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Mortuary Variability in the Final Palatial Period on Crete: Investigating Regionality, Status, and “Mycenaean” Identity

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MORTUARY VARIABILITY IN THE FINAL PALATIAL PERIOD ON CRETE: INVESTIGATING REGIONALITY,
STATUS, AND "MYCENAEAN" IDENTITY

by

HEATHER KRAVAGNA KERR

Under the Direction of Jeffrey Glover

ABSTRACT

The Late Bronze Age on the island of Crete saw a period of strong administrative and religious control by the palace at Knossos, which also controlled a vast trade network with the rest of the eastern Mediterranean. After the collapse of the palace of Knossos, the Final Palatial period (1490 - 1320 BCE), was a time of sociopolitical transition and change, witnessing an explosion in number and variety of mortuary practices used, even within the same cemetery. In this thesis I analyze Final Palatial burial practices in a more systematic method than has been previously attempted, in order to gain a better understanding of how the Minoans chose to use the mortuary sphere as a platform for constructing and negotiating their social and political identities in the dynamic socio-political climate of the Final Palatial period.

INDEX WORDS: Crete, Minoan, Late Bronze Age, Aegean archaeology, Social identity, Mortuary archaeology, Burial practices, Social Status, Regionalism

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A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

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Georgia State University

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DEDICATION

For my mother, who passed just before this thesis could be completed. You always supported me, Mom. Thank you for everything you did for me. I miss you.

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1. INTRODUCTION AND BACKGROUND OF THE STUDY

The Aegean Bronze Age, which spanned from 3500 to 1100 BCE, can be characterized as a period of intensive economic and political interactions between many emergent states around the basin of the Mediterranean Sea. Out of these two millennia, I focus on the Final Palatial period on Crete (1490 - 1320 BCE), which was a time of sociopolitical transition and change. This period began with the major destruction of most of the key palatial centers on the island, as well as the possible collapse of the hegemony previously controlled by the site of Knossos over much of Crete. The 'Mycenaean period' of Crete is characterized by an increase in regionalism and the rise in power of many smaller palace sites across the island as well as an explosion in number and variety of mortuary practices employed, even within the same cemetery. The period ends with the final collapse of much of Crete's palatial administration, the decline of literacy, and the beginning of what is termed the Postpalatial period (1320-1100 BCE), a period that coincides with the end of the Bronze Age.

Mortuary studies tell us that burials can be idealized propaganda statements made by the living to create, manipulate, and maintain social status, as well as reflect the political geography and the social and power structures of their society. A closer examination of variation in mortuary practices can shed light on how the Minoans constructed and negotiated their social and political identities in the tumultuous socio-political climate of the Final Palatial period.

In this thesis, I offer a more systematic examination of Final Palatial burials in eastern, central, and western Crete to discern how the cultural regionalism attested by scholars studying this period affected the way in which the Minoans from each region chose to use their burials to negotiate their social identities. I also examine whether the burials can give us any information about how the Minoans chose to display regionalism and social structure. I begin with a discussion of the theoretical concepts of identity, ideology and mortuary analysis used in my research. I then frame my work within the cultural and political context of my study area, including a discussion of the Late Minoan burial practices and their

use as expressions of social and political identity. I briefly examine the complicated and contested chronologies applicable to my research in order to provide a more complete contextual framework. However, for anyone concerned with the reconstruction of the societies of the Aegean Bronze Age, a clear understanding of these varied chronologies, and the reasons for their development and use is essential. Therefore, a more in depth examination of this topic can be found in the appendix. I next address my study design and methodologies followed by a discussion of my results. I end the thesis with my conclusions along with a section on opportunities for future research.

2. THEORETICAL ISSUES

Within the field of archaeology, the general goal is to examine the material culture of past societies to answer questions about who created these objects, how they lived, and how they interacted with each other and with their environment in their daily lives. However, material culture is not static. It is not a passive reflection of the past, just as the individuals who created the objects were not passive receptors of their society. Studies of how the individual is constructed and how the individual engages with their society and their surroundings, in the form of theoretical notions of agency, identity formation, ideology and embodiment, have allowed archaeologists the means to explore how material objects reflect conscious and unconscious action and engagement between individuals and the society in which they lived.

Although settlement deposits would provide the best source for the ceramic sequence of Bronze Age Crete, the ceramic data are quite fragmentary due to continuous building and disturbances at many of the major Minoan sites. Instead, much of what is known about Minoan prehistory comes from mortuary contexts. In terms of archaeological recovery, the internal spatial organization of the grave deposit is rather close to how it was originally laid out making it easier for the excavator to discern the original intentions of the people who interred the deceased and the materials that went with them. We must keep in mind, however, that tombs were often used over a relatively long period of time and their deposits are frequently disturbed. In addition, later living populations reused them as ceremonial and ritual centers (Wilson 2008). Despite these problems, tombs are a rich source of data about how a society changes through time as well as variation within and between regions. It can also shed light on how individuals within a society chose to actively engage with, create, and manipulate ideology, social relations, prestige and power negotiations, and construct identity (Arnold & Wicker 2001; Hodder 1982; Murphy 2011; Preston 1999, 2004; Voutsaki 1998). Therefore, mortuary theory is particularly applicable

in studying Late Bronze Age Crete, especially when ideas of identity, ideology, and embodiment are incorporated.

My research includes an examination of the variation in mortuary practices within the Final Palatial period and, specifically, I examine how burials were conceptualized and used by individuals as a part of negotiating and constructing their identities within the context of their active engagement with the changing power structures. In particular, I investigate the penetration of dominant ideologies across the island, especially those supposedly linked to an invading Mycenaean elite. In this section I will briefly discuss these theoretical frameworks and how they can be used to gain a more complete understanding of the cultural and sociopolitical changes happening on Crete during the Final Palatial period (1400-1320 BCE).

2.1. The Role of Mortuary Studies in Reconstructing the Past

Mortuary studies are traditionally one of the most important fields of prehistoric research. In several regions of Europe, including the Mediterranean, excavations of cemeteries have been much more systematic and have been conducted on a much larger scale than excavations of settlements. Graves, especially graves containing only single individuals, present the excavator with an ideal circumstance since each one constitutes a synchronous and reasonably complete unit, assuming there is no secondary treatment or major post-depositional processes. The state of preservation of non-organic grave goods, and in some situations, organic material, is in most cases better than in settlement contexts (Bietti Sestieri 1992). However, because of the higher percentage of rare or precious objects, looting and thus destruction of burials is also a problem.

As with most other areas of archaeological investigation, mortuary studies on Crete have undergone significant changes influenced by paradigmatic shifts in the field since the 1960s, including processualism and the resulting reaction to it, often referred to under the blanket term of post-processualism

(Murphy 2011). These paradigmatic shifts have resulted in the current diversity in theoretical approaches to the analysis and interpretation of mortuary practices (Murphy 2011). The various themes that have been explored in the archaeology of death on Crete range from the complexity of cultural functions and ideological statements articulated in burials, the use of burials in the creation of power and the legitimization and maintenance of rights for the living, the use of mortuary rituals in maintaining social cohesion, the representation of social ranking and elites, ritual feasting, and social negotiation (Murphy 2011). In this section I will focus only on those theoretical frameworks that directly apply in helping to answer my research questions. For a full, comprehensive history and discussion of the development of mortuary theory see Murphy (2011) and Gillespie (2001).

2.2. Agency, Ideology and the Archaeology of Death

The concept of agency in archaeology, and indeed many of the theoretical frameworks discussed here, grew out of a general reaction to the processual school of archaeology, championed by Lewis Binford in the 1960s, and these approaches make a more concerted effort to identify individuals within the archaeological record (Gillespie 2001). The concept of agency is rooted in the idea that individuals are not passive receptors or reflections of the social, political, economic, and religious systems that constitute society. Instead, individuals are conscious political actors that actively engage with their society in purposeful and meaningful ways, actively transforming social structures at times (Dobres and Robb 2000; Dornan 2002; Hodder and Hutson 2003). The material culture they create often not only reflects these actions, but also is actively used by individual's in social negotiations. When applied to the mortuary sphere, death rituals are carried out by the living for the living, and a death causes disruption within existing social hierarchies, and gives the survivors an opportunity to re-position themselves within society (Murphy 2011). Hodder (1982) argues that the deceased may also benefit from a shift in

social status. Through the funerary and post-funerary rituals, they may gain a status and social identity that they did not have in life (Murphy 2011).

The seminal works of Hertz (1960 [1907]) and Van Gennep (1960 [1909]) were the among the first to treat death as a social as well as a biological transformation, and emphasize the funeral as a rite of passage, for the living as well as the soul and the body of the deceased (Morris 1987). For these scholars, the corpse, the soul, and the survivors were placed in relationships and social statuses that were different from those they held during life (Morris 1987). In order to ease into these new statuses and regain “equilibrium,” rite of passage rituals connected with the funeral and the subsequent mourning process had to be performed over a period of time (Morris 1987). Similarly, the examination of social ranking in mortuary practices was brought to the forefront with the seminal work of Saxe (1970, 1971) and Binford (1971), in what has been called the Saxe-Binford mortuary program (Gillespie 2001). The core of their approach was that differences in status during life would be directly reflected in the treatment and variation of burial (Binford 1971; Carr 1995; Gillespie 2001; O'Shea 1984; Saxe 1971). More recently, however, the notion of burial treatment as dependent solely on social organization has been refuted (Brown 1995; Carr 1995; Gillespie 2001; Pearson 1993; Preston 2004, 2008; Ucko 1969). Studies in mortuary practices can reveal changes and nuances of elite activities, ideologies, power relations, and political dynamics within a society (Preston 1999, 2004; Voutsaki 1998). The information available from burials is so much more than passive reflections or a biography of who the deceased individual was during life, and through them, a passive reflection of the way of life of the society as a whole. Although this information can be deduced from the mortuary evidence, the deceased do not bury themselves. Burials can more importantly, and most interestingly, be idealized propaganda statements made by the living to create, manipulate, and maintain social status, as well as their own political geography and the social and power structures of their society. Burials can also tell us about the processes of cultural interaction between complex societies, such as the interaction between Mycenaean and Minoan

culture on Crete, and can reveal strategies of display, emulation, and competition, which can therefore elucidate processes of social change.

Embodiment, a platform for the expression of agency, is particularly useful in gaining an understanding of multiple aspects and perspectives of society reflected or negotiated in the mortuary sphere. The idea of embodiment is concerned with how the body is used to create internal representations of external influences, and with the transformative capacities of the agent. Embodiment encompasses the lived experiences derived from the body being in the world, and has been dealt with in archaeology in topics such as gender, sexuality, and identity (Hodder and Hutson 2003; Meskell and Joyce 2003). Hodder and Hutson (2003: 108) reference Elias (1994 [1936]) and Mauss (1973 [1935]), explaining that "the body has a history and a geography: it is different across time and space". The body can be, like material culture, a medium for an individual to actively engage with, challenge, and transform social structures. It can also take on the role of a symbol and reflect the differing ideologies within a society. The body can be seen as an object in and of itself and a tool to be used within active social negotiations, as well as a subject that creates and shapes the surrounding environment and can create and manipulate society. However, the body does not exist abstractly by itself. Rather, notions of embodiment emphasize the body as the subject of culture only through the lived experience of existing within the world (Hodder and Hutson 2003). It is only after experiencing the world, and experiencing society, that we have the ability to change or perpetuate it. Embodiment is often examined through the study of the landscape, and the way individuals engage with and experience their immediate environment, and how the environment informs their experience with the world (Hodder and Hutson 2003). However, it is important to note that different people experience the same landscape in different ways based on their own perceptions and their own subjectivity.

In the mortuary landscape, the body is a central part of mortuary practices and the funerary ritual, and can be considered a particular type of grave good, expressing a certain form of representation

(Arnold 2006). Treatment of the body in mortuary contexts can reflect perceptions of the body, in the form of bodily action by the living on the dead (Boyd 2002). Treatment of the body, not only in manner of internment and positioning, but also in ornamentation, dress, and accompanying grave goods, can shed light on the deceased individual's actual or idealized identity, in particular their gender role and social status; it can also reflect the ideologies and beliefs of the society to which the deceased belonged (Joyce 2005).

I turn now to a discussion of the social structures and processes or ideologies that individual actors engage with when we refer to agency or embodiment. According to Marx (1859), ideology functions by masking the internal contradictions within society between the dominant ideologies that "say" how things are versus the actual lived experiences of individuals. Material culture, then, functions as a medium for the dominant ideology put forth by the elite to hide and misrepresent these contradictions. The contribution of this view to how we conceptualize ideology is that it allows us to examine how structures of symbolic meaning are linked to social structures via ideological and social processes (Hodder and Hutson 2003).

Attempting to define ideology and social reality in archaeology is particularly problematic, as material culture can reflect both the social reality and political ideology. Following Foucault (1977) and Miller and Tilley (1984), among others, power is not always repressive. It can also be a positive producer of social reality. Rather than ideology only being the domain of the exploitative elite, different ideologies coexist and interact with each other to form the social reality (Hodder and Hutson 2003). In this way, ideology can be described as the way in which power is negotiated from various points in society, and the framework within which resources are given value, inequalities are defined, and power is legitimized (Hodder and Hutson 2003).

In the mortuary sphere, Bloch (1982) has argued that funerary practices are central ideological practices (Morris 1987). Death can play a different role in social manifestation and can have a different

impact in societies where there is little inequality to legitimize, or in groups where authority comes from some external source so burials are not needed to justify or disguise inequality between social hierarchies (Bloch 1982; Morris 1987). Bloch (1982) has also argued that by creating an idealized and static social structure through formal language and ritual surrounding burial, societal groups can legitimize their positions within society (Morris 1987).

Voutsaki (1998) emphasizes that the study of mortuary practices cannot be considered solely from a social perspective. In addition to the social aspects of funerary beliefs, one must consider the symbolic and religious aspects in order to fully understand how burials were conceptualized by society, before one attempts to explain how these things were appropriated and manipulated. Burials in particular can shed light on the selective, conscious adoption, and adaptation of foreign influences to construct social and political identities and reveal interactions, especially when exotic goods are actively chosen for use in burials as markers of social prestige (e.g., Branigan 1998; Carr 1995; Preston 1999, 2004; Voutsaki 1998). Scholars such as Morris (1992) and Shanks and Tilley (1982) emphasize the ideal opportunity provided by interments to legitimize political dominance and cultural hegemony through ancestral associations. However, there are potential problems with ideological interpretations of burial practices, especially that burials in some cases may actually be accurate reflections of social structure. Scholars must also take caution that they do not focus their interpretations solely on reconstructing elite ideologies, and should take care to study all social dimensions and forms of identity symbolized in burials, such as age, gender, vertical and horizontal divisions (McHugh 1999). In this study, therefore, I take such ideologically-focused mortuary studies further and attempt to examine other forms of identity and social structure being represented in Final Palatial burials which have been largely ignored in the majority of Final Palatial Minoan mortuary studies.

2.3. Conclusion

Studies of the body and embodiment help us realize that individual actors and agents engaging with, reflecting, and challenging ideologies do not act separate in themselves. Not only do people act based on their experiences from living in the world, the body can be used to negotiate and create identity, perform agency and challenge dominant social paradigms. All of these theories and ways of studying the human experience and the past overlap and help give us a complete and nuanced picture. No one view can be used singularly without the input from the others. How individuals use their bodies and the material culture they produce and interact with in order to engage with, create, and manipulate ideology, social relations, prestige and power negotiations are all intertwined. The mortuary sphere, where treatment of the body is an essential aspect of the funerary ritual, and agency and ideology are frequently expressed in complex and varying ways, is thus a fruitful arena to study the way in which people living in Final Palatial Crete created and negotiated social and political identities.

3. CULTURAL CONTEXT: MINOAN CULTURE HISTORY

Although my focus in this thesis is a discussion of variation in mortuary practices and their potential role as mediums for the expression of cultural regionalism, as well as the negotiation of social status and political identity during the Final Palatial period, it is necessary to situate my research as it relates to the island's broader sociopolitical context. In this chapter, I examine three aspects of that context: the regional setting of the eastern Mediterranean and Crete's degree of interaction with other Aegean states; the role of the elite in Minoan society; and the nature of settlement growth and interaction within the island proper. In short, I introduce the major cultural-historical topics that inform my hypotheses and will further support my analyses in chapters 5 and 6 of this thesis. I begin here by discussing the regional interactions between Crete and the wider eastern Mediterranean network throughout the Bronze Age. I then move on to a discussion of the economic and administrative organization on Crete, the inter-regional interactions and the possible urbanization of the major palatial centers of the island. I conclude this chapter with a brief examination of the role the elite played on Crete in the Bronze Age, with particular emphasis on the Neopalatial and Final Palatial periods.

3.1. Crete's regional context and the evidence for its foreign contacts

Throughout the Bronze Age, Crete had a number of contacts with different states throughout the Mediterranean. Its close proximity to the many islands of the Cyclades to the north, the Greek mainland to the northwest, the shores of Anatolia and modern-day Syria-Palestine-Israel to the East, and the coastline of north Africa to the south allowed Crete to be positioned both as the southern boundary of the Aegean basin and as a crossroads for the eastern Mediterranean as a whole. The long east-west orientation of the island facilitated links with these different regions, one of the consequences of which was that different regional cultures developed within Crete itself; the sheer size and varied natural landscape of the island further contributed to this internal 'regionalism'. As Watrous (1994) and

Wilson (2008) have noted, all of these qualities make it impossible to consider the island as a homogeneous cultural whole, which spurred me to consider regionality in my examination of mortuary variability for this thesis.

From the Early Bronze Age on, one of the most consistent contacts that Crete maintained was with the expansive island network of the Cyclades. Similarities have been observed between the material cultures of multiple Cycladic islands and Crete, which have suggested social and economic ties from a very early period (cf. Davis 1992). By the Protopalatial period (ca. 1750 – 1490 BCE), various parts of the southern Aegean and the wider eastern Mediterranean show evidence for contact with Crete, from Kythera in the west to Rhodes and the coast of Asia Minor in the east and Egypt to the south. However, the patterns of interaction with these different regions were not equal.¹

Evidence for exchange between Crete and the Cyclades increases for the Early Minoan I period. At Knossos, pottery from this phase is primarily Minoan, but at Poros, the gateway port and center of specialized craft production just five kilometers north of Knossos, nearly a third of the pottery is Cycladic in style (Wilson 2008). The evidence for strong Cycladic contact with Crete is also reflected at other sites: Cycladic pots were found nearby in the burial caves of Pyrgos and Kyparissi and the cemetery at Gournes. Hundreds of Cycladic-type graves have been excavated from the cemetery at Ayia Photia in eastern Crete and in the Mesara plain. Monumental tholos tombs also appear for the first time in the Mesara in association with dark-on-light painted pottery; knowledge of this type of built tomb may have derived from Anatolia or the Near East, and passed through the Cyclades on its way to Crete.

Wilson (2008) has suggested that Crete's contact with the Cyclades can also be seen in the development of Cretan metallurgy during the Early Minoan I period. Smelted copper and possibly silver-rich lead ore appear to have been imported into the port of Poros from the Cyclades for the casting of daggers and other objects; some examples include a silver necklace from the nearby cemetery at Gour-

¹ For a discussion of the material evidence for Minoan imports to the various Aegean islands see Davis 1992, 2008; Manning 2008; and Broodbank 2008.

nes, and the bronze daggers and other objects from the cemetery at Ayia Photia. Preliminary analysis of the Ayia Photia bronze daggers suggests the island of Kythnos in the western Cyclades as a possible source for copper ore (Wilson 2008).

The metallurgical evidence in particular has suggested that, even from the EMI period, there was a significant degree of regionalism apparent within the island. Not surprisingly, north-central and eastern Crete seem to have had a higher level of interaction with the Cyclades² in comparison with the western and especially central or southern parts of the island (Wilson 2008). Wilson (2008) has argued that the sudden increase in Cycladic imports, as well as the fact that new grave styles found with influence from Cycladic traditions reflects an actual Cycladic population immigration to Crete rather than simply trade.

During the Pre- and Protopalatial Periods, the interregional exchange that had been established during the EMI period increased dramatically. It has been widely argued that the increase of intensification in foreign contacts was not just with the Cyclades and the Greek mainland, but with Egypt, the Near East, and Anatolia, and should be attributed to competition among emerging elites (Helms 1988; Manning 2008; Parkinson and Galaty 2007; Schoep 2006). As discussed further below, these emerging elites have been tied to the emergence of the Minoan state and its eventual control over much of the Aegean during parts of the Middle and Late Bronze Ages.

During the prosperous Neopalatial period (1750-1490 BCE), Crete moved from a position on the margins of the Near Eastern and Egyptian cores to operating as a sort of semiperiphery³ between the two eastern Mediterranean cores and the Greek mainland, as well as a local core to the southern Aegean network (Parkinson and Galaty 2007). Parkinson and Galaty build on Kardulias's argument that this position was one of 'negotiated peripherality', which focuses instead on the agency performed by indi-

² Even indicating some immigration of Cycladic people.

³ Rooted in the application of World Systems Theory

viduals acting outside of the cores. The authors base their argument on evidence for the elite's pursuit of low-bulk, high-value items associated with social prestige and power (Parkinson and Galaty 2007: 121).⁴

During the Late Bronze Age (3200-600 BCE) the geographical scope of foreign exchange widened significantly. Crete seems to have established some degree of trading relationships with the western Mediterranean by this point, for example. Handmade burnished ware in the typical sub-Apennine style of peninsular Italy has been found at the LM IIIA levels of Kommos and in LM IIIB-LM IIIC contexts at Chania (Rehak and Younger 1998). Certain sites also produced local ceramics in imitation of Italian imports. Rehak and Younger (1998) interpret this evidence as indicative of the settlement of Italian immigrants in Crete who then created these objects for their own use, though the argument as presented seems weak. Another interpretation of this same material could be native Minoans replicating exotic Italian prestige goods for more general consumption without having to pay higher prices for the actual imported items. At the same time, the Cyclades continued to be a major foreign contact, especially for eastern Crete, as seen in the large amount of Cycladic pottery at Kommos as well as the presence of Cypriot and Canaanite vessels which possibly passed through the Cyclades in order to reach Crete (Rehak and Younger 1998).

This evidence for intensified exchange between Crete and other regions of the Near East has frequently formed the basis for the claim of a Minoan thalassocracy--that is, Crete's centralized commercial control over Aegean maritime trade--during the Neopalatial period (Davis 1992; Dow 1967; Montjoy and Ponting 2000; Rehak and Younger 1998). Complementing the evidence for trade is evidence for Minoan 'colonization' on many of the southern Aegean islands, especially Akrotiri on Thera, Rhodes, Kos, and Karpathos. Earlier scholarship often attributed this extension of Cretan influence in

⁴ One significant category of evidence that Parkinson and Galaty draw on is the Minoan burial forms and metal vessels found in elite Mycenaean contexts on the Greek mainland, for example, Messene (Parkinson and Galaty 2007: 122).

the eastern Mediterranean to the work of a powerful king based at Knossos, sometimes singling out the legendary King Minos. Most scholars believe, however, that there is no real evidence to support either the historicity of Minos or of Crete's absolute territorial control over the Aegean (Davis 1992). The increase in foreign exchange seems more likely due to a heightened desire for particular resources or commodities, especially metals, given that the most heavily influenced areas seem to be those that either directly supplied the materials or that were major distribution centers or trade ports (Davis 1992; Rehak and Younger 1998).

The end of the Neopalatial period is marked by a significant destruction horizon that can be observed across a large portion of the island around 1490 BCE, though the affected sites seem to have 'fallen' gradually, rather than simultaneously, throughout the LM II period. In the wake of these destructions, the palace at Knossos was the only palatial center still functioning, with limited habitation and abandonment following the destruction of many sites across the island.⁵ Though the palace at Knossos seems to have escaped the extensive devastation sustained by other palatial sites, buildings excavated in the surrounding community have showed signs of damage or ruin. This destruction horizon marks the beginning of the Final Palatial Period, a period of dramatic socio-political transition and change. This period witnesses a distinct shift in power structure with Knossos more firmly asserting its influence over the other palatial centers of the island, before waning and finally collapsing completely, culminating in a more fractured and regional system where the other palatial sites seem to expand their own authority over their immediate areas. The palatial site of Chania in western Crete replaces Knossos as the dominant economic center.

The cause of the widespread destructions at the end of the LM IB period is highly debated. Several interpretations have been proposed. These include earthquakes and subsequent fires linked to the Thera eruption (Marinatos 1939), inter-state warfare on the island (Hallager 1988; Neimeier 1983),

invasion of a Mycenaean warrior elite (Barber 1987; Doxey 1987; Driessen 1990; Hood 1985; Popham 1994) or a combination of interstate warfare and Mycenaean invasion (Hallager 1988; Neimeier 1985; Rehak and Younger 2001; Warren 1991). Since the mid 1990's, other scholarship has begun to argue for an internal Cretan cause for the destructions, such as social unrest and competition between elites (Driessen 2002; Driessen and MacDonald 1997; Hamilakis 2002; Preston 1999, 2004, 2008). It is the sparing of the palace of Knossos that has led scholars to believe it was the elite at Knossos who caused the destructions at the other palatial sites, whether they were local Cretans or invading Mycenaeans (Nafplioti 2008).

During the Final Palatial period, most discussions of Crete's relations with other regions in the Aegean switch their focus to the Mycenaeans, dismissing Final Palatial Crete as a fallen state that became increasingly marginalized and supplanted by a flourishing and territorially expansive Mycenaean state. The rich archaeological record of this period, however, provides a much different picture. Rather than a culture in decline, the picture that has emerged is of an active, if internally focused, Crete, with an ever-changing political and cultural climate. The appearance of new practices that have mainland Greek parallels and particularly the use of Linear B script at Knossos and Chania have often led this period to be considered the "Mycenaean period" of Crete, based on the dominant Mycenaean invasion interpretation introduced above (Dickinson 2004, Preston 2008, Rehak and Younger 1998, Shelmerdine 2008).⁶

Turbulent though this period was, interregional trade and exchange were not abandoned. Mycenaean pottery continued to be imported, as were Cypriote White Slip bowls and Canaanite jars. Minoan goods, especially from the workshop at Chania, continued to be exported to the Cyclades, Italy and

⁶ The appearance of these new features has most often been used as the premise for a broader 'Mycenaean invasion' theory

⁶ These sites include Chania, Phaistos, and Agia Triada in the west, Mochlos, Gournia, Pseira, Pyrgos, Makriyalos, Petras, Palaikastro, and Zakros in the east, and Zominthos, Slavokambos, Tylissos, Archanes Tourkogeitonia, Amnisos, Nirou Chani and Malia in central Crete.

Sardinia, although no farther east than Cyprus. Rather than the population decline that was for a long time accepted by scholars, it is now known that population actually increased across the island, as did the number of inhabited sites; a renewal in monumental building projects at certain major centers also took place (Rehak and Younger 1998). Both Chania and Archanes served as thriving commercial ports, and contain burials that seem to indicate the settlement of immigrant groups from both the eastern and western Mediterranean (Merousis 2002).

3.2. Socio-economic change

The development and character of Crete's regional exchange network both influenced and was in turn affected by the growth of particular settlements and changing inter-settlement dynamics on the island. In addition, in terms of understanding the broader sociopolitical context of the mortuary developments I discuss in Chapter 5, a better sense of how the different sites of Crete related to one another during the Final Palatial Period is essential. Thus, in this section I discuss the development and disruption of 'urban' centers in Crete (concentrating on the periods most relevant to my analysis--the Neopalatial and Final Palatial) and the evidence for settlement hierarchization in the three different regions of my analysis.

In the Neopalatial period (MM IIB - LM IB), the main ceremonial centers on Crete became more firmly established and, in some cases, such as that of Knossos, took on a more centralized economic and political administrative role (Parkinson and Galaty 2007). Knossos had been an important center of social and political power for a significant period of time prior to the Neopalatial period, probably as a center of ceremonial consumption. An EM I deposit consisting of a deep well full of communal drinking chalices and serving vessels (possibly remnants of ceremonial drinking and feasting activities) has been cited as evidence for this early focus on ceremonial activities at Knossos (Wilson 2008). By the Neopalatial period, however, Knossos' influence was wider and more economically focused. It has been argued that this change is more generally reflective of a shift in Crete's position within the eastern Mediterranean

sphere of interaction and trade (Parkinson and Galaty 2007; Rehak and Younger 1998). The highly centralized and urbanized nature of the site has suggested that Knossos imposed some sort of hegemony over much of the island, with secondary regional centers at Phaistos and Malia, and tertiary regional centers at Galatas, Gournia and Petras. A large independent center also existed at Chania, as did smaller towns and farms at Ano Zakros and Zou (Rehak and Younger 2008). The secondary and tertiary centers seem to have collected taxes in the form of wool and textiles from specialized producers in their surrounding regions and redistributed them to the general population.

The destructions of the other palatial sites, which marked the transition between the Neopalatial and Final Palatial periods, however, also marked a change in the three-tier economic and administrative system that characterized the Neopalatial period. Regardless of the explanation for why the destructions happened, in the period after the destruction of most palatial centers on the island, it is often thought that Knossos (whoever the controlling elites were) may have renewed its role of leadership over the island. This proposition has usually been based on the evidence of place-names that appear in the Linear B tablets found in the palace archives. The tablets identify five regions as dependent upon Knossos (Merousis 2002). The first of these regions extends from Rethymnon and Stavromenos to the Amari valley and Phaistos. The second region is identified to extend from the district of Pediada to possibly include the Lasithi plateau. The third region covers north-central Crete, including Tylissos. The fourth region corresponded directly to central Crete, while the fifth includes Amnisos, Knossos and a site labeled in the texts as “se-to-i-ja”, which may correspond to either Archanes or Malia. Possible stylistic influences from Knossos’ pottery workshops over the production of other workshops on the island have also been taken as indicators of similar dependency-relationships between Knossos and the territories identified in the Linear B tablets (Merousis 2002).

Contrary to the Linear B texts, Merousis (2002) argues that there does not seem to be any archaeological evidence to support the interpretation that during the LM II-III A 1 period, inter-site hierar-

chy was organized in a similar way to the Neopalatial period with Knossos at the top and secondary and tertiary regional centers acting to collect and redistribute specialized commodities from their surrounding regions. Instead, Merousis argues that Knossos functioned with centralized palatial control over all economic activities of the island, with no other powerful regional centers functioning during this period. The one exception appears to have been in eastern Crete and the main site of Palaikastro (by LM IIIA2, Palaikastro had extended its influence westward to the district of Viannos), which remained independent of Knossos. One interpretation, according to Merousis, was that, in order to safeguard its own authority, Knossos may not have tolerated the reconstruction of the previous second- and third-order regional centers.

Knossos' centralized authority during the Final Palatial period was short-lived, however. The political climate on Crete became decentralized during the LM III A2 period, as Kommos, Agia Triada, Tylissos, Chania and Archanes began to grow and expand into sizeable settlements once again (Merousis 2002). Along with the reconstruction and re-occupation of these centers came an increase in elite displays, evidenced by monumental construction and ostentatious tombs at these sites, as well as an increase in regionalism of ceramic styles across the island (Preston 2008). Crete also saw widespread increases in population and the number of sites inhabited. During the LM III A1 period, only 68 sites were inhabited, but by LM IIIA2, the number had grown to 124. By LM IIIB, it increased again to 197 (Merousis 2002). During the LM IIIA2 period, the palace of Knossos only seems to have had the strength to control parts of central and western Crete (Merousis 2002). The re-emerging regional centers had some economic and administrative control over their local spheres, as reflected by some of the architecture found at the sites.

Archaeological evidence in the form of the size of the so-called 'megaron', the stoa, and the building complexes found at Agia Triada have been interpreted as indicating that this site functioned as one of the economic and administrative centers of the LM III A2 period (Merousis 2002). According to

Shaw (1996), Agia Triada also may have served as the residence of a powerful local ruler, as did Tylissos. Tylissos also shows a rapid rate of growth and increasing importance, as indicated by the megaron found built above LM I House C and other similar structures, as well as a stoa and cistern that were also found dating to the LM III A2 period. At Kommos, Building P was identified as a ship shed, and was the largest construction on the island during the LM III A2 period (Merousis 2002). A significant economic change was also noted at the site, as traditional agriculture was replaced by small-scale manufacturing (Merousis 2002). At Chania, residential building phases dated throughout the LM III A2 and IIIB periods, as well as significant changes in the spatial organization of the site at the beginning of LM III A2, indicate the growing strength of the site (Merousis 2002). Merousis (2002) describes Chania during the LM IIIA2 period as a thriving commercial port, with indications that immigrants from the eastern and western Mediterranean also settled there. At Malia, the section referred to as Quartier Nu, thought to have association with craft activity, contained a large independent construction that appears to be a courtyard for some public function, and may point to the growing size and importance of the site during the LM III A2 period (Merousis 2002).

The political landscape of Crete changed yet again in the last phase of the Final Palatial period, when the decentralization and growing power of the regional centers culminated in the final destruction of the palace at Knossos. During the LM IIIB period, political authority and economic focus shifts to the western region of the island, with Chania being the new dominant center on the island. Large regional pottery workshops also emerged at Chania, Palaikastro, Episkopi, and Kalochoraphitis (Merousis 2002; Preston 2008; Rehak and Younger 1998). The regional centers that had begun their ascent in the LM III A2 period took a leading role, with political and economic control over a limited local territory. Some centers, such as Chania, however were influential enough to export their products throughout the island, as well as export them outside of Crete (Merousis 2002). The archaeological evidence points to the development of two main types of settlements in the LM III A2 and LM III B periods. The first cate-

gory consists of large centers of habitation such as Chania, Kommos, Agia Triada, Palaikastro and Knossos. The second category includes both regional centers with long periods of habitation, local influence, and sizeable populations such as Armenoi, Tylissos, Amnisos, Plati, Kephali Chondrou, Gouves, Agia Pelagia, Malia, Episkopi, Petras, as well as smaller isolated settlements of the LM IIIB period such as Mochlos, Kastrokephala, and Archanes. A discussion of the dynamic changes in the political and economic climate of the Final Palatial period is necessary for contextualizing the changes in burial practices also seen during this period. This is especially true when attempting to glean how regional patterns may have been represented in burials.

3.3. Role of the Elite

The high status individuals that made up the Minoan elite have been a topic of much discussion, particularly concerning the ethnic identity of the group that controlled Knossos during the beginning of the Final Palatial period, as well as whether the presence of women in high status roles during the Neopalatial period was a possible indication of a matriarchal society (e.g., Davis 1992; Parkinson and Galaty 2007; Preston 2008; Rehak and Younger 1998, 2008; Watrous 1994). The development of social stratification on Crete and the emergence of an elite group began early in the island's history. At the beginning of the Bronze Age, the importation of Cycladic-style pottery and their placement in EM I (3100-2700 BCE) cave burials alongside local Minoan pottery may be interpreted as a preference of Minoan elites for exotic objects as markers of prestige and wealth (Davis 1992; Parkinson and Galaty 2007; Watrous 1994). This use of exotic objects as markers of wealth and status continued throughout the Bronze Age.

The control of exotic materials likely paved the way for the first palaces and a palatial elite, which sees its origins in the Early Bronze Age (Parkinson and Galaty 2007). In defining the nature of these prestige goods, Manning (2005) makes the distinction between "exotic" goods and "imported" goods. He defines "exotic" goods as ones that come from either difficult to reach areas, require special-

ized skills or high costs to obtain, and which can be used by individuals to build status, roles and associations. On the other hand, “imports” are simply non-local goods that come from easily accessible areas, and hold less social status than “exotic” goods (Manning 2005). This also implies a difference in the volume of trade, as exotic items would be rarer on the island.

During the MM I period (ca. 2000 - 1800 BCE), which included the transition between the Pre-palatial and Protopalatial periods when the palatial structure of Minoan society was gaining ground, corporate drinking and feasting ceremonies at both the major centers of Knossos and Malia were incorporated as part of funerary ceremonies. Increased wealthy burials and monumental mortuary structures began to emerge, such as the burial monument of Chrysolakkos at Malia. There also seems to be a shift away from communal burials and an increase in single burials, which may indicate a new emphasis on individual status rather than on general kinship structures, though this practice does not die out completely (Manning 2000a).

In the Neopalatial period (1750-1490 BCE), differences in domestic architecture, such as the houses discovered at Gournia with shared partition walls, the larger and more elegant independent residences and villas such as those at Nirou Chani, as well as the visual depictions in frescoes of clothing and rank among various members of society suggest that Minoan Neopalatial society was highly stratified, with individuals enjoying different levels of wealth and status (Manning 2008a). The power of the Minoan elite may also have been closely connected to religion. Parkinson and Galaty (2007) argue that elites at Knossos legitimized their growing power through the manipulation of ideology and ritual activity, and through the controlled distribution of imported material goods needed to perform rituals. During this period, the palaces and villas seem to have used religion to support the political administration, where the ruling class may have also filled the role of religious officials (Rehak and Younger 1998).

Representations from Neopalatial frescoes and seal stones show that the Minoan elite of this period was made up of both men and women, though they are represented as being segregated, at least

at ceremonial gatherings (Rehak and Younger 2008). Women are portrayed in multiple roles and performing various functions, such as goddesses accompanied by mythological creatures, being brought gifts, kneeling in a garden, getting dressed, participating in bull-leaping events, or dancing (Rehak and Younger 2008). Women are also associated with peak sanctuaries, though they are not explicitly depicted on stone relief vases as being present at the sanctuaries, as men are. However, figurines of both sexes are deposited at these sanctuaries (Rehak and Younger 1998; 2008). Many more women than men are depicted sitting on stools or thrones, and women are also represented as the only ones, aside from trained monkeys, who picked crocus flowers, from which saffron is gathered, from the sites of peak sanctuaries (Preston 2008; Rehak and Younger 2008). Far fewer men are shown as deities, but are still depicted in powerful roles, holding a staff in front of them in a commanding gesture or seated inside shipboard cabins or under awnings. Lower status men and women also are depicted in frescoes performing daily activities such as fetching water, herding sheep or goats, and as marching soldiers (Rehak and Younger 2008). This inclusion and, in some respects, emphasis on women in high status roles have lead some to argue for Minoan society being matriarchal, though this is debated (Rehak and Younger 2008).

There is some evidence from the Final Palatial wall frescoes at Knossos that the high status of women and the connection with ritual activity may have continued (Rehak and Younger 1998). These depictions include both male and female bull leapers, and a ritual procession with two women wearing stylized robes and aprons that have been interpreted as being reserved only for special ritual occasions, accompanied by twenty men, some carrying metal and stone vases (Rehak and Younger 1998). A woman is also depicted as the central figure in the procession, wearing a dress patterned with the beam-end and triglyph half-rosette architectural patterns that had designated Neopalatial palaces and peak sanctuaries (Rehak and Younger 1998). In Final Palatial depictions, more men than women are shown in high-status roles, reversing the gender structure of the Neopalatial period (Rehak and Younger

1998). The mortuary sphere also reflects this domination by Knossos, as seen in the so-called “warrior graves” located in the cemeteries associated with the site, with a distinct lack of archaeologically visible burials in the rest of the island until LM IIIA1 (Preston 2008).

The Linear B tablets found at Knossos shed light on one administrative aspect of the elite during the LM II-III A2 period (1400-1370 BCE). The presence of individuals known as ‘Collectors’ were recorded in the archives and seemed to have been most prominent in the second-order centers described above (Preston 2008). This group of individuals likely functioned as intermediaries, managing the administration of some of the wool and textile production of the local center on behalf of the palace at Knossos (Preston 2008). These ‘Collectors’ may have been local elites of the centers they oversaw. The burials of these local elites, however, have not been identified, until LM IIA- LMIII A2 early, when the power of the local centers began to grow out from under Knossian control. The elite burials during the LM II period, instead, were focused primarily around Knossos.

During the Final Palatial period, there seems to have been a significant rejection of the Neopalatial religious-political system. After LM IB, production of many types of ritual objects and symbols ceased, and the objects are re-used for tombs, such as inscribed stone offering tables, stepped stands for double axes, stone and stucco horns of consecration, and use of the sacral knot. Tripod offering tables made of stucco or clay continue to be produced, but are also designated for tomb use (Rehak and Younger 1998). There are instead many new forms of ritual symbolism that emerge. Zoomorphic and anthropomorphic terracotta figurines, particularly female figures, make a reappearance, and are found in shrines connected to habitation sites. New types of funerary cult practices also emerged. New iconography can be found on painted terracotta larnakes (burial containers in the form of a chest or bathtub). This new iconography has been argued to give us some insight into the Minoan view of the after-life, which will be briefly discussed in Chapter 4. A significant development in Minoan ritual during this period is the evidence of bull sacrifice, possibly as the final event of the Minoan bull-game, which in-

cluded the bull-leaping activities represented in Neopalatial frescoes at Knossos (Rehak and Younger 1998). Peak sanctuaries, which were also attested in the Neopalatial period, may also have been reused during the Final Palatial period. As for religious personnel, only one priest is listed, who was located at *da-*83-ja*, and one priestess title, that of Priestess of the Winds, is listed as being located at three sites: **47-da*, *Au-ri-mo* and *U-ta-no* (Rehak and Younger 1998). There is also mention in the Linear B texts of religious administration at three specific shrines, those of the *da-da-re-jo* (translated as the Daidaleion) the *da-pu2-ri-to* (translated as the Labyrinth), and the shrine to Diktaian Zeus (Rehak and Younger 1998).

3.4. The Debate over the Ethnic Identity of the Knossian Elite

Evidence for the Mycenaean invasion perspective is based mainly on features found in daily use objects, domestic and funerary architecture, ritual and mortuary practices, as well as writing and administration that seem to have parallels to contemporary features on the Greek mainland (Nafplioti 2008; Popham 1994; Rehak and Younger 2001). The discovery of Linear B tablets at Knossos dating to either LM II or LM III A1 has been an important dataset used to confirm the Mycenaean presence at Knossos during the first half of the Final Palatial period (Nafplioti 2008; Preston 2004; Rehak and Younger 1998). A discussion of the mortuary perspective on this debate will be discussed in the next chapter.

The interpretation which argues for Mycenaean invasion and administrative control over Knossos develops from associating certain features of material culture, cultural practices, and ideologies with certain geographically-oriented groups of people, as well as the interpretation that cultural discontinuity at certain sites and the adoption of certain stylistic and ideological influences signals population movement and the forceful imposition of these foreign influences by the immigrant population onto the host population (Nafplioti 2008). However, scholars such as Binford (1965), Flannery (1968), and Renfrew (1972) have shown that this type of interpretation of population movement as the exclusive determinant of cultural discontinuity is highly problematic (e.g., Nafplioti 2008). Though cultural discontinuity

and stylistic changes may reflect cultural influences, the nature of the influence is not as easily explained (Dickinson 1994, Nafplioti 2008). Rather, more complex factors may be at work, such as social competition between elites, competitive emulation, and the adoption and adaption of foreign influences for legitimization purposes (Nafplioti 2008; Preston 2004, 2008; Schallin 1993).

Preston (2008) argues that the identification of an intrusive mainland-derived elite, and Crete's material culture during this period being generally identified as 'Mycenaean' is extremely problematic. She argues that the term 'Minoan' being applied to the inhabitants of Crete and 'Mycenaean' being applied to the populations of the mainland are misleading, since they are based on early twentieth century overly simplistic correlations between spatial concentrations of particular artifact types and languages with the territories of these culture groups (Preston 1999, 2008). The distribution of artifact types attributed to these two groups, she argues, does not demonstrate that these groups identified themselves as two distinct ethnic groups, or that they used any of these symbols or languages to express ethnic differences (Preston 2008). Rather, this issue and its underlying causes may be much more complex than has been acknowledged in the past. Although it is evident that mainland-derived cultural practices were used more heavily at the beginning of the Final Palatial period than in past periods, and that this increase in the adoption of these practices may indicate the immigration of population groups from the mainland, some of these incoming practices may have more complex underlying reasons for their adoption (Preston 2008). As many of these so-called 'Mycenaean' features were adapted and modified as they were borrowed, Crete may not have simply been a passive recipient of mainland-derived ideas and population groups. Instead, the elite controlling Knossos during this period may have consciously adopted and adapted these practices to suit their own, internal agendas, creating new innovations (Preston 2008). Though recent scholarship (e.g. Catling 1989; Driessen and Macdonald 1997; Nafplioti 2008; Niemeier 1985; Preston 2004, 2008) has critiqued the Mycenaean invasion theory, it continues to be influential in the field of Aegean archaeology and in the interpretations of the cultural processes which

caused the discontinuity in Final and Postpalatial culture history (Alberti 2004, Driessen and Macdonald 1997, Nafplioti 2008, Tsipopoulou 2005).

4. BURIAL CUSTOMS AND IDENTITY IN LATE MINOAN CRETE

As discussed above, much work has been done on examining the sociopolitical changes occurring during the LM II-III B phases. Until recently, the majority of the published scholarship has focused on the Mycenaean domination of the island, the strength and extent of Knossos' control over the island during the first half of the period, and the time and nature of the destructions that occurred during the transition between LM III A1 - A2. Very little has been done in the way of further analyzing the changes in burial practices, and only recently has research begun to focus on how identity was constructed by those who built the tombs. The reports published on excavations of the burials come primarily from early in the twentieth century, and cover sometimes only one or two tombs at a time rather than whole cemeteries, let alone regions. This has given rise to a body of data that is scattered and fragmentary. These publications are primarily descriptive in nature, listing the locations and measurements of the burials found, the basic architecture of the tombs, and what materials were found inside. Very few publications are concerned with the social identity of the deceased other than an occasional assumed designation for the sex of the skeleton. Most often this designation, when it is occasionally provided, is based on the types of accompanying objects found (primarily weapons), and not on an actual osteological examination. As previously stated, this is an extremely problematic way of determining the sex of the skeleton interred, and becomes a circular strategy when attempting to use the information to reconstruct gender and identity.

Athanasia Kanta (1980) has published a comprehensive survey of the distribution of LM III period sites, and though helpful, it includes all settlement, burial and pottery material, not just mortuary material, but excludes LM II material. Laura Preston (2004) provides an in-depth examination of mortuary innovations in LM II-III B Crete as indicators of political changes and ideological shifts from the Knossian-centered LM II-III A1 period to the use of mortuary ostentation as a medium for expressions of increased power and prestige in the aftermath of the final collapse of the Knossian hegemony of the is-

land. However, the study focuses exclusively on political ideology and in providing evidence against the Mycenaean invasion hypothesis previously mentioned. It does not discuss other forms of social identity, such as gender, kinship structure, or how other aspects of Minoan society are represented in the burials, and also restricts its focus to only the three high-status cemeteries attached to the large regional centers of Phourni (at Archanes), Kalyvia (at Phaistos) and Agia Triada. It is these and other gaps that I seek to fill with this thesis. In order to do this, I begin with an overview of current perspectives concerning the study of Late Minoan burial customs as statements of status and political ideology, and move on to how burial practices changed between the Neo and Final Palatial periods.

4.1. Overview of Late Minoan Burial Customs as Statements of Status and Ideology

In order to better understand what is different about the burial customs in the Final Palatial period, it is first necessary to review the burial practices used on Crete during the Neopalatial period. In this way, scholars will be better able to understand what is different about how the Minoans in the LM II - IIIB periods utilized burials to create and reinforce their social and political identities.

Despite the large amount of evidence collected from Neopalatial settlements, the accompanying cemeteries have been fairly elusive. Recent excavations have uncovered some individual tombs and only a few large cemeteries at Isopata, Mavro Spelio, and other areas around Knossos, but in all, very little mortuary material has come to light (Rehak and Younger 1998, 2008). This lack of discovered burial material has led some scholars, such as Rehak and Younger (1998, 2008) to question whether Minoans were choosing to bury their deceased in ways that do not preserve archaeologically, such as burials at sea.

Based on the limited Neopalatial period data available, a wide variety of tomb types are represented, such as tholos tombs (tombs with rounded domes), burials in built structures, inhumation inside terracotta sarcophagi or on wooden beds, and in some, the skulls were collected after the body had decomposed (Rehak and Younger 2008). Many of the inhumations recorded from this period consist of

pithos or coffin burials in shallow pits (Preston 2004). Pit-cave tombs have been found at Mavro Spelio, located northeast of Knossos, which were used for successive inhumations (Rehak and Younger 2008). Chamber tombs have been found at Poros, such as the Odos Poseidonos tomb and the Leophoros Ikarou tomb (Rehak and Younger 2008). The first consisted of an antechamber and two main rooms with built dividing walls (Rehak and Younger 2008). The second consisted of an antechamber with carved pillars and several rooms (Rehak and Younger 2008).

Two unique and important tombs from the end of the Neopalatial period have been explained as the elite of Knossos being creative with funerary architecture, the Temple Tomb located just south of Knossos and the Royal Tomb located at Isopata (Rehak and Younger 2008). The Temple Tomb was partially built into the side of a hill and is a two-story tomb containing two chambers, an anteroom and an open courtyard between them, and several built features (Rehak and Younger 2008). The Royal Tomb consisted of a large chamber with vaulted ceiling and an entrance passage, called a dromos (Rehak and Younger 2008). The burial assemblages found in both of these tombs give a good benchmark by which to measure varying levels of high status. Outside of Knossos, a few chamber tombs were found at Rethymnon on the north coast of western central Crete (Rehak and Younger 1998). A few pithos burials dating to the ceramic phase MM III were found at Pachyammos and Sphoungaras (Rehak and Younger 1998). Rehak and Younger (1998) give an interesting reason for the lack of archaeologically preservable burial practices during the Neopalatial period. They suggest that family and clan groups reacted to the centralized societal functions and ceremonies at Knossos, which characterized the Neopalatial period, by developing more private ways of burying and honoring the deceased (Rehak and Younger 1998).

The Final Palatial period seems to have been a time of innovation and experimentation in burial practices. The majority of burials associated with the LM II - IIIB period consist almost exclusively of different types of subterranean tomb structures, a type which was not common in the previous period. It

is also clear that during this period, inhumations become much more representative of the population as there is a dramatic increase in the sheer amount of burials. Preston (2004) explains that 800 excavated tombs from every region of the island except the southwestern corner can be securely dated to this period, while a further 200 have only a loose Final Palatial designation.

Like in the Neopalatial Period, during the first half of the Final Palatial (LM II-III A1), the burials that have been excavated thus far are primarily clustered around Knossos. This seems to align well with the interpretation of a Knossian-centered authority, whatever the ethnic identity or geographic origin of that elite group may be. However, unlike the burials in the Neopalatial period, the rarity of this form of mortuary practice and the ostentatious object assemblages that often accompany the LM II-III A1 burials across the island has been interpreted as a conscious marker of the highest elite status and deliberately used as a forum for status display (Preston 2004).

The Mycenaean stylistic influence evident in these burials has been previously interpreted as evidence for the presence of an invasive Mycenaean elite who were responsible for the LM IB destructions and took over political and military control of the island during the Final Palatial period. Indeed, these tombs are often labeled 'Warrior Graves' (Coldstream and Hood 1968; Hood 1956; Hood and de Jong 1952; Popham and Catling 1974; Preston 2007). These are considered important finds in Minoan mortuary studies, and are featured in the Ayios Ioannis, Sellopoulo, and Isopata cemeteries (Coldstream and Hood 1968; Hood 1956; Hood and de Jong 1952; Popham and Catling 1974; Preston 2007). Like the important tombs mentioned above from the Neopalatial period, these 'Warrior Graves' generally housed only one or two individuals buried on beds or biers and accompanied by weapons, some armor, and in some cases, groups of bronze vessels. These specific items of the burial assemblages are often considered indicators of a Mycenaean identity of the deceased interred in the tombs where these items are found (Alberti 2004, Sakellarakis 1972, Hood and Taylor 1981, Popham 1994, Rehak and Younger 1998). The term 'warrior grave' was originally coined by Hood (1956) to emphasize the importance of

bronze weapons in the graves surrounding Knossos and dated to the first half of the Final Palatial period (Alberti 2004, Nafplioti 2008).

However, Final Palatial burials also exhibit a significant amount of cultural eclecticism and experimentation in tomb architecture, corpse deposition methods, and assemblage composition methods, which will be discussed further below (Alberti 2004; Preston 1999, 2004). According to Nafplioti (2008), the emphasis given to militarism associated with mainland Mycenaeans is more accurately a general trend that can be observed throughout the Aegean region rather than a new feature in Cretan society following the LM IB destructions as a result of Mycenaean invasion (see also Rehak and Younger 2001). Neimeier (1985) also critiques the association between changes in burial customs with Mycenaean invasion, explaining that the so-called 'warrior graves' do not necessarily belong to Mycenaeans, and that even though an immigrant population from the mainland may exist, the jump from immigration to invasion is problematic. This critique has also been supported by Alberti's (2004) analysis of the burial assemblages found within the 'warrior graves' of Knossos and her comparison of the assemblages with contemporary mainland practices. Preston (2004:327) instead argues that the uniting feature of LM II burials are not a common ethnic origin, but rather "a shared desire for conspicuous display which manifested itself in different, and in some cases highly innovative ways".

It is not until the second half of the Final Palatial and Postpalatial periods that the distribution of identified burials are spread across the island, and with this spread, also emerge several differences in mortuary practices between the two periods. Preston (2004) suggests that different agendas were dictating these changes in mortuary rituals at Knossos between the first and second halves of the Final Palatial period, which subsequently has interesting implications for the reconstruction of internal political and ideological dynamics of the Minoan elites. Three major developments in tomb architecture can be identified at Knossos between the first and second sub-periods of the Final Palatial period. The first is the rejection of high status symbols that had been borrowed from the earlier Neopalatial period, specifi-

cally the use of ashlar masonry and mason marks. The second major change that occurs at the end of the Knossian controlled sub-period is a reduction in the size and levels of elaboration in tomb architecture, though there is an increase in popularity of the smaller tomb types, particularly shaft graves and pit-cave tombs.

Finally, chamber and corbel-vaulted tomb types, masonry-built tombs, finely carved or lined cist tombs, the use of carved benches in tomb chambers, the use of a dromos, and entrance facades also all fall out of use at the end of the period (Preston 2004). Although at some sites the level of conspicuous wealth displayed in the burials continues, the preference for particular artifacts changes, objects associated with high status in the Neopalatial period, such as squat alabastron ceramic vessels, piriform jars, and braziers, as well as gold and silver drinking vessels, and a contemporary increase in tin-coated and bronze vessels, all decline (Preston 2004). These changes can be correlated to the increasing instability and eventual decline of the Knossian power and centralized authority, which culminated in the destruction horizons, and separates the two subsets of the Final Palatial period.

The use of chamber tombs at other regional centers around the island during the LM IIIA2-IIIB period seems to be less exclusive than was the practice during the Neopalatial period (Preston 2004). Whereas not all major regional centers of this period adopted the use of inhumation burials, the elites who chose to utilize tombs did so by using them as a medium to assert their own status, and consolidate their positions within the site's hierarchy. They may also have been a statement of the regional elite's challenge to Knossos' hegemony (Preston 2004). Although the pattern of artifact assemblages seems consistent across the various sites, there are marked differences identified in how the body was interred. For example, at Phourni, the practice of re-depositing the remains is common. Kalyvia seems to be singular in the rejection of the use of the larnax as a burial container, whereas at Agia Triada, the larnax is exploited to its full display potential, and is lavishly decorated with ritual scenes (Preston 2004). Preston (2004) argues that the high variety in tomb type, assemblage and burial method is less sugges-

tive of a difference in ethnicity, and is more indicative of high status groups experimenting with new strategies for status display by combining symbolism adapted from various sources not just in the mortuary sphere, but in monumental settlement architecture as well. It is the variation in mortuary practices during this period that I investigate further in this thesis, specifically the regionalism, status display and the "Mycenaean" or "Minoan" identity expressed within the Final Palatial tombs. In the next chapter, I discuss my study design and methodology for how I chose to answer these questions I formulated based on these three topics.

5. STUDY DESIGN AND METHODOLOGY

This study was undertaken in order to fill the gap in the study of LM II-III B mortuary practices on Crete left by the narrow focus of identifying the ethnic identity or political ideology of elites who emerged at Knossos following the LM IB destruction, as well as the elites who emerged at several regional centers after the final collapse of the Knossos regime during the LM III A1-2 transition. Due to time constraints, the data for this study was to come solely from the published material, both preliminary and final publications from surveys and excavations, rather than individual fieldwork or on-site visits to tombs. Unfortunately, the fragmented nature of the LM II-III B data requires more hands-on data collection methods than was feasible in the timeline available. The lack of standardization in publishing, inconsistent recording, particularly that of the skeletal material and patterns of the burial assemblages, as well as the unsystematic excavation of many sites not considered important in this era, will likely require on-site visits to tombs as well as to the local museums where the artifacts and skeletons were sent after excavation. In addition, a much closer examination of the data for the published reports may be needed to fill in these holes and complete the intended study, all of which I plan to undertake in the future.

For the purposes of this study, therefore, I restrict my focus to synthesizing the available published material given in the burial excavations, as well as surveys on social identity and social structure in both phases of the Final Palatial period. Using descriptive statistical analysis, I examine the data and make what preliminary interpretations and hypotheses are possible, thereby setting the framework for future research.

5.1. Materials

This study primarily focuses on the Final Palatial period of Crete, or the ceramic phases of LM II – III B. Most of the tombs are dated by the stylistic indicators on the pottery and sarcophagi decoration.

In the published sources used for this study, many tombs were assigned a very loose LM III date, or were only designated as Late Minoan, which could also include the end of the Neopalatial period. Although a study that includes the Postpalatial period will be important for understanding the change in mortuary practices and the construction of social and political identity before the collapse of the Bronze Age, it is outside the particular scope of this study. Therefore, many sites that are not more precisely dated directly to the LM II-III B period were not included, as it could not be determined whether the use of those burials was before or after the collapse of palatial administration.

I attempted to choose tombs from eastern, central and western Crete, as well as a wide range of site sizes, in order to gain a more thorough understanding of not only the broad regional patterns that may be represented in the tombs, but also differences between larger and smaller-scale palatial centers, as well as non-palatial large and small settlements.

5.2. Study Design and Hypotheses

In order to analyze the data more systematically, I chose to run cross tabulations (herein referred to as crosstabs) with chi-square tests of association on each hypothesis in order to look for significant (i.e. non-random) associations between aspects of the burial structure. I first separated the qualitative data gained from various publications into categories, then assigned the data the appropriate code. I then ran the crosstabs with chi-square association tests through the software SPSS. These tests allowed me to find meaningful distinctions and patterns within the data, the results of which are outlined in Chapter 6. In order to be considered statistically significant, it was determined that the Pearson Chi-Square Asymptotic Significance result should be 95% or higher (B. Turner-Livermore, personal communication). I formulated specific questions, based on three overarching hypotheses, which I used to guide my crosstabs. These hypotheses included, that regional variation may be represented in the choice of tomb type, burial container, treatment of the body or grave goods. In terms of status, I examine variables such as tomb type, burial container, treatment of the body and the presence of certain

status objects to discern how social status may have been negotiated by the people interring these deceased individuals. I also examine the historically dominant assumption that the elite who exerted control over Knossos and several other palatial sites across Crete during the Final Palatial period were part of a Mycenaean warrior elite. I examine the presence of several objects in these tombs, described in Chapter 4) as indicators of this group (i.e. wooden burial containers, multiple bronze vessels and multiple weapons) and examine them against the rest of the burial attributes in an attempt to examine if it is indeed possible to discern whether these individuals were foreign Mycenaeans or the more recently proposed local Minoans. I also examine the five tombs from the Knossos area that are labeled in the published material as 'warrior graves' against the rest of the burial attributes, including the variables identified as indicators of a Mycenaean warrior elite, in order to discover whether these tombs can truly be considered the tombs of a warrior elite class or whether these tombs can truly be attributed to an invading Mycenaean class based on their burial structure.

5.3. Methodology

My data set was extracted from several publications, including Kanta's (1980) catalogue, *The Late Minoan III Period in Crete: A Survey of Sites, Pottery and their Distribution*, Coldstream and Hood's (1968) *A Late Minoan Tomb at Ayios Ioannis near Knossos*, Hutchinson's (1956) *A Tholos Tomb on the Kephala*, Hood and de Jong's (1952) *Late Minoan Warrior Graves from Ayios Ioannis and the New Hospital Site at Knossos*, Hood's (1956) *Another Warrior-Grave at Ayios Ioannis near Knossos*, Popham and colleague's (1974) *Sellopoulo Tombs 3 and 4, Two Late Minoan Graves near Knossos*, Preston's (2007) *The Isopata Cemetery at Knossos*, Smee's (1966) *A Late Minoan Tomb at Palaikastro*, and Dawkin's (1905/1906) *Excavations at Palaikastro*. These sources were primarily descriptive in nature, as was common at the time of their publication. From the published site descriptions, I extracted information concerning the location, tomb structure, burial container, skeletal information, and grave goods. The information was organized into a table and coded, using integers to indicate specific variables.

These variables include location within region and district, tomb type (architecture), the treatment of the deceased, type of burial container used, presence of local ceramic vessels, imported ceramic vessels, stone vessels, bronze vessels, tools, personal items, weapons, and ritual objects. These variables were further subdivided based on what information was gathered from the publications, as far as what was actually observed to exist within the data set. For the object types, these were grouped based partially on references and associations made within the publications, and partially on the judgment of the author concerning what appeared to be meaningful. For example, tools were grouped based on a daily-use, arguably utilitarian function outside of personal grooming, while personal items were considered those that could be worn or used on the body, for personal grooming, or for personal identity (such as plaques or sealstones). Weapons were categorized as those that seemed to have a direct association with war or hunting, including possible multi-use functional objects such as razors and knives. Ritual objects were categorized as those with no other obvious function apart from use in the ritual or ceremonial sphere, such as incense burners, offering tables, ritual libation vessels, decorations used specifically for formal burial and animal sacrifices. These object types were then grouped into what could be classified as high or low status objects, based on references in the literature. For example, low status objects included local ceramics, personal items, tools, and a single small blade. High status and ritual objects were grouped together, and included imported items (including ceramics), stone and bronze vessels, multiple small blades, long blades or other weapons, and ritual objects.

In the tomb descriptions, I noticed that often, when the authors described the number of certain items, the number was no more than around five before the objects were described as a 'hoard' or 'mass' of objects. Therefore, I chose to quantify the objects by whether a few (<5) or many (>5) of each class of objects were found in the tombs. This was an arbitrary grouping, and was done to create a useful way of measuring the variation in status levels and to capture some middle ground of social status, more than simply low or high status.

The tombs I chose from these sources were further limited by certain criteria. These included that the tomb must have either skeletal remains or a burial container present, must include some grave goods, and must be dated to LM II-III B periods (will be including more). I chose these criteria in order to narrow my data set to tombs that would allow for the most meaningful and significant analysis with the information available. Since I intend to continue this research in the future, I also attempted to create a framework for performing osteological analyses on the skeletons found in these tombs, with respect to gender roles, living conditions, diet, disease patterns, and class status. In the next chapter I report the results of the significant analyses and offer a brief discussion.

6. Results and Discussion

In this chapter I examine and discuss the results of the crosstab analyses conducted for this thesis. These cross-tabulations with chi-square tests of association were assigned a threshold significance of 95% ($p \leq 0.05$), or less than 5% probability that these associations are due to random chance. Those results that did not have a clear statistical significance (those with chi-square results less than or equal to 0.05) are not discussed in this chapter unless due to the nature of the variable the lack of statistical significance is in itself interpretationally important. Where appropriate, the distinction between interpretational and statistical significance is specified. The full crosstab output results of all tests run for this thesis, both significant and not, can be found in Appendix 9.3. The descriptive data set on which these crosstab results were run can be found in Appendix 9.2. The overall significance of these results will be explored in the next chapter.

This chapter is divided into three sections, where I examine the results of the test for each of my three overarching hypotheses. First, I examine the question of whether there appears to be a clear regional pattern between the eastern, central and western regions. The downside of using these broad categories is that more complex regional patterns could be missed. Therefore, I also investigate the intra-regional patterns within the eastern, central and western districts. This approach may reveal different patterns of burial practice that associate more with palatial versus non-palatial areas, or between coastal versus non-coastal areas. Second, I examine the question of whether the co-expression of certain variables of the burial attributes could be interpreted as evidence for social status. Third, I compare the variables that seem to be associated with “Mycenaean” identity to the rest of the burial attributes. At the beginning of each of these three sections, I provide summary tables of chi-square P-values showing the range of significance for each of the analyses performed.

6.1. Are There Clear Regional Differences within Final Palatial Burial Structure?

Here I begin with a discussion of the results of a crosstab analysis examining the significant variation between burial structure and the overall eastern, central and western regions of Crete, as well as the districts within each region. These analyses help to answer the question of whether there is a clear regional pattern concerning a preference for certain tomb types, burial containers, object types, or methods of treating the body, and if so, whether these patterns seem to correspond to cultural connections between districts, such as the connection between Knossos and other sites described in the Linear B tablets. A crosstab analysis with a chi-square test of significance was run between each of the burial structure variables (treatment of the body, tomb type, burial container, and object type) and the overarching eastern, central and western regions, as well as the individual districts for each region that were represented within this data set. Overall, the central region had the highest number of burials (n=55), followed by the eastern region (n=24); the western region had the fewest documented burials (n=12).

Table 6.1.1 Chi-Square Tests of Association between Regional Variations; A.S. = Approaches Significance; N.S. = No Significance

	Overall Regions	Eastern Districts	Central Districts	Western Districts
Treatment of the Body	p=0.042*	p=0.034*	p=0.006**	a.s. (p=0.083)
Tomb Type	n.s. (p=0.271)	n.s.(p=0.184)	n.s. (p=0.240)	n.s. (p=. ^a)
Burial Container	n.s. (p=0.303)	n.s. (p=0.217)	n.s. (p=0.527)	p=0.056*
Offering Types	p=0.043*	n.s. (p=0.198)	n.s. (p=0.204)	n.s. (p=0.478)

6.1.1. Regional Variation by Treatment of the Body

I begin my discussion of regionality with the variable of treatment of the body. For this analysis, the data was coded based on whether the skeletal material found in each tomb was described as a whole skeleton, the skull only, cremation only, mixed inhumations and cremations, or bone fragments. This variable was then analyzed for significant variation within the overall eastern, central and western regions as well as the specific districts within each region. The chi-square tests for this variable were significant both at the larger, regional level as well as the eastern and central district level. The treatment of the body variable was not as significant when analyzed with the western districts, though this may be due to the small sample size represented within this data set. The chi-square result for approaches significance (a.s.) for this analysis, at 0.083. The results however, have been briefly summarized below for interpretational comparison. A more complete analysis may need to be performed in the future to include additional tombs that were not available for this thesis. The tabular outputs and histograms of this set of analyses are found in Appendix 9.3.1.1.

At the regional level, there does seem to be some regional preference for certain types of body treatment. Each of the three regions contained mostly skeletons, though the eastern region contained the most variation. In addition to the tombs containing complete skeletons (5 of 8), east Crete also contained tombs with skulls (2 of 8) and a tomb containing both inhumations and cremations together (1 of 8). The central region contained the most tombs with identified human remains (20 of 31). Most of the tombs in this region contained whole skeletons (18 of 20), though a tomb with skulls (1 of 20) was also found, as was a tomb containing bone fragments. However, these fragments were more likely the result of poor preservation or disturbance rather than conscious deposition.

When examined at the district level for intra-site regionality, some interesting and significant patterns emerge in all three regions. Beginning with the eastern region, in the district of Ierapetra, two tombs with whole skeletons were found, as were two tombs with skulls only. No tombs with mixed in-

humations and cremations were found in this district. In the district of Mirabello, one tomb was found with mixed inhumations and cremations. No other tombs from this district are represented in this data set. In the district of Siteia, three tombs were found with whole skeletons. No tombs in this district were found with only skulls. None of the eastern districts referenced above contained tombs with cremations only or bone fragments.

All the central districts represented in this data set contained whole skeletons except for Pyriotissa. The majority of the whole skeletons were found in Temenos and Pedhiadha, with only a few in Malevyzion and Monofatsion. The only tomb in the central region with skulls only comes from the district of Pyriotissa, and is the only tomb in this data set representing this district. The only tomb in this data set with bone fragments was found in Temenos.

Two tombs with whole skeletons were found in Rethymnon, and the only tomb with only cremations represented in this data set was found in Khydonia. The chi-square test for this analysis approaches significance, though this may be due to the small sample size available for this data set.

It seems that, accepting the limitations of this data set, whole skeletons were the most popular treatment type in all regions. Skulls only were the second preferred method in the eastern region, and not represented at all in the west. Cremations are an artificial outlier, in that several are known anecdotally, but few of these tombs have been published and are not generally available. Therefore, more systematic research and publication needs to be done, to determine whether other cremation burials were restricted to the western region or whether they were more widespread, like the other treatment types.

6.1.2. Regional Variation by Tomb Type

Next I move on to an analysis of the tomb type variable and the overarching regions as well as the individual districts within each region. For the tomb type variable, the data were coded based on whether the architecture of the tombs was described as a pit grave, shaft grave, cave burial, rock-cut chamber tomb, or tholos tomb (such as tholos tombs, rectangular built tombs, or corbel-vaulted tombs),

or a rock crevice. These tomb types were then analyzed for significant variation within the overall regions as well as the specific districts within each region. Interestingly, none of the chi-square results for this set of crosstab analyses were significant, which can be seen in Table 6.1. However, there is an interesting pattern that emerges within the overall region test that I would like to mention.

For example, although rock cut chamber tombs predominate, making up 61 of the 76 tombs within this data set in all regions, in the central and eastern regions, there were also small numbers of other tomb types. In the central region, these other tomb types included 2 pit tombs, 5 shaft graves, and 3 tholos tombs, while in the eastern region they included 3 tholos tombs, a cave burial, and a rock crevice tomb. By comparison, the western region had no variety; it contained only rock cut chamber tombs. While, then, there is no statistical significance to this variation, the slight diversity of tomb type in two regions, and the complete lack thereof in another suggests that this should perhaps be further investigated, particularly considering the low sample size of the western region overall. A more complete analysis of all the excavated tombs would be needed to confirm this pattern. The tabular outputs for these analyses can be found in the Appendix 9.3.1.2.

6.1.3. Regional Variation by Burial Container

For the burial container variable, the data were coded based on whether the published material described the intended burial container as a larnax, vase (pithos or other vessel), wooden bier or sarcophagus, or whether the individual was placed directly on the floor. Separate categories were also coded for where multiple container types were used, such as where some individuals were placed in larnakes or on a wooden bier whereas others in the same tomb were placed either on the floor or within a pit dug into the floor of the tomb. When a sarcophagus is described, this was placed in the larnax category. The burial container variable was then analyzed for significant variation within the overall eastern, central and western regions as well as the specific districts within each region. Interestingly, the chi-square tests for this crosstab analysis was significant only for the western districts, as can be

seen in Table 6.1, and is therefore detailed below. The central and eastern districts, however, did appear to have an interesting pattern. The tabular outputs and histograms of these results are found in Appendix 9.3.1.3.

As the analysis of the overarching central, eastern and western regions was not significant in the association with burial container, I move directly to a discussion of the intraregional patterns at the district level. The western region contained some variation between districts. The district of Rethymnon contained the most burials (10 of 12), as well as the most variety. These included 8 larnakes, one mixed larnax and floor burial, and a mixed larnax and pit burial. The district of Mylopotamos contained tombs with only one larnake, while Khydonia contained only one vase burial. However, given the small sample size, further analysis will have to be done in order to confirm this pattern.

Although the chi-square tests between the burial container variable and the eastern and central districts did not indicate significance, there are still interesting patterns that I would like to point out. Within the central districts, the only tombs with floor burials were found in the district of Temenos, where the palatial center of Knossos was located, though this district also contained the most variation in container type. Mixed wood and floor burials were also only found in Temenos. Wood burials were only found in Temenos and Malevyzion. The larnax is the only burial type in this region that is completely universal. Though Pedhiadha contained the most tombs, these only used either larnax or mixed pit and larnax burials. Mixed pit and larnax burials were only found in Pedhiadha. Monofatsion, Kainourion, Pyriotissa, and Lasithi only contained tombs with larnakes as burial containers.

Within the eastern districts, Siteia, the district where the palatial center of Palaikastro was located, only had floor-only burials and larnakes as the burial container. The district of Ierapetra contained the most variation, with four tombs containing larnakes, one with vase burials, and two with mixed pit and larnax burials. In Mirabello, only larnax (six tombs) and vase (one tomb) burial containers are represented. It is interesting to note that although the main palatial site within the eastern region,

the site of Palaikastro, which was independent from Knossos and located in Siteia, it was Ierapetra that contained the most variation in burial container. It is also interesting to note that the burial containers found in Siteia were quite similar to those most popular in Temenos, where Knossos was located, though Palaikastro was supposedly mostly independent from Knossos.

Overall, there does seem to be an important regional pattern in burial container. There are none that are exclusively found in eastern Crete, despite the independence from Knossos, though there are burial container types that are not found in this region, such as wood only burials, mixed floor and larnax, and mixed floor and wood burials. In addition to the ever-present larnax and mixed pit and larnax burials, eastern Crete also contains simple floor inhumations, which are found also in central Crete, as well as vase burials, which are shared with western Crete. Western Crete, in addition to the larnax and vase burials found in other regions, is the only region where mixed larnax and floor burials are found. Central Crete is the only region where wooden bier or sarcophagus and mixed floor and wooden containers are found. In this region it is interesting that the districts containing sites further away from Knossos have the least amount of variation in burial container - in fact, larnakes are the only container used in these districts (Monofatsion, Kainourion, Pyriotissa, Lasithi).

6.1.4. Regional Variation by Offering Type

Next I move to a discussion of regional variation through the variable of offering type, once again using large-scale geographic divisions then looking more closely at intra-regional patterns between districts. For the offering type variable, the data was first coded based on whether the artifacts found within the tombs were local (Minoan) ceramic vessels, imported ceramic vessels, stone or bronze vessels, personal items (items that could be worn or used on the body, for personal grooming, or for personal identity, such as plaques or sealstones), tools (daily use objects with an arguably utilitarian function outside of personal grooming), weapons, or ritual objects (objects with no other obvious function apart from use in the ritual or ceremonial sphere, such as incense burners, offering tables, ritual libation

vessels, decorations used specifically for formal burial and animal sacrifices). These object classifications were then determined to fall into a low status or high status classification. Those objects which were considered locally produced, personal or daily-use objects (such as local ceramics, personal items, tools and a single small blade) were categorized as low status, while imported objects, stone or bronze vessels, multiple small blades, long blades or other weapons were categorized as high status objects. Ritual objects were also included in this category. These data were then coded again based on whether only a few (less than 5) or many (more than 5) low or high status objects were found in the tombs. This was done to examine the broad classifications of object groupings, rather than attempt to run analyses based on each individual object type, in order to better understand the broader question of status indicators.

These broad offering type categories were then analyzed for significant variation within the overall eastern, central and western regions as well as the specific districts within each region. The chi-square test for this analysis was only significant at the overall regional level, as can be seen in Table 6.1. When broken down by district, the chi-square tests show no significance. The result for the overall region analysis is detailed below. The tabular outputs and histograms of these results are found in Appendix 9.3.1.4.

In terms of offering type, central Crete again contained the most variety, containing tombs with objects associated with all status levels. The five tombs containing many high status or ritual objects were only found in central Crete, though they made up only a small portion of the tombs (5 of 51). The central region mostly contained tombs with a few high status or ritual objects (20 of 51), as well as some with many low status objects (16 of 51) and some at the lowest level, with only a few low status objects (10 of 51). Within this data set, there were no tombs with large amounts of high status or ritual objects found in the eastern or western region. Eastern Crete mostly contained tombs with many low status objects (11 of 20), as well as a tomb with a few low status objects (1 of 20) and some with a few high

status or ritual objects (8 of 20). Western Crete, by contrast, contained mostly tombs with a few low status objects (5 of 10), a few with many low status objects (2 of 10) and some with a few high status or ritual objects (3 of 10).

Overall, the eastern and western regions seemed to contain tombs at the low to mid-high range, as none of them contained many high status objects. The western region, however, seemed to fall at the lower end of the three regions, while the eastern region contained more mid-range to mid-high status tombs. The five tombs in this data set which did contain many high status objects were only located in the central district. This could be interpretationally important, as they were primarily clustered around Knossos.

6.2. Does the Co-Expression of Different Burial Attributes Reveal Social Status?

In this section, I focus on the question of whether the co-expression of different attributes of the burial structure can be interpreted as evidence for social status. To answer this question, I ran crosstab analyses of the same variables discussed in the regional variation section against each other. My tests showed that there were consistencies in the co-expression of certain variables of the burial attributes. Of these consistencies, the most significant were a) the co-expression of certain types of tombs with certain types of body treatment; b) the co-expression of certain types of tomb with certain types of burial container; and c) the co-expression of certain types of burial container with certain types of offering types; these results are summarized in Table 6.2, and detailed below. The tabular outputs and histograms of these results are found in Appendix 9.3.2.

Table 6.2.1 Chi-Square Tests of Association between Status Indicators; N.S. = No Significance

	Treatment of the Body	Tomb Type	Burial Container	Offering Types
Treatment of the Body	--	p=0.003**	n.s. (p=0.150)	n.s. (p=0.312)
Tomb Type	p=0.003**	--	p=0.000**	n.s. (p=0.347)
Burial Container	n.s. (p=0.150)	p=0.000**	--	p=0.003**
Offering Types	n.s. (p=0.312)	n.s. (p=0.347)	p=0.003**	--

6.2.1. Tomb Type + Treatment of the Body

It does appear that certain tomb types were co-expressed with certain types of body treatment. Whole skeletons were the most ubiquitous, and were found in a pit tomb, shaft graves (2), a cave burial (1), chamber tombs (19) and a tholos tomb (1). Skulls were found in a chamber tomb (1) and a tholos tomb (1). The only instance in this data set of mixed inhumations and cremations was found in the rock crevice tomb. The only instance in this data set of bone fragments was found in a chamber tomb. However, this was more likely the result of disturbance or poor preservation, rather than conscious deposition.

6.2.2. Tomb Type + Burial Container

Certain tomb types also seem to have been co-expressed with certain types of burial containers. Floor burials were found in a shaft grave (1), and in chamber tombs (2). No floor burials were found in pit graves, cave burials, or tholos tombs. Larnax burials were the most common and were found in the most variety of tombs. They were found in pit graves (2), shaft graves (3), a cave burial (1), chamber tombs (46), and tholos tombs (6). Wooden burial containers were only found in chamber tombs (3).

Pits dug into the floor of tombs were always accompanying larnax burials, and were not found with any of the other container types. This mixed pit and larnax style was found in one shaft grave and six chamber tombs. None of this style was found in pit, cave, or tholos tombs. Larnax burials were also sometimes mixed with floor burials, but the only one of this mixed burial style occurring in this data set was found in a chamber tomb. There was also one instance within this data set where floor burials accompanied wood burials. This also occurred in a chamber tomb. The only rock crevice tomb from this data set contained the only vase burials within this data set.

6.2.3. Burial Container + Offering Type

There does seem to be some association between burial containers and offering types. Only a few low status objects were found in fourteen tombs with larnax burials, and one tomb with vase burials, accompanied these types of burial containers. Many low status objects were found in twenty-four tombs with larnax burials, two with vase burials and three with mixed pit and larnax burials. The three tombs with simple floor burials were accompanied by a few high status or ritual objects. Twenty-two tombs with larnax burials, two with wood burials, two with mixed pit and larnax burials and one with mixed floor and larnax burials also contained a few high status or ritual objects. Many high status or ritual objects were found in one tomb with larnax burials, one with wood burials, one with mixed pit and larnax burials and one with mixed floor and wood burials.

6.2.4. Discussion of Status Indicator Variable Results

In all, there does seem to be a significant pattern between certain aspects of the burial structure being associated together. Here I will briefly discuss some of these patterns, and I will examine their overall significance in the next chapter. The pattern between tomb type and treatment of the body shows that chamber tombs contained the most variation, but contained no mixed inhumations and cremations. This form of body deposition was only found in the rock crevice tomb. Tholos tombs con-

tained either whole skeletons or only skulls, while pit and shaft graves and cave burials were only associated with whole skeletons.

It seems that there is a significant pattern between what type of burial container accompanied each tomb type. Chamber tombs again contained the most variation, including a mixture of container styles. Shaft graves also showed some variation, containing larnakes, floor burials or a mixture of pit graves and larnakes. Larnakes were the most popular burial container, and were found in all tomb types, though interestingly, this was the only burial container type found in pit tombs, cave burials, and tholos tombs.

The pattern between burial container and offering type also seemed to show an interesting pattern of association. The larnax was the most ubiquitous, and was found with materials from all status levels. There were no mixed floor with wood or larnax container types, or floor only burials found with lower status objects. Vase burials were the only ones found exclusively with lower status objects. The only mixed container type found with any lower status objects was the mixed pit and larnax type, which was also found in the mid to high range. The mixed pit and larnax type was not found accompanying tombs with only a few lower status objects. The burial containers associated with high status objects, both few and many were floor only and wood only burials, and mixed floor and larnax burials. Mixed floor and wood burials were the only container type found exclusively with many high status and ritual objects.

6.3. Indications of a Mycenaean Warrior Elite

I now turn to the analysis results of the Mycenaean warrior elite identity indicated by the presence of weapons as burial offerings. The following crosstab analyses are intended to examine more deeply the dominant assumption by scholars that the so-called 'warrior tombs' were Mycenaean elites that had taken over the island. Do the data indeed indicate a Mycenaean, male warrior elite identity for

these individuals, or could a different identity be represented by the presence of these objects, as discussed in chapters three and four? For this analysis, certain items were coded based on the literature and what has consistently been considered indications of a Mycenaean elite buried within these tombs. These items include wooden biers or sarcophagi, multiple bronze weapons and multiple bronze vessels. Where some tombs contained more than one of these items, they were coded for 'multiple indicators'. Otherwise, the tomb contained only one of these types of objects. Crosstab analyses were run between these Mycenaean indicator variables and the other aspects of the Cretan burial structure to look for significant (i.e. non-random) associations between aspects of the burial structure. Though none of these analyses showed any statistical significance, which can be seen in Table 6.3, I believe this may be interpretationally important to this debate. Similarly, I also chose to use crosstabs to look for associations between certain aspects of the burial structure and the five tombs listed in the published material as 'warrior graves'. Since whether the tombs singled out for this set of sub-tests were warrior graves became a constant, the chi-square test of association was not valid. However, this set of sub-tests were done to identify the patterns of associations between these tombs and the rest of the burial attributes for the potential interpretational importance, which will be discussed in more detail below. The tabular outputs and histograms of these results are found in Appendix 9.3.3.

Table 6.3.1 Chi-Square Tests of Association between Mycenaean Identity Indicators; A.S. = Approaches Significance; N.S. = No Significance

	Mycenaean Identity Indicators	Listed as Warrior
Treatment of the Body	n.s. ($p=0.767$)	n.s. ($p=.^a$)
Tomb Type	a.s. ($p=0.072$)	n.s. ($p=.^a$)
Burial Container	n.s. ($p=0.192$)	n.s. ($p=.^a$)
Offering Type	n.s. ($p=0.261$)	n.s. ($p=.^a$)

6.3.1. Treatment of Body + Mycenaean Identity Indicators

Out of the twenty-five tombs containing whole skeletons, one was buried on a wooden bier, one tomb included multiple bronze vessels, three tombs included multiple weapons, and two tombs included multiple indicators of Mycenaean identity. Multiple weapons accompanied the only instance of bone fragments in this data set, and were the only Mycenaean indicator found within this tomb.

6.3.2. Tomb Type + Mycenaean Identity Indicators

One shaft grave (out of five) contained multiple weapons. None of the shaft graves contained wooden biers, multiple bronze vessels or multiple indicators of Mycenaean identity. One tholos tomb (out of six) contained a wooden bier, three of the built tombs contained multiple weapons, and four of them contained multiple indicators. None of the tholos tombs contained multiple bronze vessels as the only indicator. The rock crevice contained multiple bronze vessels. The chi-square test for this analysis approaches significance, but is still outside the range deemed significant for this thesis.

6.3.3. Burial Container + Mycenaean Identity Indicators

Multiple bronze vessels were found in one tomb with larnax burials (out of seventy) as the only indicator of Mycenaean identity. None of the tombs with floor, wooden biers, mixed pit and larnax, mixed floor and larnax or mixed floor and wood burials contained multiple bronze vessels as the only indicator of Mycenaean identity. Multiple weapons were found within two tombs with floor burials (out of three) and the only tomb in this data set with mixed floor and larnax burials. None of the tombs with larnax, wood or mixed pit and larnax burials contained multiple weapons as the only indicator of Mycenaean identity. Multiple indicators of Mycenaean identity were found in two tombs with wooden biers (out of three), one with mixed pit and larnax burials (out of seven), and the tomb with mixed floor and wooden burials.

6.3.4. Offering Types + Mycenaean Identity Indicators

Of the 31 tombs found with a few high status or ritual objects, one also contained a wooden burial container, three tombs contained multiple weapons, and one contained multiple Mycenaean indicators. Of the five tombs found with many high status or ritual objects, one of them included multiple bronze vessels as the only indicator, one contained multiple weapons as the only indicator, and the other three contained multiple indicators of Mycenaean identity. These results seem to support the assumption that the invasive Mycenaean groups were elite. However, not all of the elite tombs contained clear indicators of Mycenaean identity.

6.3.5. Tombs Listed as Warrior Graves

Here I discuss the results from a crosstab analysis comparing the five tombs in this data set that are described as warrior graves with the tomb type, burial container, offering types, and Mycenaean identity indicator variables. Due to the nature of the warrior grave variable as a constant, the chi-square test of significance was not applicable. However, I believe these analyses to be interpretationally impor-

tant in the context of more systematically analyzing various factors that may contribute to the debate over whether the elite class on Crete during this period were of an invading Mycenaean warrior class or whether the burial structure and material culture points to a local Minoan identity for these individuals.

First, I compare the five tombs within this data set that are established in the published sources as warrior graves with the tomb type variable. This crosstab analysis was run in order to determine whether a pattern could be discerned that separates these graves, despite the small sample size, from other, local Minoan, preferences in tomb structure. Of the tombs listed as warrior graves, one of them was a shaft grave, while the other four were chamber tombs. It is interesting that none within this data set were found in tholos tombs. Shaft graves were popular tomb types on the Greek mainland, so the shaft grave here may be considered a Mycenaean style, though it is interesting that only one of the five used this tomb type, while the rest used a structure quite commonly used for local Cretan burials.

Next I compare the tombs listed as warrior graves with the offering types variable in order to test the hypothesis of the elite being classified as members of a warrior class. Of the 31 tombs found with a few high status or ritual objects, only three were listed as warrior graves. Of the five tombs found with many high status or ritual objects, only two were listed as warrior graves. The result of this analysis seems to indicate that the elite of Crete during this period were not necessarily a warrior elite.

Finally, I compare the warrior graves within this data set with the Mycenaean indicators variable, in order to test whether the individuals buried within these tombs could truly be considered immigrant Mycenaean based on the previously established material culture indicators. Of the four tombs with multiple weapons as the only indicators of Mycenaean identity, only three of them were listed as a warrior grave. Of the four tombs that contained multiple indicators of Mycenaean identity, only one of them was listed as a warrior grave. This may indicate that not all of the warrior graves can be considered to be Mycenaean.

6.3.6. Discussion: Indications of a Mycenaean Warrior Elite

While none of these tests were statistically significant, I discuss their potential interpretational importance. Out of the five tombs listed as a warrior tomb, only three were found with multiple weapons. Only one contained a wooden bier as the burial container, and only one contained multiple Mycenaean indicators. These five tombs do seem to have been the burials of high status individuals. However, that they were part of an invasive Mycenaean elite does not seem to be supported by this analysis, which will be discussed further in the next chapter.

7. Conclusions and Future Directions

In this chapter I present the overarching conclusions of my analyses and offer a discussion of the significance of my findings. I begin with the conclusions for regional variation, the co-expression of certain aspects of the burial structure as indications of social status, and the issue of the 'Mycenaean' identity for the high status burials. I then end this chapter with a discussion of the opportunities for future research.

7.1 Is There a Clear Regionality to Final Palatial Burial Structure?

Based on the results of my analyses, there does seem to be a regional preference for certain aspects of the burial structure during this time period. For example, eastern Crete seems to have the most variation in terms of body treatment. Though complete skeletons were the most popular (as they were in the other regions), skulls and a tomb with mixed inhumations and cremations were also found there. In regards to tomb type, there seems to be a preference in the eastern region for built tombs, both subterranean in the rock-cut chamber tombs, and tholos tombs. This region also contained a cave and a rock-crevice tomb, though these represented two of the 21 total tombs from eastern Crete in this data set. In terms of burial container, the eastern region contained vase tombs, a tradition shared with the western region. One interesting pattern is that the only district on Crete that contained floor burials by themselves in a tomb other than Temenos, the district where Knossos was located, was Siteia, the district where Palaikastro was located. This is interesting, considering that Palaikastro is considered to have been mostly independent from Knossian control. However, the two districts seem to share some burial practices that are not found in other areas. While Siteia was the district for the palatial center of Palaikastro, it was the district of Ierapetra that contained more variation in terms of tomb type. Eastern Crete also seems to have mostly contained tombs with many low

status objects (11 of 20), with only a small number of tombs with a few low status (1 of 20) or a few high status objects (8 of 20).

Central Crete seems to have an overwhelming preference for whole skeletons (18 of 20), with only one tomb containing skulls, and no cremations - either solo or mixed. Whereas eastern Crete contained the most variation in terms of body treatment, it is the central region that contained the most variation in tomb type. In addition to the ubiquitous chamber tomb, there seems to be a preference in the central region for simpler subterranean tomb structures, such as pit and shaft graves, which are not found in other regions of Crete. Tholos tombs are also found in this region, though in the same amount (3) as is found in eastern Crete. In terms of burial container, the central region contains an interesting pattern. The district of Temenos contains the most variation in tomb type. However, the districts further away from Knossos, those of Monofatsion, Kainourion, Pyriotissa and Lasithi contained no variation - only larnax containers are found. Central Crete also seems to have contained the most variation in status burials, as tombs were found from the lowest status level, containing only a few low status objects, to the highest level, containing many high status or ritual objects. It is in fact the only region that contained any tombs at the highest level within this data set, which are primarily centered around Knossos.

Western Crete seems to have a preference for chamber tombs, as none of the other tomb types are represented here within this data set. In addition to sharing the uncommon vase container types with eastern Crete, the western region also has a burial container type that is not found in any of the other regions - that of the mixed larnax and floor type, indicating that innovations in burial treatment were not relegated to the areas around Knossos. Western Crete contained mostly lower status tombs (5 of 10 with a few low status objects). The main palatial center in this region is Chania, in the district of Khydonia, though it is primarily the district of

Rethymnon where most of the tombs in this data set from the western region are located, including the tombs with many low status and few high status objects.

7.2 Does the Co-Expression of Different Burial Attributes Reveal Social Status?

My analyses show that certain aspects of body treatment, burial container, tomb type and object types were co-expressed within Final Palatial Cretan burials. Chamber tombs seem to have been used as the platforms for much of the innovation and hybridity found within the burials, as they contained the most variety of body treatments and burial containers. This is to be expected, as these are the most common. Although, it is interesting that the chamber tombs with fewer chambers within them are also associated with being of Mycenaean influence, since these are also the popular tomb type on the mainland. Again, this points to these tombs simply as platforms for innovation and experimentation, of which mainland-influenced features were only a part. Similarly, larnakes were also associated with the most variety of tomb types and offering types. In short, larnakes and chamber tombs seem to have been the aspects of Final Palatial burial structure that were most frequently used in the creation and negotiation of social statuses and identities, which were indicated by the mortuary innovation and hybridity practices characterizing this era of Cretan history.

The other aspects of the Final Palatial burial structure that seem to have been co-expressed are that, vase burials appear to have been primarily associated with lower status burial assemblages. To best interpret this, further study may need to be done, as vase burials seem to be located in the eastern and western regions only, at least within this data set. Two of the three vase burials, both multiple burials, were also associated with the remains of infants, while the third contained a single cremated set of remains, which are difficult to identify in terms of sexing or age. All three of them were associated with larger settlements, such as Pakhyammos,

Olous and Chania. Therefore, possible interpretations could be that burials in pithos or other vessels could not only have regional associations, but perhaps may be associated with multiple burials containing both adults and infants, or with the socio-economic status of the deceased. It is difficult to interpret based on the small sample size, and further analysis will need to be conducted. By contrast, the only burial container type that was exclusively associated with the highest status burials were mixed floor and wooden burial containers. Skulls were only found in chamber and tholos tombs, while wooden containers and mixed floor burials (i.e., mixed floor and larnakes and mixed floor and wood burials) were always found in chamber tombs. Floor-only burials were only found in either chamber tombs or shaft graves, which is not surprising, as they are often associated. Pit, shaft, and cave burials only contained complete skeletons.

7.3 Overall Interpretations of Mycenaean Identity Variables

The results of my analyses do not seem to support the Mycenaean invasion theory. In her examination of the burial assemblages of the LM III-III A1 warrior graves at Knossos, Lucia Alberti (2004) explains that although these warrior graves express clear influence from the Greek mainland, they also express clear local traditions, as well. Preston (2004, 2008) argues that the variety in burial structure is less suggestive of the difference in ethnicity, and is instead more indicative of high status groups experimenting with new strategies for status display, occurring in a dramatically shifting socio-political landscape. As I discussed in Chapter 2, identity and a connection to one or another ethnic group, is culturally constructed by the individual (though not always as they please) and can be expressed in a variety of ways. That there were groups of Mycenaean immigrants on Crete is certain (Kanta 1980; Preston 2004; Rehak and Younger 1998). That some of the Final Palatial Cretan tombs, namely those high status tombs surrounding Knossos, display influences from the Greek mainland is apparent (Hood and de Jong 1952;

Alberti 2004). However, as I discussed in Chapter 3, Crete has a long history of immigrant populations and the incorporation of foreign influences from all over the Mediterranean. That these high status tombs are indicative of a mainland-derived elite who were the cause of the palatial destructions and imposed their own administration and cultural symbols on the Cretan population does not seem to be valid, as has been argued by Catling (1989), Driessen and MacDonald (1997), Hamilakis (2002), Marinatos (1993), Nafplioti (2008), Niemeier (1985), and Preston (2004, 2008) and is substantiated by this thesis.

The identity portrayed in these burials may have mainland influences, but they also express local Cretan aspects and likely are just part of the greater trend of innovation and hybridity being expressed in Final Palatial burial practices, in response to the key socio-political changes happening throughout this period. Strontium Isotope testing of the remains found in the warrior tombs were performed by Nafplioti (2008) and found that the individuals interred in these “warrior graves” were not immigrants, but rather were local Cretans, which further substantiates this interpretation.

7.4 Opportunities for Future Research

As discussed above, much of the published information on the tombs hardly gives any mention of whether skeletal material was found in them or not. Where it is stated, the information is briefly mentioned; often only in stating that skeletal material, or a full skeleton was found, and occasionally the state of preservation of the bones is also briefly described. For example, of the 95 total tombs within this data set, 36 of them have skeletal material mentioned by the original authors. Of these 36, 21 of them actually describe how the body is laid out, and discuss identifying information, such as sex or age. I wonder whether this lack of published statements is due a) to the scholar’s error in not mentioning if they did or did not find skeletal

material in the tombs, b) if each time it is not mentioned the excavator truly found none, or c) that the presence of skeletal material was implied by the labeling the find as a tomb.

Where skeletal material is mentioned, how complete and preserved the material was, in what manner the skeleton was laid out, and any further identification of sex or age is rarely stated. Some tombs are described in detail while others are not described at all. For example, where biological sex is stated for the remains in the New Hospital Tomb 1, designated as a “warrior grave”, and included in my analysis of high-status and Mycenaean-identified tombs, the identification of the two sets of skeletal remains as female and male was based solely on assumption due to the presence of a pair of tweezers next to one skull, while a spearhead was found next to the other (Hood and de Jong 1952). Although, this was a typical approach during the time period in which these scholars were working. This method of assigning sex to a certain skeleton based on this overarching assumption, without first analyzing whether, indeed, many more osteologically identified biologically male skeletons are buried with weapons than osteologically identified biologically female skeletons, is extremely problematic. It is more a reflection of the researcher’s own gender biases than a reflection of the how the individual buried in the tomb and their society displayed their own constructions of gender. As it stands, the data are filled with far too many holes to make this kind of assumption.

Gender Construction in the Phourni Tholos Tomb

One of the tombs incorporated in my analysis contained high status objects such as a large amount of bronze vessels, jewelry and furniture decorated with religious iconography, and large animal sacrifices. Previous research identified the mass of bronze vessels as indicative of male warrior graves (Rehak and Younger 1998). However, the skeleton in this tomb was osteologically identified as a female. This calls into question the current use of the material culture to assign a gender to these tombs, when our current notion of gendered objects for this culture

may not be correct. It may be that symbols commonly associated with male warriors were not restricted to burials of men. It would be interesting to examine the other skeletal material discussed in this study to see if other tombs with male warrior-associated offerings were interred with women.

Identity of Children and Infants

In addition the possible misidentification of sex in the burial record, children are sorely lacking from the published data on the Final Palatial Cretan tombs. Whether this is the error of the author publishing the data on these burials, which would be highly probable considering the general disregard for the skeletal material in general, or whether the general lack of infant and child burials are actually more representative of the treatment of deceased infants and children is as yet not discernible. Four infant burials, one child burial, and a possible youth are mentioned out of the total 33 tombs in this data set where treatment of the body was specified. Both of the tombs where infants are identified, the Olous Pithos Tomb and the Aissa Langadha Tomb, are multiple burials. In the Olous Pithos Tomb, the tomb in my analysis that held the only mixed inhumation and cremation burial, of the 25 pithos jars found in the tomb, three of them contained infant burials, while the other 22 held cremated bones and ashes. It seems that the infant burials were the only ones not cremated. In the Aissa Langadha Tomb, one of three tombs in my analysis that contained vase burials, one of the pithos jars (out of two) held two skulls, while the fragments of a baby's skull were found in a round pyxis, and accompanied by beads. The child burial, found in the Lastros Tomb, which was incorporated in my analysis of whole skeletons and few low status burials, was a solitary burial, where the skeleton of a child was laid to rest in a tub larnax, along with two figurines of children, and a stone grinder. The skeleton found in the Nirou Khani tomb is simply identified as young, and is, like the Lastros Tomb, a solitary burial. Unlike the Lastros Tomb, the individual buried in the Nirou Khani Tomb

is accompanied by many more offerings. These include two stirrup jars, a bronze knife with bone hilt, a silver ring, a small, red sardium bull's head pendant, two small ivory incomplete male figurines, a seal-stone decorated with two ibexes with a goat between them, two jasper seal-stones, two round amber beads, and an amygdaloid sardium bead.

Could this be indicative of how children of varying ages or from families of varying wealth were treated in the mortuary sphere during this time period? It would be premature to make any definitive statements based solely on these four burials, particularly since one is made up of only a few skull fragments. It would be expected, however, that infant burials would be found in multiple burials, as socially and developmentally, infants cannot live independently from adults. If more infant burials come to light from this time period, I would expect that they would be included in multiple burials instead of on their own. It would be interesting to see whether more infant burials come to light buried inside pithos jars, or pyxis vessels, or whether the practices used for interring them is just as varied as that of what are assumed to be adults. It is significant, also, that the infants found in the Olous Pithos Tomb were the only burials from that tomb that were not cremated. This could certainly tell us something about how the adults who interred them constructed their beliefs on how infants should be treated in death; that belief did not seem to allow infants to be burned, but rather interred whole. I would also be interested to see the age of the child and 'young' burials, particularly whether the 'young' individual is older than the individual labeled as a 'child'. This distinction may be one possible explanation for the differences in tomb assemblages, or whether it would be due to differing status of the family.

The first step in any further extension of this study will be to identify whether or not these tombs which are lacking any mention of skeletal material at all, did indeed have skeletal material found, and if so, locate where it is now stored. The next step after locating this mate-

rial would be to conduct a full osteological analysis to discern the sex and age of the skeleton. This can be done by not only using the pelvis, but also the skull, as both are where human sexual dimorphism is the most extreme (White and Folkens 2005). This will be immensely helpful in determining more accurately how gender was constructed during this period.

Once this extensive osteological study has been done, and holes in the excavation data concerning tomb structure, tomb assemblage and placement of the objects have been filled (where possible), the information can be again compared to the tomb type and architecture, the time period, and the accompanying assemblages. This will allow us to gain a more complete picture of the way in which the inhabitants of the Final Palatial period in Crete chose to construct and negotiate social status, ethnic identity, gender, and political ideology within the medium of the changing and innovative mortuary practices observed during this turbulent time.

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9. Appendix

Chronology

The chronologies and terminologies used to discuss the Bronze Age Aegean are far from uniform or convenient. Multiple chronologies exist for this area, based on both absolute and relative dating techniques, but they are often ambiguous and conflict with one another. Attempts have been made to reconcile the complicated, and multi-level system, with inadequate results. Here I examine these various chronologies in detail, and discuss how they are defined, what they are based on, and how recent scholars have dealt with this conundrum, especially as it relates to the latter part of the Minoan Late Bronze Age.

Aegean Relative Chronology

The most widely used terminology in the Aegean Bronze Age is primarily based on relative changes in pottery styles, although attempts have been made to attach absolute dates to these phases (Dickinson 2006; Kanta 1980; Rehak & Younger 1998; Shelmerdine 2008). Early scholars such as A.J. Evans, who initiated the division for Crete, divided the era into three chronological categories Early, Middle and Late, with three subdivisions: I, II, and III (Kanta 1980; Shelmerdine 2008). These terms generally are abbreviated, such as using the abbreviation EBA I for the Early Bronze Age I time period. Separate labels have been given to each of the main cultural regions of the Aegean including, “Minoan” for the island of Crete after the mythological king Minos of Knossos, “Helladic” for the southern and central Greek Mainland, “Cypriot” for the island of Cyprus, and “Cycladic” for the Cycladic islands (Shelmerdine 2008). These labels generally replace the “Bronze Age” designation in order to specify the culture being discussed, such as the use of Late Helladic I (LHI) to refer to the Late Bronze Age I time period for the Greek Mainland. However, the abbreviation LC could refer to Late Cycladic or Late Cypriot, which can

easily cause confusion. These chronological subdivisions were once considered uniform for all Aegean cultural regions, though this is no longer the case, as I explain below.

Further issues arose when archaeological material did not fit neatly into the designated time period. Manning (2008:110) gives the example of white-on-dark ceramic ware from EMIII in east Crete, which seems to be contemporary with MMIA at the site of Knossos in central Crete. Shelmerdine (2008) gives a further example of a type of EMIII pottery that has been re-dated to MMIA. An example from the Early Bronze Age on the Greek mainland shows that material, which is characteristic of the EHIII period designated “the Tiryns culture”, is not found uniformly across the southern and central mainland, as was expected. Rather, not only individual sites, but whole areas continued using material from the earlier EH II period, or “the Korakou culture,” through to the start of the MBA (Shelmerdine 2008). When not only two different, but also a single cultural region was not uniform, using a single overarching chronology becomes increasingly problematic.

The discovery of transitional phases between these various sub-periods where pottery styles reflect characteristics of two consecutive phases, and an attempt to reconcile the previous overarching chronological sequence with the reality of the archaeological material, has resulted in the divisions of the Middle and Late Bronze Ages I, II, and III periods into A, B and C. The LBA IIIB and C periods have been further sub-divided into shorter periods 1 & 2 (Kanta 1980; Desborough 1964; Furumark 1941). For example, early LM IIIB pottery seems almost always to be accompanied by LM IIIA 2 creating a transitional phase. On the other hand, LM IIIB and IIIC seem more or less contemporary with their counterparts on the Greek mainland, LH IIIB and IIIC, showing that although many of the chronological phases seem to conflict, others do not (Rehak & Younger 1998).

However, not all scholars agree with these designations. Kanta (1980) argues that the division of LMIIIB into LMIIIB1 and LMIIIB2 as used by Furumark (1941) and others are only applicable in mainland Greece, not Crete. She therefore replaces these with LMIIIB “early” and late, “” which is also

later used and explained by Rehak and Younger (1998). According to the latter scholars, the change results from much disagreement between scholars as to when Furumark's LH IIIB and C phases begin and end on Crete. Instead, many scholars working on the island now use the "early" and "late" distinctions to refer to LM IIIB and C (Rehak & Younger 1998:92).

Additional terminology has been developed using the multiple destruction horizons of important Mycenaean and Minoan "palace" sites, termed "Palatial Periods". These periods include the multiple major chronological phases discussed above and are generally a synchronization between apparent administrative organizational phases and pottery phases (Dickinson 2006; Rehak & Younger 1998). Dickinson (2006) argues, however, that these destructions cannot be identified at every significant Aegean site, and it is uncertain whether any of the destructions that mark the boundaries of these Palatial Periods can be related to any severe climactic events, which provide important coordinating absolute dates (Dickinson 2006: 10-11).

As stated above, the relative chronologies with their messy terminologies are based largely on changes in pottery types found in reliable stratigraphic deposits (Dickinson 2006; Kanta 1980; Rehak & Younger 1998; Shelmerdine 2008). The Aegean as a cultural area is in no way homogenous, as was once assumed. As each region mentioned above developed its own unique culture, the changing pottery styles used by scholars to create the relative chronologies for these areas did also, each singular to the area where it was created. For this reason, as well as those stated above, no one overarching relative chronological system can be accurately applied to the entire Aegean region.

The early creation of such an overarching chronology was mostly due to the rarity of large stratified deposits of settlement material. This deficiency in the available material is improving. However, the majority of our evidence still comes from burials rather than settlement deposits. Burials generally contain whole vases, rather than the large amount of sherds typical of settlement deposits (Shelmerdine 2008). Although this may be a positive characteristic when attempting to reconstruct ac-

curate changes in pottery phases or when examining the socio-political and economic organization of the cultures, Dickinson (2006) describes the limitations inherent in graves as a source for finds on which to base a relative chronology. He argues that not only are these complete vases found in burials seldom numerous, but the preferences for particular shapes and the quality of their decoration tend to be considerably different than those used in settlements. Therefore, comparing styles identified from mortuary deposits with those from settlement deposits for the basis of creating an accurate chronology is potentially problematic (Dickinson 2006).

For much of the last century, the uniform assumptions about Aegean prehistory and chronology seem to have also been caused by the dominance of a single well-documented site, Phylakopi, on the island of Melos (Davis 1992). Due to a lack of many other well-documented sites with a long settlement period, many scholars used Phylakopi as a type-site on which to base many of their assumptions of Aegean prehistory as a whole, as well as a general chronology of the region. The use of this type-site has caused many of the problems scholars now face, problems that the varied and conflicting chronologies seek to solve, but with mixed results. I will discuss these conflicting chronologies in further detail below.

Historical processes do not necessarily fit neatly into the chronological phases defined by changes in pottery styles. This was the basis for the creation of the Palatial chronology phases, which use major destruction horizons at important palace centers as their bounding points. Although these destructions are not identified at every significant Aegean site, they are nevertheless an important marker for a important series of events that must have greatly affected not only the lived experiences of the people in the immediate areas under control of these main administrative and ceremonial centers, but also those regions with any degree of contact with these centers (Dickinson 2006). They are also useful in bounding chronological periods because they can be clearly identified in the archaeological record.

Minoan Palatial Chronologies

On Crete, the Middle Minoan I period is a time of significant urbanization, increased international trade, and introduction of a formal writing system. It is towards the end of this period that the first major palace centers at Knossos and Malia were built. Many scholars therefore term the time before the first palaces are built, from EM I to MM IA, the 'Prepalatial Period' (ca. 3100 – 1900 BCE). The periods from MM IB to MM IIB are termed the 'Protopalatial Period' (ca. 1900 – 1750 BCE). There is a general agreement among scholars that the Neopalatial Period began soon after the widespread destruction of the Protopalatial centers at the end of MM IIB and endured through the pottery phases MM IIIA to LM IB (ca. 1750 – 1490 BCE). However, little agreement exists about the causes of the MMII destructions (Dickinson 2006; Rehak & Younger 1998; Warren & Hankey 1989; Watrous 1994).

The time period following another destruction horizon at the end of the Neopalatial period in LM IB, which extends to the collapse of the palace system and the end of the Bronze Age, generally has been termed the 'Postpalatial Period' (ca. 1490 – 1100 BCE). However, recent excavations have shown that palatial administration continued at Knossos until LM IIA 2 or early LM IIB, and even into LM IIIB at the site of Chania (Rehak & Younger 1998). Due to this new archaeological data, Rehak and Younger (1998) use the term 'Final Palatial' to label the pottery phases LM II to early LM IIIB (ca. 1490 – 1320 BCE), which are characterized by the supposed presence of Mycenaean Linear B administration at Knossos and Chania, and likely elsewhere on Crete. As there is no evidence for palatial administration at these main sites after early LM IIIB, the authors restrict the term 'Postpalatial' to the phases from late LM IIIB to the end of the Bronze Age (ca. 1320 – 1100 BCE; Rehak & Younger 1998).

Aegean Absolute Chronology

The attempts made by scholars to coordinate these conflicting relative chronologies with absolute dates have been equally troublesome. There has been a long history of contact between the Aegean, particularly Crete, with ancient Egypt, beginning as early as the Middle Bronze Age, if not

earlier. Scholars traditionally have taken advantage of the clear absolute dates associated with the Egyptian material found in Minoan and, to some extent, wider Aegean contexts to synchronize the Egyptian ceramic material with the corresponding Minoan material found with them, thus linking the relative Aegean chronologies with absolute dates. However, recent studies in radiocarbon dating and dendro-chronology, particularly in the attempt to more accurately date the volcanic eruption of Thera, has provided conflicting dates to the traditional synchronisms. This has, of course, added another chronological system into the mix. The traditional synchronistic system is termed the 'low' chronology, while the dates provided by the recent ¹⁴C evidence has been termed the 'high' chronology (Manning 2008a, 2008b; Rehak & Younger, 1998; Shelmerdine 2008; Watrous 1994).

According to the low chronology, there are good Egyptian/Aegean synchronisms between the reign of Tuthmosis III (1479-1425 BCE) and LM IIIA 1. LM IIIA 1 pottery was still in use when Amenhotep III came to the throne in 1390 BCE. Amenhotep III's lengthy reign (1390-1352 BCE) appears to cover much of LM IIIA 2 (Rehak & Younger 1998). Aegean pottery found in the eighteenth dynasty Egyptian capital of Amarna, which dates exclusively to the reign of Amenhotep III's successor, Akhenaten (1352-1336 BCE), gives evidence that the transition between LH IIIA 2 and LH IIIB 1 occurred toward the end of the fourteenth century BCE. LH IIIB 2 has been found to be approximately contemporary with some or most of the nineteenth dynasty in Egypt (1295-1186 BCE) and LH III C with the twentieth dynasty (1186-1069 BCE) (Rehak & Younger 1998).

The low chronology has traditionally placed the Thera eruption late in the LM IIA period, or ca. 1500 BCE, putting the beginning of the Late Bronze Age around 1600 BCE (Manning 2008a, 2008b; Rehak & Younger 1998; Shelmerdine 2008; Warren & Hankey 1989). However, some of the ¹⁴C evidence has given a new date for the Thera eruption in the ranges of 1627-1600 BCE or 1660-1613 BCE (Rehak & Younger 1998; Shelmerdine 2008). However, these dates have come under much criticism. Good ¹⁴C dates are available for the 3rd millennium BCE and earlier, but those from later periods of the Bronze Age

are less certain. This is due to issues such as oscillation of the calibration curve, which can give two different absolute date ranges for one radiocarbon age, to seasonal variation in different regions, to contamination by old carbon (Shelmerdine 2008).

If these radiocarbon studies are correct, they push the beginning of LM IA to around 1700 BCE. However, traditional chronology places this transition a century earlier based on archaeological indications that LM IB was a rather short period and is generally synchronized with the reigns of Hatshepsut (1473-1458 BCE) and Tuthmosis III (1479-1425 BCE; Shelmerdine 2008). However, the high LM IB dates do not overlap with those pharaohs unless LM IB lasted much longer than the archaeological evidence and synchronisms of the low chronology indicate. Since both camps agree on dates from LM IIIA 1 onward, the solution most recently proposed by those favoring a high chronology has been to lengthen LM IB and LM II. Rehak and Younger (1998) attempt to reconcile Manning's "revised high chronology" with the low chronology, with some modifications. The authors insist that since LM IA pottery, but no LM IB pottery, was found in eruption deposits on Thera, LM IA must end after 1626/7, which they round to ca. 1600 BCE. LM IB then, they argue, appears to be a longer period than was formerly believed, but its end shortly before the reign of Tuthmosis III is increasingly supported by recent radiocarbon dates (Rehak & Younger 1998). Kuniholm's (1996) Aegean Dendrochronology Project has established a master ring sequence that also supports a date of 1628/7 BCE for the Thera eruption. I have provided a comprehensive chronological table (Table 2), reconciling each of the various chronological systems described in this section.

Table 1 - Comprehensive Chronology for the Bronze Age Eastern Mediterranean

Chronology		Palatial Chronology	Crete	Cyclades	Mainland Greece	Egypt	
High	Low						
3100		Prepalatial (EM I - MM IA) (3100 - 1900 BCE)	EM I	EC I	EHI	1st - 2nd Dynasty (3100/3000 - 2700)	
3000			EM IIA	EC II	EH IIA	Old Kingdom (2700 - 2136)	
2900					EH IIB		
2800			EM IIB	EH IIB			
2700			EM III	EC III	EH III	1st Intermediate Period (2136 - 2023)	
2600						MM IA	MC I
2500			Protopalatial (MM IB - MM IIB) (1900 - 1750 BCE)	MC II	MH II		
2400						MM IB	MC III
2300			MM II				
2200			MM III				
2100		Neopalatial (MM IIB - LM IB) (1750 - 1490 BCE)	LM IA	LC I	LH I	New Kingdom (1540 - 1070)	
2000			LM IB	LC II	LH IIA		
1900			LM II		LH IIB		
1800			LM IIIA 1	LC III	LH IIIA1		
1700		LM IIIA 2	LH IIIA2				
1600		LM IIIB early	LH IIIB				
1500		LM IIIB late	LH IIIB				
1400		Final Palatial (LM II - LM IIIB early) (1490 - 1320 BCE)	LM IIIC	Submycenaean	LH IIIC	Hatshepsut/ Tuthmosis III (1479 - 1425)	
1300			Subminoan			Ramses II (1279 - 1213)	
1200		Postpalatial (LM IIIB late - Subminoan) (1320 - 1000 BCE)	Subminoan	Submycenaean	LH IIIC	Amenhotep III (1391 - 1353)	
1100							Ramses III (1184 - 1153)
1000							

It is clear that due to the high regionalism seen in the many cultures that inhabited and interacted in the Aegean during the Bronze Age, it is impossible to apply an overarching chronology that accurately reflects the socio-political changes of the region over time. Recent scholars have attempted to deal with the consequences of the early use of just such a flawed system. The result has been to use the early terminologies and further subdivide the periods into multiple smaller phases based on local variations in pottery styles. Where overlap or discrepancies occur, the solution has been to refer to par-

ticular assemblages dating to multiple periods, showing the overlap, such as EM IB/MM II. However, scholars do not always agree with each other on the ways to further subdivide the periods, and so create additional designations, such as the use of “early and late” to replace LM IIIB-C 1 and 2. Some, such as Renfrew, have tried to replace these distinctions by referring to the specific cultures with little success (Shelmerdine 2008). Instead of replacing the previous systems, his cultural labels have been used in conjunction with them (Shelmerdine 2008). Other scholars have recognized that historical processes within a society are not necessarily reflected in pottery styles, especially when the majority of our material comes from burials rather than settlements. In response, they have created additional systems, termed the Palatial periods, that are meant to better reflect major socio-political changes at key palatial administrative centers in the form of major destruction horizons, which are known to span multiple pottery phases (Rehak & Younger 1998). However, even these systems are not without criticism. Absolute chronology has been equally problematic, due to the emergence of new radiocarbon and dendrochronology studies on the eruption of the Thera volcano in the Late Bronze Age. These studies, though they have been criticized themselves, have challenged the traditional use of synchronisms between Aegean and Egyptian material culture.

As more and more sites and surveys are published, and new information comes to light, these issues are unlikely to be fully resolved any time soon. For anyone concerned with the reconstruction of the societies and economies of the Aegean Bronze Age, a clear understanding of these varied chronologies, and the reasons for their development and use, is essential.

Crosstab Analysis Outputs

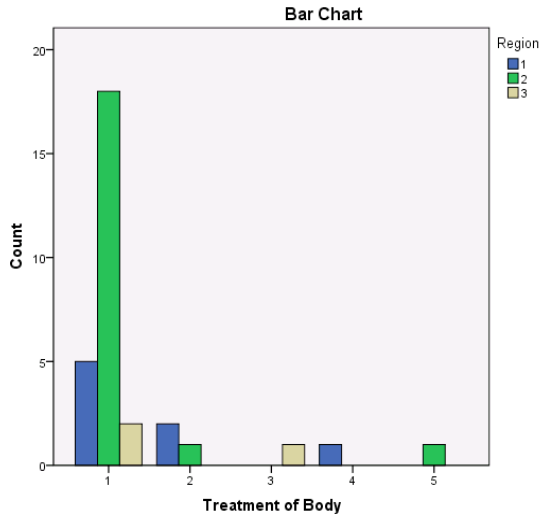
Regional Variation Analyses

Regionality by Treatment of the Body

Overall Region + Treatment of the Body

Treatment of Body * Region Crosstabulation					
		Region			Total
		East	Central	West	
Treatment of Body	Whole Skeletons	5	18	2	25
	Skull Only	2	1	0	3
	Cremation Only	0	0	1	1
	Mixed Inhum. & Crem.	1	0	0	1
	Fragments	0	1	0	1
Total		8	20	3	31

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.058 ^a	8	.042
Likelihood Ratio	11.373	8	.181
Linear-by-Linear Association	.122	1	.727
N of Valid Cases	31		
a. 13 cells (86.7%) have expected count less than 5. The minimum expected count is .10.			

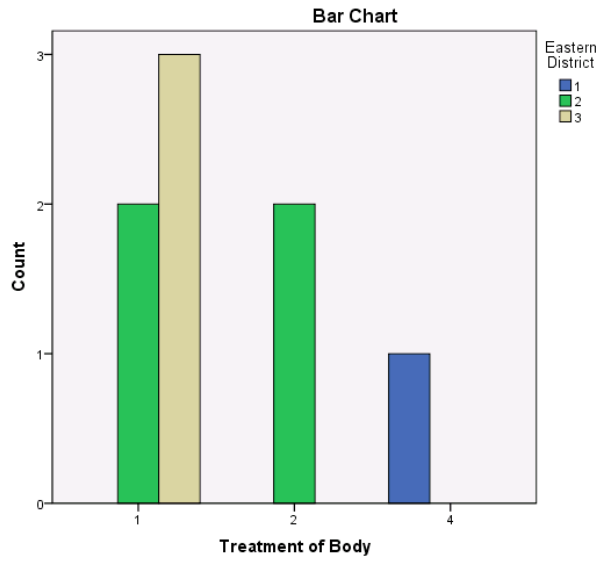


Eastern Region + Treatment of the Body

Treatment of Body * Eastern District Crosstabulation					
		Eastern District			Total
		Mirabello	Ierapetra	Siteia	
Treatment of Body	Whole	0	2	3	5
	Skeletons				
	Skull Only	0	2	0	2
	Mixed Inhum. & Crem.	1	0	0	1
Total		1	4	3	8

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.400^a	4	.034
Likelihood Ratio	8.859	4	.065
Linear-by-Linear Association	4.587	1	.032
N of Valid Cases	8		

a. 9 cells (100.0%) have expected count less than 5. The minimum expected count is .13.

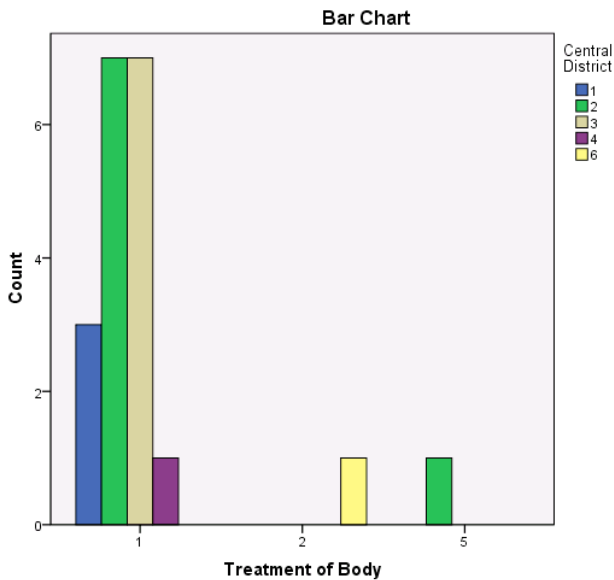


Central District + Treatment of the Body

Treatment of Body * Central District Crosstabulation							
		Central District					Total
		Malevyzion	Temenos	Pedhiadha	Monofatsion	Pyriotissa	
Treatment of Body	Whole Skeletons	3	7	7	1	0	18
	Skull Only	0	0	0	0	1	1
	Bone Fragments	0	1	0	0	0	1
Total		3	8	7	1	1	20

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.528 ^a	8	.006
Likelihood Ratio	9.748	8	.283
Linear-by-Linear Association	.109	1	.742
N of Valid Cases	20		

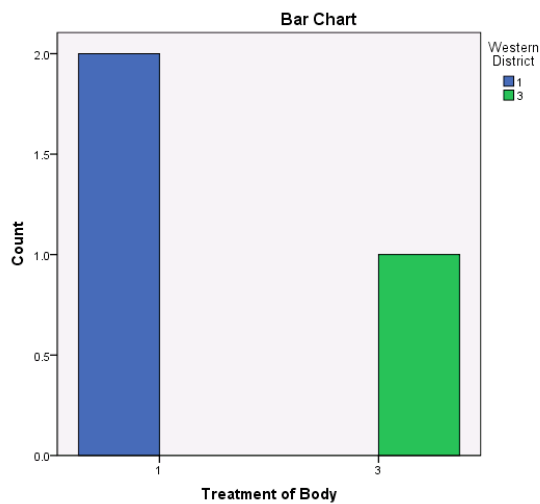
a. 13 cells (86.7%) have expected count less than 5. The minimum expected count is .05.



Western District + Treatment of the Body

Treatment of Body * Western District Crosstabulation				
		Western District		Total
		Rethymnon	Khydonia	
Treatment of Body	Whole	2	0	2
	Skeletons			
	Cremation	0	1	1
Total		2	1	3

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3.000^a	1	.083		
Continuity Correction ^b	.188	1	.665		
Likelihood Ratio	3.819	1	.051		
Fisher's Exact Test				.333	.333
Linear-by-Linear Association	2.000	1	.157		
N of Valid Cases	3				
a. 4 cells (100.0%) have expected count less than 5. The minimum expected count is .33.					
b. Computed only for a 2x2 table					



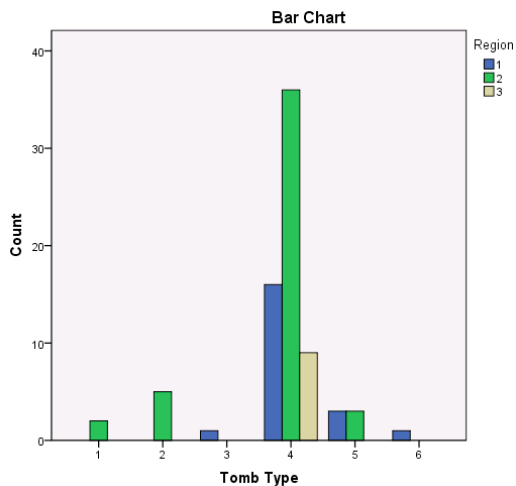
Regionality by Tomb Type

Overall Region + Tomb Type

Tomb Type * Region Crosstabulation					
		Region			Total
		East	Central	West	
Tomb Type	Pit	0	2	0	2
	Shaft	0	5	0	5
	Cave	1	0	0	1
	Rock-Cut Chamber	16	36	9	61
	Above Built	3	3	0	6
	Rock Crevice	1	0	0	1
Total		21	46	9	76

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.213 ^a	10	.271
Likelihood Ratio	15.058	10	.130
Linear-by-Linear Association	1.636	1	.201
N of Valid Cases	76		

a. 15 cells (83.3%) have expected count less than 5. The minimum expected count is .12.

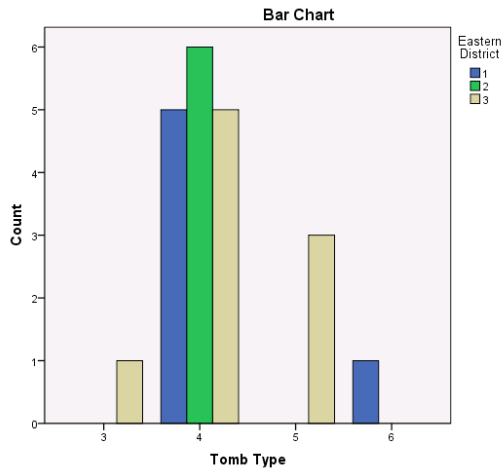


Eastern Region + Tomb Type

Tomb Type * Eastern District Crosstabulation					
		Eastern District			Total
		Mirabello	Ierapetra	Siteia	
Tomb Type	Cave	0	0	1	1
	Chamber	5	6	5	16
	Above Built	0	0	3	3
	Rock Crevice	1	0	0	1
Total		6	6	9	21

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.823 ^a	6	.184
Likelihood Ratio	10.285	6	.113
Linear-by-Linear Association	.062	1	.803
N of Valid Cases	21		

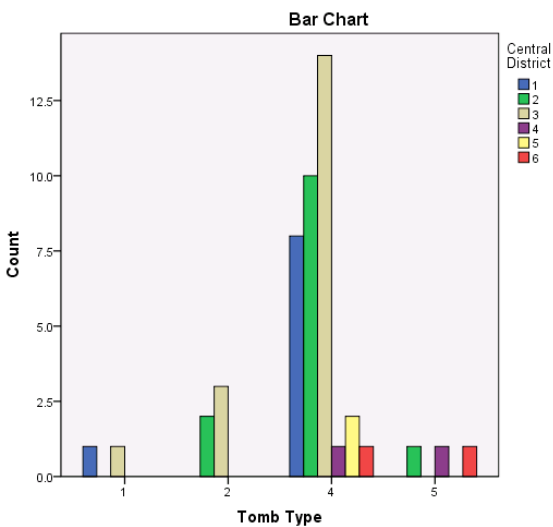
a. 11 cells (91.7%) have expected count less than 5. The minimum expected count is .29.



Central Region + Tomb Type

		Tomb Type * Central District Crosstabulation						Total
		Central District						
		Malevzion	Temenos	Pedhiadha	Monofatsion	Kainourion	Pyriotissa	
Tomb Type	Pit Grave	1	0	1	0	0	0	2
	Shaft Grave	0	2	3	0	0	0	5
	Chamber Tomb	8	10	14	1	2	1	36
	Above Built	0	1	0	1	0	1	3
Total		9	13	18	2	2	2	46

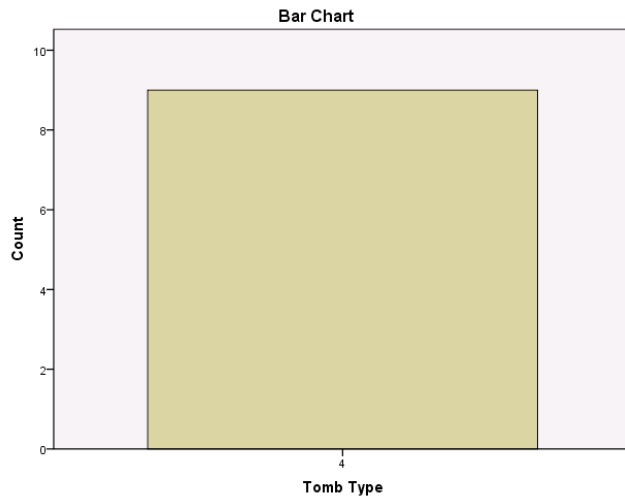
Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.439 ^a	15	.240
Likelihood Ratio	15.506	15	.416
Linear-by-Linear Association	1.015	1	.314
N of Valid Cases	46		
a. 21 cells (87.5%) have expected count less than 5. The minimum expected count is .09.			



Western District + Tomb Type

Tomb Type * Western District Crosstabulation			
		Western District	
		1	Total
Tomb Type	4	9	9
Total		9	9

Chi-Square Tests	
	Value
Pearson Chi-Square	. ^a
N of Valid Cases	9
a. No statistics are computed because Tomb Type and Western District are constants.	

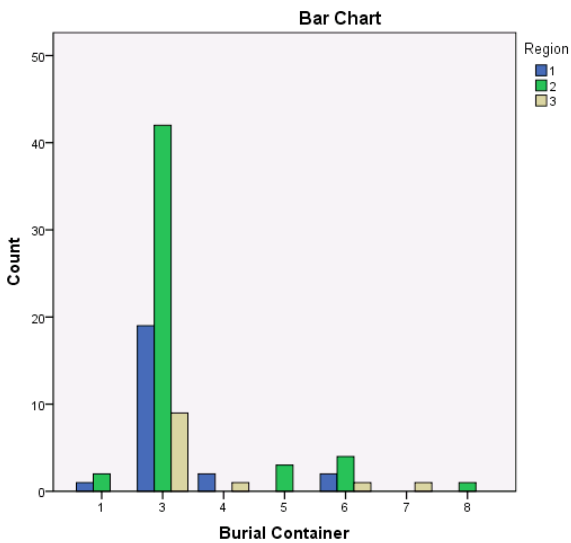


Regionality by Burial Container
Overall Region + Burial Container

Burial Container * Region Crosstabulation					
		Region			Total
		East	Central	West	
Burial Container	Floor	1	2	0	3
	Larnax	19	42	9	70
	Vase	2	0	1	3
	Wood	0	3	0	3
	Pit + Larnax	2	4	1	7
	Floor + Larnax	0	0	1	1
	Floor + Wood	0	1	0	1
	Total	24	52	12	88

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.967 ^a	12	.303
Likelihood Ratio	14.493	12	.270
Linear-by-Linear Association	.902	1	.342
N of Valid Cases	88		

a. 18 cells (85.7%) have expected count less than 5. The minimum expected count is .14.

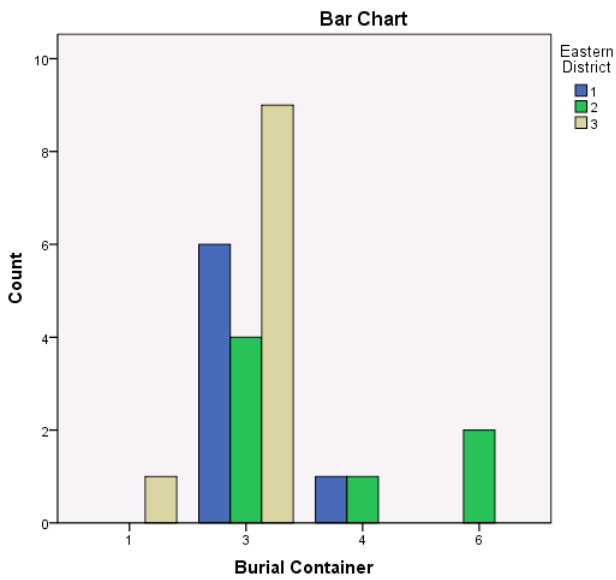


Eastern District + Burial Container

Burial Container * Eastern District Crosstabulation					
		Eastern District			Total
		Mirabello	Ierapetra	Siteia	
Burial Container	Floor	0	0	1	1
	Larnax	6	4	9	19
	Vase	1	1	0	2
	Pit + Larnax	0	2	0	2
	Total	7	7	10	24

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.301^a	6	.217
Likelihood Ratio	9.490	6	.148
Linear-by-Linear Association	.865	1	.352
N of Valid Cases	24		

a. 9 cells (75.0%) have expected count less than 5. The minimum expected count is .29.



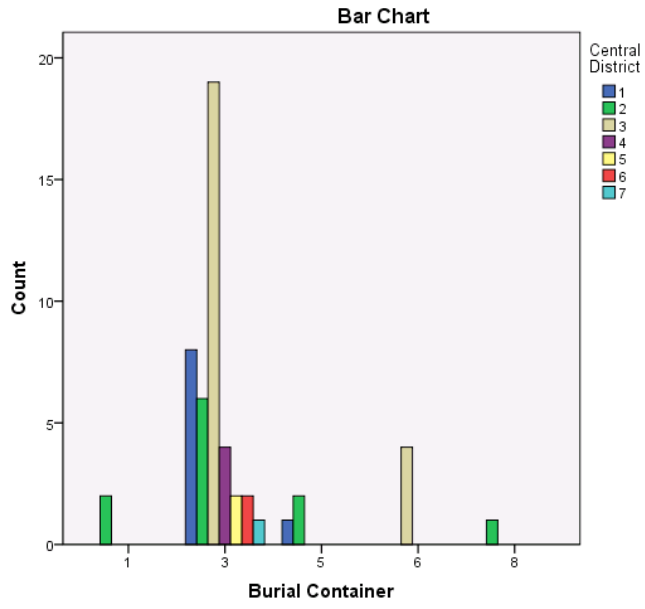
Central District + Burial Container

Burial Container * Central District Crosstabulation							
		Central District					
		Malevyzion	Temenos	Pedhiadha	Monofatsion	Kainourion	Pyriotissa
Burial Container	Floor	0	2	0	0	0	0
	Larnax	8	6	19	4	2	2
	Wood	1	2	0	0	0	0
	Pit + Larnax	0	0	4	0	0	0
	Wood + Floor	0	1	0	0	0	0
Total		9	11	23	4	2	2

Burial Container * Central District Crosstabulation			
		Central District	Total
		Lasithi	
Burial Container	Floor	0	2
	Larnax	1	42
	Wood	0	3
	Pit + Larnax	0	4
	Wood + Floor	0	1
Total		1	52

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.886^a	24	.527
Likelihood Ratio	23.270	24	.504
Linear-by-Linear Association	.188	1	.664
N of Valid Cases	52		

a. 32 cells (91.4%) have expected count less than 5. The minimum expected count is .02.

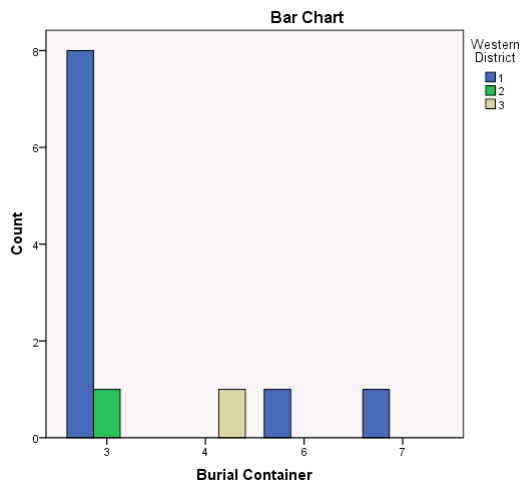


Western District + Burial Container

Burial Container * Western District Crosstabulation					
		Western District			Total
		Rethymnon	Mylopotamos	Khydonia	
Burial Container	Larnax	8	1	0	9
	Vase	0	0	1	1
	Pit + Larnax	1	0	0	1
	Floor + Larnax	1	0	0	1
Total		10	1	1	12

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.267^a	6	.056
Likelihood Ratio	7.307	6	.293
Linear-by-Linear Association	.000	1	1.000
N of Valid Cases	12		

a. 11 cells (91.7%) have expected count less than 5. The minimum expected count is .08.

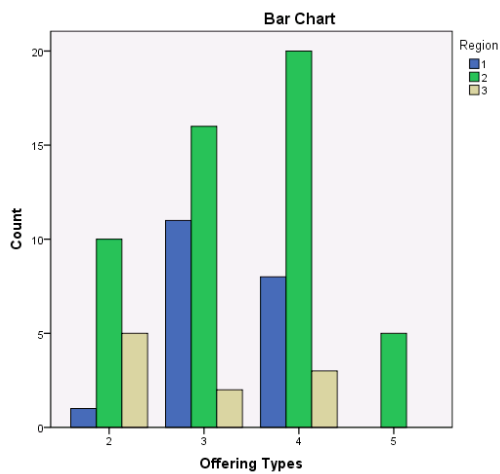


Regionality by Offering Type
Overall Region + Offering Type

Offering Types * Region Crosstabulation					
		Region			Total
		East	Central	West	
Offering Types	Few Low	1	10	5	16
	Many Low	11	16	2	29
	Few High	8	20	3	31
	Many High	0	5	0	5
	Total	20	51	10	81

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.019 ^a	6	.043
Likelihood Ratio	14.128	6	.028
Linear-by-Linear Association	1.641	1	.200
N of Valid Cases	81		

a. 7 cells (58.3%) have expected count less than 5. The minimum expected count is .62.

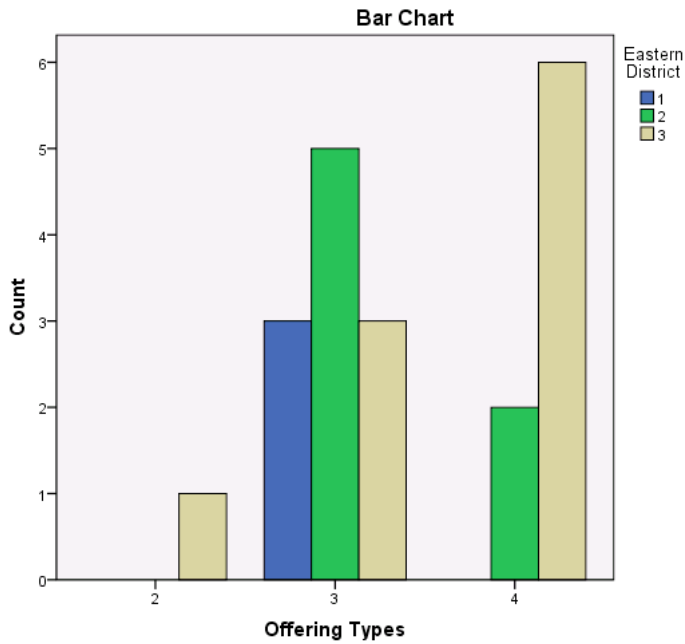


Eastern District + Offering Type

Offering Types * Eastern District Crosstabulation					
		Eastern District			Total
		Mirabello	Ierapetra	Slteia	
Offering Types	Few Low	0	0	1	1
	Many Low	3	5	3	11
	Few High	0	2	6	8
Total		3	7	10	20

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.013 ^a	4	.198
Likelihood Ratio	7.470	4	.113
Linear-by-Linear Association	1.788	1	.181
N of Valid Cases	20		

a. 8 cells (88.9%) have expected count less than 5. The minimum expected count is .15.



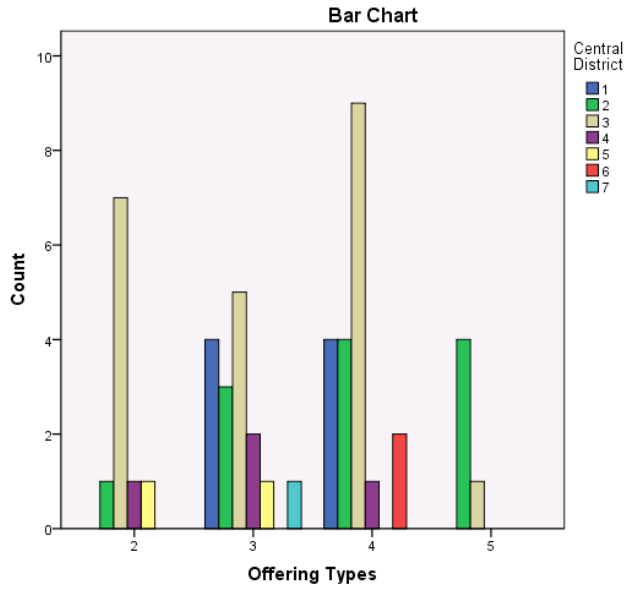
Central District + Offering Type

Offering Types * Central District Crosstabulation							
		Central District					
		Malevyzion	Temenos	Pedhiadha	Monofatsion	Kainourion	Pyriotissa
Offering Types	Few Low	0	1	7	1	1	0
	Many Low	4	3	5	2	1	0
	Few High	4	4	9	1	0	2
	Many High	0	4	1	0	0	0
	Total	8	12	22	4	2	2

Offering Types * Central District Crosstabulation			
		Central District	
		Lasithi	Total
Offering Types	Few Low	0	10
	Many Low	1	16
	Few High	0	20
	Many High	0	5
	Total	1	51

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.655^a	18	.204
Likelihood Ratio	24.183	18	.149
Linear-by-Linear Association	1.653	1	.198
N of Valid Cases	51		

a. 26 cells (92.9%) have expected count less than 5. The minimum expected count is .10.

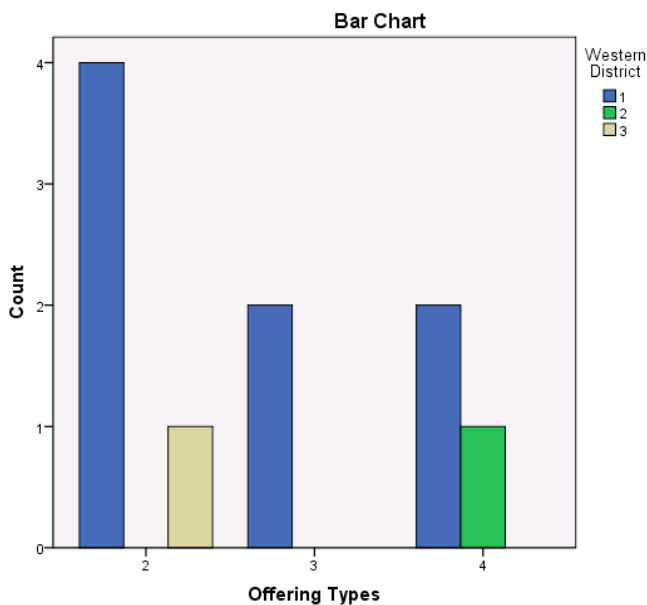


Western District + Offering Type

Offering Types * Western District Crosstabulation					
		Western District			Total
		Rethymnon	Mylopotamos	Khydonia	
Offering Types	Few Low	4	0	1	5
	Many Low	2	0	0	2
	Few High	2	1	0	3
	Total	8	1	1	10

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.500^a	4	.478
Likelihood Ratio	3.958	4	.412
Linear-by-Linear Association	.046	1	.830
N of Valid Cases	10		

a. 9 cells (100.0%) have expected count less than 5. The minimum expected count is .20.



Status Analyses

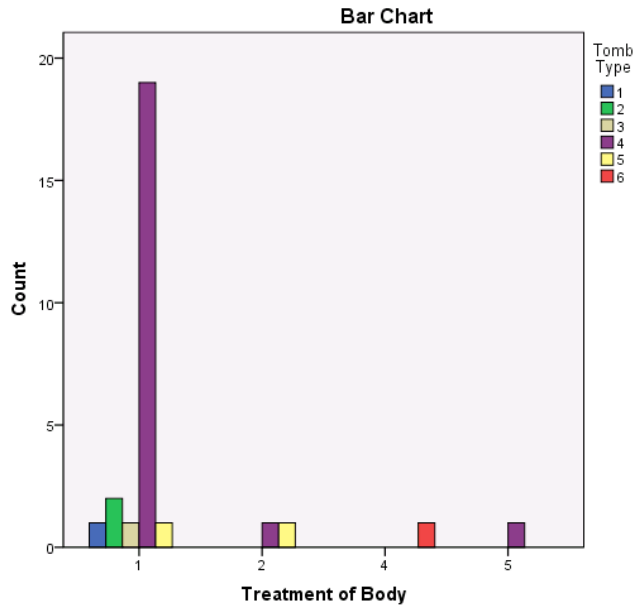
Tomb Type + Treatment of the Body

Treatment of Body * Tomb Type Crosstabulation						
		Tomb Type				
		Pit	Shaft	Cave	Chamber	Above Built
Treatment of Body	Whole Skeleton	1	2	1	19	1
	Skull Only	0	0	0	1	1
	Mixed Inhum. & Crem.	0	0	0	0	0
	Fragments	0	0	0	1	0
Total		1	2	1	21	2

Treatment of Body * Tomb Type Crosstabulation			
		Tomb Type	Total
		Rock Crevice	
Treatment of Body	Whole Skeleton	0	24
	Skull Only	0	2
	Mixed Inhum. & Crem.	1	1
	Fragments	0	1
Total		1	28

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	34.306^a	15	.003
Likelihood Ratio	12.530	15	.639
Linear-by-Linear Association	3.282	1	.070
N of Valid Cases	28		

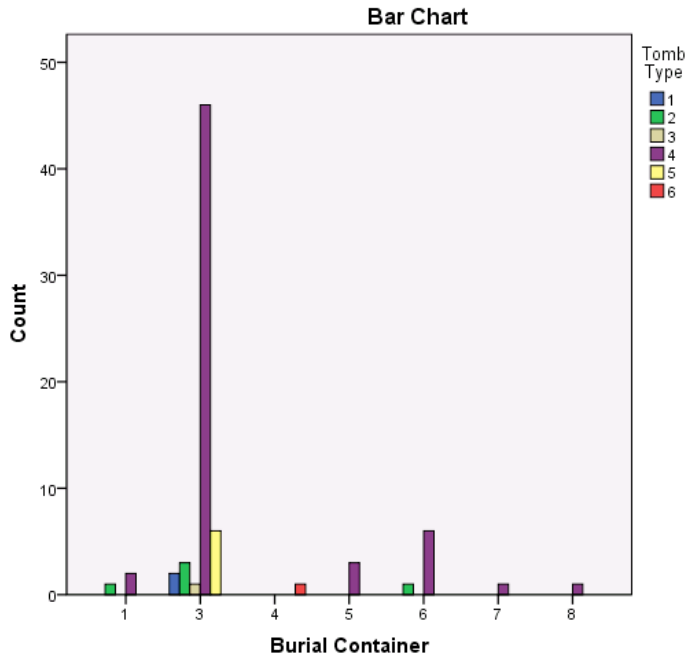
a. 23 cells (95.8%) have expected count less than 5. The minimum expected count is .04.



Tomb Type + Burial Container

Crosstab						
		Tomb Type				
		Pit	Shaft	Cave	Chamber	Above Built
Burial Container	Floor	0	1	0	2	0
	Larnax	2	3	1	46	6
	Vase	0	0	0	0	0
	Wood	0	0	0	3	0
	Pit + Larnax	0	1	0	6	0
	Floor + Larnax	0	0	0	1	0
	Floor + Wood	0	0	0	1	0
Total		2	5	1	59	6

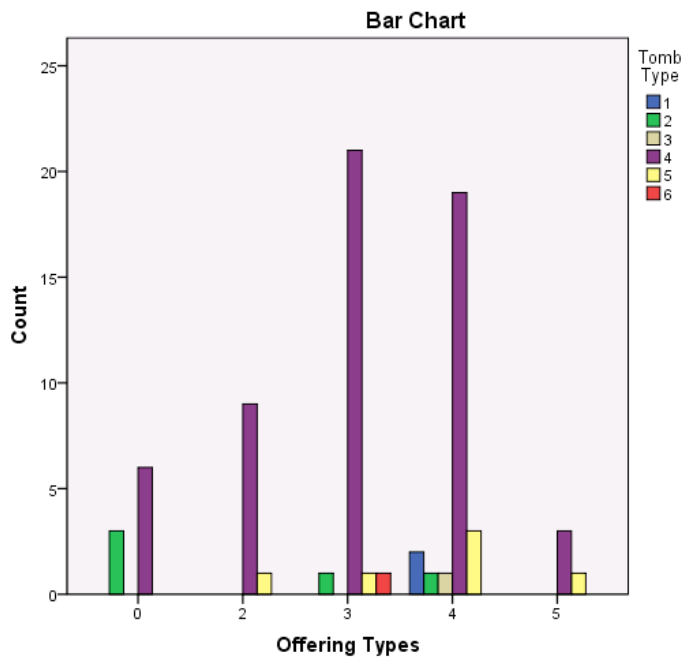
Crosstab			
		Tomb Type	Total
		Rock Crevice	
Burial Container	Floor	0	3
	Larnax	0	58
	Vase	1	1
	Wood	0	3
	Pit + Larnax	0	7
	Floor + Larnax	0	1
	Floor + Wood	0	1
Total		1	74



Tomb Type + Offering Type

		Crosstab						Total
		Tomb Type						
		Pit	Shaft	Cave	Chamber	Above Built	Rock Crevice	
Offering Types	None Found	0	3	0	6	0	0	9
	Few Low	0	0	0	9	1	0	10
	Many Low	0	1	0	21	1	1	24
	Few High	2	1	1	19	3	0	26
	Many High	0	0	0	3	1	0	4
Total		2	5	1	58	6	1	73

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.875^a	20	.347
Likelihood Ratio	19.725	20	.475
Linear-by-Linear Association	1.805	1	.179
N of Valid Cases	73		
a. 26 cells (86.7%) have expected count less than 5. The minimum expected count is .05.			



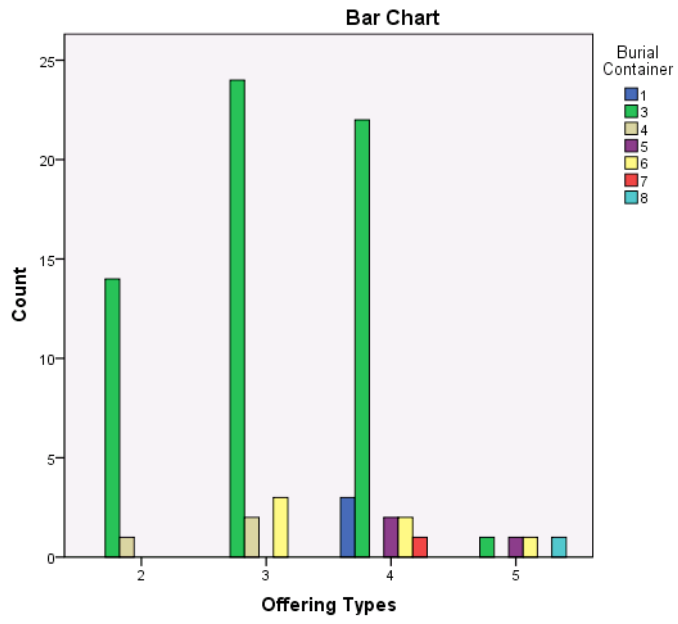
Burial Container + Offering Types

Offering Types * Burial Container Crosstabulation							
		Burial Container					
		Floor	Larnax	Vase	Wood	Pit + Larnax	Floor + Larnax
Offering Types	Few Low	0	14	1	0	0	0
	Many Low	0	24	2	0	3	0
	Few High	3	22	0	2	2	1
	Many High	0	1	0	1	1	0
Total		3	61	3	3	6	1

Offering Types * Burial Container Crosstabulation			
		Burial Container	Total
		Floor + Wood	
Offering Types	Few Low	0	15
	Many Low	0	29
	Few High	0	30
	Many High	1	4
Total		1	78

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	39.259 ^a	18	.003
Likelihood Ratio	29.084	18	.047
Linear-by-Linear Association	4.237	1	.040
N of Valid Cases	78		

a. 25 cells (89.3%) have expected count less than 5. The minimum expected count is .05.



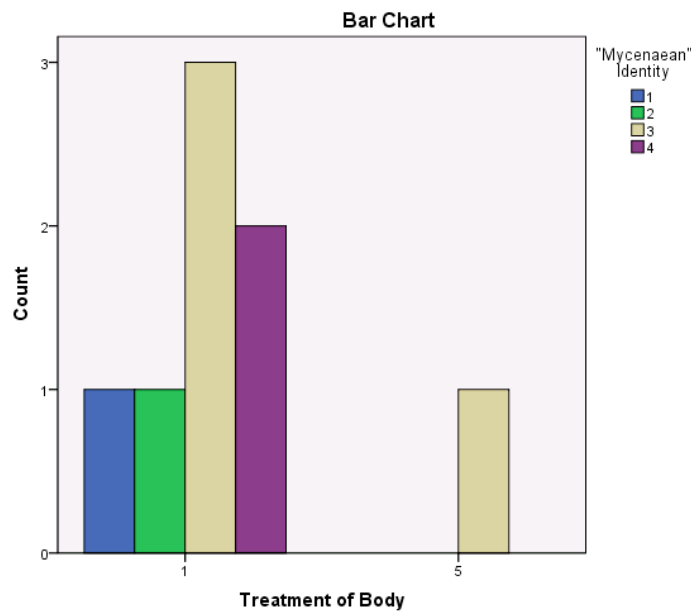
Mycenaean Identity Analyses

Mycenaean Indicators by Treatment of the Body

Treatment of Body * "Mycenaean" Identity Crosstabulation						
		"Mycenaean" Identity				Total
		Wooden Bier	Multiple Bronze Vessels	Multiple Weapons	Multiple Indicators	
Treatment of Body	Whole Skeletons	1	1	3	2	7
	Bone Fragments	0	0	1	0	1
Total		1	1	4	2	8

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.143 ^a	3	.767
Likelihood Ratio	1.530	3	.675
Linear-by-Linear Association	.018	1	.893
N of Valid Cases	8		

a. 8 cells (100.0%) have expected count less than 5. The minimum expected count is .13.

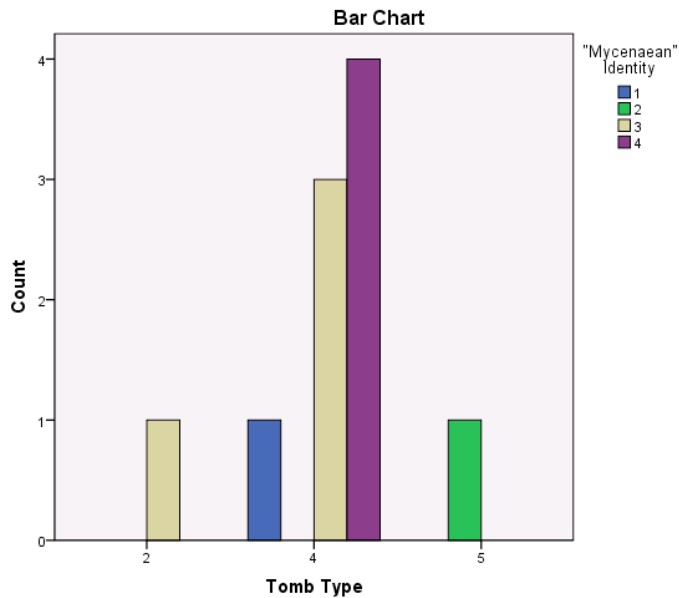


Mycenaean Indicators by Tomb Type

Tomb Type * "Mycenaean" Identity Crosstabulation						
		"Mycenaean" Identity				Total
		Wooden Bier	Multiple Bronze Vessels	Multiple Weapons	Multiple Indicators	
Tomb Type	Shaft	0	0	1	0	1
	Above Built	1	0	3	4	8
	Rock Crevice	0	1	0	0	1
	Total	1	1	4	4	10

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.563^a	6	.072
Likelihood Ratio	8.282	6	.218
Linear-by-Linear Association	.167	1	.683
N of Valid Cases	10		

a. 12 cells (100.0%) have expected count less than 5. The minimum expected count is .10.



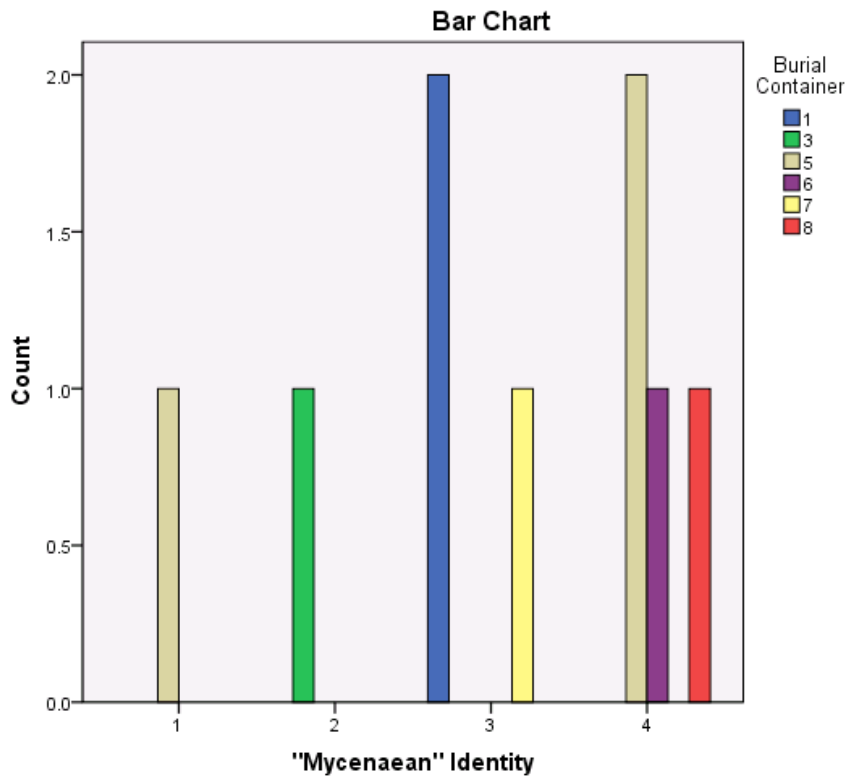
Mycenaean Indicators by Burial Container

"Mycenaean" Identity * Burial Container Crosstabulation						
		Burial Container				
		Floor	Larnax	Wood	Pit + Larnax	Floor + Larnax
"Mycenaean" Identity	Wooden Bier	0	0	1	0	0
	Multiple Bronze Vessels	0	1	0	0	0
	Multiple Weapons	2	0	0	0	1
	Multiple Indicators	0	0	2	1	0
	Total	2	1	3	1	1

"Mycenaean" Identity * Burial Container Crosstabulation			
		Burial Container	Total
		Floor + Wood	
"Mycenaean" Identity	Wooden Bier	0	1
	Multiple Bronze Vessels	0	1
	Multiple Weapons	0	3
	Multiple Indicators	1	4
	Total	1	9

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.500^a	15	.192
Likelihood Ratio	18.049	15	.260
Linear-by-Linear Association	.775	1	.379
N of Valid Cases	9		

a. 24 cells (100.0%) have expected count less than 5. The minimum expected count is .11.



Mycenaean Indicators by Offering Types

Offering Types * "Mycenaean" Identity Crosstabulation						
		"Mycenaean" Identity				Total
		Wooden Bier	Multiple Bronze Vessels	Multiple Weapons	Multiple Indicators	
Offering Types	Few High	1	0	3	1	5
	Many High	0	1	1	3	5
Total		1	1	4	4	10

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.000^a	3	.261
Likelihood Ratio	4.866	3	.182
Linear-by-Linear Association	.910	1	.340
N of Valid Cases	10		

a. 8 cells (100.0%) have expected count less than 5. The minimum expected count is .50.

