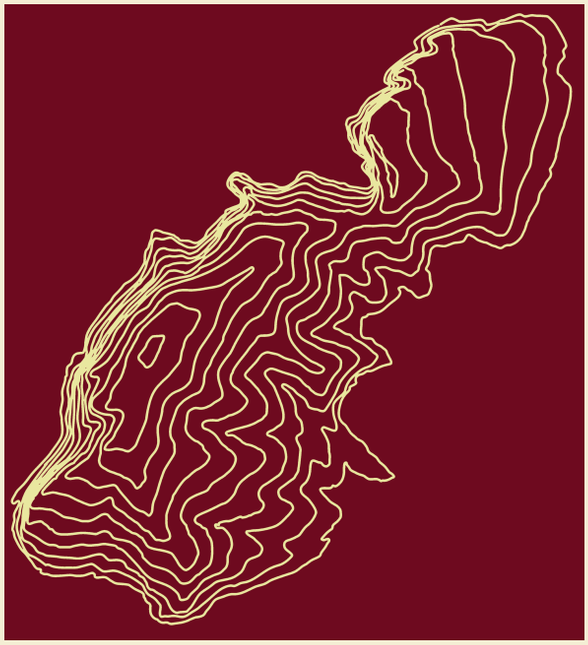
Pseira VIII

The Archaeological Survey of Pseira Island Part 1



Pseira VIII

The Archaeological Survey of Pseira Island
Part 1

The archaeological excavations at Pseira, Crete, were sponsored by Temple University, in Philadelphia, Pennsylvania, by the Archaeological Institute of Crete, and by the Archaeological Society of Crete.

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Pseira VIII

The Archaeological Survey of Pseira Island Part 1

edited by
Philip P. Betancourt, Costis Davaras,
and Richard Hope Simpson

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Contents

LIST OF ILLUSTRATIONS IN THE TEXT vii
LIST OF PLATES ix
LIST OF TABLES IN THE TEXT xi
PREFACE xiii
ACKNOWLEDGMENTS xv
INTRODUCTION TO THE SURVEY, *Philip P. Betancourt and Richard Hope Simpson* 1

PART I. THE ISLAND

1. Introduction, *Richard Hope Simpson and Philip P. Betancourt* 7
2. Modern Toponyms on Pseira, *Richard Hope Simpson and Philip P. Betancourt* 9
3. The Bedrock Geology of Pseira, *William R. Farrand and Carola H. Stearns* 13
4. Soils and Land Use at Pseira, *Julie Ann Clark* 27
5. On the Historical Ecology of Pseira, *Oliver Rackham and Julie Ann Clark* 55

PART II. PREVIOUS WORK

6. Pseira Island after the Byzantine Period and before 1906, *Philip P. Betancourt* 63
7. The Excavations of Richard Seager on Pseira, *Philip P. Betancourt* 65
8. Research at Pseira, 1908–1984, *Philip P. Betancourt* 73

PART III. ETHNOLOGY STUDIES

9. Introduction, Ethnology Section, *Philip P. Betancourt* 79
10. Traditional Fishing Practices in the Eastern Gulf of Mirabello Area, *Teresa Howard* . .81
11. Coastal Trade: the Eastern Gulf of Mirabello in the Early Twentieth Century, *Philip P. Betancourt* 91
12. Traditional Lime Production in the Eastern Gulf of Mirabello Region, *Philip P. Betancourt* 99
13. Marriage and Mobility: Traditions and the Dynamics of the Pottery System in Twentieth Century East Crete, *Peter M. Day* 105

14. The Relation of the Ethnology Studies to the Archaeology of Pseira, *Philip P. Betancourt* 143

REFERENCES 151

INDEX 167

PLATES

List of Illustrations in the Text

Illustration 1. Modern toponyms on Pseira. 11

Illustration 2. Geologic map of eastern Crete. 14

Illustration 3. Bedrock series for eastern Crete. 15

Illustration 4. Detail of stratification in the bedrock east of modern Mochlos. 16

Illustration 5. Geologic map of Pseira. 19

Illustration 6. Locations of soil profile sites on Pseira. 28

Illustration 7. Pollen sites in Greece. 32

Illustration 8. Soil map of Pseira. 38

Illustration 9. Variation of pH with depth. 43

Illustration 10. Variation in the percentage of organic carbon with depth. 43

Illustration 11. Particle size plotted on a soil textural triangle. 44

Illustration 12. Exchangeable Ca, Mg, and K of Profile 1. 45

Illustration 13. Exchangeable Ca, Mg, and K of Profile 5. 46

Illustration 14. Extent of terracing on Pseira. 48

Illustration 15. Map showing the journey of Robert Pashley in eastern Crete in 1834. The traveler's journey is shown in dashed lines. He went to the coast west of Kavousi (i.e., at Mochlos) and then went back inland to Sphaka. 94

Illustration 16. Steps in the manufacture of cement made from lime. 100

Illustration 17. Plan and section of the kiln at Makra Opsis. 101

Illustration 18. Schematic diagram of the role played by the emporium at Sfaka in the production and distribution of high-calcium lime. 103

Illustration 19. Map showing the island of Crete with main ceramic production centers. 107

Illustration 20. Diagram illustrating perceived structural oppositions in sedentary and itinerant potters of Crete. 116

Illustration 21. Map showing East Crete, with kiln locations indicated. 116

Illustration 22. Map showing location of villages and kiln sites around the Bay of Mochlos. 117

Illustration 23. Map showing location of kiln sites worked by Zacharias Kornaros. 122

Illustration 24. Diagram illustrating the movement of personnel and techniques in and out of Kentri. 124

Illustration 25. Map showing the Aegean and major production centers. 133

List of Plates

Plate 1A. Staff in 1987, at the beginning of the survey project.

Plate 1B. Staff in 1990, the final year for the survey.

Plate 2A. Aerial photograph of Pseira Island.

Plate 2B. The Katsouni Peninsula as seen from the southwest.

Plate 3A. Image taken by SPOT 1 Earth Observation Satellite on June 21, 1987; Pseira is at the left of the image.

Plate 3B. The harbor at Pseira, as seen from Katsouni Peninsula, looking southwest.

Plate 4A. Landscape on Pseira, showing the difference in the degree of vegetation, with phyllitic soil in the foreground and terra rossa over limestone bedrock in the upper left of the photograph. Carola H. Stearns and William R. Farrand are at the right.

Plate 4B. Katherine May, Lada Onyshkevych, and William B. Hafford surveying on Pseira Island.

Plate 5A. Bedding in the cliffs adjacent to the town, as seen from the Plateia looking north.

Plate 5B. Plattenkalk Limestone bedrock on the coast, near the tip of Katsouni Peninsula, showing the white calcite veins in the gray limestone.

Plate 6. Small outcrop of metacarbonate near the beach at the western side of Megali Ammos. An area of phyllite and Brown Mediterranean Lithosols can be observed at the upper right, where the vegetation is present.

Plate 7. The Byzantine cistern, looking south, showing repairs to the vault made in modern times (at left of photograph).

Plate 8A. West side of the settlement before the modern excavation began.

Plate 8B. The west side of Building AD Center before the modern excavation began, looking southeast.

Plate 9. The grass-covered Plateia and the area of Building BS/BV before the modern excavations.

Plate 10A. Small boats owned by local people, drawn up on the small beach at Mochlos.

Plate 10B. Stacks of *monomena* nets on the dock at Herakleion. The fisherman in the boat is pulling the nets off the stack at the right and allowing them to fall at his feet in the boat in an untangled stack.

Plate 11A. Removing small fish by shaking them out of the nets at Mochlos, in 1988.

Plate 11B. Fishing boat with a *paragadi* in the bow, Herakleion, 1994.

Plate 12A. Limekiln at Makra Opsis, in 1993.

Plate 12B. Detail of the entrance to the limekiln at Makra Opsis.

Plate 13A. Limekiln at Makra Opsis, in 1993.

Plate 13B. Limekiln at Hagios Nikolaos, in July of 1987 (kiln demolished in winter of 1987–1988).

Plate 14. Lime slaking pit in Herakleion, in August of 1988 (facility closed in the winter of 1988–1989).

List of Tables in the Text

Table 1. Particle size fractions determined by ELZONE 40
Table 2. Chemical analyses of soil samples 41
Table 3. Percentages of sand, silt, and clay 42
Table 4. Cation exchange capacity 42
Table 5. Clay mineralogy 46

Preface

The archaeological survey of Pseira Island was a part of the Pseira Project, an American-Greek collaboration (*synergasia*) directed jointly by Philip P. Betancourt and Costis Davaras. It is published in two parts. Pseira VIII includes several studies that aid in the interpretation of the entire body of research, and Pseira IX includes the results of the intensive walking survey of the island and the interpretation section. In Pseira VIII, those persons who wrote the individual sections are listed as authors. In much of Pseira IX, the research is combined into a more integrated whole, following the suggestion of Cherry, Davis, and Mantzourani (eds., 1991). Richard Hope Simpson contributed the report on the walking survey, and Philip P. Betancourt contributed the pottery studies. The two authors collaborated on the interpretation, both with informal discussions over a period of many years and with more formal exchanges of manuscripts.

Several preliminary reports as well as earlier volumes in the series refer to the survey. Seven volumes have been published (Betancourt and Davaras, eds., 1995; 1998 a; 1998 b; 1999; 2001; 2002; 2003). Preliminary reports on aspects of the survey include a thesis on the soils and land use (Clark 1990) and reports on the Theran pumice (Betancourt et al. 1990), the terraces (Rackham and Moody 1992, 129), the agricultural system (Betancourt and Hope Simpson 1992), the geology (Davaras, Betancourt, and Farrand 1992), the stone quarry (Betancourt 1996; 2001), and computer-assisted mapping (Onyshkevych, Hafford, and May 1996). On the survey in general, the reader may consult Betancourt and Davaras 1990. Portions of the survey that help the interpretation of the Pseira cemetery were included in *Pseira* VI (Betancourt and Davaras, eds., 2002).

Acknowledgments

Many persons and organizations provided help for this project (Pl. 1A, 1B). It was sponsored by Temple University, the Archaeological Institute of Crete, and the Archaeological Society of Crete, under the auspices of the Greek Ministry of Culture and the American School of Classical Studies at Athens. The Archaeological Survey was co-directed by Philip P. Betancourt and Richard Hope Simpson. In addition to financial assistance given by the directors' home universities, funding for the work published in this volume was given by: the Institute for Aegean Prehistory; the National Endowment for the Humanities, an independent federal agency; The Social Sciences and Humanities Council of Canada; the Society for the Preservation of the Greek Heritage; the Arcadia Foundation; the Mellon Corporation; The University of Pennsylvania Museum of Archaeology and Anthropology; the Long Island Society of the Archaeological Institute of America; the late Leon Pomerance; and other donors.

Thanks are extended to all those who assisted with the project: the Directors for Prehistoric and Classical Antiquities, Ministry of Culture of Greece, Yannis Tzedakis (1985–1990, 1993–2001), Ios Zervoudaki (1990–1992), and Katerina Romiopoulou (1992–1993); the late Nikos P. Papadakis, Epimeletes and Supervisor for the Ephorate of Eastern Crete (1985–1989, 1995–2002); the Directors of the American School of Classical Studies at Athens, Stephen G. Miller (1985–1987), the late William D. Coulson (1987–1997), and James D. Muhly (1997–2002).

The survey began with preliminary examinations of the island of Pseira in 1984, 1985, and 1986, followed by an intensive walking survey carried out in 1987, 1988, 1989, and 1990 (Pl. 1). Selected sites were excavated during the years while the ground survey was being conducted. Partial study of the objects from the survey took place from 1987 to 1990, and the 1991 season was a study season devoted to the survey material.

Mapping and surveying was by David D. Day in 1987–1988 using a Topcon DM-A2 EDM (Electronic Distance Meter), an electro-optical distance-measuring instrument utilizing an infrared light source. The instrument was generously loaned to the excavation by Don Anderson, of the Anderson Instrument and Supply Company, Canton, Ohio, to whom the project is much indebted. Additional mapping and survey was made in 1995 by Lada Onyshkevych, Katherine May, and William B. Hafford using a Topcon DM-A2 EDM interfaced with a Gateway 2000 laptop computer. Field photographs are by Michael W. Betancourt (1986–1991), Philip P. Betancourt, and Richard Hope Simpson. Profile drawings are by Jacke Phillips

(1986), Teresa Howard (1986–1991), Chrysostomos Theodorou (1989), Sharon Rathke (1989), Senta German (1989), Jenny Hope Simpson (1989, 1991), Krista Gustafson Brown (1990–1991), Marie T. Naples (1990–1991), Jeanne Pond (1990), Eleni Velona (1990), and Philip P. Betancourt. Assistance with editing was provided by Joan Beaudoin, Hilary Brown, and Katherine May.

Thanks are expressed to Ioannis A. Nikoloudakis for permission to draw the limekiln at Makra Opsis, and for substantial information on the history of lime production in the region. The kiln was drawn in 1993 when the following personnel were on the staff, many of whom assisted with the project: Jenny Albani, Eleni Banou, Joan Beaudoin, Mary Betancourt, Kristen Borré, Barbara Botting, Hilary Brown, Cheryl Floyd, Teresa Howard, Katherine May, George Mitrakis, Merav Nesvisky, Natalia Poulou-Papadimitriou, and Fotini Zervaki.

Several staff members participated in the walking survey: Diane Dunn (1989–1990), Tom Fleming (1987, 1989), George Harrison (1990), David Marko (1988), George Mitrakis (1987–1990), Meryn Scott (1988–1990), and Catherine Wolfitt (1988). Other participants in the survey included:

Jenny Albani, Byzantine studies (1986–1992)

Mary A. Betancourt, catalog entries for artifacts (1985–1994)

Julie Ann Clark, soils study (1987)

Heidi M.C. Dierckx, stone tools study

William Farrand and Carola Stearns, geomorphology (1987)

Senta German, cove of Megali Ammos (1990)

George Harrison, Byzantine agriculture (1990)

Catherine McEnroe, catalog entries for artifacts (1985–1986)

Natalia Poulou-Papadimitriou, Byzantine pottery (1986–1992)

Oliver Rackham, modern flora (1990)

David Reese, faunal material (1986–1994)

Laurie Schmitt, assistance with catalog entries for artifacts (1993–1994)

Vasso Zographaki, trench supervisor

Other acknowledgments are listed in the individual chapters.

This volume has profited from comments on early versions of the manuscript made by Jack L. Davis, Mark Rose, and L. Vance Watrous.

Introduction to the Survey

Philip P. Betancourt and Richard Hope Simpson

Pseira Island is located at the eastern end of the Gulf of Mirabello in Northeast Crete (Pls. 2, 3). It is a rocky island with little soil cover, oriented NE to SW. The longest dimension is ca. 2.5 km, and it is just over 1 km wide at its widest point. The total land area is 1.75 square kilometers.

Pseira has a rich history. The Pseira Survey records 315 specific locations with architecture, pottery, or other human remains on this tiny island, an unprecedented number of recorded locations with ancient activity for such a small area. The survey constitutes the closest view of an ancient Aegean landscape that has been heretofore possible, resulting in many new insights into ancient land use, particularly for the Minoan period, but also for the little-known Early Byzantine period in this part of Crete.

The small island offered both advantages and disadvantages for survey, and the research plan had to take both the positive and negative characteristics into account. Among the advantages, the most important factors were the location's isolation and clearly definable limits. An island is a topographic feature whose limits affect all periods of its history. In the case of Pseira, the relative isolation and the limited nature of human activity there in recent centuries contributed to the preservation of traces of more ancient habitation. In addition, the barren landscape offered good ground visibility and an opportunity to observe features more clearly than in more lush regions with deeper soil and more vegetation. An additional advantage was the legal situation: Pseira is owned by the government of Greece, and the entire island is regarded as an archaeological site, so that selective excavation could take place if features were discovered that merited a closer scrutiny. Pseira's total land mass was very small in comparison with most regions chosen for archaeological survey, and the methodology would have to take this factor into consideration both in the actual survey and in the subsequent interpretation.

The site's disadvantages also had to be considered. Pseira was an arid island with little vegetation (it is in the "arid zone" of Barbero and Quezel 1980). Logistics would be difficult at a barren location with no buildings or other facilities, and travel to and from Pseira would be limited by the weather. In addition, there was no certainty (before the survey) that Pseira Island even constituted a hinterland for the settlement there. The limiting factors of the island's coast may have meant less to ancient people than to modern ones, and Pseira would have to be considered in relation to the part of the Cretan landscape opposite the small island.

Goals and Unanswered Questions

The archaeological survey of Pseira Island had two general goals. First, it was planned to provide data to help place the settlement on the island within its environmental and historical context. Second, it was intended as a systematic investigation of the landscape of the island itself. The interaction between the human settlement on Pseira and the landscape of Pseira Island was considered important for a proper understanding of the history of the small islet and how its history developed with reference to the regional development of this part of Crete. In order to understand the broad historical framework, all periods were investigated, from the earliest human presence on the island until modern times. Although the main focus of the excavation was the Minoan town, due attention was also given in the survey to all other periods.

In spite of the excavation of Pseira in 1906 and 1907 and its frequent citation in the archaeological literature, many questions remained unanswered. Several hypotheses about the site that needed to be tested were suitable for investigation by archaeological survey. Because of the islet's small area and barren topography, some writers had supposed that the Minoan town had no hinterland on Pseira Island at all (Pendlebury 1939, 61). As R.W. Hutchinson put it, "Pseira, however, is a barren island which can never have afforded sustenance for its population, which must have depended largely on trade and imported their food, other than fish, from the mainland" (1962, 155). Survey could contribute crucial data to test these views.

The natural resources of Pseira Island needed to be examined in detail. Unanswered questions included the contribution (if any) the island made to architectural building stones, raw materials for craftwork, or other building or manufacturing activities. Suggestions had been made that the island might be a source of raw materials for stone vase making (for breccia, see Seager 1910, 37; for chlorite, see Warren 1969, 129). These suggestions could be confirmed or denied by a careful geological survey.

The potential of the island for agriculture and animal husbandry was also regarded as an important factor in the capability of the islet to support a human population. The ways in which it was used for these activities in different periods (if it was used at all) had never been examined in detail. Were there differences in the type of land use in the Minoan and later periods? If so, what information did they contribute to help explain the history of the island?

A general history of the periods of habitation on Pseira Island was needed so that the site's history could contribute to the larger pattern of cultural development in eastern Crete. Because of the poor publication of the data excavated in 1906–1907, little was known of Pseira aside from a few objects, some buildings from MM and LM I, and a small number of general conclusions. Suggestions on the history of Pseira in periods aside from MM–LM I, including that the settlement was founded in EM II (Warren 1972, 272; 1983, 255) and that it was completely deserted after LM IB (Pendlebury 1939, 237) needed to be examined in the light of new data.

Very little was known of the post-Minoan history of Pseira before the modern project began. Sanders once suggested that, after the Minoan period, Pseira and nearby Mochlos had similar histories (1982, 141). Archaeological survey would be used to test this hypothesis. It would also address the nature of previously recognized sites on the island, such as the "Roman military camps" proposed by Seager and others (Seager 1910, 6–7; Sanders 1982, 141). Hopefully, additional sites would also be located, and data on their character and dates of use would be gathered and coordinated with the history of the island's town.

The Research Plan

A research strategy was devised to fit the specific situation of Pseira Island (on this concept, see also additional comments by Hope Simpson 1965, 1–4; 1984; 1985; Banning 2002, 22–25). Many factors influenced the nature of the strategy, including climate, topography, previous work on the island,

and the information that was needed about the nature of the human use of the landscape. The directors formulated a research design that incorporated a strategy for the investigation with the methods to be used for collecting and recording of data, the analysis of that data, and the eventual publication of the results. The plan consisted of six items in the collecting and recording stages:

1. Analysis of earlier scholarly work on Pseira
2. Studies of the natural landscape
3. Intensive archaeological survey of the island
4. Excavation of selected sites found by the survey
5. Laboratory analysis of soils and other materials
6. Interpretation and coordination with nearby regions

ANALYSIS OF EARLIER SCHOLARLY WORK ON PSEIRA

Richard Seager excavated the Minoan town on Pseira in 1906 and 1907 (Seager 1910; Becker and Betancourt 1997, Chapter 6). His excavations uncovered portions of over 40 buildings in the settlement and 33 tombs in a nearby cemetery. He also walked over the island in detail, and he made many observations about the landscape and its ancient remains. Sinclair Hood, John Leatham, and other investigators undertook additional work on the island in later years. The new project built on the results of the work of these other scholars, and an evaluation of their many contributions was regarded as crucial to the new interpretations and conclusions. A summary of the scholarly work on Pseira before 1985 is included in this volume.

STUDIES OF THE NATURAL LANDSCAPE

An understanding of the geomorphology, geology, topography, soils, modern flora, and other aspects of the natural landscape was essential for a proper interpretation of the archaeological record. Several closely coordinated studies were used in the interpretation of the data derived from survey and excavation. Toponymical study, an aspect of research that has received increasing interest in recent years (Wagner 1967; Borée 1968; Rainey 1978), was included in this part of the research plan.

The studies of the natural landscape needed to be coordinated with other aspects of the project as a whole. An understanding of the geology, geomorphology, and soils was considered essential in the formulation of priorities for other types of investigation (such as the program of analysis), and these studies were done early in the process of survey.

Ethnographical investigations were also useful for the understanding of the archaeological record, and the studies that were undertaken often involved work that had not been done previously for this part of the Aegean. These studies are presented in this volume.

ARCHAEOLOGICAL SURVEY

An intensive archaeological ground survey was planned to contribute several types of information. Its goals included a better understanding of the history of human activity on the island and its interaction with the environment from the first record of human presence on Pseira until the twentieth century as well as the relation between the habitation centers and the island as a whole. A descriptive report was planned for each location with evidence for human activity. All pottery and other artifacts observed on the surface would be collected, producing an archive for later study. A decision was made not to walk transects or other samples of the landscape, but instead to survey all the landscape. The methodology and the results of the archaeological survey are presented in *Pseira* IX.

An important and obvious consideration in the planning of the research plan for the survey was the plan for excavation of the Minoan town and its associated cemetery. The survey and the excavation were conducted simultaneously, an ideal situation for close coordination. Several of the personnel had duties and obligations for both projects.

Because it was such a specialized location, the Pseira Cemetery was surveyed as a special case. It was surveyed by instrument, marked in 5 meter grid squares with string, and walked systematically, collecting all artifacts visible on the surface (Pl. 4). The results of the Pseira Cemetery Survey have been published in *Pseira* VI.

EXCAVATION OF SELECTED SITES

Selective excavation was carried out at several survey sites. After the survey was under way, the