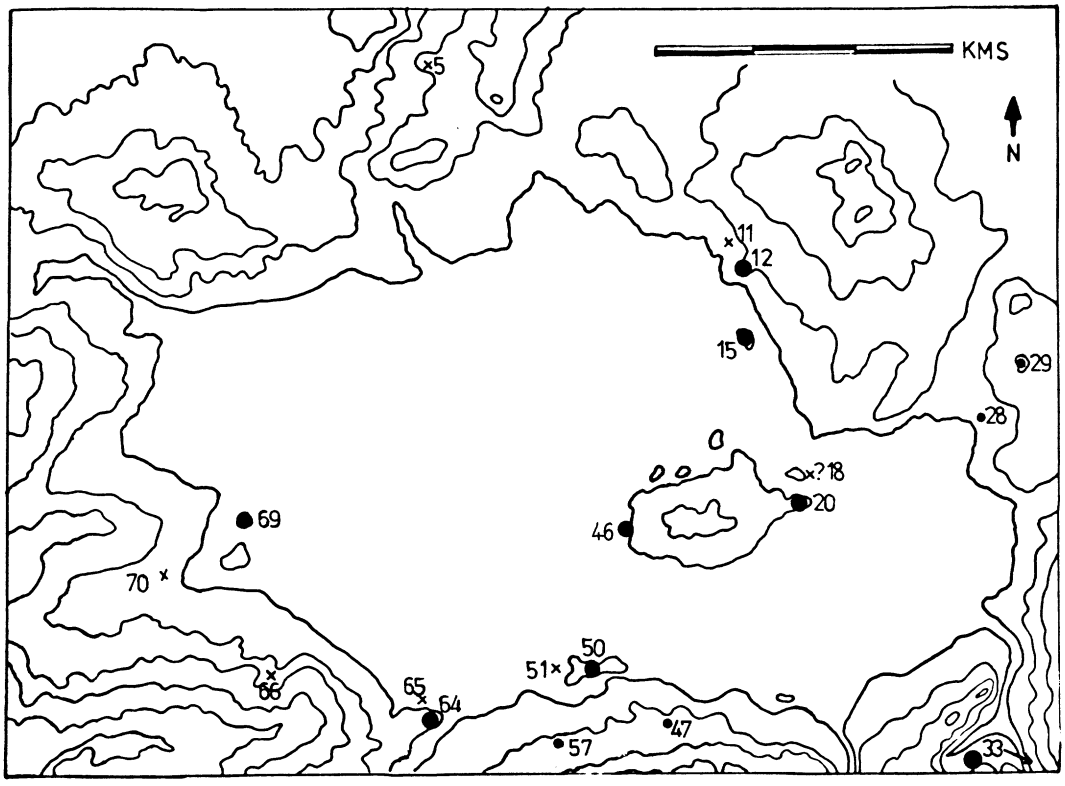
MAP 3. Present-day Lasithi



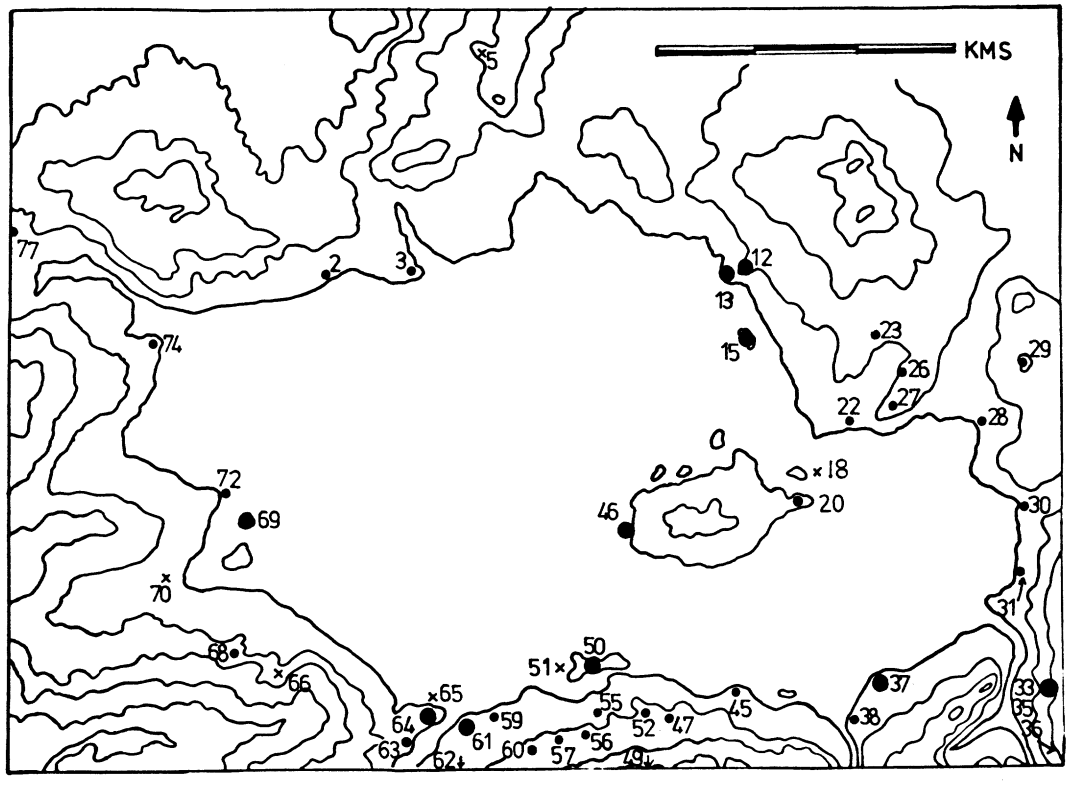
MAP 4. Late Neolithic—Early Minoan I sites on Lasithi



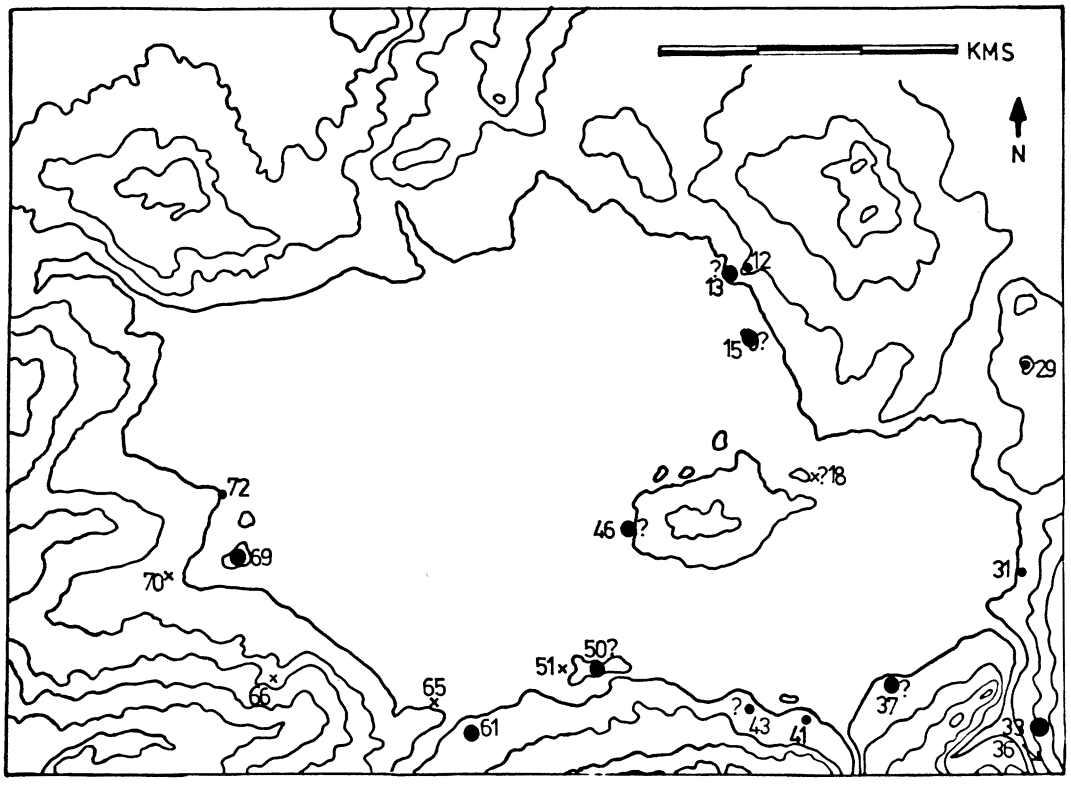
MAP 5. Early Minoan II–III sites on Lasithi



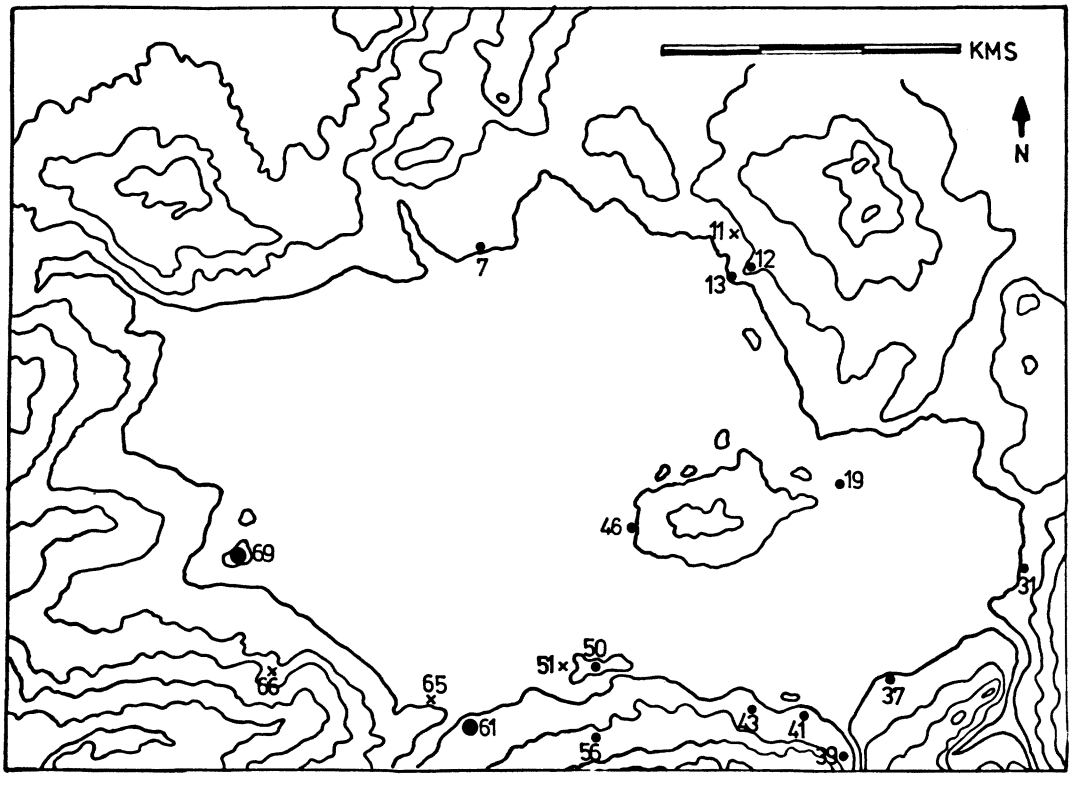
MAP 6. Middle Minoan I sites on Lasithi



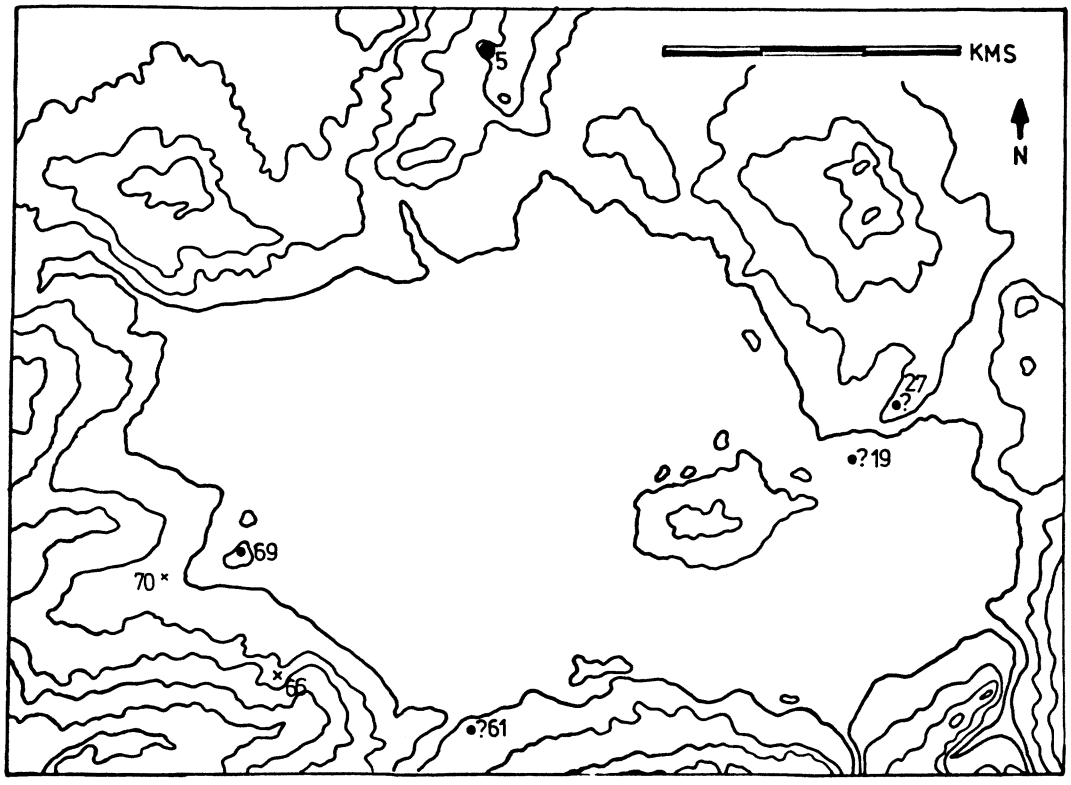
MAP 7. Middle Minoan III sites on Lasithi



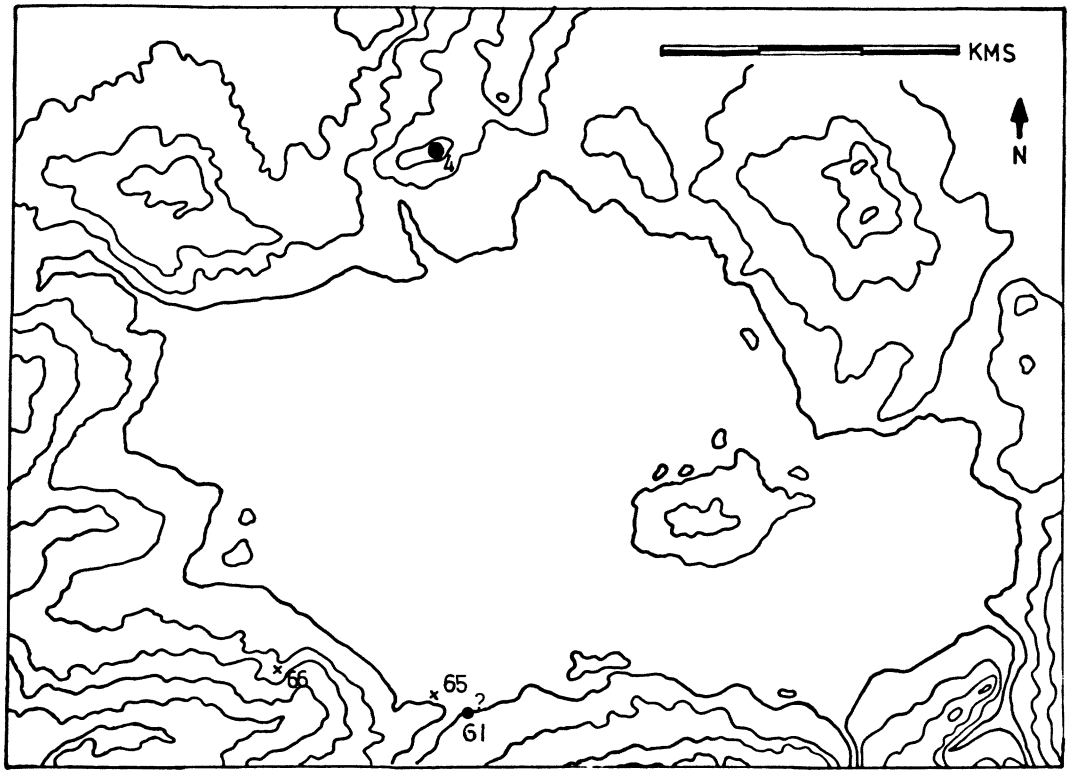
MAP 8. Late Minoan I sites on Lasithi



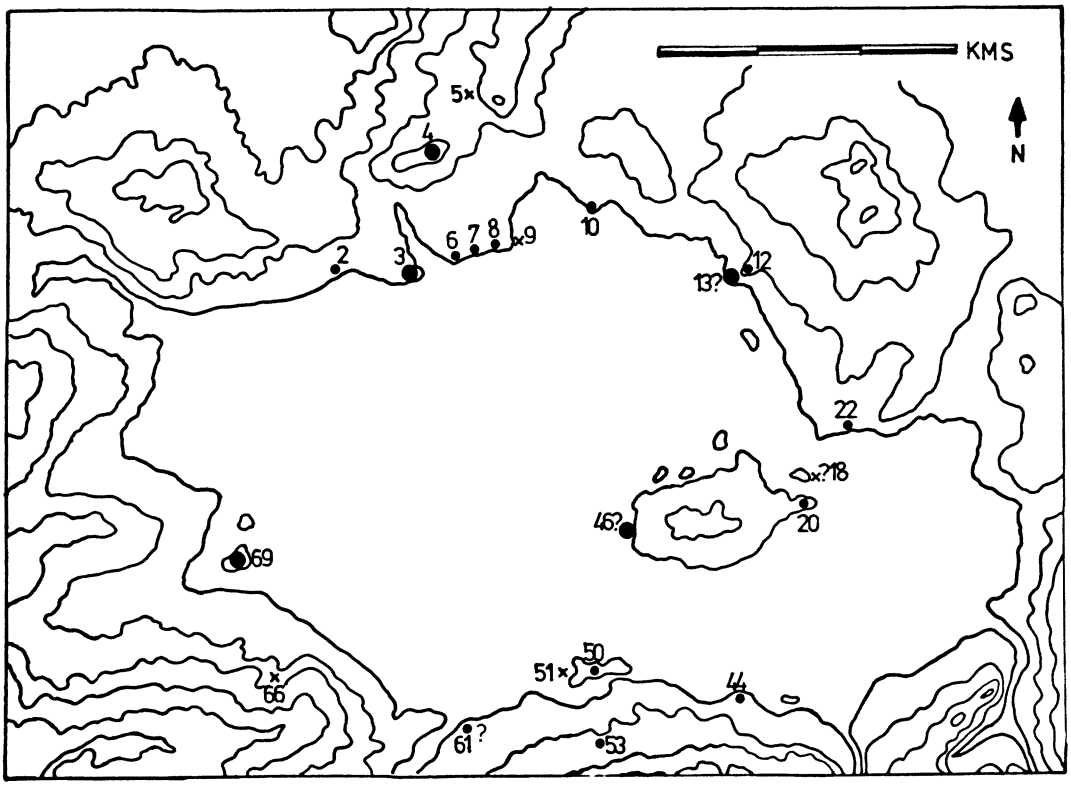
MAP 9. Late Minoan IIIA–B sites on Lasithi



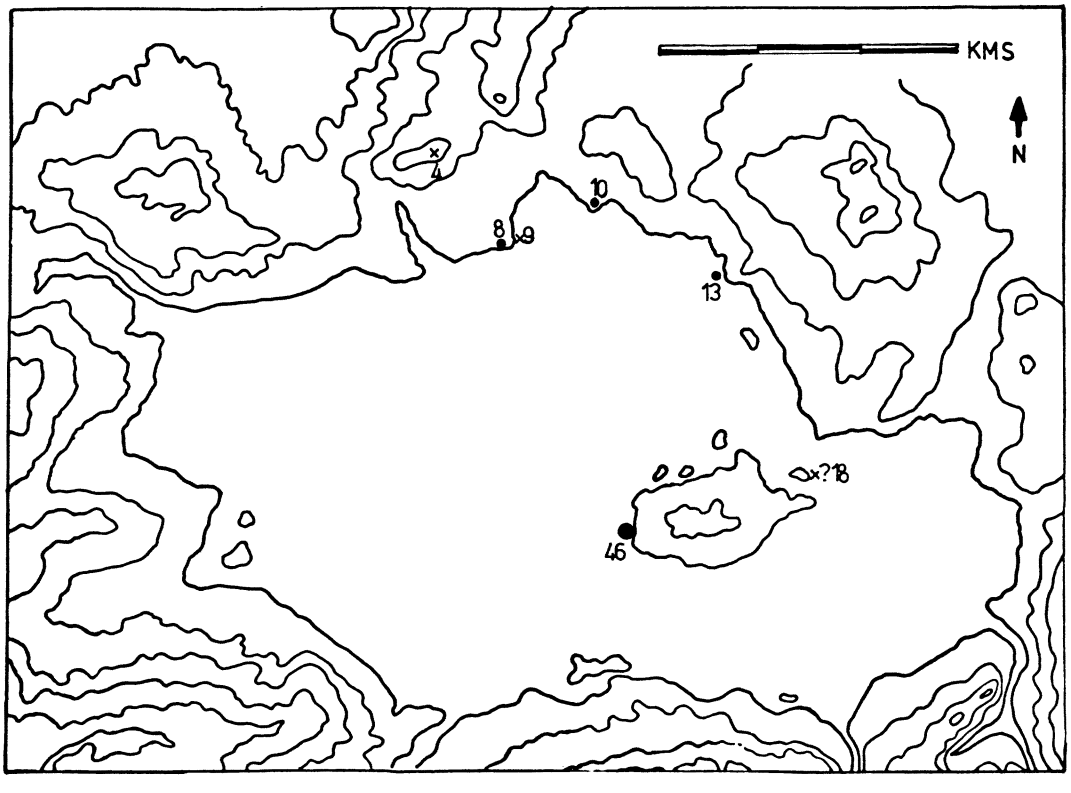
MAP 10. Late Minoan IIIC sites on Lasithi



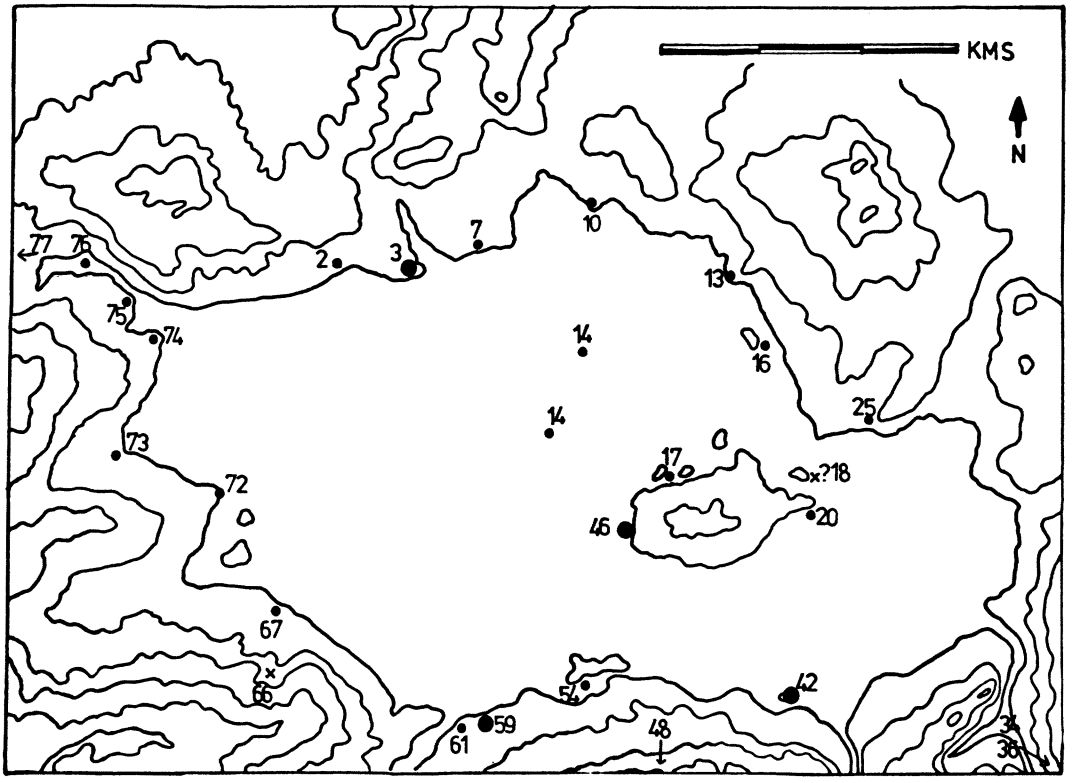
MAP 11. Protogeometric–Geometric sites on Lasithi



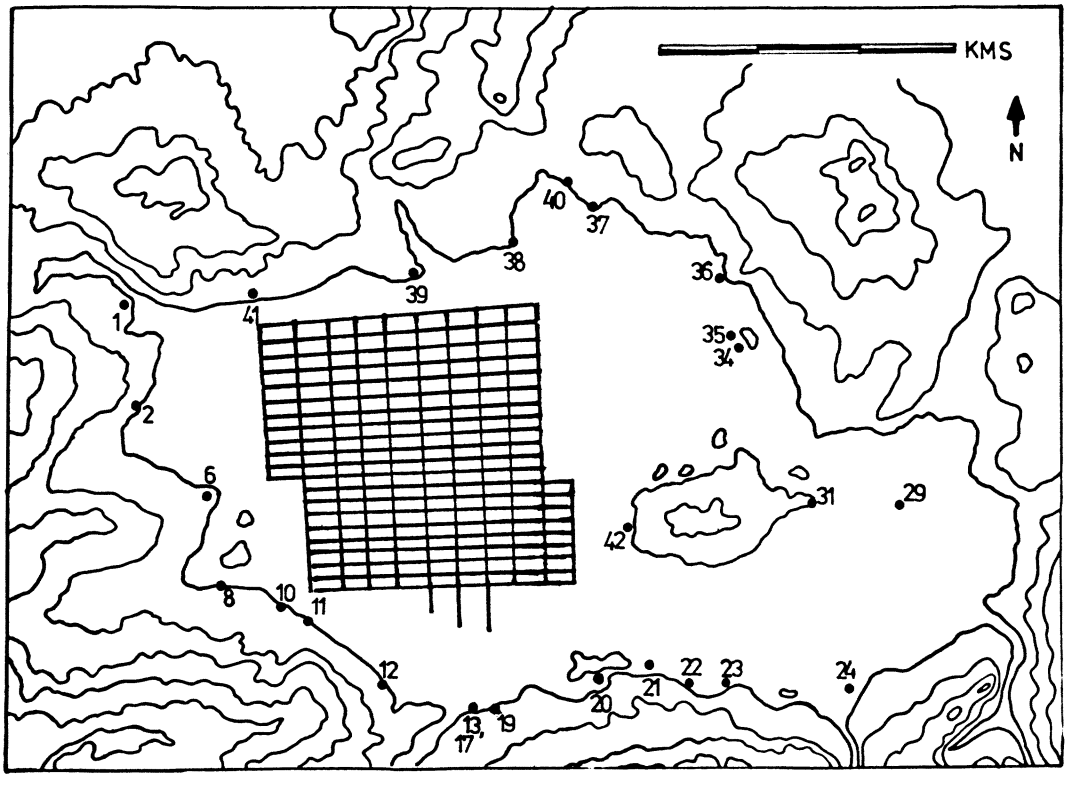
MAP 12. Orientalizing–Archaic sites on Lasithi



MAP 13. Classical–Hellenistic sites on Lasithi



MAP 14. Roman sites on Lasithi



MAP 15. Venetian settlements on Lasithi

Legend for Map 15:

Settlements listed in cadaster of 1582

Mettochio

1. Xonou ston Agio Georgio ston Entixti psyxes
2. Gaidouromantra
3. Tapeinou Orphanou
4. Paspalou
5. tou Tzogia
6. Geromouri
7. stou Mousi
8. Plati tou Sakelari
9. Drazinon
10. Agios Kyrilos
11. Psychro
12. Magoulas
13. Kaminaki tou Xarkia
14. Asomatos
15. Pergami

——name missing from cadaster list

17. Spera sto Kaminaki
18. tou Oxra
19. Magatzedes
20. Anavrakonte
21. Koudoumalia
22. sto Klima tou Benieri
23. Basilikou
24. tis Alexainas
25. tou Kontou
26. to Tsagkaloxori
27. tou Foradari i Basmoulou
28. tou Entixti
29. oi Ag. Anargyroi
30. to Sidiakou
31. Ag. Konstantinos
32. Mugiogianni
33. Sarakinou

—— name missing from cadaster list
—— name missing from cadaster list
—— name missing from cadaster list

34. Marmakioti
35. tou Pharsari

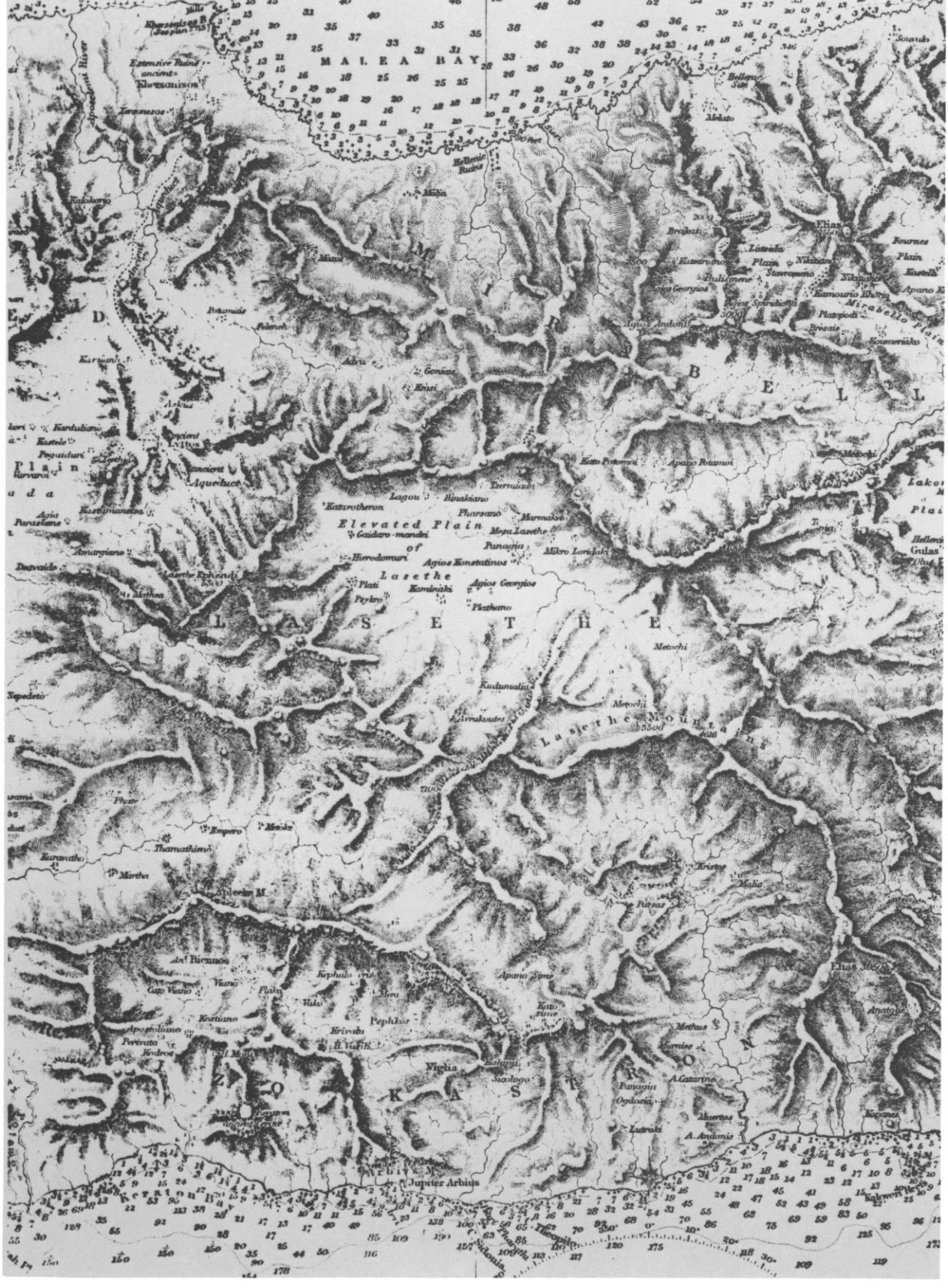
—— name missing from cadaster list
—— name missing from cadaster list

36. Alogospilioi
37. Gaitanou
38. tou Lagou
39. tis Kardamoutsas tou Karatzadou
40. Kerasa

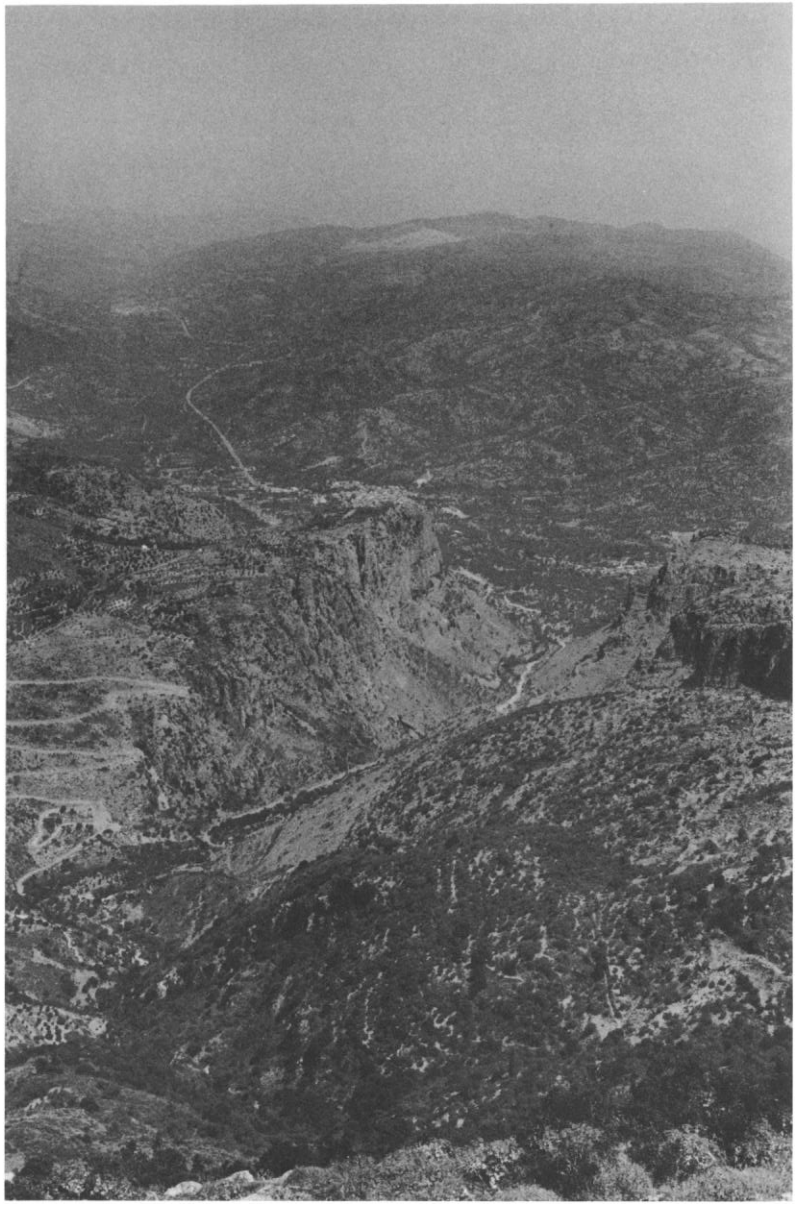
—— name missing from cadaster list

41. tou Bidou
42. Agousti

Total Venetian sites located on the map	42
Total Venetian sites whose names are missing and are therefore not located on the map	7
Total Venetian sites on the cadaster list	49



Topographical map of the area of Lasithi (British Admiralty, nineteenth century)



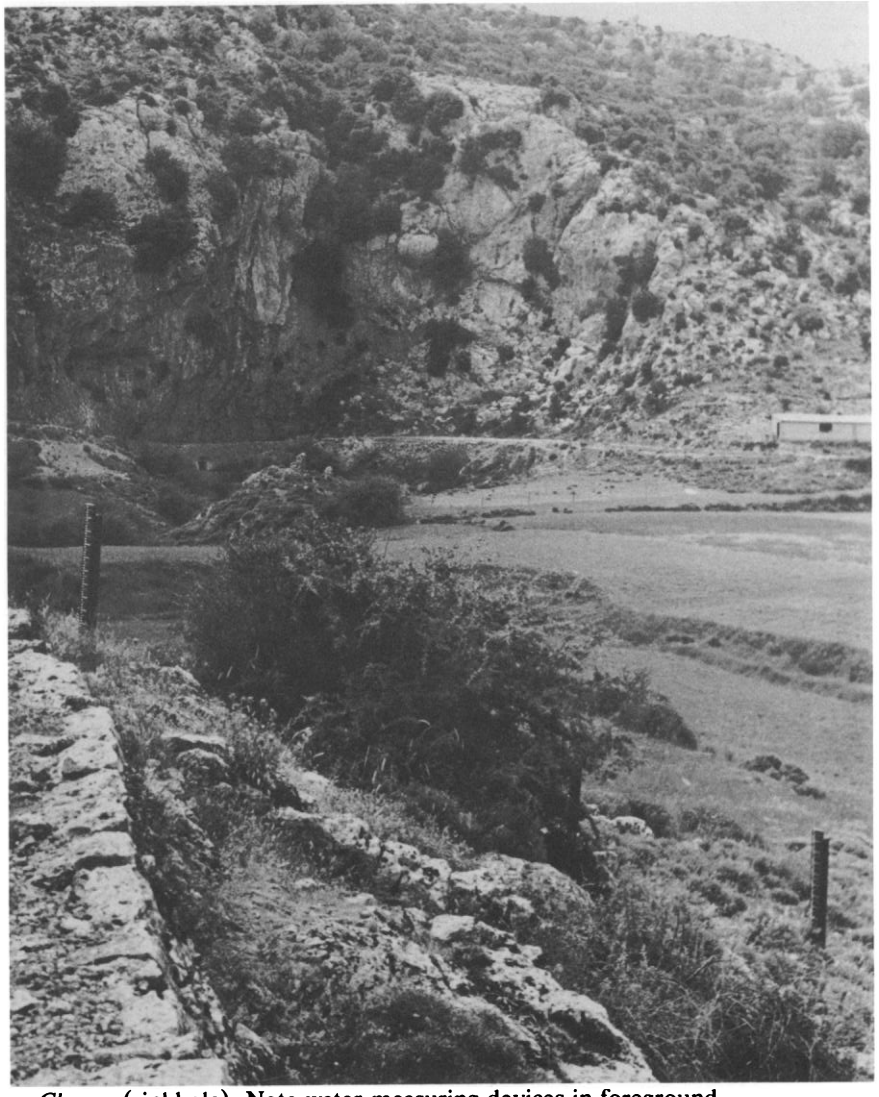
a. Aposelemis valley from Papoura (4)

b. Venetian map of Lasithi (Francesco Basilicata, 1630)

Lasithi and Mt. Dikte from the north

PLATE

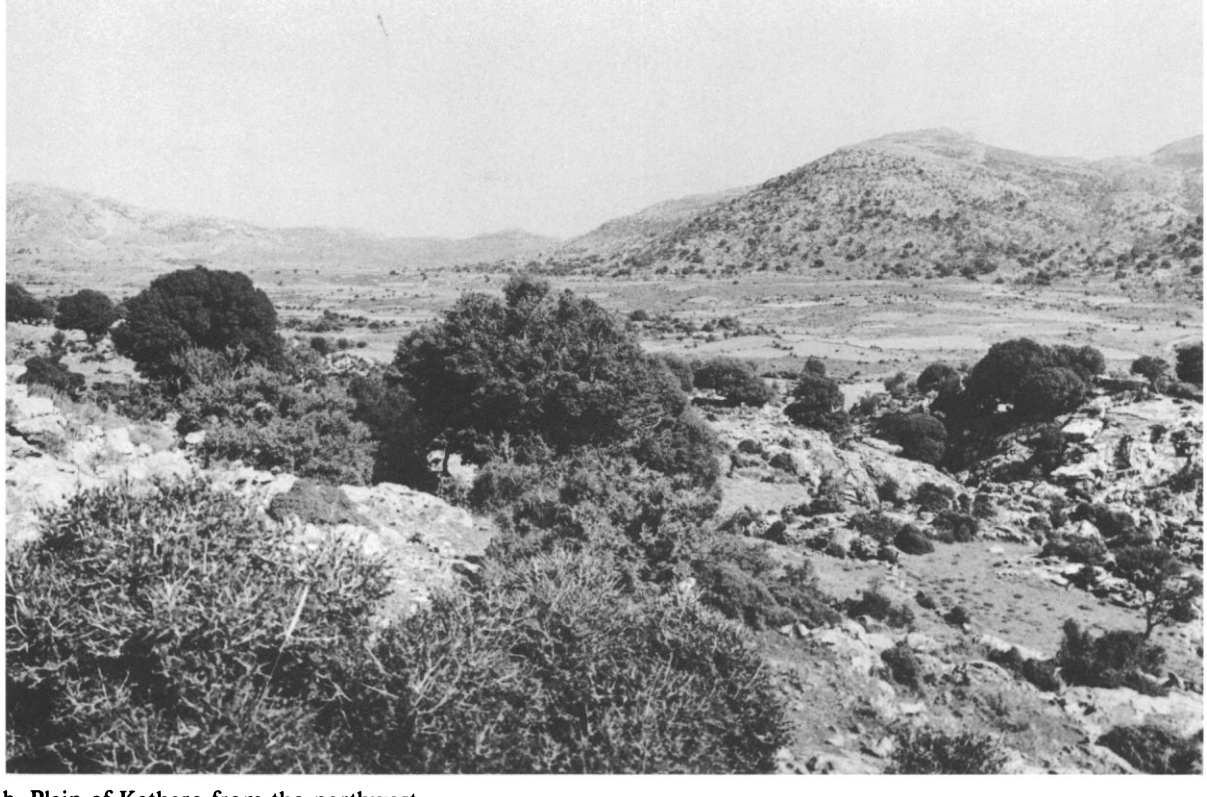
Plain of Lasithi from Mt. Dikte. Plain of Limnarkaros in foreground



a. *Chonos* (sinkhole). Note water-measuring devices in foreground

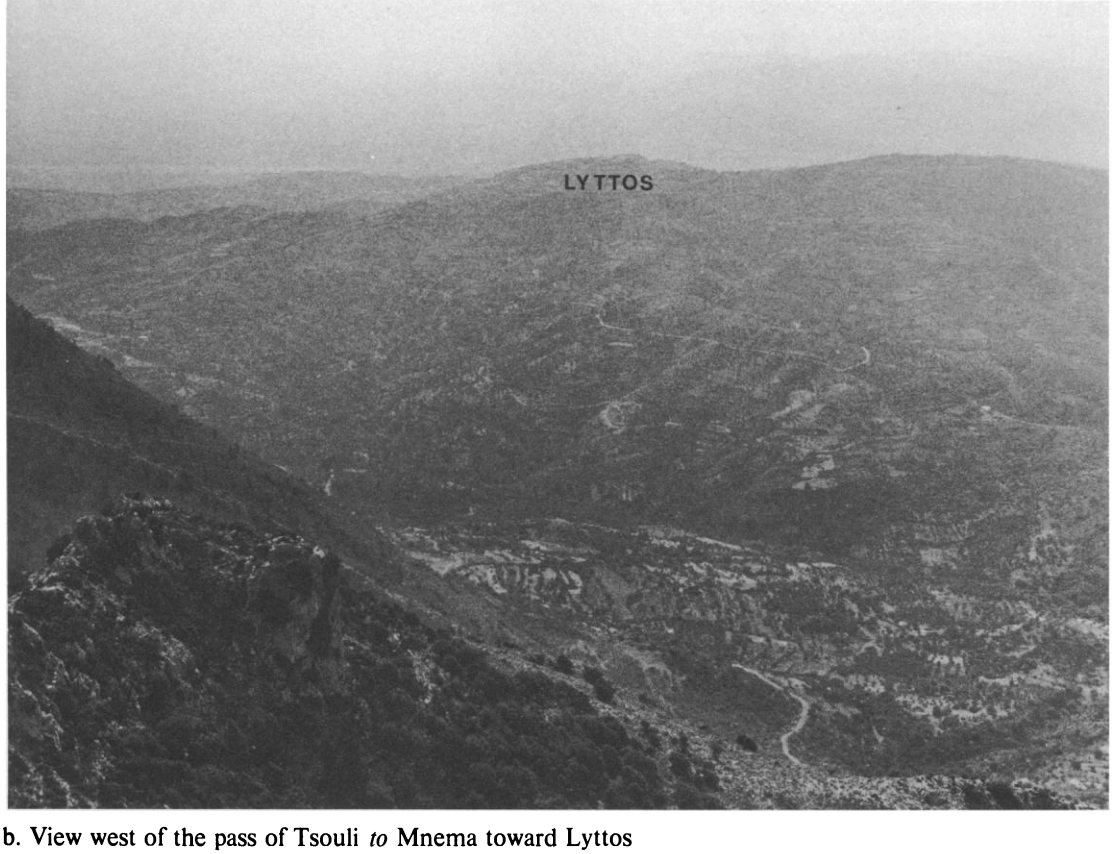
b. Geometric tholos tomb at Papoura (4). (Wide-angle lens)

a. Khavgas Gorge



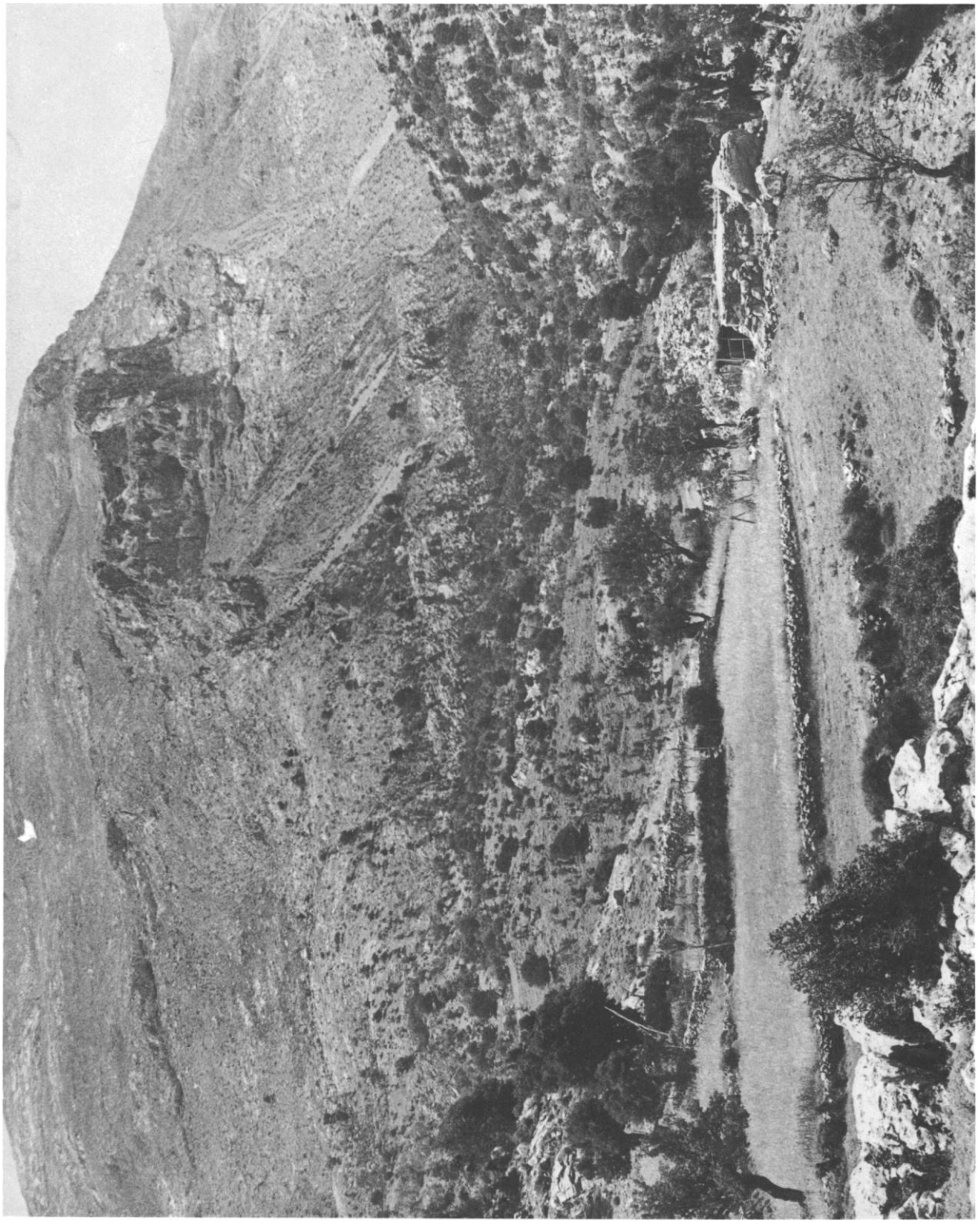
b. Plain of Katharo from the northwest

a. View east of the pass of Tsouli *to* Mnema toward Lasithi



b. View west of the pass of Tsouli *to* Mnema toward Lyttos

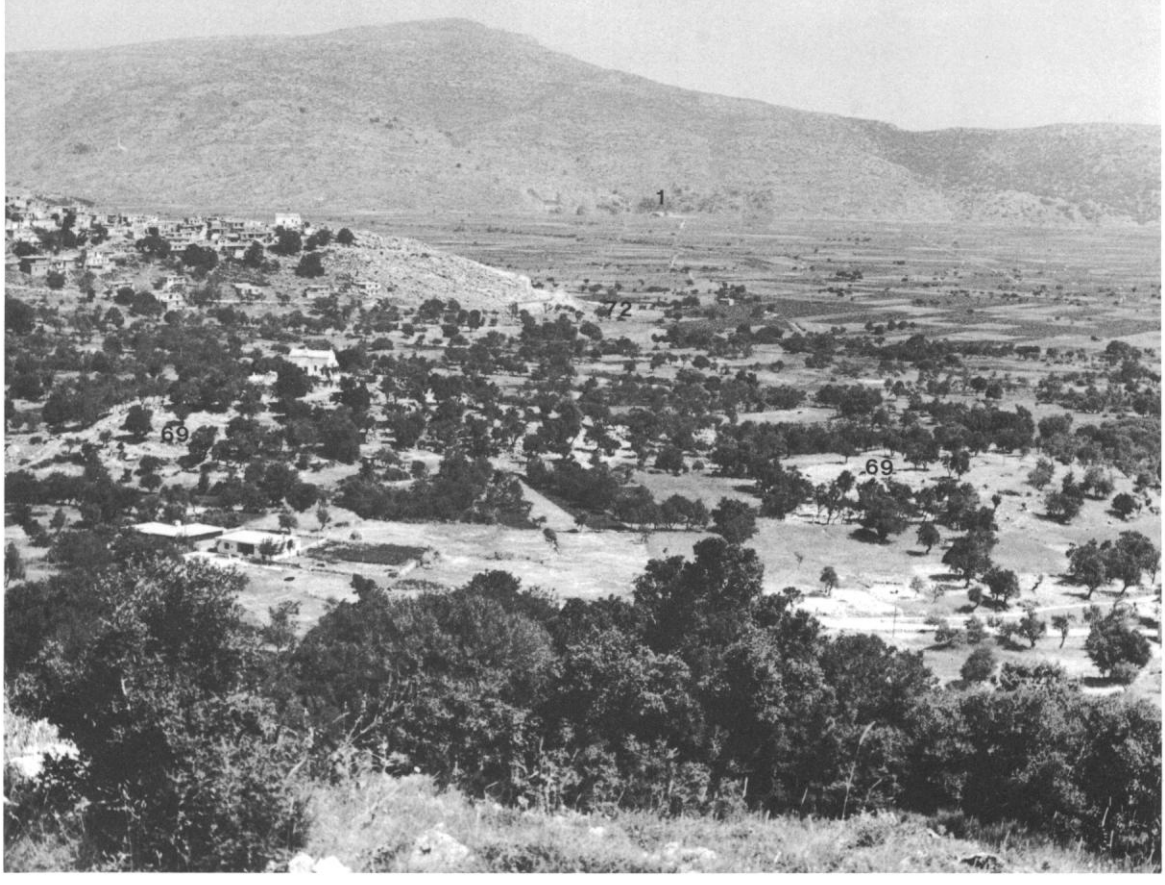
PLATE 8



Metochi (seasonal farmstead) in Katharo

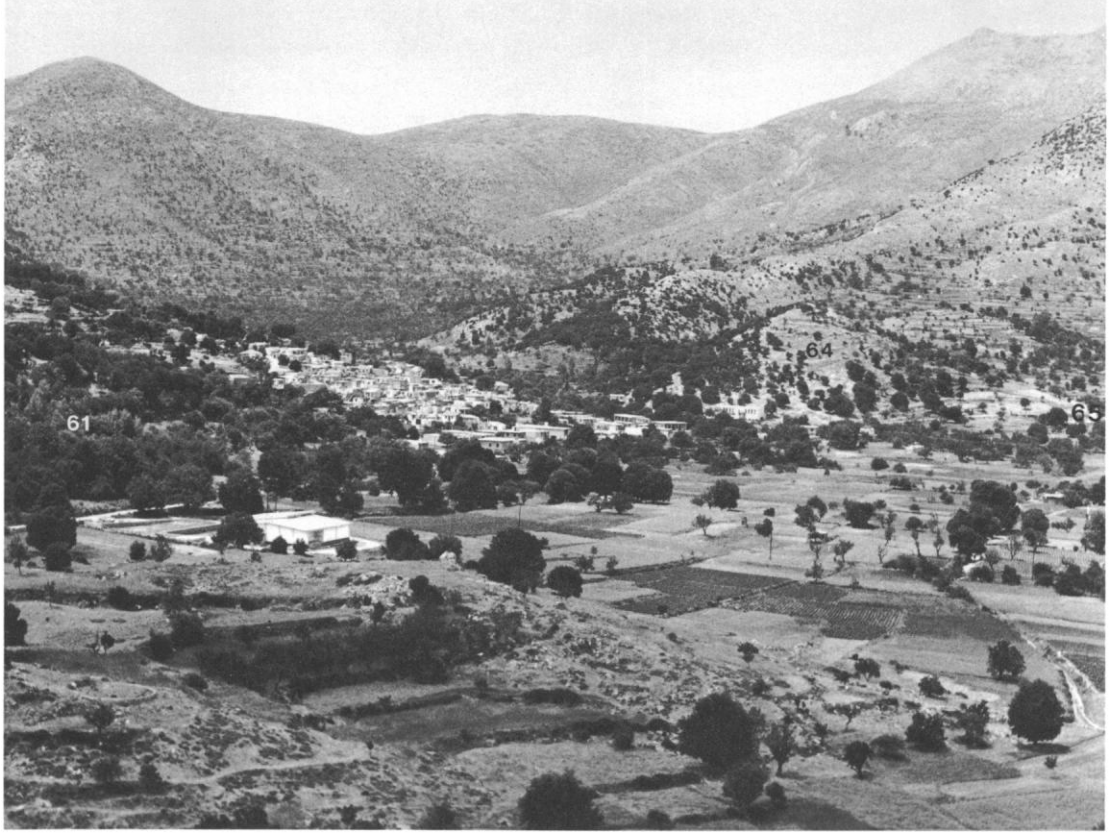
a. *Gerani*, on *metochi* in Katharo

b. Newly boiled cheese over a cauldron, in Katharo

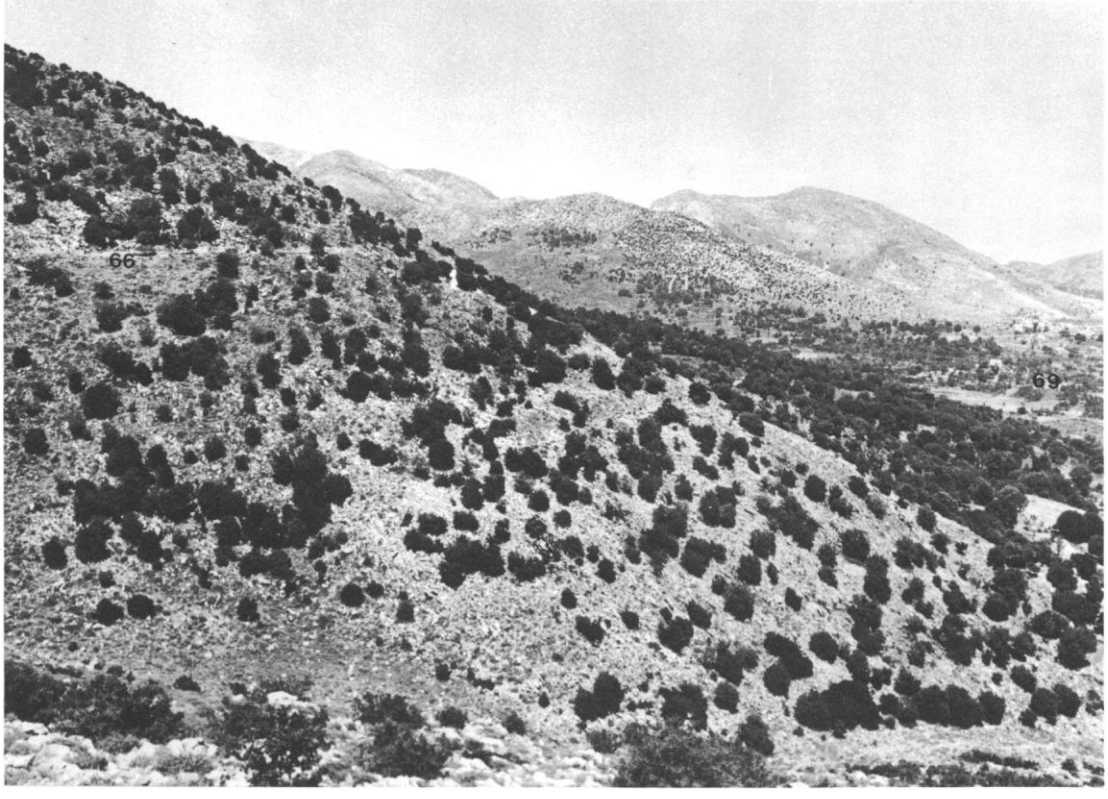


a. Sites of Vidiani (1), Plati (69) on Apano and Kato Kephali, and Pervoli (72). Village of Agios Charalambos in background. From the south

b. Roman site of Vounos (14) on the plain

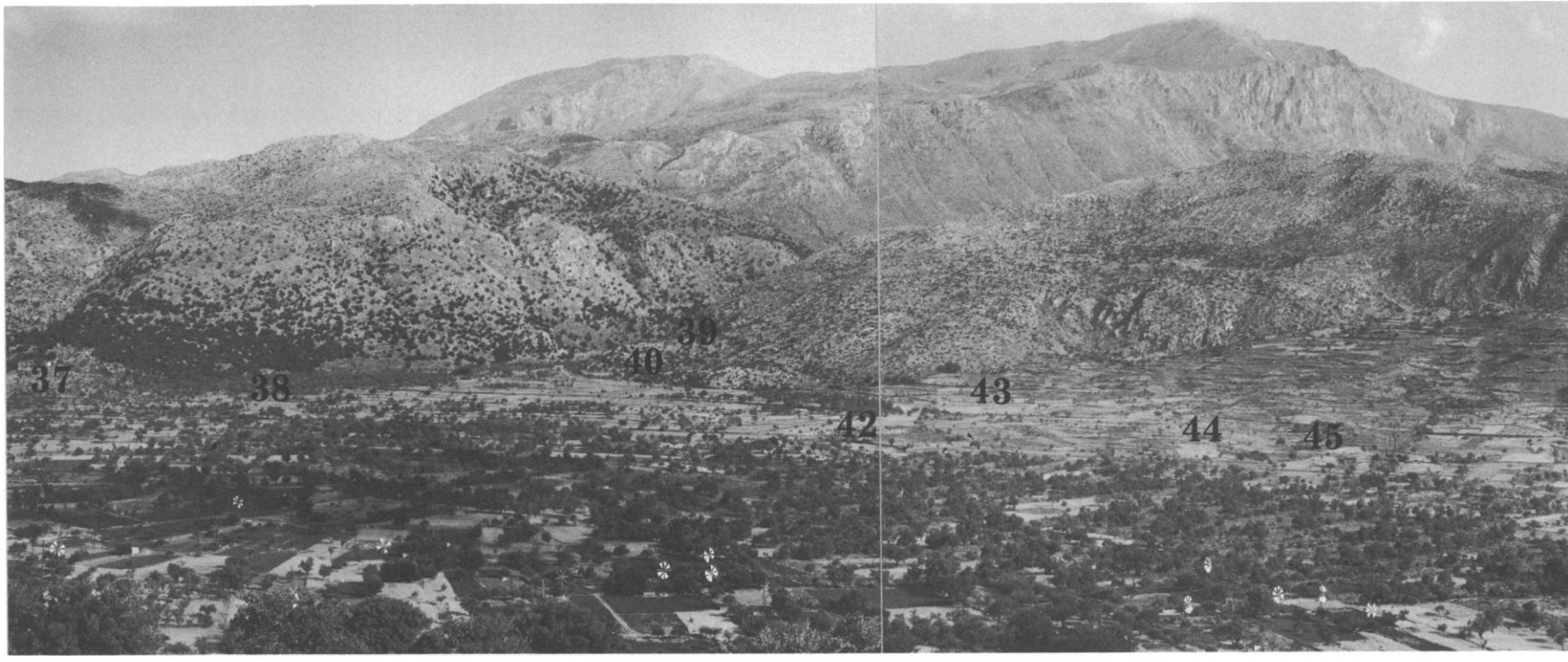


a. Village of Kaminaki with valley of Chloros in background. Sites of Agia Paraskevi (61), Efendi Christou (64), and Pigadistria (65)

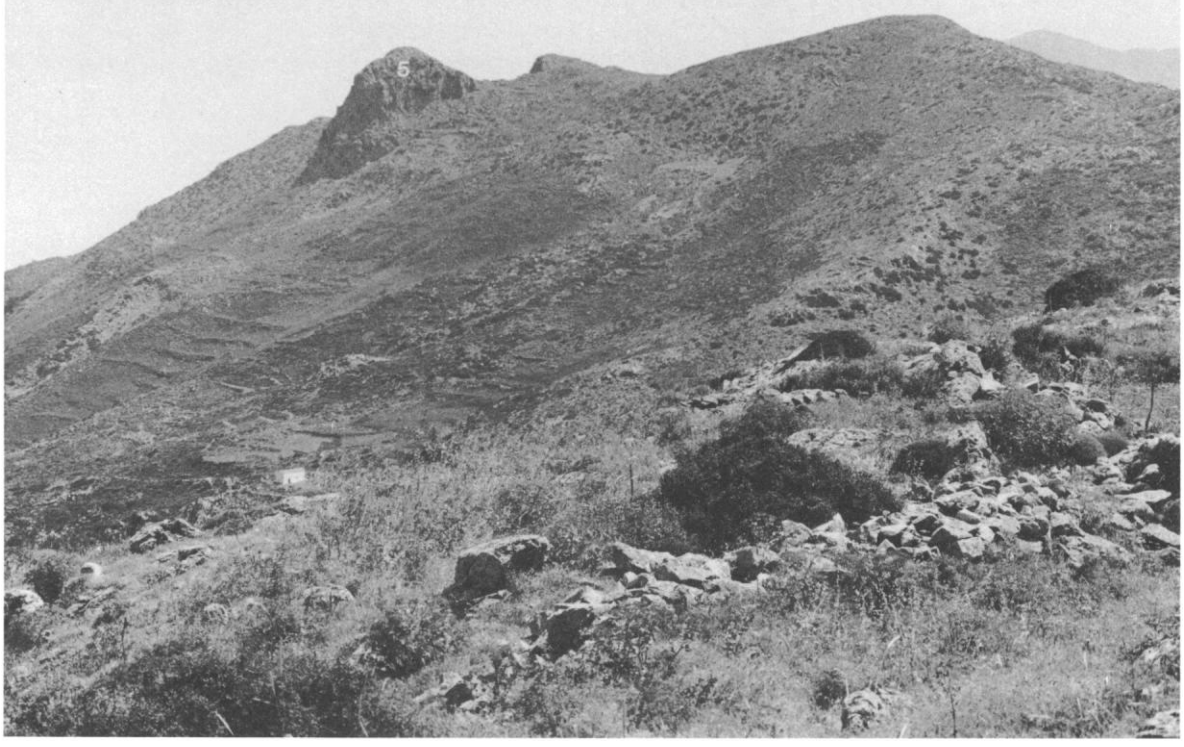


b. Sites of Psychro (66), Plati (69), and Katsoucheiroi (71), from the east. (Wide-angle lens)

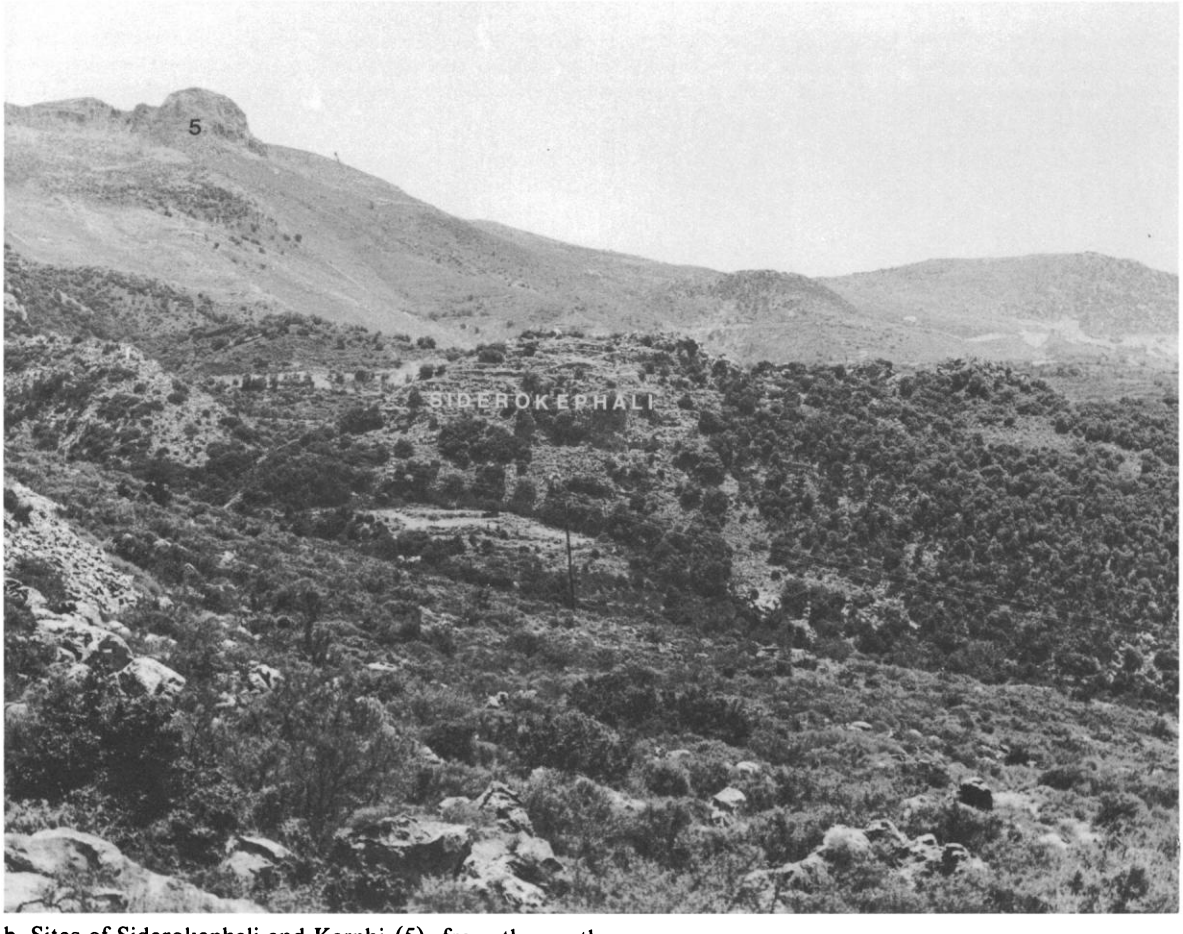
Sites of Trapeza (11), Kastellos (12), Agia Anna (13), Phakidia (15), and Agios Iannis (16), from Kephala



Xerokampos from Kephala. Sites of Alexenia (37), Agia Pelagia (38), Poros (39), Vasilikou Ridge (40), Kephali *tou* Vasilikou (42), Vasilikou (43), Edzathmistera (44), and To Klima (45)

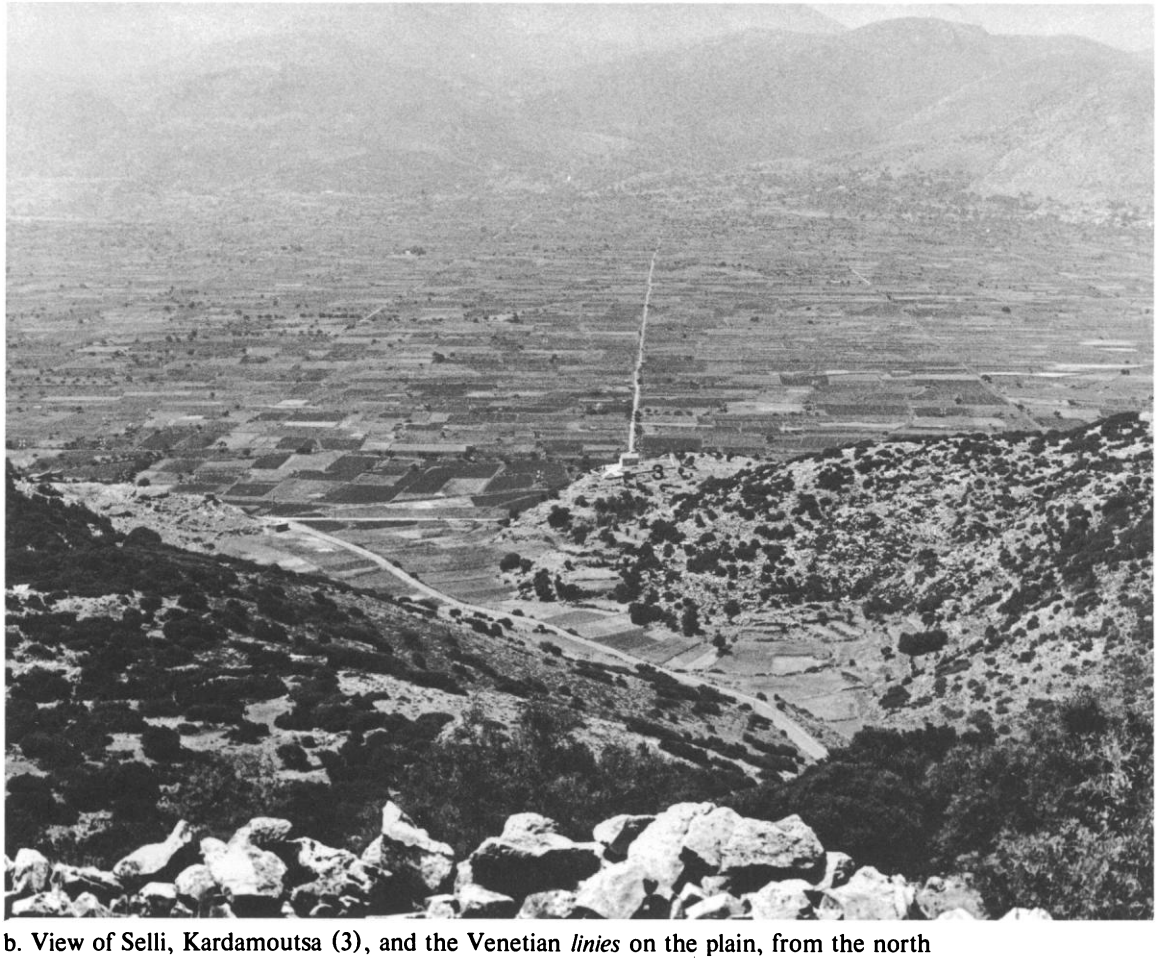


a. Site of Karphi (5) from Papoura (4)



b. Sites of Siderokephali and Karphi (5), from the north

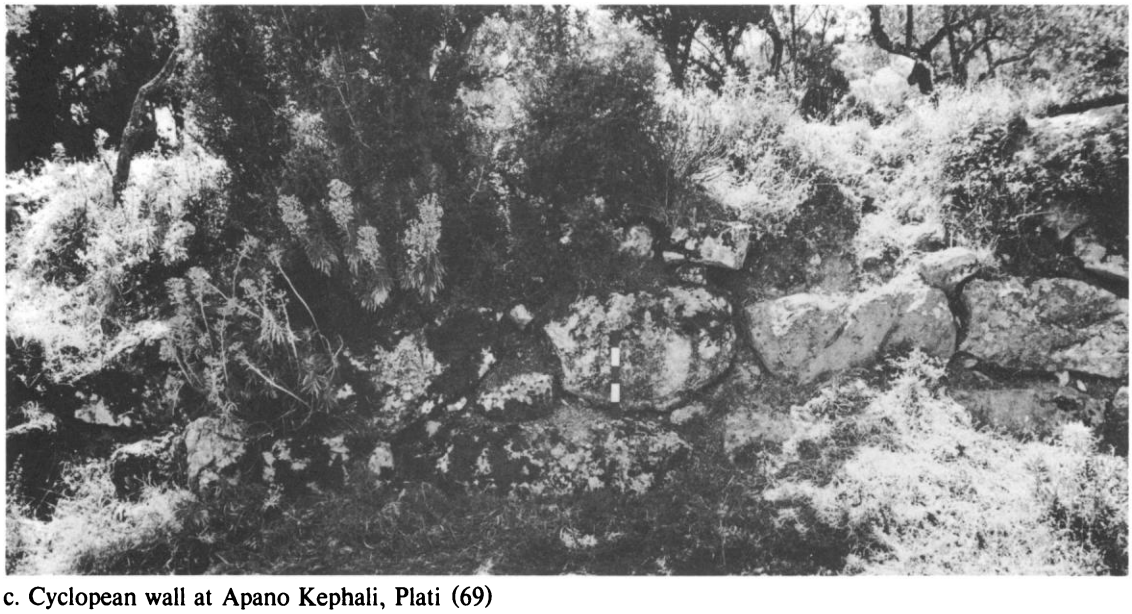
a. Sites of Kardamoutsa (3), Papoura (4), and Karphi (5)



b. View of Selli, Kardamoutsa (3), and the Venetian *linies* on the plain, from the north

a. Ancient retaining wall at Kastellon (50)

b. Long wall, Building A, at Katharo (33)

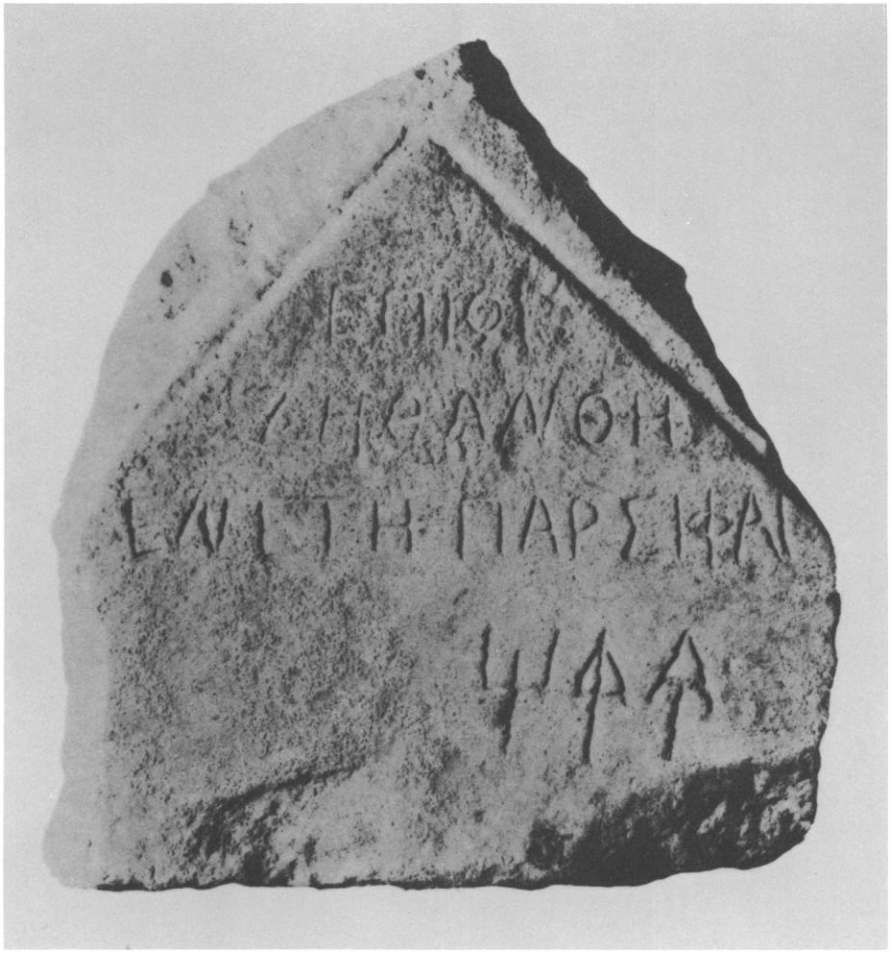


c. Cyclopean wall at Apano Kephali, Plati (69)

a. Exposed wall and pottery in road cutting at Platellais (22)

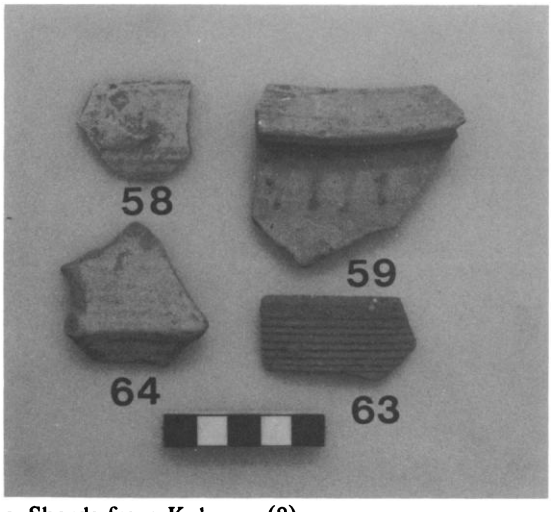
b. Site of Psygika (26)

PLATE 18

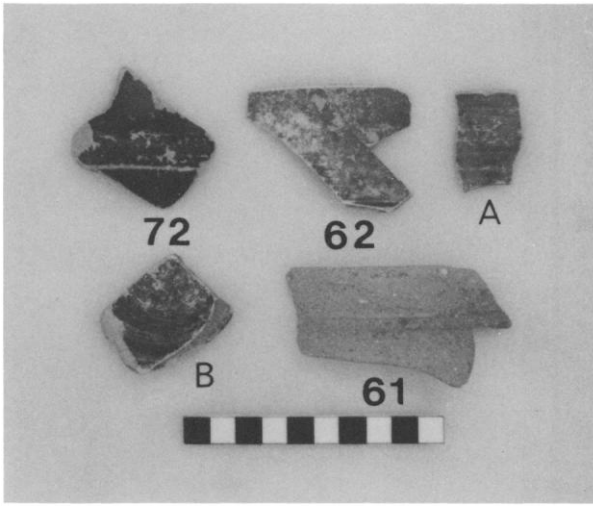


a. Hellenistic inscription from Psychro (66)

b. Archaic relief-pithos fragment from Agia Anna (13)

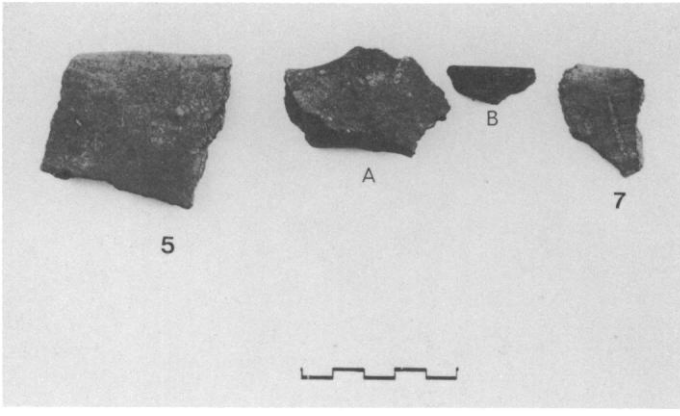


c. Sherds from Kolonna (8)



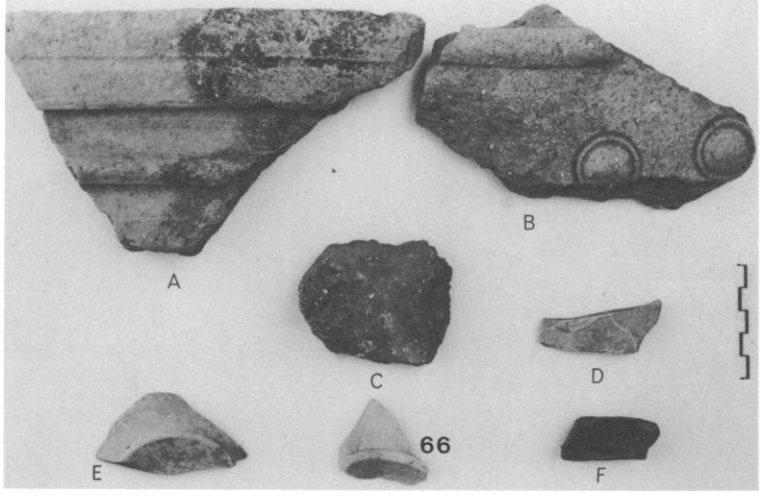
d. Sherds from Kolonna (8)

a. Finds from Skallopoula (21)



b. Finds from Alexenia (37)

c. Finds from Katsoucheiroi (71)

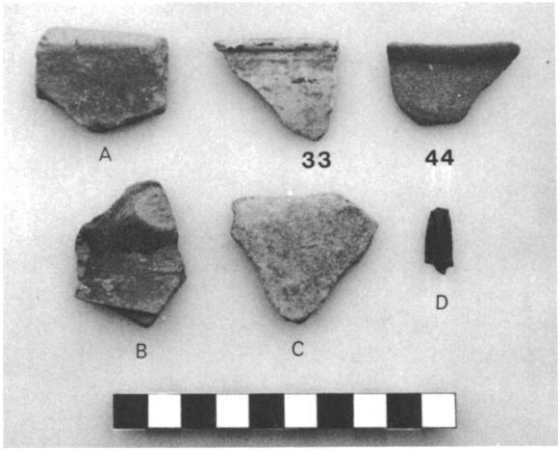


d. Finds from Edzathmistera (44)

e. Finds from Efendi Christou (64)

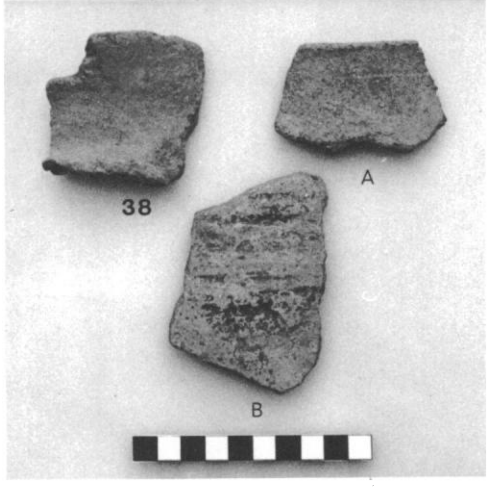
f. Finds from Kastellon (50)

PLATE 20



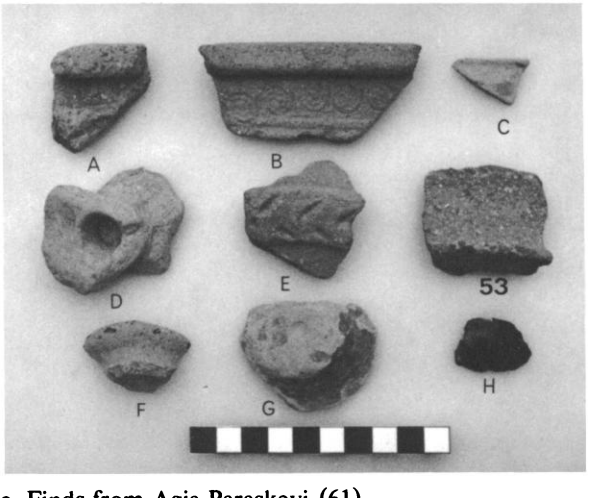
a. Finds from Phakidia (15)

b. Finds from Augousti (46)



c. Finds from Platellais (22)

d. Finds from Augousti (46)



e. Finds from Agia Paraskevi (61)

f. Finds from Kephali *tou* Vasilikou (42)