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Sacred and Mortuary Landscapes in Iron Age Cyprus: A GIS Analysis

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Sacred and Mortuary Landscapes in Iron Age Cyprus: A GIS Analysis

by

James Torpy

A Thesis Submitted in Fulfillment of the
Requirements of Independent Study
in Archaeology at
The College of Wooster

Archaeology 451-452

ABSTRACT

During the Archaic period (750-480 BC) the island of Cyprus underwent a dramatic transformation as new city-kingdoms rose to dominate the political landscape of the island. This shift resulted in increased competition for resources, establishment of political boundaries, and emergence of a pronounced social hierarchy within the new polities. While many of the large settlements that became centers of power during this time have been thoroughly studied, the manifestation of the large scale changes of the Archaic in the periphery have not been as fully investigated. The rural site of *Athienou-Malloura*, surveyed and excavated by the Athienou Archaeological Project includes a Cypro-Archaic sanctuary and nearby tombs on the hill of Maghara-Tepesi, four of which have been excavated. The present study compares the site of *Athienou-Malloura* to other comparable sites from around the island, in order to ascertain the distribution and role of rural sanctuaries and cemeteries during this period of increasing social complexity and political competition. The sites are compared to locations of the city-kingdoms, as well as access to natural resources such as arable soil and copper ore. It has been proposed both on Cyprus and elsewhere that grave monuments and religious sites partly functioned to create and enforce claims during turbulent growth periods. Building from more abstract speculations on Archaic Cypriot political boundaries, this study attempts to map a more nuanced view of the interplay between topography and human use of the landscape during this time.

ACKNOWLEDGMENTS

This study would not have been possible without the guidance and generous support of many people. I would like to thank Prof. P. Nick Kardulias for his constant guidance and help in every aspect of this project both at Wooster and in the field. I am also extremely grateful to the directors and staff of the AAP for allowing me to experience the archaeology of Cyprus firsthand, and for advising and helping with research over the course of the past two summers. A great deal of thanks is due to the people of Cyprus, particularly Athienou, whose constant hospitality and generosity has made my time in overseas not only possible, but incredibly enjoyable. I also would like to thank the staff of the Cyprus American Archaeological Research Institute for providing an indispensable resource and a welcoming environment during the collection of sources. This project would not have been possible without a generous grant of the Henry J. Copeland Fund for Independent Study and the National Science Foundation Research Experience for Undergraduates allowing me to accomplish the necessary data collection. I'd like to thank Frances Spaltro and Prof. John Brinkman for fostering my interest in the world of the ancient Mediterranean and Near East. Finally, I cannot begin to properly thank my friends and family who have provided me with constant support in every way imaginable throughout the past four years.

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Cultural Phase	Period	Major Ceramic Types
Cypro-Geometric	1050-750 BC	
	CG I 1050-950 BC	White Painted, Black Slip Painted, Plain White, Bichrome
	CG II 950-900 BC	White Painted, Black Slip Painted, Plain White, Bichrome, Black-on-Red
	CG III 900-750 BC	White Painted, Black Slip Painted, Plain White, Bichrome, Black-on-Red, Red Slip
Cypro-Archaic	750-480 BC	
	CA I 750-600 BC	White Painted, Black Slip Painted, Plain White, Bichrome, Black-on-Red, Bichrome Red
	CA II 600-480 BC	White Painted, Black Slip Painted, Plain White, Bichrome, Black-on-Red, Bichrome Red
Cypro-Classical	480-310 BC	
	CC I 480-400 BC	White Painted, Black Slip Painted, Plain White, Black-on-Red, Bichrome Red, Black Lustrous, Stroke Polished
	CC II 400-310 BC	White Painted, Black Slip Painted, Plain White, Black-on-Red, Bichrome Red, Black Lustrous, Stroke Polished
Hellenistic	310-30 BC	
	I 310-150 BC	
	II 150-30 BC	
Roman	30 BC-AD 330	

CHAPTER ONE

Introduction

Problem Statement

In times of transition and competition, control of key resources and defending territorial claims become key in the establishment of new power structures. In the present study, I investigate ritual and funerary site placement on the Mediterranean island of Cyprus, with a primary focus on the Cypro-Archaic (750-480 BCE) period. This period marked the emergence of a number of city-kingdoms, which would collectively control the island until the Ptolemaic period, and a level of societal complexity that had been absent since the end of the Bronze Age. While the monumental tombs and sanctuaries found at the city centers of these kingdoms represent their rise to power, their influence can likewise be seen in the extraurban cemeteries and sanctuaries that emerged during this period. The primary focus of this work is the Cypro-Archaic sanctuary and tombs excavated by the Athienou Archaeological Project (AAP) at *Athienou-Malloura*. These sites are located in the limestone hills of the Malloura valley, on at the edge of the Mesaoria plain, just southwest of Athienou in the Larnaca District, in the southcentral portion of the island. The rural sanctuary, in use from the Cypro-Geometric-Roman periods, lies 300 m south of the tombs, and has been under excavation by the AAP for the last decade, while the tombs were primarily investigated in the 1999 season.

The material and layout of these sites is analyzed in the context of sanctuaries and burials from other locales around the island. The spatial relationship between the cluster of tombs and the nearby extraurban sanctuary is compared to other sites from around the island, where both types are present to investigate a possible correlation between these two types of sites. This is done by combining methods of mortuary analysis applied elsewhere (Chapman 1981), and

theories on religious geography (Kong 2001), with spatial data on sites and distribution of natural resources. These will be visualized and analyzed in a GIS model. The presence of both of these site types is compared with the locations of the known major city-kingdoms of the period, to reconstruct the changing socio-political landscape of Cyprus, and identify potential areas of contact and conflict.

The sources used can be largely divided into the literature directly relating to Cyprus, and that which discusses broader theoretical concepts in anthropology and archaeology. The former can be further subdivided into two subcategories: the overviews of the period and the specific excavation reports, both of which provide considerable context to the Malloura finds.

In the first category, the publications of the Swedish Cyprus Expedition, stand out as a tremendous aid to understanding the period as a whole through collected archaeological materials, but also includes a specific discussion of tomb architecture, and how it varies in scale during various periods. The initial expedition took place from 1927-1932, and the results were published gradually between 1934 and 1972, in four volumes. The examples from these works cover a broad area, but also include examples of the general types of tombs and temples seen across Cyprus during different periods, and one can readily observe the shifts that began in the Geometric and continue into the Archaic period, with a move away from pit tombs to the dromos and chamber style seen later, and the emergence of the main sanctuary types. There is also considerable material on the large “Homeric” tombs at Salamis and palatial urban sanctuaries, but the present study is concerned with the more humble but equally informative sites on the periphery of the kingdoms. This work will form a backdrop supplemented by specific excavation reports and catalogues of particular artifact types.

Also notable as an overview is the work of A.T. Reyes (1994), a portion of which is likewise focused on funerary culture, first covering the evolution of tomb architecture, and then discusses the offerings included with the burials, noting the conspicuous consumption present, and in particular the sculptural tradition connected with the burials at Golgoi, the site of which was close to, and likely a strong influence on activity in the Malloura valley.

The last group of reports, most taken from the Annual Reports of the Department of Antiquities do not necessarily focus on such overall trends, but do provide in-depth descriptions of finds and counts of artifact assemblages of tombs in both looted and unlooted conditions, which allow for direct comparison with that recorded by the AAP.

Historical Background

To understand the Archaic, it is critical to have some background on the broader temporal context, and the varying levels of societal complexity that prefigured the later phases of the Iron Age. While the Archaic states were the result of development from a less centralized and populous period, it was not the first episode of urban development and social stratification the island witnessed.

Cyprus, as one of the richest sources of copper in the eastern Mediterranean was thus ideally situated to profit from trade or fall victim to imperial ambitions. In either case, the scale of the copper trade made Cyprus a point of major cultural contact, while simultaneously creating a wealthy upper class that could afford to commission art and architecture that drew on this melting pot of influences. The textual evidence from the island during this period is unfortunately scarce, making detailed reconstructions of political or social structure during this time difficult (Iacovou 2013). That said, there is certainly abundant evidence from across the island for a stratified and organized society; at Kalavassos-*Ayios Dhimitrios* in the Vasilikos

Valley, a large administrative center and regular street layout suggests a government with some measure of power, while a tomb discovered immediately behind the administrative building contained luxury and imported items suggestive of a ruling elite (South and Todd, 1985). At another major Bronze Age site, the city of Enkomi, large-scale architecture and burials once again occur (Keswani 1989).

The end of the Bronze Age marked the end of this period of centralization, and the beginning of the Iron Age. A factor that frequently dominates the discussion of the Bronze Age-Iron Age transition is the immigration of peoples from Greece, who brought with them their language and culture. What has long been discussed as straightforward Hellenization, with indigenous Eteocypriot culture being overwhelmed and replaced, is not so simple. Many sites dated to the Late Cypriote IIC show destruction layers, which has typically been assigned to the pattern of collapse throughout the eastern Mediterranean and attributed to the enigmatic Sea Peoples or colonizing Mycenaeans, after which Aegean and Philistine styles dominate. Reinterpretation of ceramic finds has disputed this narrative (Kling 1984). Further study of finds from this watershed moment in Cypriot history shows blending of styles, more in line with an absorption and cultural negotiation between the natives and the newcomers (Steel 2004).

The aforementioned trend has become an increasingly prevalent way of viewing Cyprus from the Bronze Age onwards; borrowing from postcolonial theories developed in other contexts, more recent scholarship has shifted away from portraying the islanders as passive recipients of the culture of the latest conquerors. They should instead be seen as active innovators, creating hybrid styles, blending the new and foreign with the native and traditional to create unique hybrid forms of material culture suited to their needs and tastes (Counts 2008), (Kardulias 2007).

Continuing this line of thought, research has increasingly looked for internal causes for and stages of the evolution of societal complexity (Iacovou 2013). While this does not mean that parallels with mainland Greece are anything less than critical to understanding this period, it does imply that the transformations on Cyprus should be seen as a representation of the same processes at work in both regions, rather than Cypriot development in imitation of that in Greece; the lingering influence of Eteocypriot social structures should not be underestimated. In fact, the placement of some sanctuaries, which is discussed in further depth below, appears to have been determined by the presence of Bronze Age ruins, suggesting a continuing meaning and connection to these sites and the society that built them (Fourrier 2013). This pattern extends to domestic architecture, such as that excavated at Phlamoudhi-*Melissa*, where Iron Age settlement structures were constructed following the architectural footprints of the Bronze Age site beneath (Smith 2008).

The beginning of the Cypro-Geometric (1050-750 BCE) that followed the end of the Bronze Age has been long categorized as a dark age. Increasingly, however, excavations are showing that the Cypro-Geometric may have been more complex than was previously thought, and, preserving some aspects of the prior period, paved the way for the flourishing of the Cypro-Achaic, with the settling of sites such as Idalion, which would later become the nuclei of states (Hadjicosti 1997). Increasing evidence seems to point towards the Cypro-Geometric as a starting date for the kingdoms, with the Archaic acting as a formative period, wherein the cities consolidate themselves both internally and in regards to one another (Fourrier 2007a).

The Archaic itself has long been portrayed as a prelude to the heights of civilization achieved during the Classical period. Within the past quarter century, however this view has undergone major reconsideration; the preceding periods are now known to not be quite the dark

ages they have been cast as, particularly in the context of Cyprus itself (Cannavo 2008). In addition, the creation of political institutions, the establishment of cities across the whole of the Mediterranean, and the intensification of land use and material culture production shows the Archaic to have been an incredibly dynamic period, rivaling, if not altogether surpassing the Classical (Snodgrass 1980).

One major shift that marks the divide between the Geometric and the Archaic is a large increase in population (Snodgrass 1980). This growth was the primary cause for the widespread colonization carried out by the Greeks during the time period, while likewise creating increasingly competitive conditions for those who remained behind. Arable land, water, and other resources were critical to sustaining these enlarged populations, and a primary function of the kingdoms and states that rose to prominence was to claim and protect these resources for those they ruled.

The nature of Cyprus as an island meant outward expansion and resources were inherently limited, meaning that the kingdoms were thrown into competition almost as soon as they were founded. The exact number of kingdoms is elusive, and likely changed as vassal states grew and became independent or as one kingdom absorbed another, a trait that became prevalent during the Cypro-Classical period (Iacovou 2002). The political landscape was further complicated by the colonization of the portions of the island by the Phoenicians, and the increasing influence of the powers of mainland Asia, such as the Assyrians (Rupp 1987). Estimates for the major powers, however, usually vary between 10-12 polities, based on the archaeological evidence and textual evidence from the reign of Sargon II (Iacovou 2013). On the island of Cyprus, the large mountain forests and the pillow basalts still provided valuable timber and copper ore for export, adding to the dimensions of competition (Iacovou 2013).

Mortuary Archaeology

The next grouping of sources are a collection of works based in archaeological theory. Most of these works focus on spatial analysis of burials, and placing funerary context into regional contexts, and then considers the cultural implications of the patterns observed. This is based in the processual conception that death is a universal factor of human existence, and the ways that it is handled by different groups provides clues into their society, how it was structured, and what was considered important. This line of thinking is perhaps best articulated by Binford's (1971) article on mortuary practices.

Chapman's *Archaeology of Death* contains a number of articles on historic and prehistoric funerary sites in both the Old and the New World (Chapman 1981). One of these, by coeditor Klavs Randsborg is on burials in medieval Denmark, noting the changes in burial customs and placement and content of inscribed memorials such as runestones, and noting how these changes relate to changes known from the historical record. Among his conclusions are the idea that state formation is accompanied by increasingly elaborate burials, and that during times of transition and upheaval such as the switch from the independent agricultural communities to a unified kingdom, burials and monuments become tools to enforce claims to lands and titles, with many monuments mentioning both the name of the deceased as well as the individual who erected the memorial, and the relation between the two. Chapman makes a similar point in Lane Beck's *Regional Approaches to Mortuary Analysis* (Chapman 1995). He discusses a similar function of graves in prehistoric cultures, particularly the megalith-building cultures of Neolithic Europe. Chapman uses spatial analysis to show that the largest tombs are not clustered, and that they are distributed across the landscape in a regular fashion, and in the case of Ireland, are frequently found in the most arable regions. These would all seem to further the idea that during

times of transition, burials and associated monuments become increasingly important, as they provide a way to assert claims to land, as can be seen during the beginnings of sedentary groups clearing land for agriculture, and later in places where larger entities vie for control over territories, as seen in Denmark.

Brown (1981) is focused on another aspect of state formation that appears in the material record. With the rise of states and more strict control over limited resources, societies tend to become more stratified, and the disparities in resources are reflected in burials. In investigating the presence of rank in prehistoric burials, he emphasizes the importance of regional and comparative data. Evidence of more organized and stratified societies include a shift in burials where one segment of the population has become disproportionately represented when compared to the likely demography of the culture, as well as other aspects, such as elaborate burials of children and juveniles, suggesting the presence of inherited wealth. (Keswani 2005)

Studies more particular to burial in Cyprus and Greece during the Archaic have also provide some cultural and ethnographic background to the burials that will be examined. One particular aspect of note during the Archaic is the redistribution of burials. Within the cities, family cemeteries are, in some cases, substituted for civic cemeteries, within which, burials are grouped by socio-economic class (Morris 1989).

While one of the more frequently discussed aspects of Archaic burial practice, particularly in terms of creating a shared identity for an emergent polis is the hero cult, the evidence for such activity on Cyprus is scant, despite the creation of narratives to link the founding of the city-kingdoms with the Achaean heroes of Homer (Stylianou 1992). What is a useful framework, however, is a model that distinguishes between the civic reverence of mythic characters and founders, and the smaller scale, tomb cults, or tendance, as the behavior does not

fully meet Durkheim's definition of a true cult. These smaller sites account for the placement of grave markers to provide a focal point for continued attention paid to the dead after the funeral, while also sending a signal to strangers. The suggested purpose of this behavior, which seems to have only lasted approximately three generations after the burial, was to help reaffirm an identity as an *oikos* within the polis, while the hero tomb cults were created to foster a sense of *ethnos* within the polis. Thus the Archaic mortuary landscape becomes more complex in meaning, fostering two intertwined but distinct forms of identity (Antonaccio 1993)

Analyses of Bronze Age burials are also instructive. As discussed above, the culture and sites of the Bronze Age had a persistent importance on Cyprus, even after Hellenization. It stands to reason that a familiarity with burial customs during the Bronze Age would be necessary to fully understand mortuary practice during the Archaic.

Keswani (1989) has worked to provide an overview of mortuary practice on Cyprus during the Early to Middle Bronze Age, particularly in regards to the emergence and reproduction of class. Her primary assertion is that the consistent reuse of tombs and the transfer of previously buried individuals is not the result of a utilitarian pragmatism, but part of a ritualistic cycle used by dominant groups to create a sense of identity and continuity. She bases this interpretation on ethnographic studies of current groups that engage in similar practices. She notes how the nobles, as predicted above, ensured that their dead were kept separate from commoner graves; while most urban people were buried outside their city in cemeteries, the elites had tombs constructed in close proximity to their dwellings inside the settlement. This, she argues, functioned to secure their status in the rising polities, and create claims to ancestral rights within the cities.

Keswani also describes the general increase in the number of metal objects included in the burials throughout the middle Cypriot Bronze Age, and how this may be connected with both the influence of Anatolian immigrants to the island, as well as an increasingly wealthy upper class using these objects to assert themselves (Keswani 2005).

In the Iron Age, the dominant grave type consists of a sloping *dromos*, which might have either a ramp or carved steps, leading to a *stomion*, or entryway to the burial chamber, which was usually blocked with stone following interment (Gjerstad 1947). Burials in the Archaic vary widely, with some remains interred in vessels, others placed in sarcophagi, some cremated, and others, but a general observed trend is towards more visible graves, with the Archaic marking the appearance of visible carved steles and unfilled *dromoi* (Janes 2013).

Sacred Landscapes

One of the most marked growths in the Archaic, along with that of the population, social stratification, and the kingdoms, is the number of sanctuary sites, which has no parallel in any other point in antiquity on Cyprus or the mainland (de Polignac, 1995). The proliferation of sites both within and away from the rising urban polities has often been linked to political change, with the sanctuaries seen as a political boundary marker or zone of contact (Fourrier 2013). The aim of the present study is to take this idea somewhat further and to test the correlations between potential boundary lines, resource distribution, and the placement of these sanctuaries.

Sanctuaries filled a number of needs for the peoples that established them. They served as places to worship the gods while also serving as hubs of social and economic activity. As categorizing sanctuaries by deity or function can prove problematic, many scholars have opted to classify sanctuaries by their occurrence in a landscape, with the most common categorization being interurban, urban, suburban, extraurban, and rural (Pedley 2005).

The interurban sanctuaries were those that were somewhat independent entities. Such sites in mainland Greece drew a more Pan-Hellenic group of devotees. Perhaps the best example of this is Delphi, which was a center of much wealth and importance despite not being the center of any state in its own right.

Urban sanctuaries are the cult sites within a city, and as such are often the center of the most monumental or ornate category. The acropoleis of Idalion or the palatial sanctuaries at Amathous can be seen as examples of this type (Papantoniou 2012).

Suburban sanctuaries, which are those directly adjacent to or within one kilometer of a city's wall served as a form of spiritual protection for the city, separating and linking the natural and the settled world. These sanctuaries have likewise been found between settlements and cemeteries, serving the same purpose as before, but in these cases between the worlds of the living and dead, as seen at Akragas, Paestum, and Selinus in Sicily (Pedley 2005)

Extrurban sanctuaries are those which are 15 or 16 kms from the city walls, but are still seen as a component of a polis's sacred landscape. These sites can be archaeologically linked to their parent cities by iconographic and architectural similarities, and in ancient times were linked back to the city by long sacred processions.

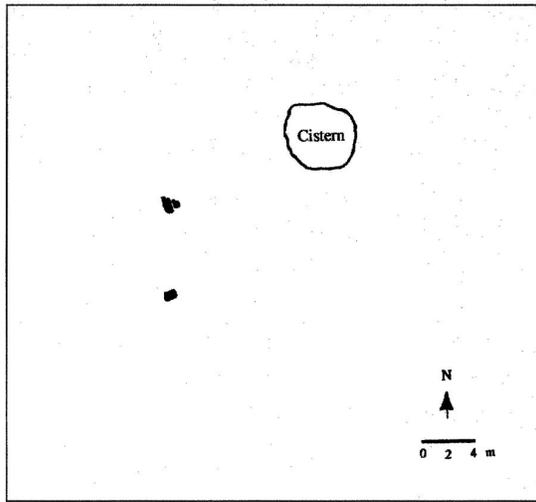
The final category, the rural sanctuaries, are the least linked with the cities, serving the needs of the rural population, and are spread across the countryside, frequently evolving from natural areas deemed sacred, around which cult activity gradually cropped up. These sites are typically modest in terms of offerings and architecture, often consisting of an enclosure wall and a few hearths. These sanctuaries are identifiable by the emphasis on deities whose powers correspond to the needs of a rural populace eking out a living rather than deities of sovereignty, such as the Sanctuary of Zeus on Mount Hymettos. While Zeus is the head of the Olympic

pantheon, and thus easily connected to notions of governance, the aspect of the god revered at the open air sanctuary of Zeus was Zeus Ombrios (Zeus of the Rain), suggesting the audience was farmers concerned with the watering of their crops (Pedley 2005).

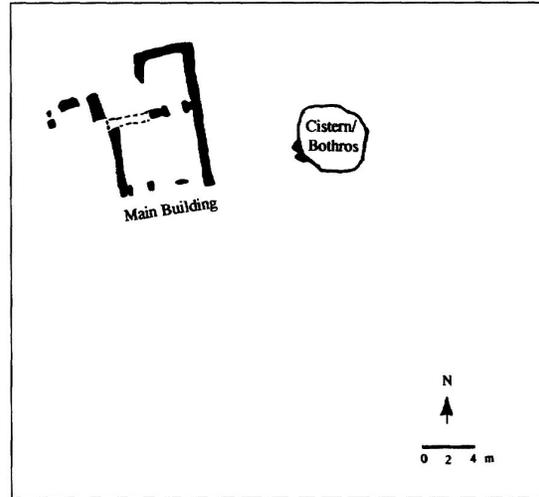
In the context of Cyprus a similar argument can be made for the god Cypriot Pan, whose limestone statuettes are found in sanctuaries across the Mesaoria. This widespread devotion to a pastoral god indicates that these rural sanctuaries served people deeply involved in agricultural and pastoral production (Cofer 2011).

Categorization of the extraurban versus the rural is difficult, and in the first articulation of the above typology, by Francois de Polignac, the two are used somewhat interchangeably. The site of Athienou-*Malloura* has yielded a large terracotta assemblage and numerous Cypriot Pan sculptures in the same assemblage as colossal votive statues (Toumazou, Kardulias, and Counts 2011), indicating that it is prudent to maintain a fluid definition of sanctuary types, and showing how these locations can have a high degree of multivocality, simultaneously allowing the elites to make political statements and commoners to propitiate the gods in their own way, in addition to the other, less attested, uses of such nodes of interaction.

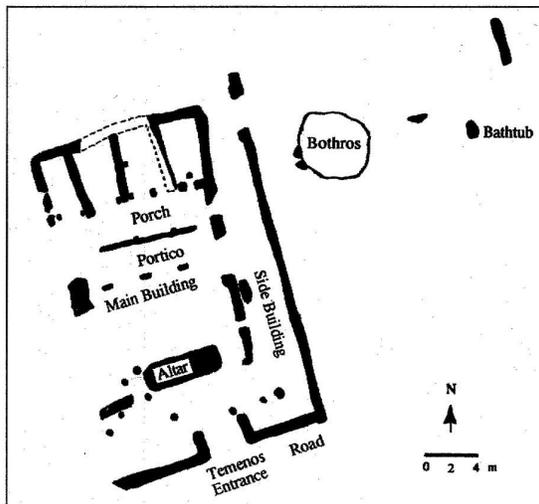
These sanctuaries tend to consist of a perimeter wall, or *peribolos*, bounding an area called a *temenos*, which is the sacred space. Cypriot rural sanctuaries tend to lack monumental architecture, instead consisting of the *peribolos* wall and a few buildings within the courtyard, all generally constructed of a stone foundation and mudbrick for the majority of the structure's height (Al-Radi 1983). The site of Polis-*Peristeries* excavated by the Princeton Cyprus Expedition represents a good example of the general layout of a rural sanctuary (Fig. 1.1) (Smith 1997) Worship was focused on an open-air altar, often constructed of rammed earth or mud plaster, where offerings would be made, as depicted on a Hellenistic relief from the site of



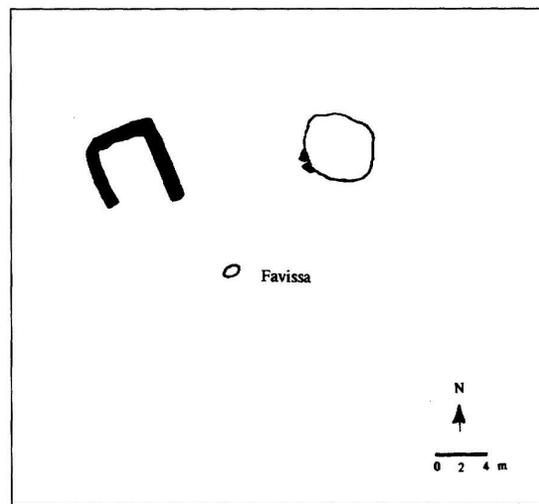
Plan of Phase 1, Polis-Peristeries. Cypro-Geometric III to Cypro-Achaic I. Earliest phase(s)



Plan of Phase 2, Polis-Peristeries. Cypro-Achaic I. Early phase(s)



Plan of Phase 3, Polis-Peristeries. Cypro-Achaic II. Main Phase



Plan of Phase 4, Polis-Peristeries. Cypro-Classical I. Late Phase

Figure 1.1 – Plans of the Cypro-Achaic sanctuary at Polis-Peristeries (Smith 1997)

Athienou-Agios Photios (Fig. 1.2). Aside from the sacrifices that leave layers of ash and deposits of bone, visitors would also leave offerings of both limestone and terracotta sculpture, which are typically oriented towards the altar (Gjerstad 1947). More expensive offerings, such as bronze

objects might be left and displayed inside the buildings of the sanctuary, potentially representing “treasuries” (Smith 1997). Bronze sculpture may have been a preferred medium for royal sculpture, and would perhaps allow for more direct attribution of sanctuaries to dynasties and kingdoms, but unfortunately few examples survive.



Figure 1.2 – Hellenistic votive relief from Athienou-Agios Photios, currently in the Metropolitan Museum of Art’s Cesnola Collection, Cat. 448 (Hermary and Mertens 2014)

Another aspect of cultic activity is banqueting, represented on the Hellenistic relief from *Agios Photios* as well as several Archaic limestone banqueting figures from the same sanctuary. This activity also extended into funerary rituals, as suggested by the depiction of symposiast figurines on grave stele including one found in the dromos of T59 (Blackwell 2005).

These sanctuaries served as places to reaffirm collective identity within a kin group or a nascent polity, while also serving as a place of contact between separate, potentially rival, groups. Maintaining the sanctuary in such boundary zones could thus be both a chance for collaboration and competition; the dedication of votary statues and terracottas is an example of how, through fulfilling religious obligations, people were able to use these shared spaces to communicate power and status to one another (Snodgrass 1980). The symbolic power these locations represented has led some to suggest that they are far better indicators of the rising *poleis* than fortifications.

GIS in Archaeology

Over the course of the past twenty years, Geographic Information Systems (GIS) have emerged as an increasingly integral component of archaeology, used for both the mapping of features and artifacts within a site to placing sites within their regional context, and allowing spatial analysis on both of these levels of detail. A GIS, in very brief terms, is a computerized tool for the input, storage, retrieval, and analysis of spatial information (Sharon et al. 2004). The displayed output of such operations can take a number of forms, such as alphanumeric or categorical spreadsheets or maps made within the software.

Previous studies have used GIS and spatial analysis to give a very basic suggestion of distances between sanctuaries and settlements (Morgan 1997), but as suggested by the study of Irish megaliths (Chapman 1995), a more in depth look, when coupled with additional datasets can allow for a much more meaningful and substantive form of hypothesis testing.

Despite its vast potential, GIS is not the panacea to archaeological questions, as it has sometimes been made out to be (Sharon et al. 2004). A GIS database can be analyzed, statistically or otherwise, much faster than was previously possible for spatial work, but the kinds

of spatial analysis are largely the same as those developed prior to the introduction of GIS to the field.

Preliminary studies have been carried out which seek to map the shifting political boundaries of Archaic Cyprus (Rupp 1987), the mortuary landscape of the island during this transformative period (Janes 2013), and the geographic relationship between polis and sanctuary network in and Archaic Hellenized landscape (Morgan 1997). The aim of the present study is to examine the relationship between these three factors, and to contextualize them with their natural surroundings, to examine how topography and resource availability may have affected the cultural landscapes.

CHAPTER TWO

Theory

Before analyzing the distribution of sites across the island of Cyprus, and testing their relationship to the political developments of the Archaic, it is necessary to first acknowledge that there is no single landscape, but that the tombs, sanctuaries, villages, cities, and rural production sites were all situated in a deeply interconnected series of landscapes, each one influencing the other. For the purposes of this study, the landscapes that are investigated include the physical landscape, which had the most influence, determining ease of travel and resource availability, and the intertwined mortuary and sacred landscapes. These landscapes were multivocal and complex, with different sites carrying a variety of different meanings to any individual living in or travelling through them, depending on their occupation, status, or ethnicity.

The following is an overview of the theoretical perspectives incorporated into the study. These have been divided into discussion of mortuary landscapes, and how burial placement and equipment relates to status and territoriality, sacred landscapes, how the placement of shrines and temples relates to political and personal claims to power, and finally, a discussion of the perceptions of the natural landscape.

Mortuary Landscapes

The emergence of the city-kingdoms during the Archaic represents a major social and political shift, and this should be reflected in burial practice. The changes that occur are twofold: creation of boundary zones and the increased social stratification that follow increased political control over limited resources. The way these changes affect burial culture have been discussed by other authors in different contexts, so their work is used to derive a more general model, which is then tested against the assemblages recovered from Cyprus.

Previous studies have looked in detail at the ways in which increased social stratification can be represented in the mortuary record. One such study by Brown (1981) investigates rank in the archaeological record, and its emergence during the transition to sedentism, rather than during the origin of states. Brown begins by discussing the origins of social stratification, and the two major explanations for the emergence of social stratification. The first is the limited access to restricted resources that creates disparities, and the second focuses on the need for bureaucracy to facilitate greater exploitation of resources. Acknowledging the strengths of both arguments, he then uses several New World case studies to highlight the potential uses and approaches of mortuary analysis, as well as the considerations to prevent misinterpretation.

Brown begins by reviewing two sequential phases from the Caddoan area, the Harlan (1000-1200) and the Spiro (1200-1400). The later phase is examined first, as the markers of hierarchy and demographic data allow rank to be more clearly perceived, with some graves possessing an abundance of luxury items such as copper headdresses and items made from imported shell. While both bundled burials and cremation are practiced during this phase, the more valuable grave goods are typically associated with the cremated remains. The author discusses how the material in the later phase is more clearly connected with different ranks, but the cultural meaning of the luxury items in this phase can be applied to earlier phases where the distinction is less marked.

Brown then discusses the case of Hopewell burials in Illinois, where communal crypts include redeposited remains. While this would seem to indicate differential treatment based on status, further analysis shows that it is more likely the result of different stages of the same treatment. He concludes that mortuary analysis is a valuable but not fully realized aid to reconstructing past societies, while advising caution in some respects. These admonitions

include using a more regional perspective and keeping a mortuary landscape in mind, since any one site with remains may only represent a portion of a population, and a study based on a limited perspective may draw erroneous conclusions. He also points out that the meaning of objects found in the context of human burial can be easily misinterpreted, whether it be a mundane object being given false significance by the researcher, or the role of an object as a status symbol being overlooked. Searching for trends in cultures throughout different phases can aid in seeing the continued or diminished importance of an object over time to better assess the intent behind its placement. Lastly, Brown (1981) refers back to the Hopewell case, saying the burials and funerals are often multi-step processes, and that some finds should be recognized as phases in a larger process. He also notes how, in general, burial of infants and children in the fashion of the elite suggests inherited status and thus social stratification.

Randsborg's article (1981) in the same volume takes a more targeted approach to burial practices in medieval Denmark. While many studies focus on reconstructing the events of the past based on archaeological evidence, in this case, there is a historical record that chronicles the rise of a unified state in this time and place, allowing archaeologists to look for corresponding changes in the treatment of the dead. From both lines of evidence, the major shift seems to have occurred as an internal restructuring. While local leadership had previously controlled the flow of resources in and out of their domains, a downturn in the volume of traded goods during the 10th century AD disrupted this system. A unified state that exercised control over the whole region arose from the instability. While the Christianized populace began to move away from the large and elaborate burials of the Viking era, the material record of mortuary rituals still provides valuable insight into the social shifts. The monuments raised in honor of the dead were previously inscribed by successors who laid claim to status based on descent. The economic

disruption is matched by a change in the inscription formulae. The markers during and after the shift usually state that the monument was raised in honor of the deceased by a “fellow”, who succeeds in the dead man’s position without explicitly mentioning a lineal tie. This might suggest a shift away from claiming legitimacy through ties to families that had experienced a decline in power and were soon to become subservient to a large system. While the inherited ties may have meant less, Randsborg (1981) notes that the continued production of these monuments shows that during upheaval, the ascribed status of the dead remained an important tool for their successors, and raising monuments in their name was a socially acceptable way to affirm a claim to their prestige, position and wealth.

Another study that provides an important theoretical background to the present work is that of Chapman (1995) on megalith distribution, and in particular his reassessment of the importance of territorialism in grave placement. The initial proposition was that the construction of the large tombs of northwestern Europe during the Neolithic was correlated to the rise of agriculture, and that these highly visible and durable monuments allowed the groups that constructed them to make claims to arable land. The study of these monuments was conducted by mapping out Thiessen polygons of equal area around major constructions, which showed a relatively regular distribution across the landscape, albeit with the clustering of tombs more dense in fertile areas. There are some issues that have been raised with this idea, such as the fact that the megalith building tradition extends northward into Scandinavia in areas where arable land was not necessarily the critical resource. Additional considerations include the destruction of many of the monuments over the millennia, making the original distribution of the graves hard to ascertain. Chapman responds to the first critique by arguing that in areas where the megalith distribution does not necessarily align with availability of arable land the monuments may have

instead been placed to lay claims to other resources not considered in the initial study. He also responds to the issue of destruction saying that some estimation can be made to approximate the original number across a landscape, and that what trends can be observed from what does survive are still telling.

The present study of Cypro-Archaic tomb culture draws on aspects of each of the previously discussed studies to create a model that allows both attention to particular finds from individual tombs and uses these data to draw broader conclusions about the social composition of the island during this time. Brown's summary of Native American cultures illustrates the value of comparative material, both from a regional perspective, to get a broader sense of a mortuary landscape, as well as from a chronological perspective, to see larger cultural trends. In the current study this allows both a close comparison of contemporary tombs excavated by other projects and a look at the other tombs of Maghara Tepesi, including a single Cypro-Classical tomb and several large Hellenistic tombs carved into the same hillside.

Randsborg's study of Danish funerary monuments, while based on inscribed evidence that the Cypriot tombs cannot match, provides a solid study of a situation that in some ways mirrors the shift that occurred in the Archaic. Cyprus was a center of trade during the Bronze Age, and possessed several large centers that seem to have controlled this trade, but with the regional collapse there was rapid decentralization which was in place until the Archaic period when new polities emerged that would dominate the island for centuries (Sherratt 1994). In a similar fashion, the collapse of Viking era trade led to a period of internal turmoil, but gave rise to a new, more cohesive political structure. The social trends recorded on the Danish monuments may represent a parallel to the shifts that occurred in ancient Cyprus.

Lastly, Chapman's approach to the megaliths of northwestern Europe lays out a procedure for interpreting multiple sites across a landscape. This approach, which is designed to delineate hypothetical political boundaries using polygons, is extremely applicable in the case of Malloura, where the coupled sanctuary and tombs seem not to correspond to any habitation in the immediate area, but instead represent a claim to increasingly valued territory. While his model stems from the emergence of agriculture, the ability to feed a rising population is relevant as a more general concept to the growing population of the Archaic period.

From these three approaches, a general guideline to interpreting the finds from Malloura can be constructed. If the Archaic period represents the emergence of states, there would have been internal restructuring and the creation of social pyramids in each city, and these new hierarchically arranged societies would compete for and demarcate territory. The elites who found themselves on top of their changing societies would almost certainly have been forced to assert their status in order to maintain it. The nature of the island also meant the polity as a whole would have to enforce claims; on an island with a growing population, any new land one kingdom claims would be that which was taken from another kingdom. The physical component of these processes that would be visible in the archaeological record would be differential treatment of the dead within a society, inherited status as seen through young individuals found in wealthy burials, and the use of graves as territory markers as seen by assessing their placement relative to major power centers.

Sacred Landscapes

Religion and the landscape are deeply intertwined; religious sites can be established in order to assert control over a region, or to act as a point of contact and mediation between two cultures.

The aspect of competition and assertion of power has often been overlooked in anthropological definitions of religions (Kus 2012). While the ways in which elites in a society are able to leverage existing symbology vary widely and are uniquely tailored to their surroundings and histories, linking the concept of political power to the underlying cosmologies and notions of sacredness is essential (Heusch 1962). This allows states to create notions of permanence in the minds of those they rule, becoming fixtures of their world. Establishing sanctuaries on the ruins of Bronze Age structures may reflect the conscious effort to establish linkages to the past in order to gain political advantage, deliberately hearkening back to cultural memories of prior societies to justify one in development.

The process of legitimizing through manipulation of preexisting culture, however, is not a simple one, as Kus points out

While a state religion is a deliberate raid on the local systems of knowledge and belief, it is not a straightforward scaling up of local symbols, logics and ethos. That is, one cannot easily read from the large print of the state ideology into the fine points of local belief. The nature of the state's co-optation of indigenous local belief through reduction betrays the complexity of local belief by audaciously predicating the elephant, refashioning it by stripping down symbols, reversing symbolism, and in some cases inventing new symbols. (Kus 2012)

Such notions of integrating smaller local systems, and somewhat dissolving them for the sake of internal cohesion may provide valuable insight when considering the reemergence of complexity in Cyprus, and the widespread appearance of sanctuaries in rural locales during a politically transformative epoch. Adapting these concepts of coopting symbols for legitimacy to a testable geospatial model necessitates understanding how physical locations function as religious focal points, and how they become resources in their own right.

Kong (2001) proposes a more rigorous study of the geography of religion and the politics of sacred landscapes, arguing that this field of study has been somewhat neglected by empirical studies, but that the sacred aspects of a culture provide just as many opportunities for competition as any other facet.

Basing the 2001 study on her previous 1990 review of the anthropological recognition of the interplay between geography and religion, she states “Sacred space is contested space, just as the sacred is a contested category” (Kong 2001).

She cites previous scholars such as Hertz when cautioning against focusing overmuch on one particular site, but how one must include the ways in which this site is used and seen by different groups, and the way it transfers its status to its surroundings, such as the establishment of pilgrimage routes. The locales can be leveraged by different groups, she says, in order to establish political and economic dominance, as seen in the competition for the same holy spaces by Christians, Jews, and Muslims in Israel or between Catholics and Protestants in Ireland.

This study, in some ways, inverts this way of thinking, considering how contested space can become sacred space as a way of creating claims. Such behavior has been proposed in other archaeological areas, as discussed above in the study of Neolithic monuments, but can be more tangibly seen in some modern groups, where the creation of a religious site is part of a process of territorial expansion and intimately linked to the possession of agricultural land.

Among the Dagara speaking peoples of Ghana and Burkina Faso, land ownership is determined by control of the local earth shrine, and having the priest of the local earth shrine belong to one’s patrilineal clan. Kuba (1999) notes how the Dagara are known to have expanded into the territory once controlled by the Phuo, who assign priestly roles to certain lineages, and are held to be nobles, but do not necessarily determine land ownership. The ability of the Dagara

to seize and hold territory based on their “first come first serve” religious model is suited to their expansionistic past. Making the *tengan kuur*, the stone focal to any shrine, a mobile object with transferable power further aided the spread of this legitimization strategy.

While seemingly far removed from the world of Iron Age Cyprus, many of the factors that shaped the evolution of these practices are, in essence, similar. The earth shrine cult as a way of mediating land claims arose when the Dagaaba settled in the lands that were previously held by the Phuo, and this contact required the creation of a new system which would allow for land ownership to be linked to the divine underpinnings of the world in order to be respected by all. The immigration of the Greeks and Phoenicians to Cyprus at the end of the Bronze Age and the beginnings of the Iron Age may have presented a similar need for some religious unity in order for stable communities to evolve in this dynamic and competitive environment.

Another indicator as to the function of these sanctuaries is the relative decline in their number during the Hellenistic and Roman periods, during which time the powerful and largely autonomous kingdoms of the Cypro-Archaic and Cypro-Classical periods were gradually abolished with the introduction of a Ptolemaic Strategos and the later imposition of Roman governance. (Papantoniou 2012). The simultaneous decline of masking rituals, which had their origin in the Bronze Age, peaked during the Kingdoms period, and rapidly declined during the Hellenistic and Roman periods likewise supports the idea of a large religious shift accompanying the political changes of the time (Averett 2015). The removal of the political structures that used them to cement claims made the expenditure of resources needed to maintain them less viable. While this is not the case at Athienou-*Malloura*, the continued function of this sanctuary and tomb cluster may be more closely related to the establishment of nearby settlement, rather than continued competition between kingdoms (Toumazou, Kardulias, and Counts 2011).

The decline of rural sites in the face of increased supra-local authority and cult activity has been proposed elsewhere as the mechanism for the decline in use of the monumental tombs and accompanying ritual activity in Sardinia (Blake 2002), and may likewise account for the change of regional Cypriot shrines while major centers such as Paphos and Kourion continued to thrive under imperial patronage.

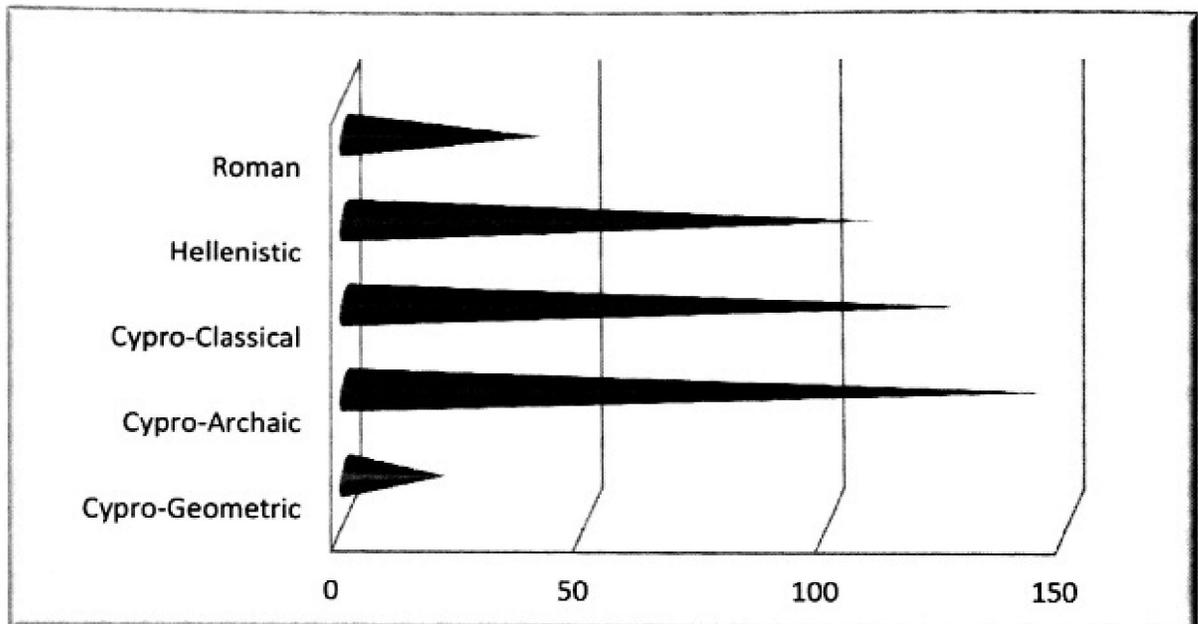


Figure 2.1. Density of Sanctuary Sites. From Papantoniou 2012

Studies in mainland Greece have discovered similar patterns, where the Archaic is the period of major surges in population, cultivation, and sanctuary establishment, followed by a decline in the Hellenistic and Early Roman, with limited resurgences in the Late Roman period (Alcock and Osborne 1994). Applying this model, and using the decline of rural sanctuaries during the periods when Cyprus was most thoroughly governed by external entities as a sort of negative evidence, it becomes increasingly clear that the sanctuaries correspond to increased political consolidation and competition.

The Natural Landscape

Analysis of the natural landscape is based primarily on geological and ecological data, in order to outline the critical resources which would have been the point of contention between the emerging poleis of the Archaic. For this study, the primary aspects investigated consists of access to copper ore, the sea, timber, and arable land.

With that in mind, there still remains some need to recognize the anthropological aspects of the natural environment, as cultural practices and beliefs would have affected ancient perceptions of these facets. Numerous studies have outlined the ways in which “wilderness” was conceived of and used during Greco-Roman times, and the general conclusion is that the areas distant from major settlements were still involved in the overall catchment of the culture (Salmon and Shipley 1996). Through activities such as woodcutting, herding, and hunting, these spaces remained in the consciousness of the people and were important to survival, thus granting them sacred significance. Resources such as these may not have been as tightly controlled by the elite, but they and the gods who were seen to govern them, remained important to the wider population (Toumazou, Kardulias, and Counts 2011). These aspects need to be considered in any identification of patterns in sacred and mortuary site distribution.

Conclusion

Only through combining the many layers of cultural meaning and natural resources can an accurate picture of the landscape of Archaic Cyprus be established. The natural resources provided points of contention, over which the expanding city-kingdoms would have lain claim through the construction of funerary and sacred sites (Fig. 2.1) Incorporating these facets of cultural geography into a cohesive model provides a challenge, but may provide a powerful tool for investigating the mechanics of state formation and territorial claims during this period. The

methods in which the perspectives of the authors discussed above will be turned into a testable digital model is discussed in the following chapter.

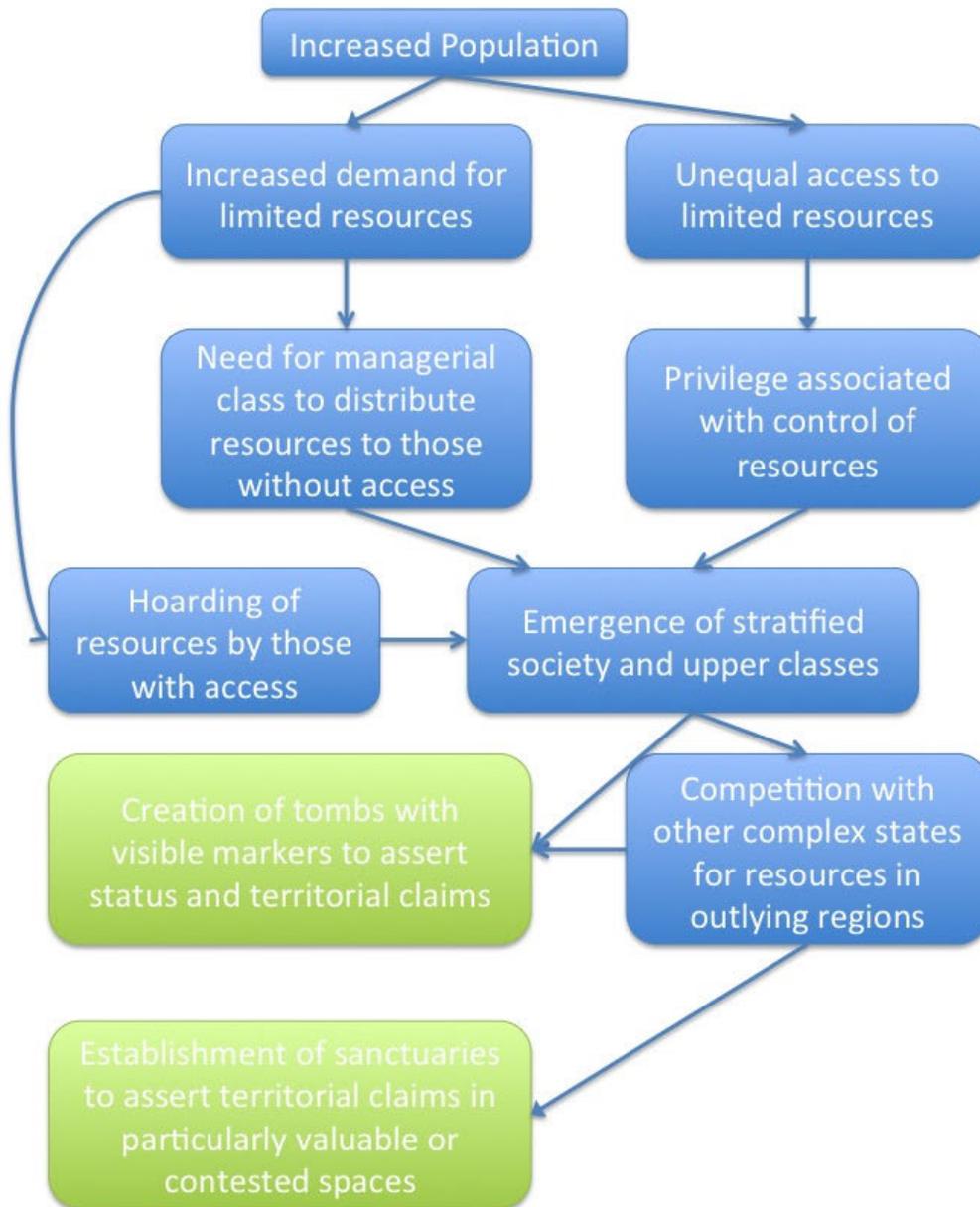


Figure 2.2 Diagram of suggested social evolution, shown in blue, with expected site creation patterns, shown in green

CHAPTER 3 Methods

Research was primarily conducted in Cyprus over the course of the 2013 and 2014 seasons of the Athienou Archaeological Project. The remainder of the research was completed at the College of Wooster, using the college's collections and those available through interlibrary loan. Selection of sanctuaries and tombs was determined by location; the larger scale necropoleis within or in the immediate vicinity of cities were excluded. The list of sanctuaries was taken from Sabine Fourrier and Anja Ulbrich's works, which use de Polignac's classification system for Greek sacred sites and apply it to Cypriot sites. The categories which were included in this study are those which were classified as peri-urban and rural. The line between these two, if any, is often unclear, so here they are treated as a single category. Tombs used for comparison with Athienou-*Malloura* were primarily smaller tomb clusters investigated by the Department of Antiquities as part of salvage excavations, and is far from comprehensive.

Determining the exact number of kingdoms, as Iacovou has pointed out, is not possible, as the number likely varied over the course of the period, and the only textual evidence is external, and may have been selected to fulfill auspicious numbers (Iacovou 2013). This study, however, does not seek to definitively categorize all sanctuaries and identify borders as they are conceived in the present world of nation states. The analysis here is to test broader trends using the most likely major power centers from throughout the period, and to identify potential zones of conflict. The Thiessen polygons proposed by Rupp (1987) thus serve as a useful starting point, but steps must be taken to present a more nuanced view of frontiers that may have been contested or unclaimed.

Likewise the water, mineral, and agricultural resources of the region must be somewhat generalized to allow for island-wide study and to account for the fact that much of the data is

based off present topography, which is, of course, altered by several millennia of continued human and natural actions on the landscape. Cultivation, lumbering, and the resultant erosion, as well as the effect of shifts in climate have lowered many features of the terrain, and the deposition of this eroded material at the mouths of rivers and in the floors of valleys have fundamentally changed the shape of the land (Butzer and Harris 2007). Excavation of the sanctuary at Athienou-*Malloura* has revealed the thickness of the alluvial deposits that cover the Archaic ground level, all of which washed down from the surrounding hills. The deposits of limestone, sandstone, and ore-rich rock that are visible today may have likewise have exposed by erosion in later periods, while those exploited in antiquity may have been buried since. Without in-depth data on the whole of Archaic Cyprus's topography, a larger scale study may be able to avoid these potential inaccuracies by identifying larger scale trends.

The approach employed here consists of two major steps. The first is the creation of a database of relevant Cypro-Archaic rural sanctuaries. These will be plotted onto satellite imagery in Google Earth based off the maps in Ulbrich's publication. This folder of points will then be exported in QGIS, where they will be used in conjunction with a Voronoi Diagram/Thiessen Polygon generating plugin, dividing a quadrilateral that approximates the island's main area. If the points appear to correlate well, spatial autocorrelation calculations will be run to estimate the strength of this relationship. If they do not, then this step will be foregone. In either case, specific locales will be selected for further discussion to balance the otherwise macro-scale approach of the study. The primary grounds for assessing each site will be proximity to a boundary generated by the polygons, the types of finds, and the relationship, if any, between the sanctuary and any known Cypro-Archaic burials in the immediate region. Other aspects of the locations of the sites mentioned by the excavators and surveyors will also be included, as

well as some discussion of interpretation of finds. In some instances, informal attempts at cost-path analysis will be included to further discuss potential site roles. This will be followed by a broader analysis of trends observed on a regional scale, and how these correspond to important natural resources and geographic factors.

CHAPTER FOUR

Data

The primary dataset for this study consists of 120 sanctuaries categorized as Peri-urban or Territorium (Ulbrich 2008). These sanctuaries were first plotted onto satellite imagery provided by Google Earth, based on their mapping in Ulbrich's volume, which made use of maps created by the Department of Lands and Surveys, Kitchener's 1878-1883 survey of Cyprus, and later archaeological projects.

This method posed a number of difficulties; intensification of agriculture and an enlarged population have reshaped the physical landscape of the island, and the partition of the island following the 1974 Turkish invasion of the island has resulted, among many other things, in a systematic change in place names from the primarily Greek toponyms listed in the Lands and Surveys maps. A benefit of the satellite imagery, however, was the ability to discern unused roads that more closely align with the provided maps, and thus allowed villages and site locales to be identified based on infrastructure, as many of the roads have remained the same. Tracing the hydrology of Cyprus, in order to study any correlations with sanctuary and cemetery placement, likewise was somewhat impeded by modern developments; the majority of the largest watercourses have been dammed in order to conserve water for the island's notoriously hot and dry summers.

Some distortion may also be present due to the differences in datum points used by each cartographic method, and thus any coordinates produced by this study are acknowledged to have some inherent inaccuracy, as the projections used for Ulbrich's maps are The Google Earth and QGIS portions of the study employed World Geodetic System 1984 (WGS 84). The relative distances between points, which are more central to the study, should be reliable.

The following are selected sanctuary sites from across the island, chosen to give a more in depth view of the placement of these sanctuaries in a localized context and to describe what finds are common.

Amathus – Vavla-Kapsalaes

The sanctuary of *Vavla-Kapsalaes*, surveyed briefly by the Vasilikos Valley Project, is located on a mountain spur between the Vasilikos River and the Ayiou Mina River (Fig. 4.1). Collected material shows that the site was active during the Cypro-Archaic period, with numerous limestone and terracotta statues and figurines indicating its function as a sanctuary. Of these, most were male, suggesting worship of male deities, with Pan being the only readily identifiable deity. There is some evidence that there were over life-size statues dedicated at the site, though most of the finds were under life-size. Any architecture that may have survived road construction, agriculture, and looting has not been excavated, so orientation and layout of the site are as-yet unknown. Initial counts of the material suggests an abnormally high proportion of large sculpture compared to *Agia Irini*, but this is likely due to smaller surface finds being more portable and thus more likely to be carried off by looters.

Among the recovered ceramics, some were determined to be from cookware. This is potentially indicative of banqueting rituals. It must be noted, however, that there may be discrepancies between the pottery in the surface scatter and the actual contents of the sanctuary, so further investigation is needed before this hypothesis can be confirmed.

350 m to the southeast of the sanctuary site, a series of tombs was discovered, cut into the hill of *Shilia Nemia*. Artifact scatters ceased between the tomb and the sanctuary, suggesting they are to be regarded as separate entities. No diagnostic ceramics were found in the vicinity of the tombs, making their dating difficult. Further survey work may elucidate the relationship (if any)

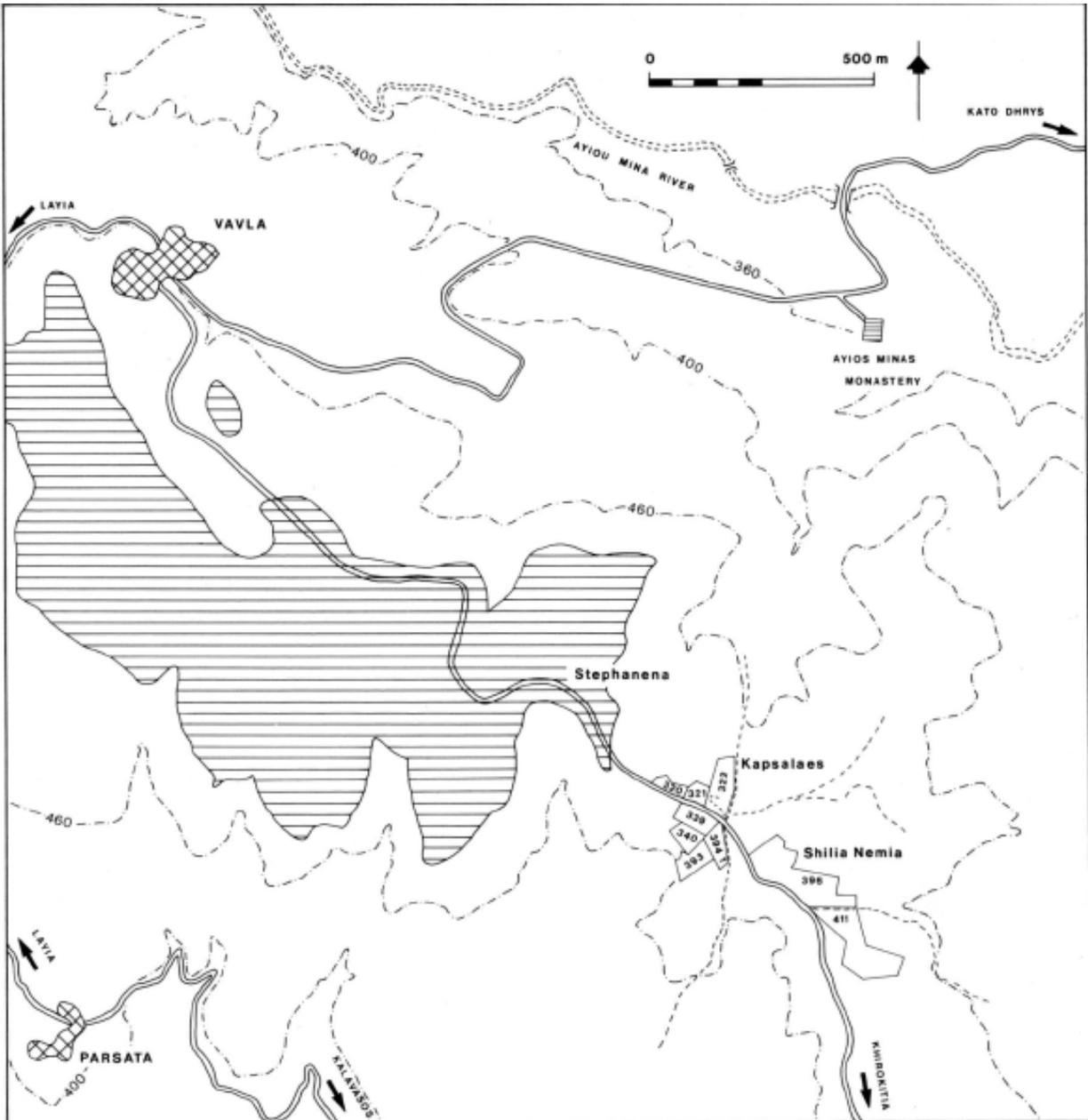


Figure 4.1 Vavla-Kapsalaes and surrounding area. From Morden and Todd 1994

between the sanctuary, the tombs, and the dense cluster of Roman artifacts located NE of the village of Parsata, a little over a kilometer to the west (Morden and Todd 1994). The sanctuary is approximately 18.5 km from the ancient city of Amathus, and approximately 6 km from the Amathus-Kition border generated by the Thiessen polygon.

This sanctuary has also been the subject of a localized geospatial study, investigating its placement in relationship to the surrounding landscape by use of a Digital Elevation Model to conduct two main types of analysis. The first was investigating the viewshed of the site, and whether there were sightlines between the sanctuary of *Vavla-Kapsalaes* and other known sanctuaries or major sites (Fig. 4.2). The second was a cost-path analysis. This involves adding a level of practicality not possible with Thiessen polygons; the topography is used to estimate relative costs for different pathways radiating from a selected point, assuming that flat or downhill ways are faster and less energetically costly (Fig. 4.3).

While direct lines of sight to known sanctuaries were revealed, it was shown that the site would have possessed a commanding view of the copper-rich pillow lavas. Additionally, the cost-path model suggests that it would have taken roughly 5 hours to reach the sanctuary from Amathus, but 6 or more from any other political capital (Papantoniou et al. 2014). When coupled with the choroplastic styles, which likewise seem to indicate strong ties with Amathus (Fourrier 2013), a strong case gradually appears for *Vavla-Kapsalaes* as a frontier site for this kingdom.

Amathus – Maroni-Vournes

The sanctuary of *Maroni-Vournes*, surveyed and excavated by the Maroni Valley Survey Project, as well as the Cyprus Survey and the Tsaroukkas, Mycenaeans, and Trade Project, seems to have been associated with a number of Cypro-Achaic settlement sites, namely *Maroni-Viklary*, *Maroni-Vouni*, *Maroni-Aspres*, *Maroni-Yialos*, and *Maroni-Tsaroukkas* (fig. 4.4). The sanctuary site is topographically prominent and within view of these settlements and their associated cemeteries. Established in the ruins of a Bronze Age site, the repurposed ashlar

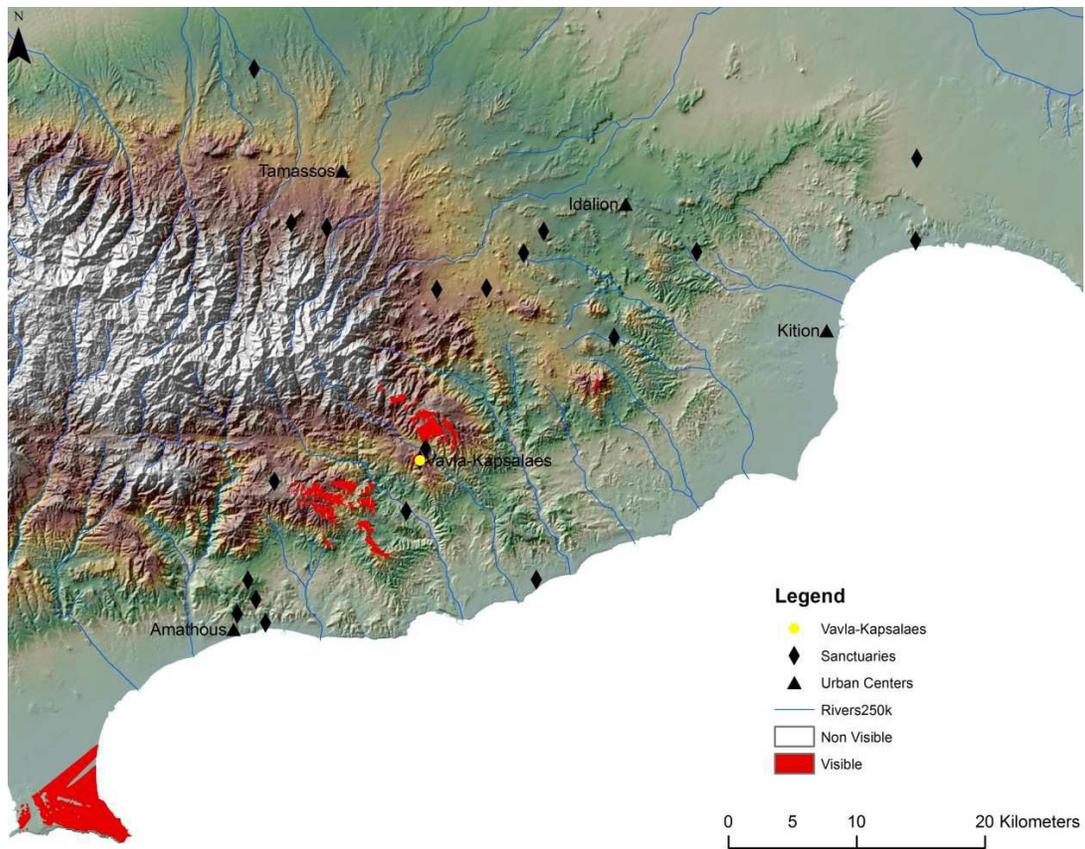


Figure 4.2 View shed analysis of Vavla-Kapsalaes. From Papantoniou et al. 2014

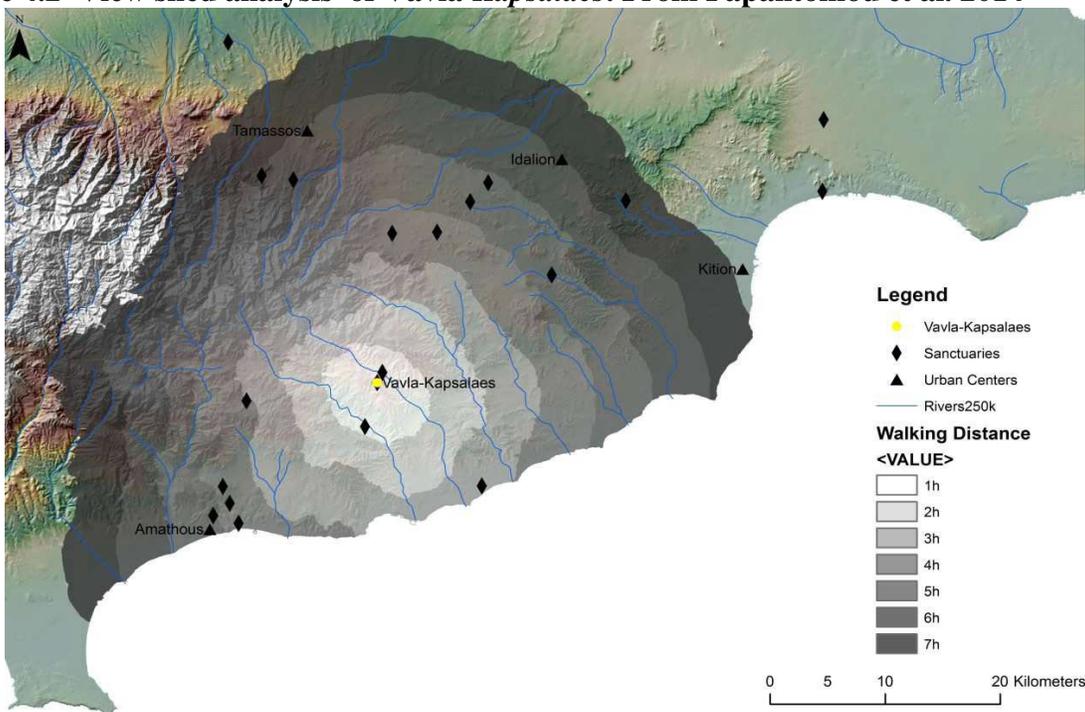


Figure 4.3 Cost path analysis of Vavla-Kapsalaes. From Papantoniou et al. 2014

masonry buildings appear to have been in use as a cultic site from the Cypro-Archaic to the Hellenistic periods. While it is tempting to propose that the building was reused simply because of its availability, the extensive repairs and modifications necessary to reuse an industrial structure abandoned for nearly 500 years as a religious space suggests that there was an additional significance and understanding attributed to the site. Architectural modifications from the conversion include the construction of an angular structure to narrow the entrance, restricting access to the cultic space. Strong ceramic similarity between the site and the assemblages excavated at Amathus seem to indicate an affiliation between the two sites. The limestone and terracotta sculptures of centaurs and of female figurines with vegetal crowns, indicate a fertility cult, with dedicated altar rooms signifying that two deities were the primary focus of worship, while an open courtyard allowed for a broader range of devotion. Analysis of the votive offerings suggest that the buildings offered less space than the typical rural sanctuary, leading to a period culling of displayed offerings, resulting in a diverse and diachronic visible assemblage which is likely a biased sample. Most of the recovered terracottas are wheel-made objects from the Archaic, but the limestone statuary is predominantly Classical and Hellenistic. Locating the *favissa*, where votive sculpture would have been ritually disposed of would likely enhance understandings of changes in style and any shifts in artistic and political influence in the area, particularly given the tendency of royal and elite dedications to be executed in limestone. In the final publication for the Cypro-Archaic-Hellenistic finds, the author suggests that the site served the local community as a local fertility shrine, and served the kingdom of Amathus as a border sanctuary (Ulbrich 2011). The site lies approximately 21.5 km from Amathus, approximately 30 km from Kition, and approximately 2.5 km from the border generated by the Thiessen polygon between them, and is close to the Maroni River

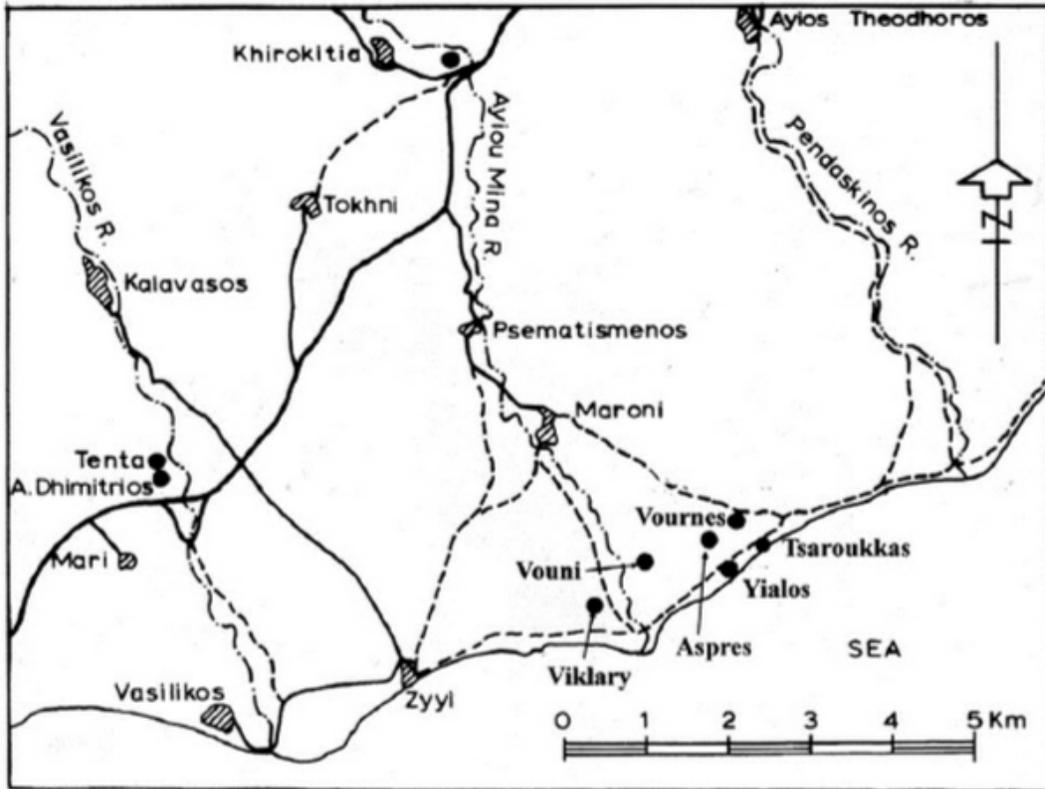


Figure 4.4 Sites in the Maroni Valley. Taken from Ulbrich 2011

Lapethos - Agia Irini-Apolonia

Located approximately 2 km from the sea, and south of the Kyrenia Mountains from the proposed capital of Lapethos, the sanctuary of Agia Irini-Apolonia was excavated by the Swedish Cyprus Expedition under Einar Gjerstad, and produced a wealth of terracotta sculpture ranging in size from figurine to life-size. The sanctuary appears to have been founded in the Late Cypriot III and had been abandoned by the beginning of the Cypro-Classical. The warrior and bull figurines may suggest that the sanctuary was focused on the worship of deities relating to war and male virility, though there is no epigraphic evidence to specify which deities were the object of worship. The terracottas were found to be centered around an altar, upon which was placed an oval stone (Fig. 4.5). This stone, sometimes called a *baetyl*, functioned as an idol.



Figure 4.5 Votive sculptures in situ around the altar at Agia Irini. From Gjerstad 1948

Gjerstad's original interpretations of the site and its evolution have been critiqued and revised in the decades since the original Swedish Cyprus Expedition's publications. Fourrier (2007b) rejects his proposed stylistic evolution, which he based on the succession of conquerors of the island (e.g. Assyrianizing, Egyptianizing), and instead views the assemblage as contemporary regional styles. By viewing coroplastic trends in Cypriot sanctuaries as resulting from the vicissitudes of the island's kingdoms, another way of reconstructing the shifting frontiers of the Archaic emerges. With this in mind, the combined diversity of styles combined with the military iconography of the terracottas seems to confirm the identification of the Agia Irini-Apolonia sanctuary as a zone of contention between Lapethos and Soloi. In describing the landscape surrounding the sanctuary, Gjerstad notes that

On the other side of the valley is a necropolis with rock-cut tombs.

The earliest of these opened date from the Cypro-Geometric and

the latest from Roman times. Further down towards the sea are

ruins of a small, ancient, town; the surface is covered with cut stones, pottery fragments, and tiles. The earliest of the datable finds observed on the surface can be assigned to the Hellenistic period (Gjerstad 1947 p. 643)

The tombs and potential settlement debris seem to indicate occupation of the area after the abandonment of the sanctuary, potentially indicating a decline in the contested nature of this immediate area, shifting religious function away from a site dominated by images of warfare. This may correspond to the overall decline in production in limestone chariot votaries at sanctuaries elsewhere on the island, which seem to have likewise been military related and rarely appear after the fifth century BCE (Hermay and Mertens 2014), suggesting a general tendency towards political consolidation and a decrease in open competition and warfare.

Nearby is the area of Agia Irini-Palaeokastro, where two sanctuaries were discovered and a large cemetery that was excavated by an Italian team (Pecorella 1977). The site as a whole is located near the mouth of a river with empties into Morphou Bay. It is interesting to note that this is one of the few Iron Age sites known where extramural burial was not adopted and the Bronze Age custom of intramural burial continued (Pecorella 1977). While this does not appear to support the idea of boundary creation, its status as the only known case reinforces the observed trend. Agia Irini-*Apolonia* and the sanctuaries, settlement and necropolis of Agia Irini-*Palaeokastro* are all approximately 20 km from the ancient city of Lapethos, and 22 km from the city of Soloi.

Golgoi – Athienou-Malloura

The site of Athienou-Malloura contains a sanctuary, which was in use from the Cypro-Geometric period until the Late Roman period (Fig 4.6). Finds from the sanctuary are diverse Ammon, and large numbers of limestone and terracotta votaries, also predominantly male. The site lies to the south of the ancient city of Golgoi, nestled in a valley north of a large sedimentary scarp which separates the rough landscape that drains to the bay of Larnaca from the low rolling hills and streams that drain into the Yialias river, which subsequently empties in Famagusta bay. The site is located near the igneous outcrop of Petrophani, and Troulli to the east, both containing pillow basalts, valued in antiquity for copper ore. Less than half a kilometer to the northwest of the sanctuary is the hill of Maghara Tepesi, with two primary tomb clusters, one dating to the Cypro-Archaic and Cypro-Classical, and the other to the Hellenistic-Roman periods (Toumazou, Kardulias, and Counts 201). While the exact relationship of the sanctuary to the tomb cluster is not yet clear, they are distinctly close to one another, and far from the Golgoi necropolis and suburban sanctuaries. The sanctuary is approximately 6.2 km from Golgoi, 8.2 km from Idalion, and 0.6 km from the Idalion-Golgoi boundary generated by the Thiessen polygons. Whether or not these cities were in competition remains unclear: for much of its history, the extreme similarities in art styles have led some to propose that Golgoi was a vassal of Idalion, and that the sanctuaries of the former were thus extensions of the latter's influence (Hermery and Mertens 2014). The lack of epigraphic evidence for a kingdom of Golgoi seems to support this line of thought. Whether this remained true is unclear, however. When the city of Kition conquered Idalion, the repercussions are visible in the archaeological record through inscriptions, coinage, destruction levels at the site of Idalion, and shifts in votive trends in

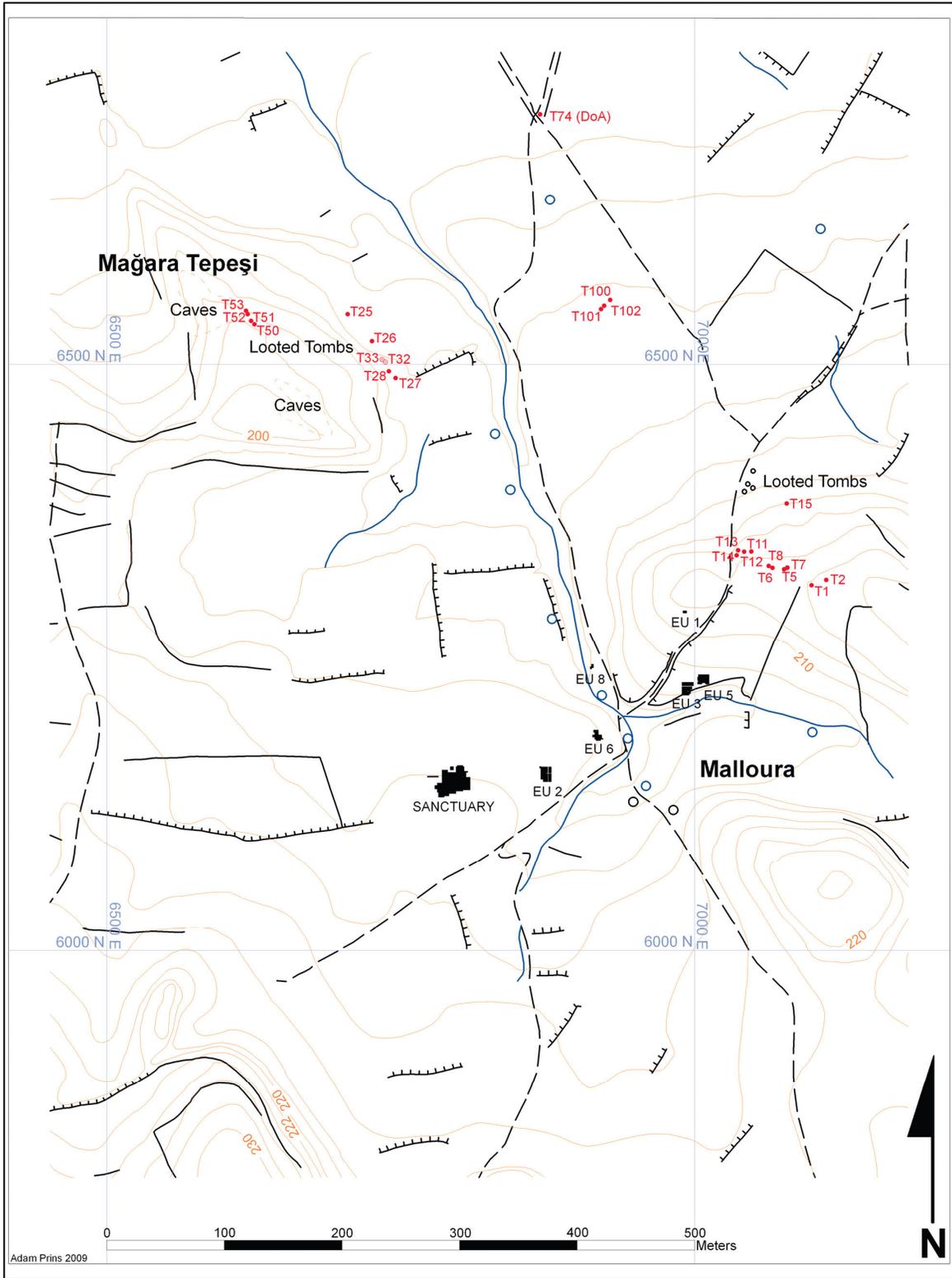


Fig. 4.6 Athienou Archaeological Project area. Toumazou, Kardulias, and Counts 2011

Idalion's sanctuaries (Hadjicosti 1997). The continuity observed at Athienou-*Malloura* seems to suggest that Golgoi and its secondary sites either held an independent status before the conquest in the early Cypro-Classical, or had fallen under the control of Salamis in the late Cypro-Archaic (Hermay 2014). Cases such as these highlight the difficulty in studying nebulous boundaries during a highly politically dynamic time. While regarded by most current scholars as a site in the sphere of Golgoi, it is interesting to note that one of the first archaeologists to work in the region, Melchior de Vogüé initially described the *Malloura* as “in the region of Dali” (translated from Vogüé 1862: 245). In any case, the placement of the site near to the border seems to suggest its role as a frontier sanctuary, and a point of contact between Idalion and Golgoi.

With this in mind, the direct route from Idalion to Golgoi was compared to that of Idalion to *Malloura*, to see if a convincing argument could be made for the function of the site as a stopping point or route between cities. Using the DEM implemented in Google Earth, two elevation profiles were created to compare the topography an ancient traveller would have to contend with on either route. This was done using a path tool, which makes a direct line between specified points. While useful for cursory investigations, it should be noted that a human travel might make alterations to a route that make it more efficient, if less direct. The route through *Malloura* was shown to be longer and involving more extreme changes in elevation, making unlikely to have been an easier path between Idalion and Golgoi (Fig. 4.7). The site does not seem to have been along any integral trade route (Bekker-Nielsen 2004), and survey has only produced light to moderate scatters in the area outside the sanctuary and the tombs from the periods before the Roman-era village (Kardulias and Yerkes 2011). Furthermore, its immediate

surroundings do not give it a broad view of the surrounding landscape, being surrounded to the east and west by hills.



Figure 4.7 – Elevation differences between Idalion to Golgoi via *Malloura* (top) versus straight line (bottom)

The volume and quality of votive offerings at the sanctuary and the small Archaic cemetery may thus indicate that the area was important because of its peripheral nature. The prevalence of Pan, seen before at *Vavla-Kapsalaes* (Morden and Todd 1994) and the militaristic nature of some of the votive terracottas (Averett 2011) like those at *Agia Irini-Apolonia* may indicate that the site was revered but also contested and viewed as a hinterland bordering on wilderness and political rivals.

The relationship between the sanctuary and the burials, while currently not fully understood, is worth exploring. The known Archaic burials at *Athienou-Malloura* consist of four cuttings into the northeastern slope of *Maghara Tepesi* (See fig. 4.8) The first two tombs, T50 and T53, are the easternmost and westernmost of the excavated tombs, respectively. T53 was only discovered when the topsoil of the hillside was removed during excavation, and was afterwards grouped with T50 in the final reports. The team supervisor based this grouping on the seemingly incomplete nature of the tombs. While they both possess the standard layout of dromos, stomion, and tomb chamber, the chamber is undeveloped in comparison to the adjacent

tombs, suggesting it was abandoned during construction and not used for a burial. The lack of any human remains and the relative paucity of other finds seems to support this idea, with what was found being the result of later disturbances.

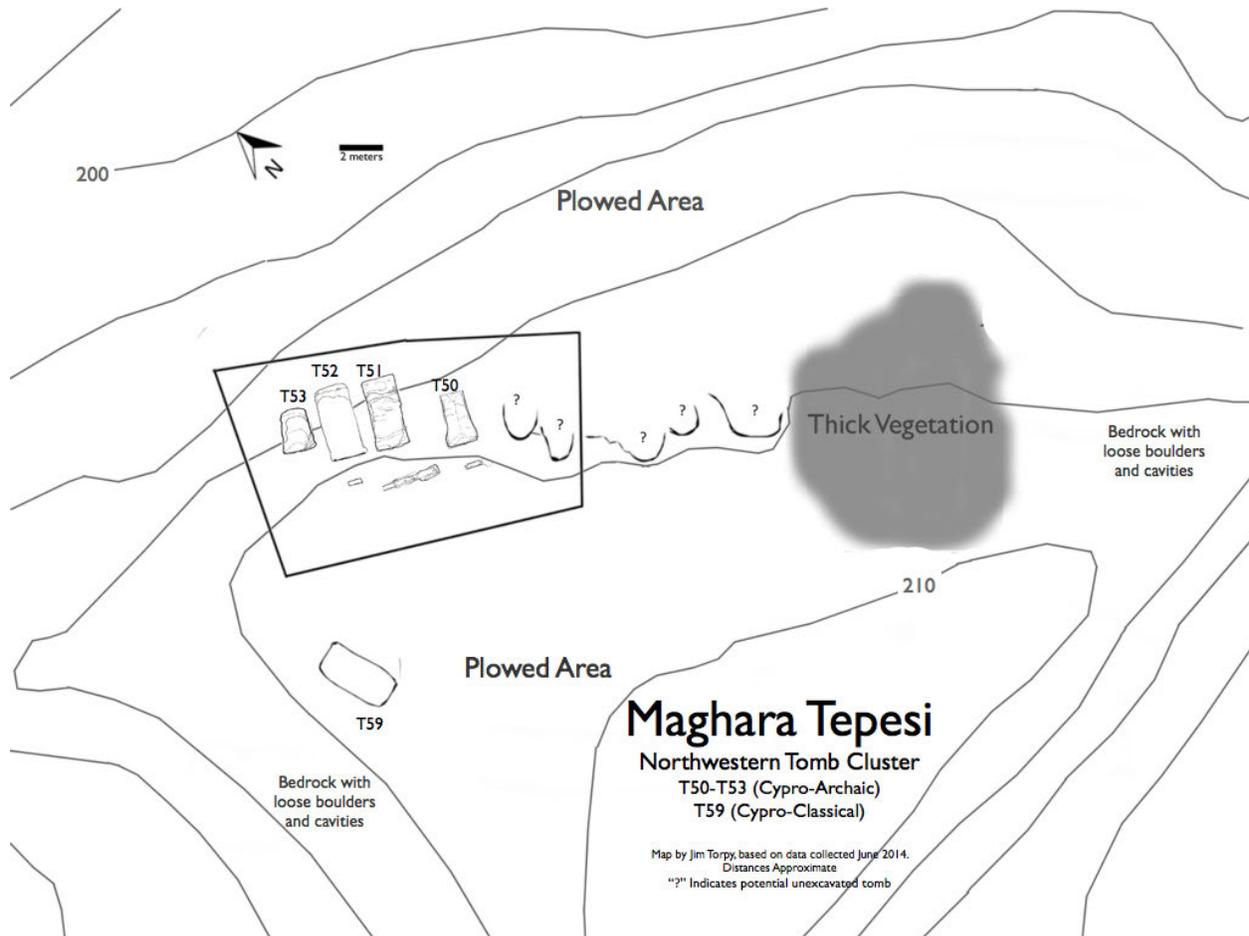


Figure 4.8 – Detail map of the Archaic tombs at Athienou-Malloura.

The pottery recovered from T53 was from a variety of eras, and based on the condition of the pieces, appeared to have been washed in later, rather than deposited around the time of construction (See Table 4.1). The material from T50 included some pieces of Archaic coarse cooking ware, as well as a pitcher or jug which was relatively intact. While the condition of this vessel may appear to indicate that the tomb was in fact used, it is more likely that the looters of the utilized tombs looted T50 and the backfill was mixed, resulting in one of the vessels from another burial being put in the empty grave. Additionally, while grave steles are associated with

the used graves, T53 lacks any evidence for a stele, and the remains of the stele from T50 suggest it was left incomplete. Suggested reasons for the abandonment of the construction of these tombs was the poor quality of the conglomerate bedrock, which crumbled to the extent that defining the original floor of the tomb during excavation was difficult.

Table 4.1 Finds from Malloura tombs T50 & T53.

Malloura	T50	T53
Ceramics	2 painted ware sherds collected, and one RS jug, indicating Cypro-Archaic I date (.223kg total)	Rolled surfaces indicate material from various periods deposited through siltation. Hellenistic amphorae pieces, some painted ware sherds (.08kg total)
Metal	n/a	one piece of iron slag
Animal Bone	n/a	n/a
Human Remains	n/a	n/a

Table 4.2 Finds from Malloura tombs T51 & T52.

Malloura	T51	T52
Ceramics	Several amphorae and some fragmentary bowls, bichrome, painted, and white painted ware present, as well as some Hellenistic rolled fragments. Overall indicates Cypro-Archaic I. (4.401kg total)	Several amphorae and some fragmentary bowls, bichrome, painted, and white painted ware present, as well as some Hellenistic rolled fragments. Bowl, torpedo amphora, and other vessels likely same as found in T51. Overall indicates Cypro-Archaic I. (1.578kg total)
Metal	Pieces of slag found	n/a
Animal Bone	n/a	n/a
Human Remains	Teeth and bones from a single individual, approximately 9 years of age	Teeth and bones from 1 individual, over 18 years of age

The next group of tombs includes T51 and T52, the central pair of the four, which appear to have been used for human burial and the accompanying deposition of grave goods. T51 was excavated first and immediately showed signs of burial, as human remains were found in the uppermost stratigraphic layers. The presence of modern glass in these layers shows, however, that this is not the original context for these remains, and that the deceased was disturbed during

a modern episode of looting. Fourrier (1995) noted in her report that the finds from T51 and T52 appear to be mixed as a result of concurrent looting, as the fragments of some vessels were found scattered in both dromoi (See Table 4.2). While the ceramics indicate that what exists in T51 and T52 represents a mixed deposit, the human remains recovered appeared disturbed, but not mixed. The volume of the remains, combined with analysis of the teeth indicate burial of few, if not single individuals. The individual in T51 seems to have been a child of approximately nine years of age, while the individual in T52 was an adult of at least 18 years. Both tombs possess a corresponding stele inserted into a groove on the hillside directly south of the tombs.

T59 is located further southwest on the ridge from the four Archaic tombs, and is cut into a harder and higher quality limestone. While the mixture of deposits in the dromos, both modern fill and older soil perturbed by looting obscures the original nature of the burial, several finds exhibit a high degree of artisanship was connected with this and possibly other nearby burials. These finds include large fragments of sculpted steles, such as a reclining symposiast figure, and many other fragments, with evidence of border decorations as well as partial carvings of animals, including a lion's head. The content and style of this artwork, as noted by the original excavator, fits well within the range of funerary art in Cyprus. While the interior of the tomb and the remainder of the dromos have yet to be excavated (though the eastern portion of the dromos was partly dug), some conclusions about the age of the burial can be made based on the materials found thus far, and will hopefully be supported by future excavations.

Analysis of the ceramics from the tombs looked at the many of the stratigraphic layers together, since looting probably resulted in material from the grave being mixed throughout the observed soil levels. The relative isolation of the tomb, however, reduces the chances of contamination from another burial during the backfilling of the looter's pit as was observed in

the cluster of Archaic graves. The ceramics of this grave differed from the others, not showing the absolute uniformity of white painted ware seen in T51 and T52; bichrome ware and other styles, though rare, are present (See Table 4.3). Among the white painted ware finds, there is considerable diversity in terms of shape, though Fourrier (2005) noted that these vessels can largely be assigned to three categories; inner lip bowls, edged bowls, and those with spread flared lips (examples of local VI and VII phase painted ware). Also notable are the imported vessels, particularly imported amphorae, some of which match Attic styles. While there are relatively few decorated Cypro-Archaic wares, those recovered seem to date from the fifth century BCE. The imported wares combined with local remains suggest a collective date somewhere between the beginning of the fifth and the middle of the fourth century. Another vessel bears distinctive patterning that is similar to vessels associated with the nearby city of Golgoi, which produced its own important funerary finds, such as sarcophagi and grave steles which were sold to foreign museums and whose original contexts are lost (Reyes 1994). Other materials recovered, such as the closed lamps and other Hellenistic period finds, are most likely the result of mingling during later disturbances.

Table 4.3 Finds from Malloura tomb T59.

Malloura	T59
Ceramics	Large numbers of bichrome and black-on-red ware, and many amphorae, including imported vessels from Greece and Phoenicia. While there are a number of Archaic pieces, there are enough later finds to show that the tomb was constructed in the fifth to mid fourth century BCE, during the Cypro-Classical period.
Metal	n/a
Animal Bone	n/a
Human Remains	n/a

The finds from the *Malloura* tombs, even in their looted state, correspond to a trend visible in small scale rural tombs across Archaic Cyprus, such as those excavated by Flourentzos

(1987) at Kornos, Karageorghis (1978) at Palaepaphos-*Skales*, and Christodolou (1972) at Maroni, each showing a blend of domestic wares with imported and potential luxury goods. The presence of such goods, matching the predicted conspicuous consumption which corresponds to an increasingly stratified society.

What is, perhaps, most notable about these tombs is that they are isolated from the Golgoi cemetery yet so close to the rural sanctuary. The necropolis of Golgoi is described by Cesnola “East of [the city], near a pathway leading from [Athienou] to [Melousia] is an ancient burying ground which occupies several acres in its extent.” (Cesnola 1877 p. 109). This means that the primary burial ground of Golgoi was far closer to the city itself and the rural sanctuaries of *Agios Photios* and *Melousia-Limni*, making Maghara Tepesi a clearly separate phenomenon. While neither the site of the sanctuary nor the tombs can be seen from the other, due to the visual obstruction created by the hill, there may be a visual connection of a different sort. Currently, the only located entrance to the *temenos* of the sanctuary is on its northern side, potentially suggesting visitors would primarily come from Golgoi, travelling to *Malloura* via a southward road which would pass close by Maghara Tepesi. On this route, the steles, which are evidenced by the grooves above the dromoi, would have made the tombs visible to a traveller with their tall shape (fig. 4.9). If this sort of visibility was intentional, then it suggests that one site was both a place to assert social or kinship identity through burial and commemoration as well as a potential marker of political frontiers.



Figure 4.9 Archaic grave stele from Golgoi Necropolis, currently in the Metropolitan Museum of Art's Cesnola Collection, Cat. 472 (Hermay and Mertens 2014)

Observations

Sanctuaries tend to be near rivers or hydrological boundaries, and there have been observed cases where cemeteries and sanctuaries are found in close proximity. Whether this indicates a connection in function or perception of either, or may, in fact, indicate potential undiscovered settlements, is not yet fully understood. The finds from within the tombs tend to be indicative of status and family identity, with only the location serving a potential political role. This stands in sharp contrast to the royal tombs elsewhere, such as the famed scepter found in a tomb at Kourion where royal power was clearly being shown (Gjerstad 1948). The sanctuaries show a more obvious blend of small scale personal religion, such as the smaller terracottas and limestone sculpture, but mixed with more politicized art. Studies of Cypriot sculpture routinely assign above life-sized and colossal sculptures to representing not just elite, just specifically royal investments (Satraki 2010). This claim is supported by the iconography of these statues, which sometimes includes the *pschent*, or double crown of pharaonic Egypt (Hermay and Mertens 2014). While this particular symbol is not found in the sanctuaries listed above, the colossal sculpture seen at Vavla-*Kapsalaes* and Athienou-*Malloura* require significant effort to reach, given their rural settings. The constant occurrence of tombs near sanctuaries, even in cases where no settlement is known to connect the two, likewise suggests that the sites might be “acting” in conjunction to embed meaning in an otherwise unmarked landscape, which is particularly important in areas which multiple poleis might lay claim to.

CHAPTER FIVE Analysis

Overview

The initial goal of this study was to create a spatial database of sanctuary sites in Cyprus, which were both active during the Cypro-Archaic and located away from the known city-kingdom centers. This dataset would then be compared the speculative boundaries predicted by Thiessen polygons, which are constructed by drawing lines perpendicular to the midpoint of a line between two selected points, in this case, the kingdom centers (Fig. 5.1). Previous studies have done used the same method (Rupp 1997, see Fig 5.2), but the aim of this study was to relate these potential boundaries to smaller scale rural sites.



Figure 5.1 – Thiessen Polygons around kingdom centers (white), sanctuaries plotted throughout (green)

The plotting of sanctuary points did not appear to correlate strongly to the geometries predicted by the Thiessen polygons. This is to be expected, at some level, as human activity on a topographically varied landscape bears little similarity to the two dimensional rectangle upon

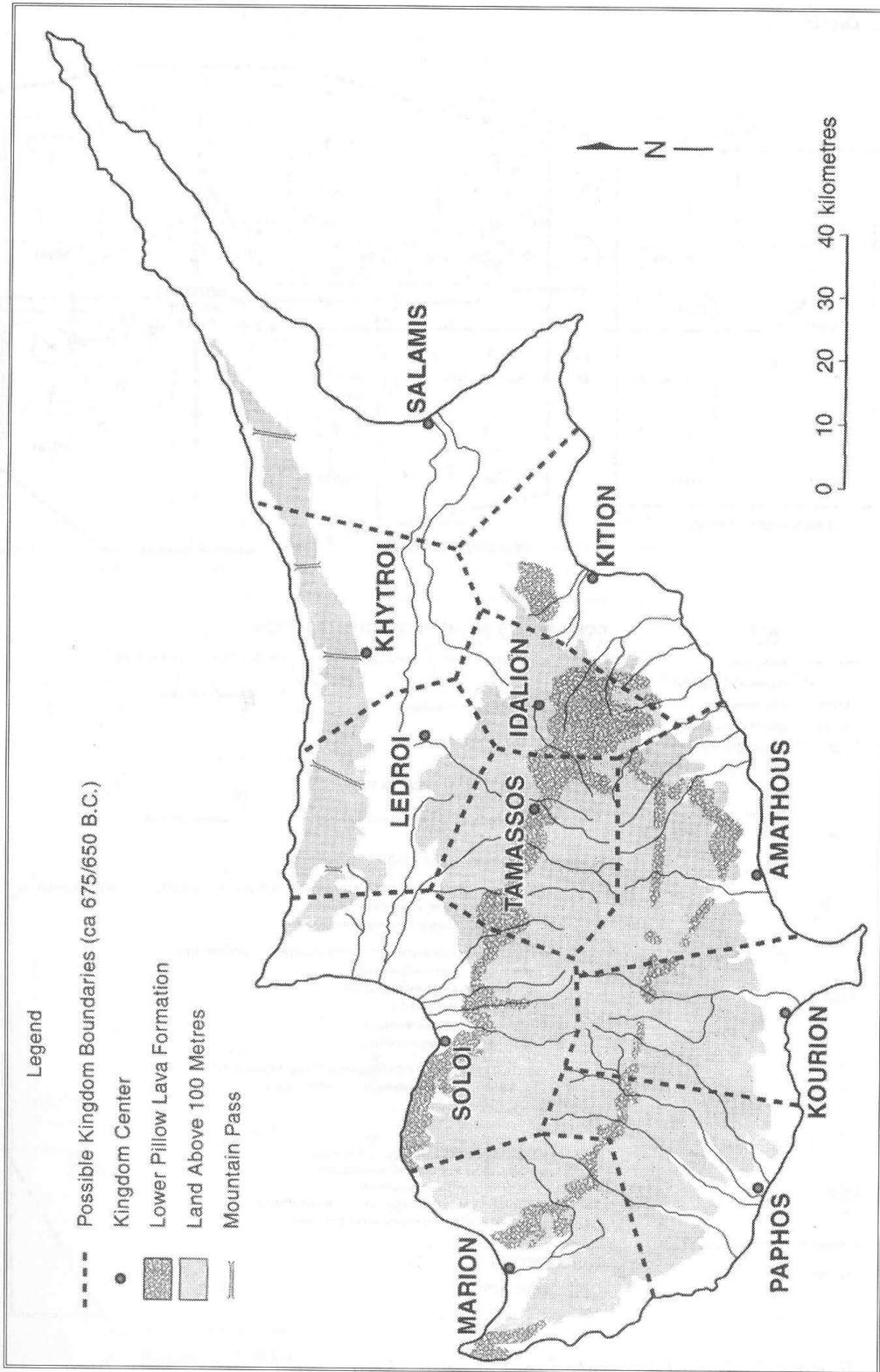


Figure 5.2 – Thiessen Polygons and Geology. From (Rupp 1997)

which the polygons are generated. With this in mind, other determining factors were considered, and is described the following, being hydrology, geology, and roads. instances where close correlations seem to occur do suggest that the model may have some value for very broadly indicating boundary zones, likely to have been sizeable areas of land which may have fluctuated in position between the neighboring powers and local autonomy.

Hydrology

One notable commonality in the sanctuaries is the proximity to rivers and other watercourses. Few of Cyprus's streams flow throughout the year, and the only sizeable natural standing bodies of water that last through summer are the salt lakes near ancient Kourion and Larnaca. The toponyms of the island attest to this fact, with multiple streams named *Xeropotamos*, meaning "dry river" in Greek. Controlling these abundant source of water in winter may have been a point of contention between kingdoms, and during the summer, when the beds are dry, they may have served as makeshift roads, being low-cost paths energetically, and free of vegetation. Considering the economic importance of the flow of copper from the inland pillow basalts to the coastal ports, they may have been important conduits throughout the year for this prized resource.

The sanctuaries of *Lymbourena* and *Trachanas*, to the north of Idalion, across the Yialias river from the city fit this pattern. As the river continues towards Famagusta Bay, it briefly curves to flow to the northeast. Along this portion of its run, the sanctuaries of *Dali-Pilierka* and *Potamia-Ellines* are located on opposite sides, both less than 1.5 km from the main course of the river. As the river continues in this direction, it passes the sanctuary site of Pyrogi. These sites may have functioned as ways for polities to assert control over points for crossing in winter, or may have signified the river's role as a natural boundary between kingdoms such as Golgoi,

Ledra, and Idalion. The relative dearth of sanctuaries north of the Yialias in the eastern Mesoaria may be indicative of less direct confrontation over farmland compared to that over the metal-bearing geologic formations of the southern portion of the same region.

On the southern coast of the island, stretching from the Troodos to the sea, sanctuaries tend to be placed near the rivers that flow through the numerous valleys, providing a link to a key resource, or placed on the ridges between these valleys, affording a commanding view of the surrounding countryside, as previously noted for *Vavla-Kapsalaes*. The site of *Alassa-Paliotaverna* provides a particularly interesting combination of these, situated near the convergence of two such mountain streams, now overlooking the Kouris Reservoir, but originally the course of a river that flowed past the ancient city of Kourion and into Episkopi Bay. The only known sanctuary in the center of the Troodos massif, *Kakopetria-Agilades* also follows this pattern, located at a point of convergence of two valleys and rivers. In the western Mesaoria, the sanctuary of *Meniko-Litharkes* is located along the river that flows from ancient Tamassos to Morphou Bay, and *Nicosia-Archangelos* is near the river which flowed from the Troodos to ancient Ledra, seemingly producing a pattern, but the third sanctuary which is likewise in the western inland plain, *Morphou/Ovgos-Ambelia* is not near any modern watercourse, though this may be due to change in the landscape.

On the northwest of the Mesaoria, the two sanctuaries of *Agia Irini-Palaeokastro* lie near the mouth of a river, as well as the Soloi-Lapethos border predicted by the Thiessen polygons. The nearby sanctuary of *Agia Irini-Alonia* is also within the polygonal boundary zone, but is not quite as near to the river as the other two, being approximately 1.5 km compared to their maximum 0.2 km.

On the steeply sloped and narrow land north of the Kyrenia mountain range, the rural sanctuaries are not consistently located along rivers or ridges. What appears to be the more important factor in sanctuary location on either face of the northern mountain range is the proximity to passes that allowed travel through the steep range and thus access to the north coast. The clusters of sanctuaries near the towns of Mandres and Agirda, and a few other sanctuaries on the boundary between the Mesaoria and the Kyrenia Mountains may reflect common crossing point.

The lands considered to be the domain of Salamis, based off terracotta finds (Fourrier 2007a) and the polygons includes a wide area of the island, including all of the island's east coast, from Famagusta bay, where the Mesaoria meets the sea, to the Karpas peninsula, running from the Kyrenia range to the northeast, and the area around the village of Achna. Oddly enough, many of the densest clusters of sanctuaries within the territory occur in the latter two regions. The clusters in the rugged terrain around Achna and Xylotympou may be an attempt to delineate the territories of the large maritime cities of Kition and Salamis, but the relatively high number of known sanctuaries in the Karpas peninsula is harder to explain with the present theoretical model. It borders no other major cities, has no major ports, streams, forests, or metal deposits. The proximity to mainland Asia seems like it may offer some explanation, but what and how that may be influencing site placement in this segment of the island is not within the scope of this study.

Metals

Another suspected primary determinant in site location is the proximity to the pillow lavas formed by prehistoric underwater eruptions that are the source of much of the island's wealth in copper ore (Fig. 5.3).

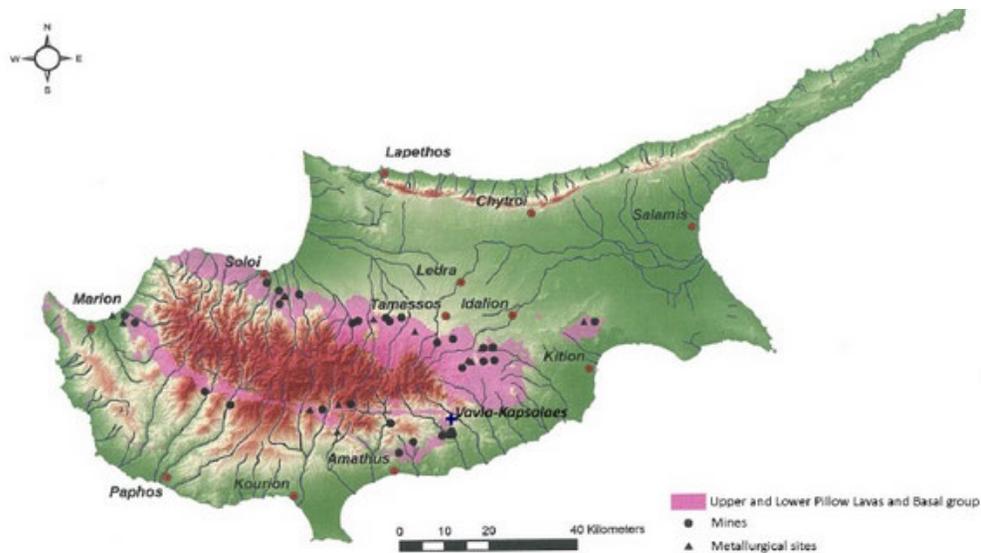


Figure 5.3 – City Kingdoms of Iron Age Cyprus with Mining and Geology indicated. From (Kassianidou 2013)

The distribution of known ancient mines and metallurgical sites, primarily known from ancient slag heaps (Kassanidou 2013), correlates well with the sanctuary distribution in some key locations. The sanctuary of Skouriotissa-*Katydata* seems to correspond to the large cluster of mining sites just southeast of Soloi. On the southern slopes of the Troodos, despite the presence of three major kingdom centers, Paphos, Kourion, and Amathus, the belt of metallurgical sites is not very closely paralleled by the sanctuary distribution. The site of Troulli-*Petres* is located near the large outcrop of igneous material north of Kition, and may represent a claim to the area and its mineral riches. Many other sanctuaries clustered around Tamassos and to the south of Idalion may also serve this function, correlating with the distribution of known extraction sites.

Roads

While the possibility of riverbeds for transport and the importance of mountain passes have been discussed, the routes and paths that connected cities and facilitated the movement of goods and people are a likely aspect in sanctuary placement. A problem with testing this is that the evidence for roads in the Archaic is largely lacking (Fig 5.4). Unless paved, roads do not

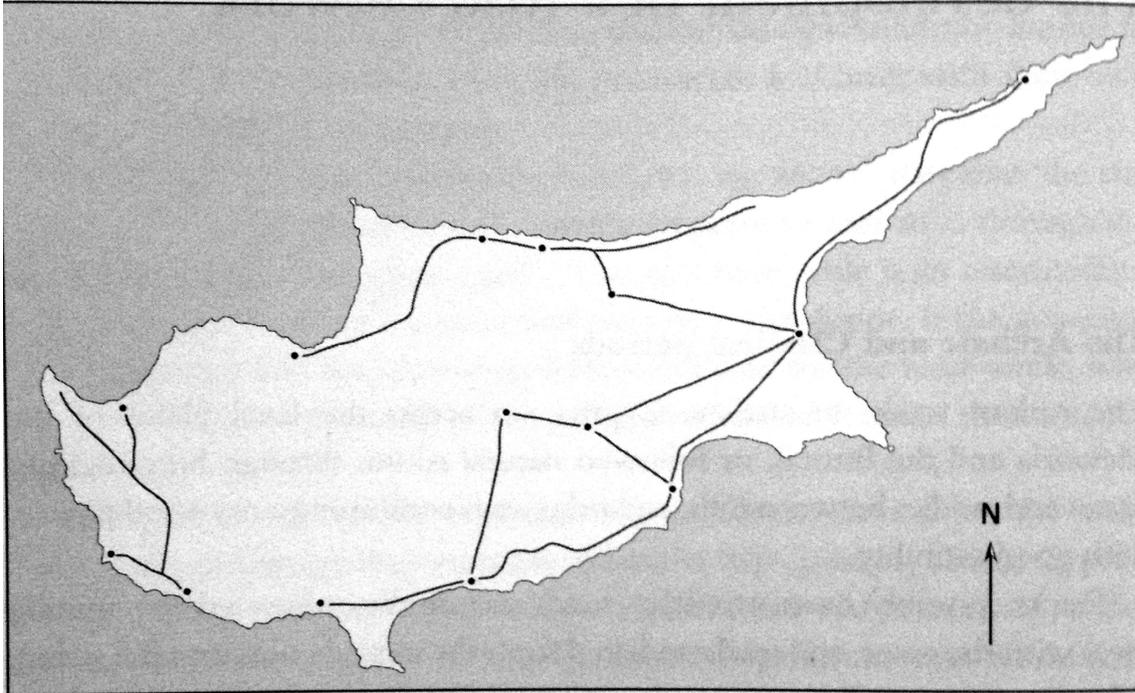


Figure 5.4 – Major roads of Cyprus ca. 300 BCE. From (Bekker-Nielsen 2004)

leave distinct artifact scatters, and the distinct appearance of a dirt road may be destroyed through erosion and further human modification of the landscape. While the roads of Cyprus in later periods are more easily reconstructed, based on the Peutinger table map of the Mediterranean, and the studies that have been carried out on Roman milestones, transportation in the early Iron Age is harder to discern (Bekker-Nielsen 2004). There is no evidence to suggest that the rival polities cooperated to build and maintain a road network, and it is likely that some areas such as the Mesaoria were covered in a network of roads of varying importance and quality, likely also varying by seasonal use as speculated above. With these caveats in mind, the overall topography of the island likely presented least-cost paths that were highly similar, if not identical to those followed by Roman and the current roads of Cyprus in many cases, with later engineers improving routes that already existed. Such roads may then be associated with sanctuaries that fall along their reconstructed route.

The sanctuary of Kochi lies near a stream, close to the junction of the Thiessen polygons for Idalion, Golgoi, and Kition and falls near the midpoint of the direct route from Idalion to Kition, making it a prime candidate for investigation as a boundary. Further investigation of votive offerings might allow for stylistic comparisons and potentially identify which center had the largest influence.

The sanctuaries of Arsos and Melousia also seem to fall along the projected route from Idalion to Golgoi to Salamis, making a relatively straight line from the foothills of the Troodos, through two major cities of the time and ending in one of the island's greatest ports and powers during the Cypro-Achaic, making it a likely point of contact between the economies and inhabitants of these kingdoms, as well as a vital artery to control through the physical presence of a sanctuary.

More rigorous analysis of potential transit routes across the island may be done with the incorporation of a full Digital Elevation Model (DEM) of the island, while also allowing for the study of site viewshed and the use of sightlines in sanctuary placement. While this was beyond the scope of the present study, some limited elevation tests were done on particular sites to analyze *Athienou-Malloura*'s potential as a stop on the road from Idalion to Golgoi (Fig. 4.7)

Given the greater amount of topographical obstacles in the first path, particularly when considered in conjunction with the added inefficiency of an indirect path, it seems logical to say that the primary reason for the sanctuary's placement was not motivated by an attempt to assert control along a transportation route. Further analyses may allow a better understanding of each individual site's function.

Peninsulas

One anomalous class of rural sanctuaries that presented itself during data collection were sites built on the tips of the island's peninsulas, not seeming to act as boundary markers between land sites, but potentially still used to stake political claim to places deemed sacred due to their extreme surroundings, and denoting the boundary between land and sea. Examples of this type include *Agia Napa-Teresia*, *Kap Dinaretum-Agios Andreas*, and *Pomos-Appiouri*. Similar site types can be seen in mainland Greece, such as the sanctuary to Poseidon at Cape Sounion (Steinhauer 2013)

Interpretation

While larger datasets will be needed to create any statistically verifiable patterns, this exploratory study of the geographies of sacred and mortuary rural landscape shows promise, and provides several cases that fit the theoretical model described in Chapter Two. The sanctuaries that are found in the zones between power centers were sites of worship to gods of the wilderness, such as Pan (Cofer 2011), but also accommodated statues of deities such as Cypriot Heracles, who would have been familiar to the Greeks, and seen by the Phoenicians as Melqart (Counts 2008). The syncretistic depictions of other deities likewise denote that these sanctuaries served as sites of cultural mediation, while simultaneously creating an outlet for the emergent upper class to showcase both their piety, legitimizing their control, as well as the wealth, ensuring the respect of their rivals in other kingdoms and their continued privileged status within the power structures of their *polis*. The mortuary record also complements this, with sanctuaries and necropoleis occurring in potential pairings, once again creating a place to assert identity and control, but also to indulge in cultural mediation, with Aegean and Canaanite wares occurring in the same tomb clusters. This form of cultural negotiation is a hallmark of the Cypriot

countryside, being a doubly contested periphery as a zone of contact between competitors on the island and a part of the larger prize the island presented to the regional empires (Kardulias 2007). During the Archaic, the relative initial lack of external conquerors and *laissez-faire* approach of the Assyrians, meant that while economically integrated, the influential individuals of the period shaped their cultural landscapes with relative autonomy. In such an cosmopolitan and competitive zone, the correspondences with the external analogies presented above become evident: the broken steles of Maghara Tepesi may assert claims much as the runestones (Randsborg 1981) and megaliths (Chapman) discussed above did, and control of points of visibility and fluvial access may represent conscious land claims as seen with the Dagara (Kuba 1999). Some possible ways to refine and more fully identify these trends are discussed below.

CHAPTER SIX

Conclusion

The study began with the aim of investigating rural sites in Archaic Cyprus, to investigate if and how ritual and burial sites on the periphery were used to delineate boundaries during a transitional period. The Cypro-Archaic was a period of major growth, a revitalized role in broader Mediterranean trade networks, as well as a highly competitive time. The increase in sanctuaries during the period associated with the formation of powerful kingdoms and their abandonment during the forced unification under Ptolemaic rule suggests that these cult sites were highly politicized. Burials likewise occur in the both the center and periphery, potentially acting as markers on the frontier, though more work is needed to show the patterns in tomb placement in rural areas.

While this study failed to find a strong correlation between the boundary locations projected by the creation of Thiessen polygons and the distribution of sanctuary sites, the patterns of proximity to water, metals, trade routes and the number of sanctuaries that do fall closely along the potential borders give tantalizing hints as to what future work may reveal about the social and political landscape of Archaic Cyprus, and how it shaped the use and placement of sites in the rural regions outside of the main kingdom capitals.

Use of more complex and accurate Digital Elevation Models, as was done at *Vavla-Kapsalaes*, may aid in the discovery of the political boundaries, which were just as likely shaped by geography as they were by military prowess. Inclusion of climatic reconstructions would likewise aid in situating these sanctuaries and tombs in their proper contexts, as the landscape of the island is constantly evolving, especially so in the last century.

Geospatial analysis of urban Cypro-Archaic cemeteries provides strong support for the suspected increase in social stratification in this period, both within societies, as shown by the

extravagant grave goods of the emergent noble class, as well as in the increased aggression shown by the inclusion of weaponry in graves demonstrated by Sarah Janes (2013). Taking the numerous rural tombs recorded by the rescue excavation of the Department of Antiquities may allow for a more robust comparison of the distribution of tombs and sanctuaries in relation to major cities and their boundaries.

One of the most important areas of research necessary to understand the layered landscapes of the early Iron Age on Cyprus is a clearer picture of settlement patterns and the presence of secondary population centers outside of the major political hubs. While life in pre-modern times in the East Mediterranean was less focused on permanent habitation and was host to short-lived nucleated settlements and transitory sites (Toumazou, Kardulias, and Counts 2011), it is likely that increased survey would produce some level of architecture and assemblages from agricultural, industrial, and domestic activity beyond the well-studied mortuary and sacred sites. All these types of human activity were interwoven in the ancient countryside, and one cannot be fully understood until the others are better evidenced.

Likewise, understanding the placement of sanctuaries in their ancient contexts relies on more widespread reconstructions of the physical geography, land use, hydrography, and topography of the Archaic, and how climate and human use transformed the surroundings of these sites (Butzer and Harris 2007).

While constraining the focus of a study is essential to accurately testing any variables, any comprehensive study of Cypriot Iron Age sacred landscapes must also be diachronic, as the placement of sanctuaries is often done quite deliberately in reference to Bronze Age structures (Fourrier 2013), and eliminating these structures obscures both an important determinant and

also a fascinating glimpse into the construction of identity of the new states as successors to the former ones.

Lastly, incorporation of data from specialist analysis of artifacts may prove to be a promising component of future geospatial research. Study of choroplastic styles has already given some indication of the kingdoms' cultural watersheds (Fourrier 2011), and other similar efforts may help refine our knowledge of the flow of goods and people between core and periphery and between states. One such upcoming study of silver coins of Cyprus, titled "The Silver Coinage of the Kings of Cyprus: Numismatics and History in the Archaic and Classical Periods (6th to 4th centuries BC), or SilCoinCy (Markou 2014) seeks to create a database of numismatic data that would greatly augment understandings of the economic geography of the island.

This consideration of types of finds may also help refine the classification of sanctuaries. The current model is almost exclusively spatial, meaning two sanctuaries, equidistant from a city center are considered superficially similar, even if one is a small shrine that acts as a hub of local worship and the other is a royally patronized construct placed for political reasons. While some sites seem to have served as both, this sort of qualitative aspect would add nuance to future spatial analyses.

The rapidly growing available data and the increasing ease of use of GIS technology means that a variety of types of cultural, physical, and ecological data can be combined to create a holistic view of a society amid transition and growth.

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APPENDIX

Kingdom	Code	Site Name	Date of Foundation	Topography
Amathous	AM 12	Doxamenes (Site)	CG(?)-Hellen.	Peri-urban
Amathous	AM 13	n/a	CA	Peri-urban (near town)
Amathous	AM 14	Armenochori-Lazarides	CG, CC-Hellen.	Peri-urban
Amathous	AM 15	Limassol-Komissariato	CA II	Territorium
Amathous	AM 16	Kellaki-Moutti Sinoas	CA II	Territorium
Amathous	AM 17	Vavla-Kapsalaes	CA	Territorium
Amathous	AM 18	Maroni-Vounes	CA-Hellen.	Territorium
Chytroi	CHY 5	Voni	CA-Hellen.	Peri-urban
Chytroi	CHY 6	Marathovounos	CA?	Territorium
Chytroi	CHY 7	Angastina-Alimendiri	CA-CC I	Territorium
Chytroi	CHY 8	Kalograia	Unclear	Territorium
Golgoi	GO 3	Athienou-Agios Photios	CA-Roman	Peri-urban
Golgoi	GO 4	Athienou-Petrara	CC-Rom?	Peri-urban
Golgoi	GO 5	Melousia-Limni	CA-CC	Peri-urban
Golgoi	GO 6	Athienou-Malloura	CA-Roman	Peri-urban
Golgoi	GO 7	Margo/Pyrogi-Elia Tarlasi	CA-Roman	Territorium
Golgoi	GO 8	Agia- Kebir Tasli Kaya	CA-Hellen.	Territorium
Golgoi	GO 9	Arsos-Pervolia	CA-Roman	Territorium/Local Urban
Golgoi	GO 10	Arsos 2	CA-Hellen.	Territorium/Local Urban
Golgoi	GO 11	Arsos 3	?CA-CC?	Territorium/Local Urban
Idalion	ID 13	Dali-Lymbourena	CA-Hellen.	Peri-urban
Idalion	ID 14	Dali-Trachanas	CA-CC?	Peri-urban
Idalion	ID 15	Dali- Pilerka	CA-CC?	Peri-urban
Idalion	ID 16	Potamia-Ellines	CA II-3rd cen. BC	Peri-urban
Idalion	ID 17	Louroukina-Sklinoudia	CA II-?	Peri-urban
Idalion	ID 18	Mavrogi-Adkakous Between Lymphia and Dali	CA-CC	Peri-urban
Idalion	ID 19	Sanctuary near Nisou, 9.6 km from Idalion	CA -?	Territorium
Idalion	ID 20	Agia Varvara-Poupraes = Kotsiatis-Koukourtis	CA II-CC	Territorium
Idalion	ID 21	Agia Varvara-Almyras	CA-CC	Territorium
Idalion	ID 22	Pyrga- Kontomersina/Livadia	CA- Hellen./Roman	Territorium
Keryneia	KE 4	Kazafani-Mines	CA I-CC II	Territorium
Keryneia	KE 5	Agirda-Abdi Kougousou	CA?	Territorium
Keryneia	KE 6	Agirda-Bostanlik	CA-Hellen.	Territorium

Keryneia	KE 7	Dikomo-Merra Oneisia	CA-Hellen.	Territorium
Kition	KI 8	Larnaka-Batsalos	CA-Hellen.	Peri-urban
Kition	KI 9	Oroklini-Profitis Elias	Unclear	Territorium
Kition	KI 10	Kochi	CA -?	Territorium
Kition	KI 11	Troulloi-Petres	CA-CC	Territorium
Kition	KI 12	Pyla-Vikla	CA-Hellen.	Territorium/Local Urban
Kition	KI 13	Pyla-Stavros	CA II-Hellen.	Territorium
Kition	KI 14	Pyla-Petropoulia	CA	Territorium/Local Urban
Kition	KI 15	Pergamos	CA-Hellen.	Territorium
Kition	KI 16	Xyloimvou	CA -?	Territorium
Kition	KI 17	Ormideia	CA -?	Territorium
Kourion	KOU 3	Kourion-Hyle and Agia Anna	CG III-Roman	Peri-urban
Kourion	KOU 4	Fassouri	CA?	Territorium
Kourion	KOU 5	Alassa-Paliotaverna	CA	Territorium
Kourion	KOU 6	Agios Therapon-Silidjes	CA	Territorium
Kourion	KOU 7	Limnatis-Episkopeia	CA	Territorium
Kourion	KOU 8	Saittas-Livadia	CA	Territorium
Kourion	KOU 9	Anogyra	CA	Territorium
Lapethos	LA 1	Lapithos-Prostemenos/Emprostion Temenon	CA II	Peri-urban
Lapethos	LA 2	Lapithos-Drakontas	CA-Hellen.	Peri-urban
Lapethos	LA 3	Lapithos-Kremmos tou Voulou	CG?-CA	Peri-urban
Lapethos	LA 4	Larnakas Lapithou Lacheropetra	3rd cen BC	Territorium
Lapethos	LA 5	Myrtou-Pigades	CA-Hellen.	Territorium
Lapethos	LA 6	Orga-Kapsalia	CA-CC	Territorium
Lapethos	LA 7	Agia Irini-Paleaokastro 1	CA-Hellen.	Territorium: Urban local sanctuary
Lapethos	LA 8	Agia Irini-Paleaokastro 2	CA-Hellen.	Territorium: Suburban local sanctuary
Lapethos	LA 9	Agia Irini-Alonia	CG II-CA	Territorium: periurban local sanctuary
Ledra	LE 6	Nikosia/Aglantzia-Agia Marina	CA-CC	Peri-urban
Ledra	LE 7	Nikosia-Archangelos	CC	Peri-urban
Marion	MA 6	Drymou-Tremithas Archistrategos	CC	Territorium
Marion	MA 7	Pomos-Appiouri	CA-CC	Territorium
Marion	MA 8	Stroumpi-Kampos	CA II-CC/Hellen.	Territorium

Paphos	PA 4	Mandria-Milli Miggins	CA-CC	Peri-urban
Paphos	PA 5	Rantidi-Lingrin tou Digeni	CA-Hellen.	Territorium
Paphos	PA 6	Geroskipou-Monagri	CG-CA/-CC?	Territorium
Paphos	PA 7	Prastio/Trachypedoulas-Agios Savvas tis Koronis	CA-CC/Hellen.	Territorium
Paphos	PA 8	Amargeti-Petrasanthropos	CC?-Hellen.	Territorium
Paphos	PA 9	Agia Moni	Late 4th cen BC	Territorium
Paphos	PA 10	Pegeia-Tremithas	CA-CC	Territorium
Paphos	PA 11	Pegeia-Kampos tis Maas	CA	Territorium
Salamis	SA 6	Egkomi	CG I-CA II	Peri-urban
Salamis	SA 8	Salamis - 2 miles away	?CA-CC?	Peri-urban
Salamis	SA 9	Krines	CA-CC/Hellen.	Peri-urban
Salamis	SA 10	Kalopsida	CA	Territorium
Salamis	SA 11	Sinta	CA II-CC/Hellen.	Territorium
Salamis	SA 12	Lefkoniko	CA I-Hellen.	Territorium
Salamis	SA 14	Trikomo-Monarga	CA II-CC II	Territorium
Salamis	SA 15	Bogazi	CA	Territorium
Salamis	SA 16	Agios Elias-Tsianneri	Unclear	Territorium
Salamis	SA 17	Gerani-Aronas	CA-Hellen.	Territorium
Salamis	SA 18	Patriki-Frangoafgolia	Early 6th cen BC	Territorium
Salamis	SA 19	Vallia-Palloures	CA-?	Territorium
Salamis	SA 20	Vokolida-Kallides	CA-CC	Territorium
Salamis	SA 21	Agios Iakovos-Dima	CG I-CA I/eventually CC/Hellen.	Territorium
Salamis	SA 22	Mandres 1-Panagia Galakti	CA-CC	Territorium
Salamis	SA 23	Mandres 2-Mouti Galaktini	Same as SA 22?	Territorium
Salamis	SA 24	Flamoudi-Vounari	CA II-Hellen.	Territorium
Salamis	SA 25	Flamoudi-Trachonas	CA II-Hellen.	Territorium
Salamis	SA 26	Flamoudi-Chochlakas	CA II	Territorium
Salamis	SA 27	Davlos-Gerochinia	CA-Hellen.	Territorium
Salamis	SA 28	Leukolla	CC II/Hellen.	Territorium
Salamis	SA 29	Kap Pedalion/Agia Napa-Taresia	Unclear	Territorium
Salamis	SA 30	Agia Napa-Makronisos	CA II-CC	Territorium
Karpas	SA-KA 2	Potamos ton Therkon	CA	Peri-urban
Karpas	SA-KA 3	Kap Dinaretum-Agios Andreas	CA-Roman	Territorium-Regional Sanctuary
Karpas	SA-KA 4	Chelones	CA-Roman	Territorium
Karpas	SA KA 5	Korovia	CA-CC	Territorium
Karpas	SA KA 6	Leonarisso-Agios Andronikos	CA II-CC	Territorium

Karpas	SA KA 7	Lithragkomi-Troullia	CA II	Territorium
Karpas	SA KA 8	Leonarisso-Peristefani	CA II-?	Territorium
Achna	SA-Achna 1	Achna, Dorf	4th cen BC	Territorium: Rural Local
Achna	SA-Achna 2	Achna-South	CA-CC	Territorium: Rural Local
Achna	SA-Achna 3	Achna-Southernmost	CA-CC	Territorium: Rural Local
Achna	SA-Achna 4	Achna-Palaio Prastio	CA-CC	Territorium: Rural Local
Achna	SA-Achna 5	Achna-Xyloimvou	CA-CC?	Territorium: Rural Local
Achna	SA-Achna 6	Panagia tis Trachias	CA-CC	Territorium: Rural Local
Achna	SA-Achna 7	Achna-Xagoumia	Unclear	Territorium: Rural Local
Achna	SA-Achna 8	Achna-Farangas- Acheritou	CA-CC	Territorium: Rural Local
Soloi	SO 17	Skouriotissa/Katydata- Linou	CA-CC	Territorium
Soloi	SO 18	Kakopetria-Agilades	5th cen BC	Territorium
Soloi	SO 19	Morfou/Ovgos-Ambelia	?-3rd cen BC	Territorium
Tamassos	TA 4	Pera-Frangissa	CA I-Hellen.	Peri-urban
Tamassos	TA 5	Filani-Petaloudia	CA II	Territorium
Tamassos	TA 6	Kalo Chorio-Zithkionas	CA	Territorium
Tamassos	TA 7	Meniko-Litharkes	5th cen BC	Territorium
Tamassos	TA 8	Lythrodontas	CA II-Roman	Territorium
Tamassos	TA 9	Mathaitis-Mavrovouni	Hellen. Possibly earlier	Territorium