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Cremation, Society, and Landscape in the North Aegean, 6000 – 700 BCE

A dissertation submitted in partial satisfaction of the

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in Archaeology

by

MaryAnn Kontonicolas

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ABSTRACT OF THE DISSERTATION

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Professor John K. Papadopoulos, Chair

This research project examines the appearance and proliferation of some of the earliest cremation burials in Europe in the context of the prehistoric north Aegean. Using archaeological and osteological evidence from the region between the Pindos mountains and Evros river in northern Greece, this study examines the formation of death rituals, the role of landscape in the emergence of cemeteries, and expressions of social identities against the backdrop of diachronic change and synchronic variation. I draw on a rich and diverse record of mortuary practices to examine the co-existence of cremation and inhumation rites from the beginnings of farming in the Neolithic period to the adoption of the Greek alphabet by the eighth century BCE or earlier. Based on my review of the evidence, I also offer suggestions regarding: 1) why cremation is adopted so early in the Neolithic north Aegean, and essentially nowhere else in contemporary southeast Europe and the Near East; 2) why cremation perseveres and re-emerges as a popular burial rite in

the Early Iron Age in this region; and 3) whether cremation endured in this region in association with kinship-based states attested in the region later in antiquity, or on the basis of social status, gender, age, or personal preference.

The burial record of the north Aegean over 5,000 years is marked by a high degree of synchronic and diachronic diversity in funerary ritual, grave types, grave objects, and location choice, which reflect pluralistic approaches to death. The rite of cremation especially was a complex phenomenon not limited to one tomb type or region through time, appearing both in cremation-exclusive cemeteries and in isolated tombs within inhumation-dominant burial grounds. I suggest that cremation was adopted early in the Neolithic for two reasons. The first reason, relating to individual infant cremations discovered in intramural contexts, is due to infants not reaching a critical rite of passage. The second reason for adoption, relating to the cremation-exclusive burial grounds, is to dissolve the individuality of the deceased and promote community collectivity.

The reinforcement of group identity and communality is, I argue, applicable as an explanatory framework for why cremation perseveres in certain EBA communities. At EBA cemeteries where cremation was a minority rite, however, infants and children tended to be cremated, a continuation of a practice established in a select few Neolithic communities and perhaps also related to an early, tragic death and a failure to reach a critical rite of passage. By the LBA, cremation burials reach their lowest numbers throughout the prehistoric period. The few individuals who are cremated are adults and may have held special status in their communities. The preponderance of cremation burials in stone-built tumuli in the Rhodope region of east Macedonia and Thrake

indicates that people in the region may have begun to associate with group identities beyond the immediate community.

Cremation increases in popularity during the EIA, alongside a massive increase in the number of cemeteries and an expansion of their overall extent, reflecting diverse approaches to death. Cemeteries with cremations include a) cemeteries with a majority of cremations and b) cemeteries with a minority of cremations (1 – 6% of graves). Beginning with the former group, many cemeteries that are exclusively comprised of cremations are located east of the Strymon river. With a tradition going back to the LBA, stone-built tumuli that are associated with cremations in east Macedonia and Thrake could be indicative of a broader community and sense of group identity (or identities). In Chalkidiki, cremation was the exclusive or dominant rite at nearly all cemeteries. Palaiogynaikokastro in central Macedonia was exceptional in its hundreds of cremations in a region dominated by inhumations, while also incorporating elite grave goods found in inhumation graves. Through burning the dead, the residents of Palaiogynaikokastro differentiated themselves from their neighbors in the Axios valley, while participating in settlement hierarchies and territorial antagonisms that may have characterized the fertile valley during this time. These cases suggest the mobilization of different communities adopting similar burial rituals, integrating and defining themselves within a broader social – perhaps also political – group.

As for EIA cemeteries where cremation is the minority rite, the circumstances and contexts vary from site to site. At certain sites, only infants and children were cremated, while at other cemeteries, cremations occurred either at earlier or later periods than the inhumations. Although difficult to prove, it may also be possible that some cremations

may have been a personal choice on the part of the deceased and their family, or a marker of an individual who had migrated to a region away from their place of birth and wanted to replicate the death rituals of their homeland. Overall, however, gender does not appear to play a large role in determining who was cremated and who was inhumed. The north Aegean is thus marked by a highly diverse mortuary record in a micro-regional, highly fragmented point of confluence that gradually grew from small communities of farmers to tribal, kinship-based states.

The dissertation of MaryAnn Kontonicolas is approved.

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To my parents and George

Table of Contents

List of Figures

List of Tables

List of Abbreviations

EN – Early Neolithic
LN – Late Neolithic
EBA – Early Bronze Age
MBA – Middle Bronze Age
LBA – Late Bronze Age
EIA – Early Iron Age
ΑΕΜΘ – Αρχαιολογικό Έργο στη Μακεδονία και στη Θράκη
ΑΔ – Αρχαιολογικόν Δελτίον
ΑΕ – Αρχαιολογική Εφημερίς
ΑΕΑΜ – Αρχαιολογικό Έργο στην Άνω Μακεδονία

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Chapter 1 – Introduction

This research project examines the appearance and proliferation of some the earliest cremation burials in Europe in the context of the prehistoric north Aegean (Fig. 1.1).

Figure 1.1 Map of Greece and neighboring countries, with the sub-regions of Greece labelled. The study area is labelled in black, and includes west, central, and east Macedonia, Thrake, Chalkidiki, and the island of Thasos.

Using archaeological and osteological evidence from the region between the Pindos mountains and Evros river in northern Greece, I aim to illuminate our understanding of the formation of death rituals, the role of landscape in the emergence of cemeteries, and

the expressions of social identities against the backdrop of diachronic change and synchronic variation – from the beginnings of farming in the Neolithic period to the adoption of the Greek alphabet by the eighth century BCE or earlier. I draw on a rich and diverse record of mortuary practices to examine the co-existence of cremation and inhumation rites, in order to identify both contrasts and themes linking the burning and burial of the north Aegean dead. Based on my review of the evidence, I also offer suggestions regarding: 1) why cremation is adopted so early in the Neolithic north Aegean, and essentially nowhere else in contemporary southeast Europe and the Near East; 2) why cremation perseveres and re-emerges as a popular burial rite in the Early Iron Age in this region; and 3) whether cremation endured in this region in association with kinship-based states (labelled *ethne* later in antiquity), or on the basis of social status, gender, or personal preference.

The earliest case of cremation burial in Europe dates to the ninth millennium BCE, at the Mesolithic site of Franchthi Cave in the Argolid, southern Greece (Cullen 1995; 1999). Inhumation subsequently becomes the sole burial rite in southern Greece until much later in the 10th century BCE, when the re-appearance of cremation has often been seen as involving external influences, and sometimes linked with heroic cremation in Homer. The custom of cremating the dead, however, has a long tradition in northern Greece, well before Homer. It is thus necessary to analyze the co-occurrence of cremation and inhumation rites, in order to attempt to explain why and when people began cremating their dead, where cremation and inhumation were practiced through time, how and why cremation practices were variable in the same period of time and

geographical area, what were the differences in grave goods and tomb elaboration between burial rites, and who was cremated (and inhumed).

1.1 Problematizing cremation in prehistoric and protohistoric Greece

"The ancient pyre was poetic; the history of the modern crematorium is cynical," wrote the Italian hygienist and anthropologist Palolo Mantegazza, who had undergone a change of heart after his initial support of cremation (Laqueur 2015: 542). When cremation was initially being introduced to nineteenth-century Europeans, the funeral rites of the poet Percy Bysshe Shelley, organized by Edward John Trelawny and attended by Shelley's friend Lord Byron (who could not tolerate the smell and left midway through the ceremony), was radical in its nostalgic neoclassicism (Fig. 1.2).

Figure 1.2 "The Funeral of Shelley" by Louis Édouard Fournier (1889). From left to right: Trelawney, Leigh Hunt, and Lord Byron (Google Arts & Culture).

After Shelley drowned in a boating accident off the coast of Italy in 1822, his body washed ashore ten days later and was quickly buried in the sand. Although legend says

otherwise, Tuscans dug him up and cremated his body because the Quarantine Law required burning anything washed up from the sea to avoid the spread of plague. While a health officer burned the body on a collection of driftwood and pine logs on a beach near Viareggio, one hundred kilometers northwest of Florence on the coast of Tuscany, Shelley's friends added frankincense, salt, wine, and oil – "such things as were used by Shelley's much-loved Hellenes on their funeral pyres" (Trelawny 1878 [1973]: 168–173). Nearly seventy years later, "the outrageousness of the scene Trelawny staged had been transformed into a melancholy neoclassical tableau vivant with kneeling women and all sorts of other non-Homeric touches" (Laqueur 2015: 540).

This burial, fit for a "Hellenic bard," serves to underline the package of rites associated with Homeric epic, and in particular of heroic cremation funerals (*Il*. 23.108–261). Given that Homer has been a deeply embedded part of the disciplinary tradition from its inception (I. Morris 1986), it is perhaps no surprise that cremation and other facets of late prehistoric and early protohistoric Greek burial customs have been linked to the Homeric epics in some way (Catling 1995; Crielaard 2016; Stampolidis 1995). It was nearly 45 years ago when Snodgrass (1971 [2000]: 391) noted that the very mention of Homeric burial customs was enough to incite a smile among specialists.

When Homer was no longer deemed to be a satisfactory explanation for the widespread adoption of cremation burials in Early Iron Age Greece, researchers in the 1970s and 1980s suggested population movement and cultural diffusion – tending to view the rite of cremation as exceptional, and thus signaling individuals that for one reason or another were singled out for special treatment. The "new" rite of cremation in the Early Iron Age was identified by some scholars as one shared with the Urnfield populations

farther north, while individual inhumation in stone-lined cist graves was taken to represent a reversal of the Mycenaean preference for multiple inhumation (Bouzek 1985: 205). Thus, both burial rite changes, taken together with the transmission of new technology from the north, more specifically the northern Balkans, were interpreted to signify a radical change of population: the arrival of the Dorians (*cf*. Hall 2002: 75–76). Although in certain scholarly circles the Dorian migration or invasion has been discredited, elsewhere the Dorians continue to be invoked in historical accounts of ancient Greece (*cf.* Schnapp-Gourbeillon 1979; 1986; Hall 1997: 4–16).

Among Aegean prehistorians, meanwhile, it is perhaps because of the Dorians that there has been a reticence to look north of southern Greece's borders for cultural contact and exchange until very recently, and instead look to the east for "influence." Hooker (1988), Hall (2002: 75–76), and other scholars have questioned the assumption of supposed cultural innovations as the material reflection of migrations, yet Anatolia as the origin of cremation was later supported by many specialists. It was assumed for some time that the custom of cremation spread from Asia Minor via the Dodecanese or the Cyclades, and then reached the Greek mainland and Crete (Desborough 1972: 266–77; Iakovides 1969–70: 43–47; Melas 1984; Mylonas 1948; Snodgrass 1971: 157–158, 326-7; Vermeule 1972: 201–202). Although the lines of transmission of cremation was generally agreed upon, the significance of the changes in funerary rites and the identities of those cremated have been a source of debate. Melas (1984: 33) suggested that cultural contact between Aegean and Anatolian travelers, merchants, or warriors was responsible for the gradual increase in instances of cremation burials. Popham e*t al.* (1980: 210) connected the urn cremations at Lefkandi with those of Athens and suggested that some

at least may represent Athenian immigrants (contra Papadopoulos and Smithson 2017: 620 – 621, 679. Some scholars, namely Snodgrass (1971 [2000]: 145–146, 187) and Desborough (1972: 273), were cautious in their conclusions about the changes in rite on the basis of the funerary record and questioned whether the dichotomy in mortuary practices (burnt/unburnt) may not have been as straightforward in the past as contemporary practitioners and later scholars would portray it. Snodgrass (1971 [2000]: 146) argued that the underlying forces in the change in burial practices "in terms of racial differentiation or religious belief in early Greece – two fields in which they have been adduced as evidence – must be decidedly limited" and that the significance of the change may be far less deep than was once supposed, while Desborough (1972: 267) cautioned not to overstress the importance of cremations. Moreover, Desborough (1972: 273–275) highlighted the great variability and lack of uniformity in burial rites throughout the Aegean, especially so in cremation burials, pointing out that no clear connections could be made between the sites where cremation occurred on a considerable scale. In Desborough's (1972: 270–271) survey of Athens, for example, he notes that although some facets of cremation burial in Athens are observed elsewhere, such as at Lefkandi, never are all components of the Athenian cremation rites found all at once (see, most recently, Papadopoulos and Smithson 2017: 575–688).

Beginning in the 1970s and the decades that followed, research and fieldwork in north Greece intensified thanks to the increase of salvage excavation related to large-scale public works and state interest. Although a number of cemeteries and burials were increasingly being excavated and published in preliminary field reports in Modern Greek, cremation burials and cemeteries were still rare in the mid-2000s (Papadopoulos 2005:

393). It is perhaps because of this preliminary publication record and lack of known examples until recently that the cultural diffusion model of cremation from Anatolia still held sway in some more recent publications (Kanta 2001; Thomatos 2006). Indeed, Thomatos (2006: 174–177) cites an "eastern influence" and dissemination of cremation burial through contacts between Asia Minor, Syria, Palestine, the Dodecanese, and Attica in the 11th century BCE. Although Kanta (2001: 65) discusses recent evidence of cremation in prehistoric northern Greece, it is used as evidence of a "buffer zone" to support the likelihood of influences coming from Asia Minor to the mainland. Ruppenstein (2013), meanwhile, argues that the custom of cremation was not adopted from Asia Minor, but likely derived from Italian or Western Balkan influence, depending on the cremation burial context. With regards to the reasons for cremation, particularly in cemeteries where the two rites are practiced simultaneously, Papadopoulos (2005: 393–395) suggests social differentiation, social fashion, or personal preference, rather than religious or racial differences.

This overview of positions on the adoption of cremation in the Aegean demonstrate strong linkages between the way archaeologists have construed notions of the individual and society over the course of the prehistoric Aegean and the character of mortuary rituals, with distinctions drawn between inhumation and cremation in most instances. But they are also worth exploring further for a number of reasons. First, the custom of cremating the dead has a long tradition in northern Greece, well before the spread of cremation in southern Greece in the 10th century BCE. By current counts, the instances of cemeteries with cremation burials number eight in the Neolithic, five in the Early Bronze Age, six in the Late Bronze Age, and twenty-three in the Early Iron Age.

These counts indicate that the north Aegean is more than just an intermediary between Asia Minor and the southern mainland, and has the potential to illuminate our understanding in the adoption and spread of cremation in the region. Second, I argue that additional research perspectives hitherto not applied to the study region are also critical to broadening and deepening the archaeological study of cremation practices in the Aegean. It is these perspectives that I will turn to at the end of this chapter.

1.2 Time, space, and landscapes: frameworks and orientation

The most prevalent chronological framework used in prehistoric northern Greece is primarily based on relative chronologies of pottery styles synchronized with Thessaly, the southern Greek mainland, and the neighboring Balkans (Warren & Hankey 1989; Grammenos 1991: 85–98; Kalogirou 1994: 30–38; Manning 1995; Andreou *et al.* 1996: Table 1). There are, however, a fair number of radiocarbon dates in the region, particularly in Neolithic and Bronze Age settlement contexts in western and central Macedonia, as well as others in the Balkans (Triantaphyllou 2001: 7; Facorellis *et al.* 2014). These recent studies are a welcome development, given the problematic assumptions that underpin relative chronology – namely, that similar artifacts are necessarily representative of a particular chronological period over a broad geographical area such as the Aegean (Halstead 1994: 195).

Particularly elusive within north Aegean relative and absolute chronologies is the "Middle Bronze Age," which has thus far only been identified in Thessaly and select sites in Macedonia, such as Valtos-Leptokaryas (Wace & Thompson 1912; Andreou *et al.* 1996: 539; Maran 1992; 2007a). Thus, Andreou *et al.* suggest using the label "later

Bronze Age" when referring to 2300 to 1100 BCE. Their chronological scheme in calibrated years BCE will be the basis of this dissertation (Andreou *et al.* 1996: Table 1; Table 1).

Archaeological Phases		**Years BCE (Calendrical)**
Early Neolithic		6700/6500 – 5800/5600
Middle Neolithic		5800/5600 – 5400/5300
Late Neolithic		5400/5300 – 4700/4500
Final Neolithic		4700/4500 – 3300/3100
Early Bronze Age		3300/3100 – 2300/2200
(Middle Bronze Age)	} Later Bronze Age {	2300/2200 – 1700/1500
Late Bronze Age		1700/1500 – 1100
Early Iron Age		1100 – 700

Table 1. Archaeological phases and chronology for prehistoric Northern Greece. Adapted from Andreou et al. 1996: Table 1.

From the standpoint of its geography, the north Aegean is unique from the rest of Greece, "with its rich alluvial soil, broad plateaus, and normally smooth coastlines, all of which are in contrast to the fragmentation of the more Mediterranean landscapes of the rest of Greece" (Muller 2012: 101). The burials and cemeteries analyzed in this dissertation are located in the modern regions of western, central, and eastern Macedonia, Chalkidiki, Thrake and the island of Thasos, thus comprising a variety of physical

environments: mountain ranges, plains, and major rivers. Most of the interior of northern Greece is hilly or mountainous, reaching elevations of about 2,000 meters (6,500 feet). The main mountainous area in western Macedonia consists of high ranges on three sides: the Kamvounia mountains to the southwest, Mt. Olympus to the south, and the Pieria mountains to the west that separate the study region from Epirus and Albania. The Kitrini Limni upland basin in western Macedonia is located on the ENE lower slopes of Mt. Vermion. The central Macedonian plain is surrounded by the Pieria mountains to the south, the Mt. Vermion chain to the west, Mt. Paikon and Mt. Kerkini to the north, and the lower Axios valley to the east. The Cholomontas mountains lie in the north-central part of Chalkidiki. Chalkidiki's three peninsulas (often referred to as "legs") include – Kassandra (Palleni), Sithonia, and Agios Oros (Akti, the latter of which contains Mt. Athos). The island of Thasos is located approximately seven km from the northern mainland, with a mountainous terrain that rises gradually from the coast to the center. Topographically, Thrake and eastern Macedonia include mountain-enclosed basins and river valleys, as well as the Rhodope mountain range that is interrupted by the Drama and Komotini plains in the south.

A number of major rivers flow into northern Greece from the southern Balkans, including the Haliakmon that begins in the Gramos mountains between the border of northern Greece and Albania, and flows through western Macedonia, between Mt. Vermion and the Pieria Mountains, before flowing into the Thermaic Gulf; the Loudias in central Macedonia that flows through the regions of Pella and Thessaloniki into the Thermaic Gulf; the Axios (Vardar) that begins in F.Y.R.O.M. and flows into the Thermaic Gulf through central Macedonia; the Gallikos river in central Macedonia that

rises in Mt. Kroussai and also flows into the Thermaic Gulf; the Strymonas (Struma) that has its source from the Vitosha mountain in Bulgaria and flows between central and eastern Macedonia; the Nestos (Mesta) that originates in the Rila mountains in western Bulgaria and flows into the Aegean Sea near the island of Thasos; and the Evros (Maritsa) river that also begins in the Rila mountains, flowing southeast between the Balkan and Rhodope mountains to Edirne, Turkey, before flowing into the Aegean Sea. The lowlands and upland basins of northern Greece provide some of the richest arable land in the present-day Greece and, until recently, the region also supported large numbers of transhumant stock (Hammond 1972; Borza 1992). The coastal areas along the Aegean Sea and the river valleys of the region constitute the significant lowlands in the study region, with the rivers providing ample water for the irrigation of the basins. Indeed, the Dramas Plain and the Strymon and Axios valleys are among the richest farmland in present-day Greece.

The geography of the north Aegean today, however, is to a certain extent different to what it was in antiquity. A major part of the central Macedonian plain formed after the timeframe of this research (in the 2nd and 1st century BCE onwards), as a result of alluvial deposits in the gulf of Thessaloniki (or Thermaic Gulf) (Schultz 1989; Georgas & Perissoratis 1992). One of the most dramatic changes in the region has been the coastline shift of central Macedonia to the east since 4000 BCE, as a result of alluviation, deltaic progradation, and sea level change (Ghilardi 2007; Ghilardi *et al.* 2009; Krahtopoulou 2001). Moreover, the route of the Loudias river has changed its channel since the 1920s, as has the Haliakmon, until it was dammed at several points. Lakes that were situated

near sites have greatly contracted since site occupation, such as the lake near the site of Archondiko (Syrides *et al.* 2009).

Situated as it is between southeast Europe, the Near East, and the Mediterranean, the variety of burial practices in northern Greece transcend current political boundaries. In the Early Iron Age, for example, funerary tumuli dot the landscape in northern Greece, as well as in Albania and the F.Y.R.O.M. (Chemsseddoha 2015: 18–19; Hammond 1972; Papadopoulos *et al.* 2014). Although this dissertation focuses on funerary developments within modern Greek borders, I plan to compare these patterns to contemporary cultural developments in the neighboring Balkans, Anatolia, and Mediterranean societies.

1.3 History of archaeological research

The north Aegean also provides a unique image of Greece in the context of its historiography. As many scholars have noted, northern Greece has been characterized by its alterity from the very earliest archaeological work conducted there (Andreou *et al.* 1996: 560–561; Kotsakis 1998; Fotiadis 2001; Muller 2012: 101–102). Archaeological research in northern Greece, or "Macedonia," was justified on the grounds of its role as a passage-way between lands of obvious importance – namely, southern Greece, Europe, and Anatolia (e.g., Casson 1926), and as the homeland of the legendary Dorians (Casson 1919–1921: 217; Heurtley 1939: 129–132; *cf.* Fotiadis 2001: 120–121). As Andreou *et al.* (1996: 560) point out, the region "was discussed in terms of what it had not been as often as in terms of what it was, in terms of deficiency as much as in terms of importance… a key province for the study of European history, but also… a backward area in itself" (e.g., Childe 1926). The prehistoric north Aegean is increasingly being

recognized as a fruitful area of study in its own right; indeed, recent scholarship contends that "some of the most important developments in political structure occurred in the tribal, clan-based areas of the [EIA] Greek world, often regarded as the fringes" (Papadopoulos 2014: 178; 2016). Yet the perception of the "otherness" of this region in relation to southern and eastern parallels is often expressed in terms of its distance from the prosperous monumental civilizations, and from the "barbaric wilderness" of the north. What is more, the tropes in which the north Aegean has been cast as the "other Greece," in comparison to southern and central Greece, generated particular research questions and regional boundaries that still pervade scholarship.

Northern Greece essentially remained outside the route of the Grand Tour, as it was not particularly attractive to either European or Greek scholars. With the exception of Byzantine archaeological monuments in the city of Thessaloniki, northern Greece had yielded few and unimpressive finds, and was not extensively mentioned in ancient texts. The area was one of the last regions to be incorporated in the Modern Greek state in 1913, as the province of Macedonia. In 1922, the area received a huge wave of refugees from Asia Minor. The various ethnic origins of its inhabitants, coupled with ethnic and social conflict that ended in the 1950s, rendered this region problematic for westerners and Greeks (Kotsakis 1998: 45–46).

Although there were a few early accounts of travelers in Macedonia (e.g., Leake 1835; Kinch 1894; Struck 1907; Meritt 1923), the first archaeological mission to northern Greece was under Léon Heuzey (1860; 1876) in the second half of the 19th century. Prehistoric archaeology was further exposed by French and British troops in World War I, who noticed the numerous prehistoric mounds, or *toumbes*, that "lent themselves

readily to military purposes" (Fotiadis 2001: 117). Gardner and Casson (1918–19: 10; see also Rey 1920) noted the archaeological discoveries that were identified by soldiers digging trenches and gun emplacements on the slopes, which led to the British and French troops to establish protocols and organizations (the British Salonika Force and the Service Archéologique de l'armée d'Orient (SAAO) respectively) responsible for reporting and storing all antiquities discovered. Fotiadis (2001) outlines the contribution of the Entente armies – their contour maps, profiles, panoramic views of dozens of prehistoric mounds in their landscapes, as well as the publications of their findings in the journals of the British School and the École Française d'Athenès. After World War II, other cemeteries began to be excavated in northern Greece (synthesized by Heurtley 1939). In the 1950s, Petsas (1961–62) and Andronikos (1969) began excavating the necropolis of EIA Vergina.

It was after the discovery of the monumental tombs of Vergina (and especially the "Tomb of Philip II," although *cf.* Hatzopoulos 2008 for an overview of criticisms of this label) in 1977, however, that northern Greece was "put on the map," becoming the focus of intense political and national interest as well as of archaeological interest. With the collapse of the former Yugoslavia and the rise of the Yugoslav province of Macedonia (or F.Y.R.O.M.), nationalist claims were made from both sides of the Greek–F.Y.R.O.M. border as to the heritage of Alexander the Great. Archaeology was therefore brought to the fore of contemporary politics (Kotsakis 1998: 56). It is perhaps most telling that the more recent Amphipolis excavations garnered not only extensive media coverage, but also earned additional financial support from the government in the depth of the financial crisis, underlining the importance of northern Greek archaeology to the Greek state in the

present in providing material evidence of the Hellenic identity of the ancient Macedonians (Hamilakis 2016: 244–249). From the late 1970s onwards, the number of excavations increased considerably throughout the study region due to public works, urban planning, and intensive agriculture driven by the entry of Greece into the European Union. These new discoveries – predominantly in the mortuary sphere and in the context of rescue excavations – prompted the establishment of the annual conference of the *ΑΕΜΘ* ("Archaeological research in Macedonia and Thrake"), which has published preliminary reports on discoveries in the region since 1987.

Despite excellent work on settlement data, individual burial sites, and cemeteries, comprehensive syntheses of north Aegean burial practices are practically nonexistent (*cf.* Chemsseddoha 2015 for EIA central and western Macedonian cemeteries). Cemeteries and isolated burials are predominantly in the form of preliminary reports published in Modern Greek. There are, however, a handful of fully-published cemeteries in the study region, including EIA Vergina (Andronikos 1969; Petsas 1961–1962; Rhomiopoulou & Kilian-Dirlmeier 1989; Bräuning & Kilian-Dirlmeier 2013), EIA Torone (Papadopoulos 2005), and the cemeteries on EIA Thasos (Koukouli-Chrysanthaki 1992). For human remains, physical anthropological work in prehistoric contexts has greatly increased in the past three decades (e.g., Agelarakis & Efstratiou 1996; Musgrave in Papadopoulos 2005; Triantaphyllou 2001).

1.4 Organization and structure of the dissertation

Archaeologists have long used the material record of funerary rituals as a means to identify ethnic and cultural groups, to recreate political and economic systems, to track

cultural contact, and to reconstruct social relations. Yet the ways in which the material record of a burial – including object assemblages, osteological material, and funerary architecture – have been brought together and analyzed in order to determine archaeological patterning have varied greatly in scholarship. Some archaeologists have focused on examining particular tomb types, others have argued for identifying social categories of individuals through the grave assemblage, and other research has focused on the placement of the dead in the broader landscape. In the context of the prehistoric and proto-historic north Aegean, we have an interesting problem where very little is known about social organization in the region – let alone the potential reasons for why cremation rites were adopted so early.

I plan to approach the archaeological material in three different ways in an attempt to recover different scales and facets of archaeological patterning. The first attempt, Chapter 3, involves an analysis of the funerary ritual and its end result, allowing for the strands of mortuary rites to be brought together, instead of comparing isolated components. An examination of perspectives on fire, the body, and cremation in the past will be presented at the beginning of Chapter 2, followed by an outline of the social impact of cremation – specifically, the processes of cremation rites, their societal implications, and the degree of representation in the archaeological record. Ethnographic case studies and their archaeological signatures will be discussed to expand our understanding of the different types of cremation rites and how archaeologists can begin to identify their archaeological signatures. As the prehistoric north Aegean is characterized by a wide variety of grave forms, grave goods, and burial customs, I will outline a grave typological scheme that organizes the complex dataset in a systematic

format: from preparation, to mortuary ritual, and finally to post-burial changes, when such evidence is available.

The second essay (Chapter 4) examines how aspects of burial ritual connect with elements such as age and sex, where such information is available. Theoretical perspectives on cremation, inhumation, and the construction of personhood will be presented at the beginning of Chapter 4. The analysis of object value will also be incorporated in order to understand the ways in which objects and tomb structures were employed in negotiations of social status, followed by a review of the problems and prospects of identifying human remains. Then, different sections will present cases of reoccurring categories of people in the study region through time and space.

Finally, in Chapter 5, the developments of burials in different regions will be situated in their landscapes and social contexts in space and time. The landscape and world of the living will be outlined at the beginning of Chapter 4, followed by the location choice of burials, organized cemeteries, and tumuli.

These are attempts to search for patterning in three realms: the funeral and its end result, categories of personhood, and the placement of the dead in the broader landscape. I aim to work through these different realms in a hermeneutic approach of searching for patterning and identifying broader trends at different temporal and spatial scales. The final section, Chapter 6, will revisit the results from each successive attempt to identify patterns, and present conclusions in terms of the nature of patterning in each area and overarching trends in the data.

Chapter 2 – Reconstructing the Funeral

2.1 Fire and the body: reframing perspectives on cremation

Cremation is a significant and widespread means of dealing with death. As Quinn *et al.* (2014: 3) note, "On a material level, cremation provides a means of fragmenting the body and creating a new form of human remains. Cremations also serve as venues where concepts of person and body, individual and community, and life and death are challenged, negotiated, and constructed." This in part due to the highly sensory experience of witnessing the burning and physical transformation of the corpse, creating a context in which the ephemeral nature of identities, landscape, and society is laid bare (Hamilakis 2013: 159–160). Cremation has a long history – with the first cremation dating back to 30,000 BCE at Lake Mungo, Australia – and was employed in a wide range of cultural and geographic contexts (Quinn *et al*. 2014: Fig. 1.1). Yet despite its preponderance, theoretical approaches in the archaeology of cremation have been relatively few and far in between until recently (*cf.* Quinn *et al*. 2014; Williams 2008). This failure to engage adequately with the complexity and the variability of cremation practices across cultures seems connected to the fact that most of the theoretical debates and developments in mortuary archaeology have been primarily geared to the investigation of unburned remains.

First, what is cremation? Defining cremation is not as straightforward as it might at first seem. Instead, the editors of a recent volume on cremation concur on a simple premise: "cremation is the combination of fire and the body" (Quinn *et al.* 2014: 3). While this definition is broad, the strength of its nonrestrictive nature is that it incorporates an incredible variability in funerary cremation practices. The application of

intense heat, and subsequent evaporation, converts the body to its basic components, idealized as "ashes to ashes, dust to dust" (adapted from *Genesis* 3:19). More technically, cremation uses intense heat to burn (oxidize) the body rapidly. The body contains bones (chiefly calcium phosphate), water (70–80% of non-bone tissue), and carbon-based soft tissues. The intense heat used during the cremation evaporates the water, burns the soft tissues, and for an average-sized adult, reduces the bones to four to eight pounds of ash and bone fragments (Iserson 1994: 236). In addition to the archaeological phenomenon of burnt human remains recovered from an archaeological context, cremation can also refer to the full range of processes that are included in cremation rites – from death to the burning of the corpse to deposition, involving the living and the dead. While the study of cremation has deep roots within mortuary archaeology (e.g., Beck 2005; Binford 1971: 25; O'Shea 1995; Parker Pearson 1982; Rakita & Buikstra 2005), surprisingly little research has considered the coexistence of cremation and inhumation rites. At the same time, cremations pose a unique set of archaeological circumstances that necessitate theorization that is distinct from other ways of treating the body. Archaeologists must develop and employ analytical and theoretical techniques that study both the specific, unique aspects of cremation and the larger context of mortuary practices within which cremation is one of many possible choices.

Like inhumation, the cremation process is made up of a complex suite of activities that take place at multiple physical locations and involve a variety of pathways of the body from death to entry into the archaeological record. The places of burning are varied, and include *pyres*, small-scale archaeological features with evidence of burning, and *crematoria,* which are large-scale, industrial areas for cremating the dead. These terms,

however, have not been standardized in literature and often refer to the same features regardless of scale. The pyre is the oldest cremation technique, where bodies were placed on top of a wood pile which was then set ablaze. This method, used in ancient times, is still used in modern times in East and South Asia. In modern pyre cremations, attendants continually add fuel to the fire until the flames completely consume the body. Cremation pyres are rarely found in the archaeological record of the study region, with their rarity attributed to excavation and taphonomic factors rather than their absence, yet they are attested in the Early Neolithic Souphli Magoula cemetery in Thessaly (Gallis 1982), Early Iron Age Palaiogynaikokastro (Savvopoulou 2001: 171–172), and Early Iron Age Koukos (Carington-Smith & Vokotopoulou 1992: 431). The term *primary cremation*, moreover, references to situations when the deceased was cremated and buried in the same context, as seen in an Early Neolithic infant cremation at Varemenoi (Blackman 1998; Whitley 2003), and three infant cremations at Early Iron Age Makrygialos (Triantaphyllou 1994; 1998b; 1999; 2001). *Secondary cremation* is the dominant form of cremation in the study region and refers to situations where cremated remains are deposited following the burning and collection of the skeletal remains. These distinctions are necessary to make when analyzing cremation burials in the study region and can reveal important social information, such as what parts of the body may be most important for representing the individual, or who does and does not get to be moved from pyre to grave (cf. Quinn *et al*. 2014). In many archaeological contexts, certain parts of the body were valued and considered to be more important for representing the individual in the transfer from pyre to grave (Sørensen 2014).

The material remains of cremated bodies are described in various ways. While carrying out cremation, the significant increase in temperature causes the corpse to lose water and the cephalo-rachidian liquid in the cranium, around the brain, to boil. At a certain stage, the body begins spontaneous combustion (i.e., the process in which organic matter burns by itself), and eventually large fragments of bones are produced which can be reduced to powder to obtain ash (Duday 2009: 145). Terms such as *ashes*, *cremated remains*, and *cremains* are used interchangeably in scholarly literature to describe the remains of burnt bodies. The term *ashes* aids in invoking the fiery transformation from a recognizable, deceased individual to material remains that are no longer recognizable as a single person – which "is integral to the social processes of making and unmaking identities, negotiating new relationships, and characterizing the link between life and death" (Quinn *et al.* 2014: 28) that can be seen in all the burial sites in this study. The term *ashes*, however, tends to describe the material output of modern techniques of cremation, and does not adequately reflect most ancient and non-Western cremation practices in which relatively large and recognizable fragments of human bone are preserved after the completion of the cremation rite. Indeed, the use of the term may have contributed to the preconceived notion that no bioarchaeological or social information can be gleaned from past cremations. Despite the fiery context of cremation, not all information about the body goes up in flames. The only way to reduce a body to ashes in a cremation is to do so mechanically at the conclusion of the burning; in modern crematoria this is usually achieved with a cremulator (McKinley 1989: 66; Papadopoulos 2005: 248, 384). While there is no question that cremation makes relatively straightforward bioarchaeological tasks – such as identifying the age, sex, height, and

health of the deceased – more challenging to undertake, there is still a range of information available to archaeologists who study cremations. Age may be noted if, for example, a child vertebra and adult femur are found in the same burial, although it is necessary to be attentive to the different degrees of maturing in the bones (Duday 2009: 146–147).

The terms used to describe artifacts found with cremated remains are significant and pinpoint important distinctions between grave goods. The term *pyre goods* is employed to describe artifacts that were cremated along with the body on a pyre (Williams 2008). In archaeological contexts, it is difficult to distinguish between objects burned during cremation with the body and those burned in a separate context and later reunited with the body in the grave (Sørensen 2014). By contrast, *grave goods* are objects placed in association with the human remains in graves only after cremation. Distinguishing pyre goods from grave goods has provided a line of evidence that has been employed in several archaeological studies to understand the multistage process of cremation, and the social factors associated with different steps in the mortuary rite.

Certain artifacts held a distinctive commemorative role in the cremation burial rite, in contrast with the material culture found in inhumation graves. As Williams (2014: 100) notes, "the cinerary urn provided a new metaphorical and mnemonic 'skin' or 'body' for the cremated person(s)." The term *urn* references specialized ceramics for the cremated dead. The link between cremation and ceramic production as fiery technologies (Larsson & Nilsson Stutz 2014) and the link between bodies and pots as vessels (skins) (Williams 2014) are often made because ceramics are commonly found with buried cremated remains, and often as containers for these remains. In many cases, however, this

may obscure the links between domestic and mortuary contexts and uses. Some containers holding cremated remains in the prehistoric north Aegean may have originally been used in domestic contexts or are of a form that is common outside of graves. The presence or absence of similar ceramics in non-cremation contexts is important to understand links to wider material culture, beyond grave assemblages, to pinpoint references to the social contexts of the living. It is worth noting that other materials were used to contain the cremains; in one cremation at Lofkënd, the cremated remains were not deposited in an urn, but instead wrapped in cloth or leather. The wrapping of cremated bones in cloth, prior to their deposition inside a vessel (sometimes made of bronze), has been attested in EIA Athens and noted elsewhere, as described in Homer (*Il.* 24.770–804) (Andronikos 1987: 195, figs. 156–157; Charlier et al. 2009; Papadopoulos et al. 2014: 66–67, 787–789, figs. 3.122–3.126; Papadopoulos & Smithson 2017: 593).

Why do some societies cremate their dead, why do others inhume them, and why do some people practice both rites at the same time or alternate between the two through time? This is a complicated question for which there is no singular explanation in archaeological and anthropological literature (Table 2.1).

Nature of explanatory framework	Explanation, meaning, causal mechanism, and/or purpose	Citation
Functional	Disease control, transport (portability/partability), space saver, cleanliness (?), odor (?), accident, controlling the weather	Lynch 2000; Oestigaard 1999; Cerezo-Román 2014
Social roles	High status, low status, gender, age, class, outcast, cultural identity	Scott et al. 2010; Brück 2014; Cooney 2014
Social process	Destroying identity, creating identity, transformation, ancestor creation/veneration, communal integration, destroying the past, religious beliefs	Sørensen & Bille 2008; Larsson & Nilsson Stutz 2014; Williams 2014; Cerezo-Román 2014; Cooney 2014; Schurr 2014
Other	Deliberately vague	Sørensen 2014

Table 2.1. General and specific reasons why people might cremate their dead (Adapted from Quinn et al. 2014, Table I.2).

This is in part because the reasons why people chose to cremate, how people were selected to be cremated, and who organized the cremation are largely unexplored and undertheorized topics. Moreover, linking social meaning to reasons why people choose to cremate across the globe requires a detailed understanding of the specific context and culture, which is not always possible for prehistoric and protohistoric societies such as the north Aegean.

In the modern West, the decision whether to bury or cremate is one of choice (with the exception of certain religious groups, such as Catholic and Jewish believers). A brief glance at the various examples from different past societies illustrates this point. Herodotus (5, 29.7), for example, related the tale of Melissa's ghost who appeared to

Periander saying she was cold, since her clothes had been buried rather than burned. To remedy this, city leaders stripped the women of Corinth of their clothes and burned them to provide clothing to Melissa's spirit. In this case, the ancients used cremation to help avoid the lingering spirits of the dead, and to provide them with heat and warmth in the underworld. Cremating the dead was also fostered by the belief that souls were transported to paradise by means of fire. Native Americans on the Pacific coast and elsewhere used cremation because "unless the body is burnt the soul will never reach the land of the dead… In the hot smoke it rises up to the shining sun to rejoice in its warmth and light; then it flies away to the happy land in the west" (Iserson 1994: 241). Ibn Haukal, a 10th century Arab traveler who described a cremation at Kiev, recorded that a Russian justified his Russian cremation practices on similar grounds: "As for you Arabs, you are mad, for those who are the most dear to you, and whom you honor most, you place in the ground, where they will become a prey to worms, whereas with us they are burned in an instant and go straight to Paradise" (Keary 1882: 538–539). Cremation also thwarted the seemingly dangerous process of decomposition and the spread of diseases (Fig. 2.1) and protected the body from mutilation by animals or humans.

Figure 2.1 Cremating plague victims in Bombay, India. Drawing published by Harper's Weekly, New York, 1899 (Iserson 1994: 234).

Soldiers cremated their dead to prevent enemies from mutilating those corpses that could not be returned home for burial (Iserson 1994: 241). Following cremation, the soldier's ashes were usually repatriated with appropriate honors. In other parts of the world, as in Tibet, only the most exalted members of the community, such as the high Lamas, are cremated partly due to the scarcity of wood (Habenstein & Lamers 1963: 81). Some people have also used cremation to reduce the expenses of burial. In 1824, before any modern European began to advocate cremation formally, an Edinburgh woman created a stir when she cremated her own stillborn infant, placing it on a blazing fire and reducing it to ashes. When the police questioned her about this illegal act, she responded that she resorted to cremation to save the bother and expense of burial (Gordon 1984: 51, from Iserson 1994: 242).

Although cremation tends to be viewed as enacted in opposition to inhumation – whether for cultural, symbolic, or religious reasons – in many contexts cremation and

inhumation (or other alternatives such as exposure, enshrinement, etc.) are both means to the same end. As early as 1910, Lawson (1910 [1964]: 485–486) stated that in "no period of which we have any cognizance have the Greeks regarded inhumation and cremation as means to different religious ends; but that, whichever funeral method has been employed, one and the same immediate object has always been kept in view, the dissolution of the dead body" (quoted in Papadopoulos 2005: 393). In the case of mortuary rituals of the Scandinavian Stone Age, for example, researchers argued that it is not the presence or absence of fire that was of importance; instead, the aim was to destroy the flesh and fragment the bodies of the dead, whether through defleshing or through fire (Larsson & Nilsson Stutz 2014: 47). There are, however, examples of cultural contexts in which cremation and inhumation are symbolically enacted in opposition to one another (Larsson & Nilsson Stutz 2014: 64). In the case of Early Bronze Age Britain – where men were often inhumed, and women tended to be cremated – it has been suggested that cremation acted as a means of destroying the body and of negating the individuality of the deceased, while inhumation facilitated the preservation of bodily integrity and the maintenance of personal identity after death (Brück 2014: 120). Although it is clear that cremation and inhumation as two opposing forms of funerary rites are valid categories, it should not be taken for granted. It is thus helpful to theorize cremation and inhumation as related but distinct technologies of remembrance, each operating "to transform and rebuild the personhood of the deceased by selective social remembering and forgetting albeit via contrasting tempos and materialities" (Williams 2014: 93). As such, each rite did not possess a single meaning or message, the significance of which seemed to have been defined by context – sometimes cremation or inhumation was employed to signal social

and ideological distinctions between groups, and in other instances, the choice mediated distinctions within communities.

2.2 Cremation ritual and its end result: transformation, movement, and the body

Since the work of Hertz (1907 [1960]) and van Gennep (1909 [1960]), researchers have increasingly interpreted cremation as a ritual process, rather than a discrete event of burning a corpse (most recently, Cerezo-Román & Williams 2014: 247–248). Although mortuary data is one of the primary sources for understanding the prehistoric Aegean and other societies, it is often analyzed in isolation from the complex, multi-staged rituals and processes that make up the funeral. Anthropologists have long recognized the ability of death rituals to provide symbolic frames and instill worldviews, social values, and power relations to the participants through publicly acted bodily practices (Bell 1992: 98-101; Goffman 1974: 58; Metcalf & Huntington 1991). Indeed, some scholars (Rappaport 1999: 37–38) argue that performance is one of the constitutive parts of ritual – as such, "rituals are dynamic actions, which depend on the performative responses of participants and are, thus, open to negotiation and change" (Papadimitriou 2016: 204). In a similar vein, van Gennep (1909 [1960]) argued, long ago, that all rites of passage - including death rituals - have a common basic tripartite scheme of separation, marginality, and re-incorporation, which allows communities to legitimize changes in social roles (and thus, the identity) of individuals, while at the same time maintaining social cohesion by containing emotional and social responses. As Cerezo-Román and Williams (2014: 248) state, "fire produces a change in the body and objects that are placed with the deceased, but the entire funeral ritual could be the means of transition, particularly if consisting of several stages spread over time, with the act of burning the body as one or more stages in

this ritual transition." It is clear that researchers need to explore the active roles of materials and substances in transforming the dead physically and conceptually in cremation processes, as well as thinking about funerary cremation rituals as a series of practices and a dynamic process that includes much more than just burning the body.

The activities before and after the burning of the body, which are often poorly understood and rarely attested in the archaeological record, are important and meaningful components of cremation rituals. The cremation process involves multiple nodes of activity and locations where mortuary ritual acts take place, as well as pathways of the body from death to entry into the archaeological record. Both within and between cultural contexts, the activities performed at locations along the body's journey are highly variable, with each place and pathway including different participants and observers, ranging from immediate family members to entire communities (Quinn *et al*. 2014: 13–14). Returning to the place of cremation or the burial ground not only provide the context for mortuary practices, but also generate specific histories, ancestors, and references to the past (Bradley 2002; Williams 1997). Because of the multiple spatial scales of cremation, and the multiple social units (the family, the broader household, and the entire community) that are involved in such a ritual, archaeological approaches that are similarly multi-scalar are required. Such approaches include focusing on small-scale archaeological features, such as pyres and burial locations, through to sites and larger regional and macro-regional landscapes. Researchers thus need to consider different stages of the process, including the roles of different rituals, actors, and participants, the diverse purposes or place of participants within these rituals, and how these actions are

likely to be materialized differently in the archaeological record, in order to built a more comprehensive understanding of funerary rituals.

At a different scale of inquiry – given that cremation is a choice made against a complex cultural, ethnic, and religious backdrop – there is heterogeneity and a high degree of diversity within cremation practices themselves across time and space that needs to be taken into consideration, and what this means regarding gender, age, social roles, and community organization, among other social facets. In many cases, the deceased follow different pathways through the cremation process and enter the archaeological record in different ways. In some cases, all the cremated bones are collected, while in other contexts, only portions are collected and interred. Sometimes objects are burned with the body, while other times they are placed with the body only after the cremation rite. As modern cremation rites and the historical and ethnographic record attest, there is no "standard form" of cremations. It is necessary to situate mortuary practices in their spatial and temporal context, before linking social meaning to particular facets of death-ritual.

Those who were cremated in the past were far from invisible: cremations were visually striking events, while the heat, flames, smells, and sounds of the pyre are likely to have made a profound impact on the senses of those who witnessed the spectacle (Larsson & Nilsson Stutz 2014; Brück 2014: 124–125). Moreover, cremation is a labor-intensive, time-consuming, and, as noted by Parker Pearson (1999: 2–3; 6) in the case of a Viking funeral, can be an "outrageously extravagant" affair: wood for the pyre must be collected, the pyre itself must be built and tended, and the cremation bone retrieved for

burial. Virgil (70–19 BCE) describes Misenus' elaborate cremation in the *Aenead* (VI: 219–229; Lombardo 2006 transl.):

> And then they placed the corpse,
> Wet with their tears, onto the couch
> And draped it with his familiar purple robes
> A small group lifted the heavy bier,
> A poignant service, and with eyes averted
> In ancestral manner, lit the fire. Flames crackled
> Around the gifts heaped on the pyre – frankincense
> Platters of food, bowls filled with olive oil
> After the embers collapsed and the flames
> Died away, they doused the remnant
> Of glowing ash with wine. Corynaeus
> Gathered the bones and placed them in an urn.

Moreover, the body cannot be easily reduced to ashes. Although modern cremators generally take about one and a half hours to complete the cremation of the bone (with the size of the body and type of crematory affecting the cremation time), in various experimental pyre cremations, the process of a full oxidation of the organic components of the body took up to 7–8 hours (Iserson 1994: 262–263); McKinley 2013: 158–160). Post-cremation processing of pyre materials is also likely to have been time-consuming and indicates a concern at the (re)constitution of the "body" as it was placed in the urn and the grave.

Although cremation is a highly visual, sensual, and powerful process, it is perhaps one of the most destructive ways in which humans dispose of their dead and produces

remarkably ephemeral material by-products. Because only a portion of the actions and locations of cremation is materialized in the archaeological record, many aspects of these practices are likely to remain unknown. This is further complicated by occasions when cremated remains are not buried. Practices such as spreading the cremated remains or placing them in water, which have the potential to render large segments of a population (if not the entire population) archaeologically invisible, pose challenges to interpretation by researchers. The social moment of the wake, the temporary hosting of the body in a specific social setting such as the home to commemorate and say goodbye to the deceased, is traditionally an important stage along the pathway in which the body travels. It is also, however, likely to be materially invisible or materially equivalent to other social events such as feasting among the living, especially in prehistoric societies that do not leave behind written accounts of funerary rites. At the same time, however, archaeologists can and should take advantage of the materialization when it occurs and should seek new and innovative methods to trace the pathways of cremated skeletal remains. To explore this, one must consider both the processes of how the dead were cremated in the past and the archaeological signatures of this act. Yet, surprisingly little research has addressed these questions, in part due to the sheer geographic and cultural variability of cremation rites in the past, the lack of a broader understanding of the diversity of cremation practices cross-culturally, and the determination of distinct archaeological signatures for different practices.

Experimental research on effective cremations by McKinley (1993; 1997) and Marshall (1998; 2011) demonstrate that pyres were constituted of a crib of wood and other flammable materials (McKinley 1995: Fig. 4). Once ignited, this cribbing can burn

between 800–1000^{0}C, igniting body fats. While the cremation process can become surprisingly self-contained and require very little supervision, cremation probably required specific knowledge to obtain the ideal conditions of heat and oxygen flow for the combustion of the body. In addition to pyre technologies, the research of Marshall and McKinley also demonstrated the complexities of successfully identifying the past presence, location, and intensity of cremation. One major methodological complication resulting from these experimental studies is that even intense cremation activity leaves a surprisingly light footprint in the archaeological record. Marshall (1998: 173) noted that despite "the intensity and duration of the burning for experimental pyres at… up to 800–1000^{0}C for several hours, relatively little trace was left in the ground surface, and this as a relatively thick, friable crust, easily disrupted by trampling, weathering, or even careful clearance for extraction of cremated remains." While these changes in addition to soil coloration are potentially observable by archaeologists, interpreting them is complicated, as soil coloration changes can be produced by a range of human actions, such as cooking fires. This, combined with the deliberate removal of cremated bone materials in many cultural contexts, makes it very difficult for even well-trained archaeologists and bioarchaeologists to identify the remains of the cremation pyre, let alone develop an interpretation based on physical data.

However, a detailed study of the final deposit itself can provide insight into the cremation process. Careful micro-excavation of deposits of cremated remains has been practiced by French archaeologists (Grevin 1990). Although time-consuming, this approach has the potential to reveal not only fundamental insights into the age, sex, and health status of the deceased, but also important details regarding the funerary ritual.

Attentive work has shown that micro-excavation provides information about mortuary rites, including details about the process of cremation (for example, the number of individuals burned on the same pyre) and the process of selection and deposition of the remains. For example, many European Bronze and Iron Age urns are simply too small to contain the cremated remains of an entire body (Oestigaard 2013). Several studies have shown that overall, for these periods, the remains in the urns correspond to 10–20 percent of the total mass of the burned bones of a body. In one striking example in the Lusatian Urnfield of Cottbus (Germany), microstratigraphic analysis of human remains from an urn revealed that the burned bones were deposited in anatomical order with the feet at the bottom and the cranial elements at the top. This "stratigraphy" could be understood as a practice of reconstituting the body in a transformed state (Gramsch 2007). Moreover, experimental studies have aided in generating the average color of bone samples burned for one or three hours in a furnace while surrounded by various materials (Fig. 2.2; Fig. 2.3).

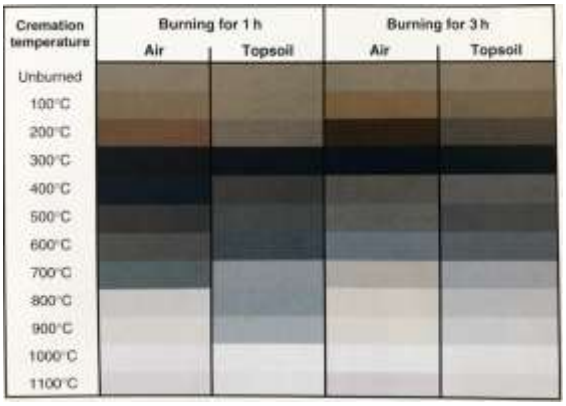

Figure 2.2 Colors generated using the average color values of experimental bones samples burned for one or three hours in a furnace while surrounded by air or topsoil with a high organic content (Walker et al. 2008, Plate 21).

Figure 2.3 Identified elements of lower limb from a Romano-British burial at Purton, Wiltshire, showing varying degrees of oxidation to the bone (McKinley 2008, Pl. 26).

Such experimental work has aided a recent study of cremations in LBA Faia Petra in the north Aegean (Valla *et al.* 2013) – specifically regarding changes in bone color, shape, and texture – providing testament to the valuable information that can be acquired on both funerary practices relating to the lengthy process and labor investment of the mortuary practice, the collection and disposal of the remains of the deceased, the conditions of burning, and pyrotechnology. Finally, archaeological studies have also shown that there are many clues, both direct and indirect, that hint at a range of funerary and post-funerary actions. Besides the cremains, numerous other items were included in the final deposition, including, for example, unburned skeletal parts, unburned bone items, animal bones, artifacts burned or unburned (or purposefully destroyed/fragmented: "killed"), and botanical residues. Increased attention to the archaeological signatures of

this dynamic ritual has the potential to reveal exciting, and previously unrecognized, practices within past societies.

What is equally important for a broader and in-depth understanding of cremation rites is the use of ethnographic descriptions of funerary rites. Drawing on a wide variety of case studies in non-Western contexts, Ucko (1969) called into question a number of perspectives that were taken for granted in mortuary archaeology, including the fact that burial practices are not necessarily correlated with certain facets of beliefs or social structure, variability is found within, as well as between, cultural groups on treatment of the dead, no two societies (whether ethnographic or archaeological) will be so similar so as to draw direct inferences between material patterns and social behavior, and that a cemetery may preserve only a restricted sample of the population, whether on the basis of cause of death, social status, or age/sex. Perhaps most importantly, Ucko argued that the primary reason why archaeologists should study ethnographic examples is to broaden the horizons of the interpreter concerning the possibilities of mortuary rites and other ritual behaviors. Examining the diversity of human responses to death encourages scholars to think beyond their own ethnocentric presuppositions.

The value of ethnographic cases for archaeology is that such studies provide detailed accounts of symbolism and meaning within funerary practices that often leave scant traces in the archaeological record. For example, many cases have demonstrated that funerals do not simply reflect or represent “status”, but instead may be political events in which power and ancestral, mnemonic, and historical connections are actively constituted (Parker Pearson 1999: 72–94; Hamilakis 2013: 159). Other symbolic concepts have also evidenced wide applicability in different contexts, such as the position of

women (Danforth 1982), separation of the living and the dead (Parker Pearson 1999: 124–141), the dead as ancestors affecting the world of the living (Metcalf & Huntington 1991; Hamilakis 2013: 159–160), pollution and purity (Douglas 1966), rites of reversal (Goody 1962), and fertility and regeneration (Bloch & Parry 1982). As previously touched upon, van Gennep (1909 [1960]) recognized that all rites of passage – including those marking birth, initiation, marriage, and death – share a common tripartite structure: rites of separation, which remove a person from a previously occupied state; rites of transition or liminality; and rites of incorporation, which integrate the person into a new state. These facets of mortuary ritual are not universal and applicable in every context; rather, they should be understood as a specific cultural logic that needs to be deduced from the archaeological evidence.

The goal of such studies, however, is not to find a perfect analogy – the equivalence or correspondence of one concept with another – for the archaeological material at hand, but, as Wylie (1985) concluded, to use as numerous and varied a set of analogies as possible to check against the archaeological material. Such analogies, however, must be distinguished and used with caution. Indeed, formal, probability, and relational analogies were distinguished and defined by Hodder (1982) and Wylie (1985). Formal analogy constitutes the basis of archaeological interpretation, and it is through this type of analogy that archaeologists identify "a hole in the ground with a human skeleton" as a "grave," based on its appearance. This type of analogy does not assist researchers beyond simple identification in the field. Probability analogies are most often used in archaeology in the form of cross-cultural generalizations, such as Tainter's (1978) energy expenditure theory. The issue with probability analogies is that such linkages

between theory and context are not explained; what matters is that the rule holds, which leads to circular reasoning. Relational analogies – the most pertinent type of analogy to this study – is an indirect link between an ethnographic context and an archaeological context. However, it is important to not assume that social structures are universal and to engage closely with the archaeological evidence, to determine whether an ethnographic case study is relevant to the analysis at hand. Such a critical perspective is evidenced by Whitley's (2002a) cautionary article on prehistorians linking a wide range of European archaeological phenomena (such as stone circles and funerary architecture) to ancestor veneration and territorial claims in ethnographic case studies from Mississippi and Madagascar. Whitley argues for a critical consideration of the material record, which allows him to reconsider archaeological features in prehistoric Europe.

It is clear from the above examples that cross-cultural generalizations stemming from ethnographic case studies are not appropriate, especially in the case of the mortuary record. The goal of considering ethnographic examples is not to find the perfect analogy for the prehistoric north Aegean. Rather, as Wylie (1985) has argued in her seminal article on the use of analogies in archaeology, they provide archaeologists with insight into a range of possible burial practices, their material remains, and their temporal and spatial configurations. Wylie specifically proposed using a triangulation of different inferences to establish diverse and independent lines of evidence. Thus, in the following sections, I will outline a handful of ethnographic and historical case studies of cremation practices set at different time periods, to demonstrate the variability of cremation rites, their material correlates, and how these case studies inform our understanding of the cremation process in the prehistoric north Aegean.

2.3 Ethnographic and historical case studies of cremation burial

One of the most heavily cited cases of cremation in scholarship concerning the ancient Greek world is the funeral of Patroclus in Book 23 of the *Iliad.* The account begins with Achilles ordering the Myrmidons to drive their chariots in battle formation, and they go three times around the body of Patroclus. Then they have a grand funeral feast (*Il.* XXIII: 1–53). When Achilles falls asleep, the ghost of Patroclus tells him to hurry and cremate him, but also to make sure the bones are interred in the same urn (*Il.* XXIII: 54–107). The next morning, Agamemnon orders the troops to get timber from Mt. Ida for the funeral pyre. During the funerary ritual, the Myrmidons cover Patroclus with locks of hair. Achilles cuts one long lock he had been growing for a river god back home, but he cuts it for Patroclus instead, and places the lock in his hands. After the men bring the lumber, they go off to prepare a meal while the chief mourners pile up the wood to make the pyre and wrap the body with the fat of sacrificed animals. Various animals (including two of Patroclus' dogs and four horses), honey, oil, and 12 young Trojan captives are sacrificed and added to the pile (Fig. 2.4).

Figure 2.4 Detail of an Apulian (south Italian Greek) red-figure vase of the funeral of Patroclus by the Darius painter (4th century BCE), Naples, Museo Archeologico Nazionale. In the center of the lower register, Side A, there is the funeral pyre of Patroclus with the hero's weapons. On the left, Achilles is in the act of sacrificing a Trojan, followed by three other seated prisoners with their hands bound awaiting the same fate; on the right, Agamemnon is in the act of carrying out a ritual libation (Trendall & Cambitoglou 1982: 495, no. 18/39, FR pl. 89).

Achilles prays to the gods for adequate wind for the pyre, which they grant; the fire does not die down until the following morning (*Il*. XXIII: 108–192). The mourners then douse the fire with wine. Whereas, according to Crielaard (2016: 54), the usual practice was to raise a mound directly over the remains of the pyre, Achilles instead picks out Patroclus' bones and puts them in a golden urn with a protective layer of fat. Achilles orders the Greeks to build a mound that is fitting but no more, and when he himself has passed away, to build a joint mound that is broad and high (*Il*. XXIII: 195–261). Achilles faces the army in a circle and says it is time for funeral games, which include chariot racing, wrestling, boxing, archery, and a footrace, among others. Prizes include cauldrons, tripods, horses, mules, oxen, female slaves, and iron.

The *Iliad* also addresses the lament and funeral of Hector. After Priam and Idaeus bring Hector's body on a bier with a mule-cart to Troy, Hector's wife and mother flung themselves at the cart. Clasping Hector's head, they wailed and tore their hair, while a great crowd of people wept outside the gate of Troy. At Priam's request to bring his son into the palace for a proper funeral, the crowd parted and the family laid the body on a wooden bed at the palace (*Il.* 24.718–722). A chorus of singers stood beside the wooden bed, singing the dirges and leading the lamentation, while Andromache (Hector's wife) made the first lament, and Hecabe (Hector's mother) took up the second dirge. The Trojans gathered huge piles of logs for nine days, and on the morning of the tenth day they carried Hector and laid his body on the summit of the pyre and set the wood on fire. The next morning, a crowd of people gathered at the massive pyre and quenched the embers with red wine. Hector's brothers and his friends collected his white bones, wrapped them in a purple cloth, inside a golden urn (λάρναξ), and laid the urn in a hollow grave, covering it with large close-set stones. Over the grave they heaped the mound and then returned to Troy, to gather in Priam's palace for the funeral feast (*Il.*24.776–804).

As Crielaard (2016: 54) notes, "this type of extensive and elaborate funerary ritual and in particular the collection of the cremated remains in a cloth and their burial in a metal container, are special burial rites for special people." Yet the grand effort and length of time for Patroclus' and Hector's cremation rituals would likely leave an ephemeral trace in the archaeological record. The burial mound – if not looted – would contain the golden urn with the cremains and given the finds and the mound itself archaeologists may deduce that it was the final resting place for an important figure in the past. Some of the burnt animal remains may have made their way into the cremation urn,

which would indicate that animals were sacrificed as part of the mortuary ritual. The pyre of Patroclus – along with the young Trojans, various animals, honey, oil – would have left an ephemeral footprint in the archaeological record, considering experimental studies. For Hector's funeral, which included different traditions fit for a royal burial, only small fragments of the purple cloth would have been partially preserved. Indeed, the 4th century BCE Tomb II at Vergina in northern Greece contained a rather "Homeric"-style burial, replete with two golden *larnaxes* with the cremains wrapped in a golden-purple cloth decorated with flowers (Borza & Palagia 2008). Although the funeral lamentations are unlikely to be completely reconstructed, Alexiou's (2002) historical analysis highlighted the stunning continuity in theme and word-choice of the Greek ritual lament from Homeric epic to the Byzantine era to modern-day rural Greek communities, despite the vast span of time and changes in religious norms from paganism to Christianity. It is a pity that researchers are denied a more modern ethnographic Greek parallel of cremation, given that cremation is strictly prohibited because of the Greek Orthodox reading of the Bible.

Hindus traditionally use cremation to dispose of corpses. While practices vary among sects, generally Hindu cremation ritual begins with a funeral procession led by a man with a fire kindled in the deceased's home, carried in a black earthen pot. The most auspicious place for a Hindu to be cremated is along the banks of the Ganges in Varanasi, India at the Manikarnika, and Harishchandra *ghats* (Oestigaard 2013: 498; Fig. 2.5).

Figure 2.5 The Manikarnika Ghat fires in Varanasi, India. This location is the most sacred place for Hindus to be cremated. Piles of wood can be seen that are stacked for burning, as well as male family members and spectators, cows, and goats (Huniewicz 2013).

If the procession goes near the Ganges River, the mourners immerse the body in the river and allow it to dry before they place it on the funeral pyre. Only a certain subcaste of the "Untouchables," the Doms, can come into contact with the dead body, as death is believed to be contagious. After a priest performs a brief disposal ceremony, the mourners cut the winding sheet and smear the body and/or wood with *ghi* (clarified butter). The chief mourner – usually a son or grandson – uses the fire in the pot to light a torch. This is because Hindu cremations and death are related to both birth and ancestors: the father gives the lineage a son and thereby pays his debt to his forefathers, and the son repays his debts to his father by conducting the funeral. He uses this torch to ignite the pyre, at the foot of a dead woman or at the head of a dead man (Fig. 2.6).

Figure 2.6 The man lighting the pyre – wearing white out of respect for the deceased – is likely the eldest son or closest male relative (Huniewicz 2013).

As the flames spread, the mourners march around the pyre without looking into the fire. The priest then intones: "Fire, you were lighted by him, so may he be lighted from you, that he may gain the regions of celestial bliss. May this offering prove auspicious" (Habenstein & Lamers 1963: 122). If the skull fails to spontaneously shatter from the heat, it is the son's ritual obligation to crack open his father's skull in order to release the "vital breath" or the soul, since the person's spirit is thought to flee into the skull during the cremation ceremony and must be released. A cremation is therefore life-giving and necessary, but still a human sacrifice, and it is the son's duty to commit this symbolic homicide from which life re-emerges. The soul has been released, but since this is a ritual murder, the mourning period is a purification period for having killed and burnt a human (Parry 1994: 151–152). The father is not dead and the body is not a corpse before this happens, and it is only after the cremation that his wife becomes a widow (Parry 1994: 150–152). At one time, perhaps as much for economic and religious reasons, living widows "voluntarily" accompanied their dead husbands into the funeral pyre in a now-

banned practice termed *suttee* or *sati*. When the cremation is complete, the ashes are immersed in the holy river and the deceased attains salvation and liberation from the cycle of rebirth or he/she is reincarnated according to his or her past deeds (Oestigaard 2013: 497). Most Hindu sects traditionally bury rather than cremate children under 2 years of age, lepers, and ascetics. The ashes after a cremation, which are immersed in the holy rivers, are often referred to as "bones." Bones are interpreted as the product of the father's semen and as a source of future fertility, and the fire destroys the sinful and female flesh (Parry 1994: 188). When the bones and ashes are immersed in the river, they unit the male and female qualities in a symbolic copulation recreating life. Ganga is eternally pure and concentrates the sanctity of all rivers: "Not only is the Ganges said to be present in other rivers, but other rivers are present in her" (Eck 1983: 214). Ganges is the "nectar of immortality," which brings life to the dead cremated on the banks of the River of Heaven (Eck 1983: 215). Unless archaeologists in the future found written records and photographs detailing this ritual and its symbolic acts, it would be very difficult to reconstruct the funerary ritual in its entirety. Perhaps several bones and remains of the charred pyre would be found in excavations along the bank of the Ganges, which would suggest to researchers that cremations took place along the river.

The non-Hindu Toda tribe of southern India practice a different form of cremation. They ritually slaughter a sacred buffalo and placed the body of the deceased near the buffalo's head. Relatives then cover the corpse in cloth and place the body on a bier next to the funeral pyre, where they lay gifts on the body. They light the three–foot pyre by friction for men, or with an already-blazing rag for women. They then swing the body over the flames three times to symbolize the destruction of the gifts, so that it

becomes appropriate for the living to retrieve these valuables. Before they cremate the body, mourners cut off a lock of hair. A month later, they slaughter another bull and raise a new pyre. They combine the remains from the first cremation with the lock of hair and other offerings and cremate them. They then ceremoniously bury those remains (Habenstein & Lamers 1963: 134–142).

In Nepal, whether the deceased is buried or cremated depends on which rites of passage they were initiated into. Boys who die before being initiated into manhood and unmarried women are buried, while boys who have been initiated and women who are married are cremated. If a wife's husband died before her, she becomes a stigmatized widow who is partly blamed for her husband's death. Consequently, she marks this transition by disposing of all objects and gifts she was given by her husband. In the house the woman takes off her jewelry and breaks her bracelets and places them upon her deceased husband's chest before he is cremated. It is through death that the living change their social and religious status (Oestigaard 2005).

In contrast with the active involvement and engagement of the mourners in traditional cremation practices is the very controlled process led by professional undertakers in modern cremation rituals. The "modern" cremation occurs in a crematory or cremator (a furnace designed to burn the corpse efficiently) that is housed within a crematorium (Mates 2005: 146–151). The crematorium may be situated in a funeral home or cemetery. The Japanese have the highest rate (and a long history) of cremation among industrialized nations. In detailing the differences between earlier death rituals and contemporary Japanese funerals, Suzuki (2002: 48) notes the more recent emphasis on memories and evaluation of the deceased's life and personality, with less emphasis on the

deceased's contribution to a household; an increase in use and involvement of funeral companies; a lower rate of superstition among the living concerning the dead; and the attenuation of the notion that corpses are connected with impurity and pollution. Suzuki further notes that it is distinctive that the contemporary funeral ceremony is highly compressed with the rites of separation, transition, and incorporation taking place within two days. Several events occur before the funeral ceremony, starting with the announcement of death, followed by the transportation of the deceased, the consultation (*uchiawase*), during which the size and cost of the wake and funeral ceremony are decided, the bathing ceremony (*yukan*), and the wake (*tsuya*) either at the family home or funeral auditorium. The type of coffin, coffin cover (depending on the specific Buddhist sect), death garment, and hearse is arranged between the family of the deceased and funeral home beforehand (Suzuki 2002: 63–64). Traditionally, the bathing ceremony was performed by close family members at home to cleanse the impurity of the deceased before the soul's departure to Buddhahood and further safeguard both the deceased and the living from death pollution, although now the task is performed by funeral workers. The reactions of the deceased's family during bathing ceremonies and the wake varied according to the age and gender of the deceased, as well as the cause of death (Suzuki 2002: 79–81). While Suzuki notes that the atmosphere of the bathing ceremony of a young, unmarried woman who died of illness was very emotional, that of a woman in her nineties was almost joyous.

First, there is a wake, during which the priest chants his prayer until the incense offering, which all guests offer at the altar. A recent, enlarged photo of the deceased is displayed. Afterward, family and relatives drink and eat at the funeral home. The

following morning, funeral employees make fresh rice and place the rice dishes on the table in front of the coffin during the funeral ceremony. The rice dishes are later placed in the coffin of the deceased at the end of the funeral. Male mourners wear black suits with black neckties, and women wear black mourning kimonos, most of them rented from the funeral home. Everyone sits down to eat the farewell meal, after which the funeral staff transfer the deceased to the funeral hall (Suzuki 2002: 96). They decorate the altar depending on the family's religious sect and budget, but the altar is usually decorated with chrysanthemums and other flower arrangements. The first and most important obligation of a guest in the ceremony is to offer incense money or condolence money (*kōden*) to the deceased's family, enclosed in a special envelope with one's name and the amount of money. Return gifts (usually small packs of sugar or green tea) are offered to guests in return for the gifts they have brought for the wake and ceremony (Suzuki 2002: 84). Memorial addresses and speeches are made by close friends and family, after which the mourners offer incense to the altar.

The coffin is prepared for departure to the crematorium (*shukkan*), which is an emotional experience because it is the first moment when the bereaved must say farewell to the deceased. In some cases, only family members, relatives, and close friends remain. The coffin is stuffed with flowers and gifts and then closed. Then the deceased's family and close relatives leave for the crematorium for the cremation (*dabi*). The deceased's family and close relatives and the conductor are the predominant actors in the cremation; guests do not participate (Suzuki 2002: 113). The cremators prepare a table with lighted candles and light incense around the coffin. Family and relatives gather around the coffin, and a cremator switches the lever that opens the door of the chamber leading to the

incinerator, rolling the coffin slowly and quietly through it. With the door to the inner chamber closed (and coffin out of sight), a cremator opens the switchboard with a key, and the family press the button to start the ignition. While in some crematoria in Japan, there are large galleries opposite the ovens so that the relatives can watch the body being committed to flames (Iserson 1994: 261), in most cases the family waits in a waiting room of the crematorium for the process to be over, which usually takes around an hour and a half (Suzuki 2002: 115). For Buddhists, at the final moment of the physical body, the soul enters the world of the afterlife. Once the cremation is completed, the bones are ready to be picked up (*kotsu-age*) in an ash-collecting room. The family members are handed a pair of chopsticks, with the chief mourner picking up the bones first and placing them into an ashpot. The chopsticks are passed on to other relatives in order of their relationship to the deceased and monitored by a cremator worker. The last piece of bone, which connects the neck and skull, is picked up by the chief mourner (Suzuki 2002: 116–117). After this, the ash pot is closed, placed in a wooden box, and wrapped in purple cloth, either to be taken home and delivered to a temple or grave plot later, or taken directly to the family cemetery plot for burial. Traditionally there is a mourning period of 49 days, and on every seventh day the deceased is worshipped by family members and other relatives.

A diverse range of traditional practices can be seen in the deposition and disposal of ashes or bone fragments: the cremated remains. Placement of cremated remains in cemeteries is still a common practice in North America and Europe (e.g., Sørensen 2011), and the scarcity of space, particularly in urban cemeteries, has long been one of the factors behind the promotion of cremation. However, the practice of scattering ashes in a

location chosen by the deceased is becoming increasingly common. The move away from interment in consecrated ground could be an indicator of increasing secularization of cremation as a mortuary rite. This is supported by a variety of ways in which ashes may be retained in memory of the deceased. Lynch (2000: 91) has noted that cremated remains may be "cast into bookends or paper weights or duck decoys. They can be recycled as memorial kitty litter, sprinkled on our rose bushes, mixed with our oil paints to add fresh texture to fresh masterpieces!" By contrast, the deposition of cremated remains in traditional religious practice is often seen as an essential element in the spiritual journey of the deceased. Not surprisingly, the deposition of cremated remains often takes place in locations regarded as sacred or as portals to another world, such as rivers, the sea, or a temple.

Despite the differences in space, time, and cultural context, what is striking is how similar the ancient Greek, Hindu Indian, and Japanese cremation rituals are in terms of similar stages that underpin the ceremonies: the preparation of the body, the active participation of family, the presentation of gifts to the dead, the careful and purposeful collection of the burned skeletal remains, and the drinking and feasting ceremonies after the funerary rite. The ethnographic record allows archaeologists to consider the diverse decisions that go into the creation of the funerary ritual (Table 2.2). Granted, the range of ways of disposing the cremated and inhumed dead, as well as the diverse motivations behind the decision for specific burial modes and death rituals that the ethnographic and historical accounts reveal, should caution archaeologists to consider a range of possibilities. The ethnographic case studies also showcase how a wide range of rituals that take place in funerals, from beginning to end, are either not traceable in the

archaeological record or are only partially materialized, and in cases of some preservation, are difficult to connect with the actual burial. However, researchers can and should be able to make appropriate interpretations from the archaeological record concerning burial proceedings, and (given the evidence) should be able to induce the social and personal circumstances of both individuals interred and the societal group that buried them. An inclusive and comprehensive model is necessary to include all elements of the funerary ritual and its material traces to remind researchers of the range of possibilities. It is this comprehensive model developed by A. Hein (2013) that I turn to in the following section.

I. Preparation (events can happen parallel to each other or in a temporarily staggered sequence)		

1. Grave
• Choice of the location of the cemetery within the landscape
  ○ Preparation of the locale
• Choice of the location of the grave within the burial site
  ○ Preparation of the location
• Choice of location of cremation
  ○ Outside of cemetery or within cemetery
• Procurement and preparation of construction material for grave / pyre / urn
  ○ Wood for pyre
  ○ Orientation of grave / urn
  ○ Form, depths, & layout of grave / urn
  ○ Or: modification / creation of a new grave within an existing monument / preparation of tomb for more burials
	2. Body
	• Life-history of the individual
	  ○ Social standing & function
	  ○ Material wealth
	  ○ Health
	  ○ Age / sex / gender / ethnicity
	  ○ Individual preferences / habits of the dead person
	• Modification of the body (dismembering, burning, putting in a special position, closing body apertures)
	• Cleaning
	• Painting
	• Clothing
	• Adorning
	• Wrapping and further bedding
		3. Objects
		• Grave furnishings
		• Material to be used on the corpse including means of transportation
		• Grave goods (specifically for use in the afterlife)
		• Grave goods (personal items)
		  ○ Personal belongings
		  ○ Clothes
		  ○ Body ornaments
		  ○ Magical objects
		• Pyre goods
		• Traditional gifts & spontaneous "love gifts"
		• Material to be used in funerary process

II. Mortuary Ritual		

I. Grave
• Setting pyre on fire
  ○ Diffusing fire with water / wine
• Finishing the last parts of the grave structure
• Closing the urn (for cremains)
  ○ Inserting urn in pit / built grave
• Closing the tomb
• Adding above-ground elements
	2. Body
	• Transport towards the pyre / grave, possibly first going through other places and stages of the ritual process
	• Placing the corpse on the pyre
	  ○ Sorting cremated remains for burial
	• Placing the corpse / cremains into the grave
	• Closing wrapping / coffin
		3. Objects
		• Transportation of objects towards pyre
		• Transportation of the objects towards the grave
		• Altering the objects during the burial process (with pyre, burning objects)

III. Post-Burial Changes		
I. Grave • Reopening and/or removing / adding / destroying elements during post-depositional activities (later rituals such as ancestor worship or for multiple burials or grave robbery) • Natural post-depositional dislocation, shifting and other changes	2. Body • Exhumations for ritual or other reasons (reburial, worship, ritual, making space for new interments) • Disturbance due to grave robbery • Natural decay	3. Objects • New objects entering the grave due to post-burial rituals or grave robbery • Objects are changed or destroyed • Objects are removed due to post-burial rituals, making space for new interments, or robbery

Table 2.2. The main elements and stages constituting the burial record (Adapted from Hein 2013, Table 5.1).

2.4 Applying the model to the prehistoric north Aegean

The prehistoric north Aegean is characterized by a wide variety of grave forms, object assemblages, grave location, and number of individuals interred in the grave, to name only a few facets. The layout and construction of graves in the research area varies widely from small pit graves dug into the earth/bedrock with no visible/preserved external markers to large above-ground built graves made of large boulders, sometimes additionally covered with an earth-mound and further marked by an entrance-way of large standing stones. At this stage, it is clear that the burial record is characterized by a high degree of variability, in which burial rites, grave goods, and layout vary within all grave types. As a first step, what is needed is a typological scheme that organizes the complex dataset yet is flexible in accounting for the heterogeneity inherent in the material record.

In order to gain insights into specific funerary programs, I turn to the model of the life history of graves and funerary rituals developed by Hein (2013; Table 2.2). Hein's analytical scheme focuses on the grave structure, the body, and the object assemblage, which all go through three main stages: preparation, mortuary ritual, and post-burial changes. Each facet of the grave is treated as a composite object, with the grave, body, and objects treated separately, and only later connected in time and space. Each facet is described separately according to the same categories, including object type and combinations, dimensions and measurements, feature form, object treatment and placement (Hein 2013: 57–58). In a similar framework to Flad's (2012) object life history model, Hein then charts the processes that constitute these mortuary elements, from the collection of raw materials to final disposal in the grave, and subsequent modification and reuse. Grave construction is first addressed, with measurements, construction parts, outside and inside installations, and the raw materials used. The next step involves addressing the body

and its treatment and outlining details of interment practices and other related rituals, such as secondary burial. As for the assemblages, the range of objects are categorized by function (e.g., containers, ornaments, weapons/tools), and then production techniques and raw material choices are analyzed in conjunction with their deposition. Guiding Hein's model is the assumption that grave assemblages consist of choice (intentional data), actions (functional data), and outer preconditions (non-intentional data). These models thus structure the material systematically, but also aid in connecting these elements to examine synchronic and diachronic patterning. The strength of this model is that it can be applied to all aspects of the mortuary record, organizes the material evidence into an explicit framework, outlines how these elements are related spatially and temporally, and allows archaeologists to attempt to reconstruct the funerary ritual through to its end result. Moreover, this scheme promotes the integration of patchy and problematic datasets such as that used in this research project, highlights the patterns and processes of human action that created the material record, and dissects and reassembles all elements of the mortuary record, allowing for their significance to be more precisely assessed.

As mentioned above, the graves from the prehistoric north Aegean vary widely in size, type, and content. Furthermore, due to the differences in amount of publication, fieldwork, and preservation, the type of information available varies widely from case to case. Remains of funerary ritual, for example, including items or fragments found in pyres, and offerings and libations made at the grave site sometimes were recovered and reported, but more often were not. An approach to this problem of an incomplete and varied dataset must be established from the onset, given that there is not sufficient information on all the variables involved. One approach would be to exclude partially-excavated, preserved, and reported graves, but doing so would drastically reduce the quantity of study material in the region. Another solution would be to

include all known graves, but arguably this would leave a large number of categories that are analyzed empty, and thus skew the results. I have therefore decided on a compromise: depending on the questions asked and the availability and nature of relevant attributes, I am using varying amounts of material for the different kinds of analysis. Although the focus of Chapter 5 is on landscape and burial location, this will be bolstered by the amount of data that exists for these graves; questions of burial ritual in Chapter 3, on the other hand, will have to be answered relying on a much smaller corpus of material excavated and reasonably well-preserved graves with adequately detailed information. As long as these preconditions are made clear and the results are understood as tentative, the unevenness of the material basis is not a hindrance to this research. Furthermore, through analysis of different subgroups of the material, it is possible to use the well-reported and well-preserved grave examples to make inferences on less well-understood cases. Such inferences, however, must be made with great caution, and inferred attributes cannot be treated as equivalent to observed attributes during subsequent analysis.

Chapter 3 – Funerary Rituals in the North Aegean

3.1 Grave preparation

There are six broad categories of tombs in the north Aegean from the Neolithic to the end of the EIA: the intramural settlement and house burial; the urn cremation and inhumation in an earth or rock-cut pit; the urn cremation and inhumation within a cist; the built/chamber grave; the tumulus grave; and the inhumation pithos grave (also labeled *enchythrismos*). Cases of urn cremation that are in intramural or tumulus contexts are discussed in their respective sections, along with, though distinguished from, inhumation graves. Each of the sections below will first describe the general characteristics of the grave types and their contexts, and will then outline the grave preparation necessary for each type of grave. Each of these categories and their respective attributes are described in turn; I focus on the cremation burials, but I will provide an overview of inhumation graves that are found in the same context as the cremations.

3.1.1 Intramural burial (settlement and domestic contexts)

The disposal of the deceased in the community of the living, and in most cases within the context of the built environment, in the north Aegean is a trend by and large only attested during the Neolithic period. There are eight Neolithic sites with instances of cremation burials identified thus far in northern Greece, with five out of eight sites containing cremations alongside inhumation burials. Unlike the cemeteries of Early Neolithic Souphli Magoula and Late Neolithic Plateia Magoula Zarkou in Thessaly – where cremation burials were placed inside pots and deposited in shallow pits outside of settlements – some cremation burials in Neolithic northern Greece are found in intramural contexts (Fig. 3.1).

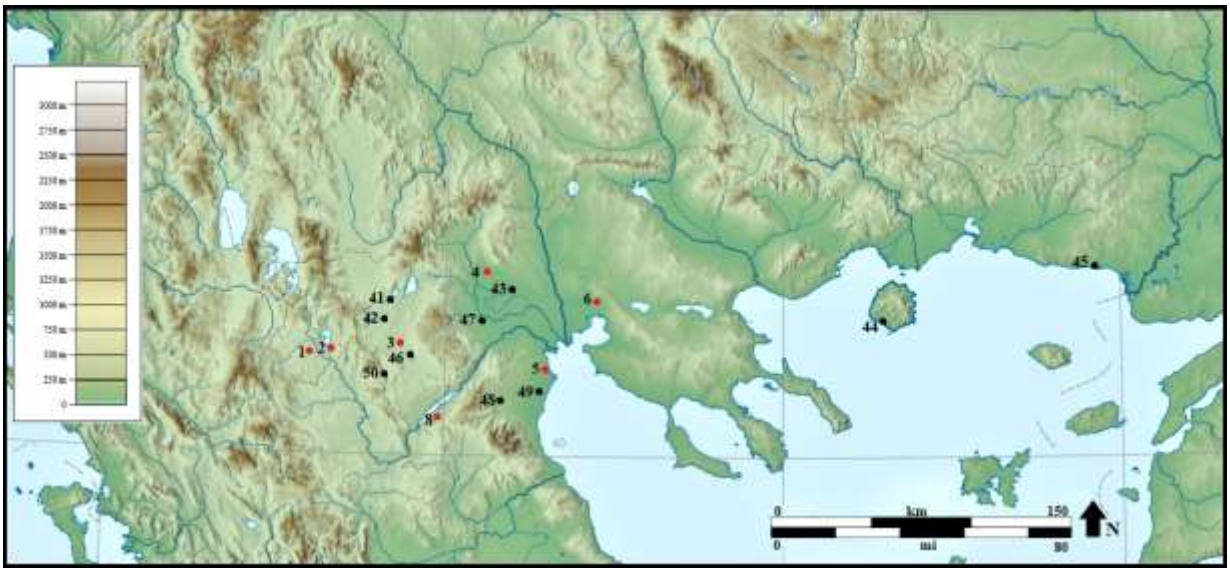

Figure 3.1 Map of intramural burial sites in Neolithic northern Greece. Sites with cremations are indicated in red; sites with only inhumations are labelled in black.

Number	Date	Site	Region	Cremations	Inhumations
1	Neo	Avgi	WMac	x	
2	Neo	Dispilio	WMac	x	x
3	Neo	Kleitos I & II	WMac	x	x
4	Neo	Mandalo	CMac	x	x
5	Neo	Makrygialos	CMac	x	x
6	Neo	Stavroupoli	CMac	x	x
8	Neo	Varemenoi Goulon	WMac	x	
41	Neo	Amyntaio	WMac		x
42	Neo	Anargyroi	WMac		x
43	Neo	Axos A	CMac		x
44	Neo	Limenaria	Thasos		x
45	Neo	Makri II	Thrake		x

46	Neo	Mavropigi-Phyllotsairi	WMac		x
47	Neo	Nea Nikomedeia	CMac		x
48	Neo	Paliambela	CMac		x
49	Neo	Revenia Korinos	CMac		x
50	Neo	Xyrolimni	WMac		x

Table 3.1. List of intramural grave sites in the Neolithic.

This trend aligns with cremations found at Late Neolithic Dimini in southeast Thessaly, where a series of ash-urns were found both underneath house floors and inside clay pots placed next to household hearths (Hourmouziadis 1973). The exception to this rule is at Late Neolithic Toumba Kremastis Koiladas, where a series of 23 cremation burials were located slightly outside, but still within a close distance to, the bounded area of the living (Hondroyianni-Metoki 2009b). The settlement of Dispilio also differs from the norm with three scattered cremated bones in addition to other non-cremated, scattered human remains (Hourmouziadis 2002; Petroutsa 2009). Cremation burials tend to fall under two categories: (1) multiple, clustered cremation urn/pit burials or (2) isolated, dispersed cremation burials in the settlement. Under the first category, the site of Avgi had ten urns at the center of the settlement, with very small amounts of burnt human remains (Fig. 3.2).

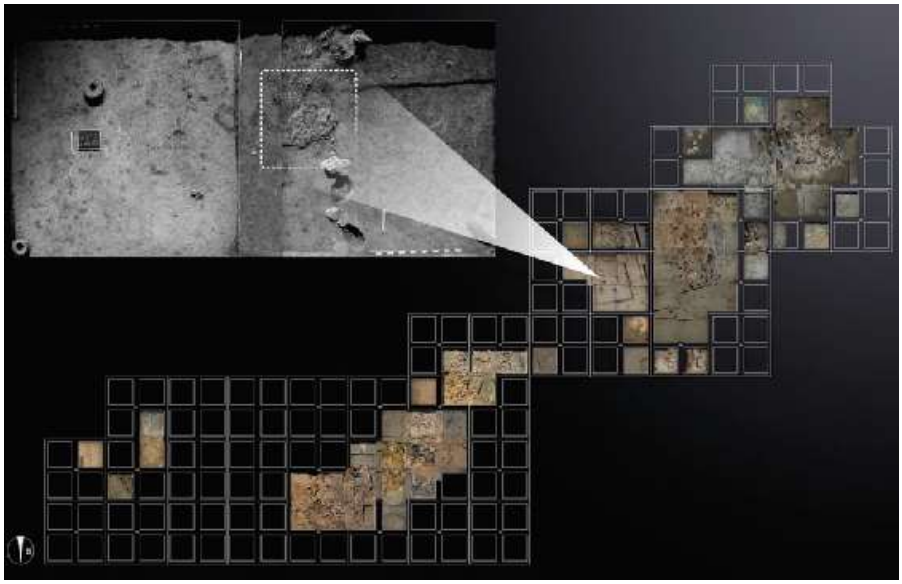

Figure 3.2 Location of the burial area within the settlement of Avgi (Stratouli et al. 2010, Fig. 7).

At Kleitos II, a Final Neolithic site, three inurned cremations were found along with three flexed inhumation burials. Under the second category, isolated cremation burials (primarily of children or infants) were found interred in settlements or in domestic contexts alongside primary inhumation burials at the sites of Mandalo, Makrygialos, and Stavroupoli. The exception to the latter category is Varemenoi, which only had one infant cremation and no other burials at the site (Blackman 1998; Whitley 2003). After the Neolithic period, cremation burials are exclusively located in extramural cemeteries.

As for sites with inhumation practices, there are 26 settlements with burials dating to the Neolithic period in northern Greece. There is a predominance of intramural settlement pit burials, as well as intramural house burials (Fig. 3.3).

Figure 3.3 Double inhumation burial in the Neolithic settlement of Kleitos I (Ziota 2010, Fig. 22).

This trend contrasts with Neolithic burial trends in southern Greece, where intramural burial within settlements, especially for adults, was not common (Mee 2011: 224). Although the number of excavated Neolithic burials overall are rare in southern Greece – owing to a variety of factors, such as the ways of manipulating the deceased that left scarce, if any, traces in the archaeological record, or to a number of Neolithic burials that have gone unrecognized – most of the cases known are of infants or young children (Perles 2001: 276–279). The second most popular inhumation rite in the north Aegean, meanwhile, is scattered remains in intramural contexts such as at Makrygialos (Triantaphyllou 1999: 47), with some disarticulated human bones at Nea Nikomedeia the evidence of cut marks (Angel 1973). The majority of these remains are small hand and foot bones as well as a few long bones (Yiannouli 1994). It is unclear whether these scattered human bone assemblages originated from intentionally disposed primary or secondary burials, which were subsequently disturbed by later use of the disposal area, or were simply refuse coincidentally deposited among other discarded materials. Intentional secondary burial practices have occasionally been reported farther south in settlements, such as

at Prodromos in Thessaly, where eleven skulls were found buried under one of the houses (Perles 2001: 279–280). Extramural inhumation burials are rare; the only arguable case is at Makrygialos, where pit graves for primary and secondary burials were located in one of the two concentric ditches, and thus beyond the edge of the inhabited area (Triantaphyllou 1999).

In terms of types of graves, the most frequent type encountered during this period for inhumations are single, simple pit graves with the deceased in a contracted or extended position. A rare grave type was located at Axos A – an Early Neolithic infant pot burial, identified by the excavators as the earliest example of such a burial in Greece (Chrysostomou 1997c). In Dispilio, there are two double burials – one with two adults, and a second with two minors; the rest are primary or secondary inhumation burials (Petroutsa 2009). A double burial was also excavated at Nea Nikomedeia, which the excavators tentatively described as that of a "mother and child," in addition to another 20 individual graves uncovered outside the houses (Angel 1973; Rodden 1962; Rodden & Rodden 1964b; Yiannouli 1994). At Makri in Aegean Thrake, two adults were buried inside a clay-lined pit, and another under a plaster floor (Agelarakis & Efstratiou 1996). Despite the great variety of burial customs, a common feature in the mortuary treatment of the deceased in Neolithic northern Greece is the incorporation of most of the dead into the built environment of the living community (Stratouli *et al*. 2010: 96).

A common phenomenon in the region is Byzantine or post-Byzantine graves placed on the top of an earlier mounded settlement, whether Neolithic or Bronze Age. Such a phenomenon is known at sites such as Toumba Thessalonikis, Sitagroi, Çatal Höyük, to mention only a few. One case of burial in a (potentially) intramural context dated later than the Neolithic period is the LBA site of Kriovrisi Kranidia (Hondroyianni-Metoki 1999). Eight LBA inhumation cist graves were dug into a low Neolithic mound at Kriovrissi near Kranidia, with the tombs arranged in

rows, distributed on three rows oriented northeast – southwest. The walls of the graves are covered with schist plaques, and four of the graves had reused anthropomorphic sandstone stelai for their construction, probably brought here from a nearby plateau (Fig. 3.4; Fig. 3.5), a pattern seen also in Soufli Magoula in Thessaly.

Figure 3.4 View of the LBA cemetery at Kriovrissi Kranidia A, within the Neolithic settlement. A cist grave built with anthropomorphic stelae is in the foreground (Hondroyianni-Metoki 2015b, Fig. 3).

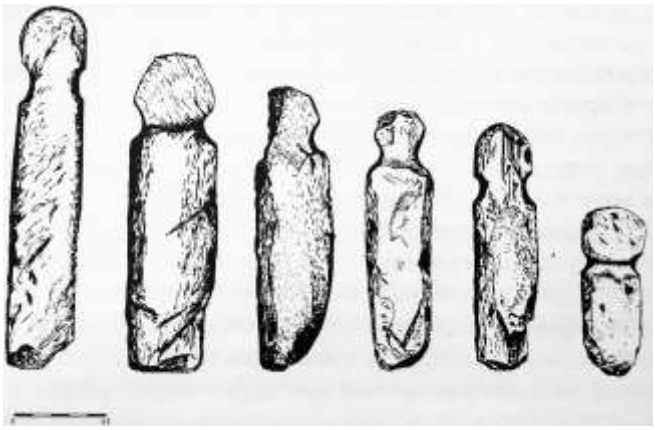

Figure 3.5 Anthropomorphic stelae from Kriovrissi Kranidia A. Scale=0.5 meters (Hondroyianni-Metoki 2001, Fig. 2).

Hondroyianni-Metoki argues that the stelai, which range in height between 1.35 m and 2.50 m, date to the end of the Neolithic period. Chemsseddoha (2015: 67–71) notes that the stelai resemble the statuettes of the FN from the Haliakmon region, noting that the site is initially used as a habitat during this time. What is unclear from the reports, however, is whether the dead were intentionally buried on top of a former settlement, or on top of a natural hill. In order words, the symbolic value of the LBA Kriovrisi Kranidia graves may have been burying the deceased on a high, elevated place, and not necessarily on top of an old settlement.

Definitive cases of intramural burial in the north Aegean after the Neolithic period are rare, but have been identified at EBA Archondiko and Korinos, LBA Toumba Thessalonikis, and EIA Assiros. At EBA Archondiko, six burials placed in pithoid jars and laid in pits were discovered within the settlement, including one intramural burial of a child in a pithos near a hearth. A number of C^{14} dates place these burials between 2300 – 1900 BCE (Papaefthimiou-Papanthimou & Pilali-Papasteriou 1997). The burials within the EBA settlement at Korinos, meanwhile, include a few burials casually thrown into the rubbish pits (Blackman 1996). Eleven intramural burials were also discovered at LBA Toumba Thessalonikis, while six further burials that were likely destroyed by later occupation, which were recognized in the scattered bone material (Andreou *et al*. 1996). One inhumation burial was disposed of in the EIA Assiros settlement deposits without any special treatment or care, while another pithos burial was discovered when the site had been abandoned for a century or more (Catling 1989; Wardle 1989). The pithos burial was set into the ruins on the summit of the mound, marked by a rough rectangle of stones, with an exceptionally large pithos, nearly 2 m in length, on its side. This

pithos was sealed by a large flat stone which later formed part of the foundations of a later Phase 1 building without being removed. The pithos contained the shattered bones of an adult which rested on a carefully prepared platform within the jar. The skull of a juvenile was found near the adult's right shoulder, and Wardle (1989) argues that it is possible the first use of the pithos was for the juvenile, and at a later date the bones were scattered when the pithos was prepared, with the platform, for the adult burial. The intriguing cases of intramural burial discussed above, however, are rare and should not be considered indicative of trends in the north Aegean in periods later than the Neolithic.

Cremation burials documented during the Neolithic period were primarily located in urns that were subsequently deposited in small, shallow pits located in open spaces near houses, with few and simple grave goods. At Mandalo, a child burial in an urn was found in part of the Neolithic settlement, and the remains of an adult were buried in a pit lined with mudbricks and a clay floor (Pilali-Papasteriou & Papaefthimiou-Papanthemou 1989). At Neolithic Avgi in Kastoria, ten small pots containing small quantities of cremains dating to the 5th millennium BCE were situated in an open space at the center of the village, encompassing an area of about 3 m^2 (Stratouli *et al*. 2010; Fig. 3.6).

Figure 3.6 The stages of excavating a burial pot in Neolithic Avgi (Stratouli et al. 2010, Fig. 9).

Each pot was covered with two or three layers of large pottery fragments. The Final Neolithic site of Kleitos II in Kozani had three inurned cremations in addition to three flexed inhumations in the settlement, either within a whole vessel or in large fragments of a vessel. More detail regarding the exact type of pots were used and the specific context of the cremations was not specified in the report, although it was mentioned that two of the three cremations were found outside the northern boundaries of the settlement (Hondrogianni-Metoki 2009b). At the settlement of Dispilio, scattered human remains of small bones were found in the western sector of the settlement at a depth of 50–60 cm, as well as a few bones within three small, unglazed pots that were not carefully manufactured (Hourmouziadis 2002: 248–252). At the tell site of Varemenoi Goulon, a cremation of an infant, found in a single pot, was revealed beneath the destruction horizon, dated to the end of the Early Neolithic (Blackman 1998; Whitley 2003). As for the Neolithic settlement of Makrygialos, an infant cremation burial in a small urn was found within the settled area, while several inhumations in simple pits with minimal grave goods, as well as concentric ditches with disarticulated bones were made at one point beyond the edge of the inhabited area (Besios & Pappa 1998; Triantaphyllou 1997: 47–48). Scattered human bones

at LN Toumba Kremastis Koiladas were also recovered in many pits both within and slightly outside of the settlement area (Hondroyianni-Metoki 2001; 2009b).

As for the pots containing the cremations, it appears that even within sites pots differed in terms of shape, color, and surface treatment. The cremated bones of the infant interred at Varemenoi Goulon were in a small black bowl of black rippled wear with a high conical foot, placed upside down (Whitley 2003). At Neolithic Avgi, the shapes of the burial pots were inspired by vessels usually associated by archaeologists with storage and/or collective consumption of food (Stratouli *et al*. 2010). Closed vessels such as hole-mouth and necked jars were preferred, with a range of colors including light brown, reddish brown, and red. The surface treatment of the burial pots also varies: four pots show smoothed exterior surfaces, while six are burnished (Stratouli *et al*. 2010: 99). Moreover, two distinct techniques can be detected in the manufacturing process of the burial pots: most were manufactured with the "coiling" technique, in which coils of clay were used to build up the pot, while the smaller pots were crafted using the "pinching" technique, in which a single lump of clay was transformed into a pot by the pressure of the potter's hands. Some pots evidenced wear marks on the exterior surface of their base, indicating that these particular pots were used in some other activity in the context of daily life prior to their deposition, ending their object biography with the life of the deceased. By contrast, other pots exhibit characteristics that indicate that they were manufactured only as funerary urns, taking into account their shaping, forming, and firing (Fig. 3.7).

Figure 3.7 Burial pot with associated skeletal remains at Neolithic Avgi (Stratouli et al. 2010, Fig. 8).

3.1.2 Urn cremation and inhumation pit graves (extramural contexts)

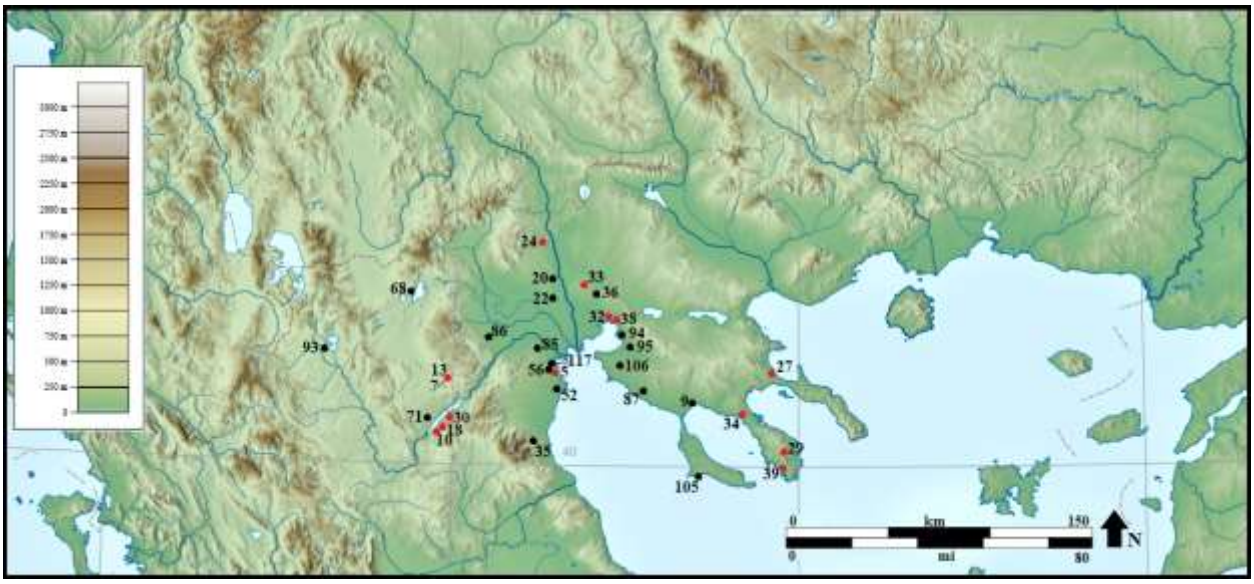

Figure 3.8 Map of cremation and inhumation pit graves in extramural contexts. Sites with cremations in pits are indicated in red; sites with only inhumations in pits are labelled in black.

Number	Date	Site	Region	Cremations	Inhumations
7	LN	Toumba Kremastis Koiladas	WMac	x	
10	EBA	Goules	WMac	x	x

13	EBA	Xeropigado Koiladas	WMac	x	x
18	LBA	Tourla	WMac	x	x
24	EIA	Axioupolis	CMac	x	x
34	EIA	Nikiti-Ai Gianni	Chalkidiki	x	x
29	EIA	Koukos	Chalkidiki	x	
30	EIA	Kriovrissi Kranidia	WMac	x	x
5	EBA-EIA	Makrygialos	CMac	x	x
32	EIA	Nea Efkarpia	CMac	x	x
38	EIA	Stavroupoli-Polichni	CMac	x	x
33	EIA	Nea Philadelphia	CMac	x	x
39	EIA	Torone	Chalkidiki	x	x
27	EIA	Ierissos	Chalkidiki	x	x
9	EBA	Ayios Mamas	Chalkidiki		x
22	EBA, EIA	Archondiko	CMac		x
52	EBA, EIA	Korinos	CMac		x
56	LBA	Ano Komi	CMac		x
94	LBA-EIA	Toumba Thessalonikis	CMac		x
117	LBA-EIA	Methone	CMac		x
71	LBA-EIA	Aiani	WMac		x
68	EIA	Ay. Panteleimon	WMac		x
93	EIA	Kastoria-Dailaki	WMac		x
86	EIA	Assomata-Egnatia	WMac		x

85	EIA	Kypseli	CMac		x
35	EIA	Mt. Olympus	CMac		x
20	EIA	Agrosykia	CMac		x
36	EIA	Oraiokastro	CMac		x
95	EIA	Thermi	CMac		x
106	EIA	Plagiari	CMac		x
87	EIA	Nea Kallikrateia	Chalkidiki		x
105	EIA	Mende	Chalkidiki		x

Table 3.2. List of grave sites with cremation and inhumation pit burials through time.

Although the first instances of cremation urn burials in the north Aegean date back to the Early Neolithic period, it is at the tell and extended settlement of LN Toumba Kremastis Koiladas, at the northeastern limit of the site, the 23 cremation burials in urns and two inhumations in pits were recovered (Fig. 3.9).

Figure 3.9 Cremation tomb 3 at Late Neolithic Toumba Kremastis Koiladas (Hondroyianni-Metoki 2009b, Fig. 28).

By the Early Bronze Age (EBA), urn cremations are exclusively located in extramural cemeteries. Cremation and inhumation rites co-occur from the Neolithic to the Early Iron Age

(EIA). Although there are a fewer number of sites with cremations in the EBA compared to the Neolithic, there are more instances of cremation burials in the EBA. In most cases (Ayios Mamas, Goules, and Xeropigado Koiladas) inhumation burials outnumber cremations. However, in some EBA sites in coastal Chalkidiki, cremation is the norm rather than the exception: at Kriaritsi-Sykia and Nea Skioni, the number of cremations outnumbers inhumation burials. It is also noteworthy that there are no cases of isolated cremation burials, and none of the EBA cemeteries with cremation burials continue into the MBA/LBA period. In the LBA, inhumation outnumbers cremations at Faia Petra, Kriovrisi Kranidia A, Tsiganadika, and Tourla, but cremation is the dominant rite at Exochi and Potamoi in east Macedonia. In the EIA, meanwhile, the number of cemeteries with cremation burials overall increases substantially from six to 19, and again they are exclusively located in extramural cemeteries. Cremations outnumber inhumation burials at a number of sites (Drama Z.I, Palaiogynaikokastro, Kriovrisi Kranidia B, and Torone), and is exclusive at Apsalos Verpen, Koukos, and Exochi. Cremation is in the minority for a dozen cemeteries (Archondiko, Axioupoli, Nikiti-Ai Gianni, Ierissos, Makrygialos, Nea Efkarpia, Nea Philadelphia, Oraiokastro, Stavroupoli, and Vergina), where cremations represent between 1–6% of the total known graves.

The remainder of this section will focus exclusively on urn cremations in pits that have sufficient information published, namely the sites of LN Toumba Kremastis Koiladas, EBA Xeropigado Koiladas (Fig. 3.10), LBA Tourla, EIA Axioupolis, EIA Ai Nikiti-Ai Gianni, EIA Koukos, EIA Kriovrisi Kranidia B, EIA Makrygialos, EIA Nea Efkarpia, EIA Nea Philadelphia, and EIA Torone (Fig. 3.11). While EBA Goules, for example, brought to light two cremation burials in simple pits (Tombs 53 and 54), they were very poorly preserved (Ziota 2007: 312–313).

Figure 3.10 Cremated remains of an adult in a pithos (T. 39) in EBA Xeropigado Koiladas (Ziota 2007, Fig. 2).

Figure 3.11 Tomb 118 from the NE, EIA Torone (Papadopoulos 2005, pl. 236).

The basic physical appearance of pit urn cremations in particular is similar at all sites. A circular, elliptical, or rectangular pit measuring between 0.20–1.20 m is cut, within which a pot containing the cremated remains of the deceased is placed. At LN Toumba Kremastis Koiladas, two categories of urn cremations exist: burials of the first category consist of one or two urns (double cremations), while in the second category, pottery sherds shape a small pile containing the burned bones and ash of the dead (Hondroyianni-Metoki 2009b). At EIA Oraiokastro and Stavroupoli-Polichni, secondary cremations in urns were deposited in pits, sometimes covered by one or more schist slabs (Lioutas & Gkioura 1999: 317–326; Lambrothanassi-Korantzi 2005: 18–23). In several cases throughout most cemeteries, two or more ash-urns were placed in the same tomb pit, such as at EIA Ierissos, where a single cremation pit grave contained three ash-urns (Trakassopoulou-Salakidou 2001: 350–352; 2004: 265–276). The orientation of the urn varies; although it is usually set upright, in certain contexts the ash-urn is placed on its side with various orientations. In two exceptional cases at Torone, the urn was placed in an upside-down position (Papadopoulos 2005: 131; 167), while other cremation vessels were set upright or in a slightly tilted position (Fig. 3.11). At EIA Nea Efkarpia, the urn cremations were sometimes fixed vertically with stones (Lambrothanassi-Krantzi *et al*. 2004: 249–256). A base of another pot often served as the lid of the ash urn, which was often derived from a used drinking or storage vessel. In other instances of coverings, an open vessel was placed upside-down over the cremation vessel, while in other cases broken body fragments of another pot were used (*cf*. Papadopoulos 2005: 369). In terms of the type of cinerary urn used, this varied by site. At EIA Koukos in Chalkidiki, where the exclusive rite was secondary cremation, pit tombs had pithoi, bowls, kantharoi, amphoriskoi, amphorae, and other vessels associated with either storage or

drinking (Carington-Smith & Vokotopoulou 1991: 357-370; 1989: 431-433), with similar varieties also encountered at EIA Kriovrisi Kranidia B (Hondroyianni-Metoki 2009b: 456–462).

For inhumation pit graves, including those discovered alongside cremation burials and those in solely inhumation cemeteries, these burials were also shallow and simple oval or rectangular cuttings into bedrock (Fig. 3.12).

Figure 3.12 Extended inhumation pit grave at EIA Pella (Pella Archaeological Museum).

One exception to this rule was at LBA Aiani, where burial pits were cut at a depth of 0.90–1.2 m (Karamitrou-Mentesidi 1993). Inhumation pit graves are attested at two sites during the EBA, four sites during the LBA, and 19 sites during the EIA (excluding pit graves found within built tombs and tumuli). Most of the pits were cut only marginally larger than the body of the deceased, and in some cases (such as at EBA Ayios Mamas) the pits were strewn with pebbles (Pappa 1995). At EIA Makrygialos, a second narrower pit (rectangular or oval) was dug

inside the upper rectangular pit, thus creating a ledge on which a stone slab was placed. This practice was also attested at EIA Oraiokastro and Stavroupoli-Polichni in the Thessaloniki region and EIA Ierissos in Chalkidiki, in which pits were either simple or closed by schist slabs or a mixed covering of schist slabs and fragments of pithoi. The orientation of the tombs varied on an inter- and intra-cemetery scale, such as at EIA Koukos, Kriovrisi Kranidia B, Nea Efkarpia, and Nea Philadelphia, where there was no consistent orientation of inhumation pit graves. However, there were consistencies within sites to lay out the graves in a certain position, and also face the head towards a certain direction. At EIA Makrygialos, for example, the graves tended to be oriented E–W (Triantaphyllou 2001), while at EIA Torone, the pit graves were usually oriented SE–NW, with the head facing the SE (Papadopoulos 2005: 370). At EBA Xeropigado Koiladas, the orientation was mostly consistent: more than 70% of undisturbed burials had been placed with their head towards the S or SW, and were oriented S–N (Maniatis & Ziota 2011).

The choice of grave location is also worth noting here. At almost all cemeteries with cremation and inhumation pit graves – even in cases such as EIA Nea Philadelphia, which boasts over 2,228 tombs – each burial was carefully placed so as to be distinct from pre-existing graves. In other words, there were only a few instances in which an earlier burial was cut into or disturbed by a later burial, and overlays were rare. Although at EBA Xeropigado Koiladas some of the graves were built of top of, or adjacent to, older burials, this was accomplished without disturbing any, despite its long period of use across approximately 700 years (Ziota 2007). At EIA Koukos in Chalkidiki, however, which had a total of 98 cremation graves (including pit and cist burials), the tombs located in the dense northeast sector were often superimposed on three levels and without any distinct orientation. At EIA Torone in Chalkidiki, there were only a handful of cases in which a later tomb cut into an earlier tomb, as well as cases of intentional

overlay without disturbance (Papadopoulos 2005: 358; Fig. 3.13). Such care in most cemeteries not to disturb earlier graves suggests that grave markers or some kind of delineations were installed to distinguish the burials. In the case of pit graves, no grave markers were identified except at EBA Xeropigado Koiladas, where some pit graves for male burials, but not female burials, had stone piles (cairns) – interpreted by the excavators to be grave markers. This is significant, as one of the most important means of dealing with death, besides ritualized mourning, was the erection of long-lasting, impressive visual monuments such as grave markers. As storage devices of cultural memory, monuments for the dead could preserve the remembrance of the deceased as long as they remained visible to future generations, which is particularly salient for EBA Xeropigado Koiladas – a cemetery that was in use for about 700 years.

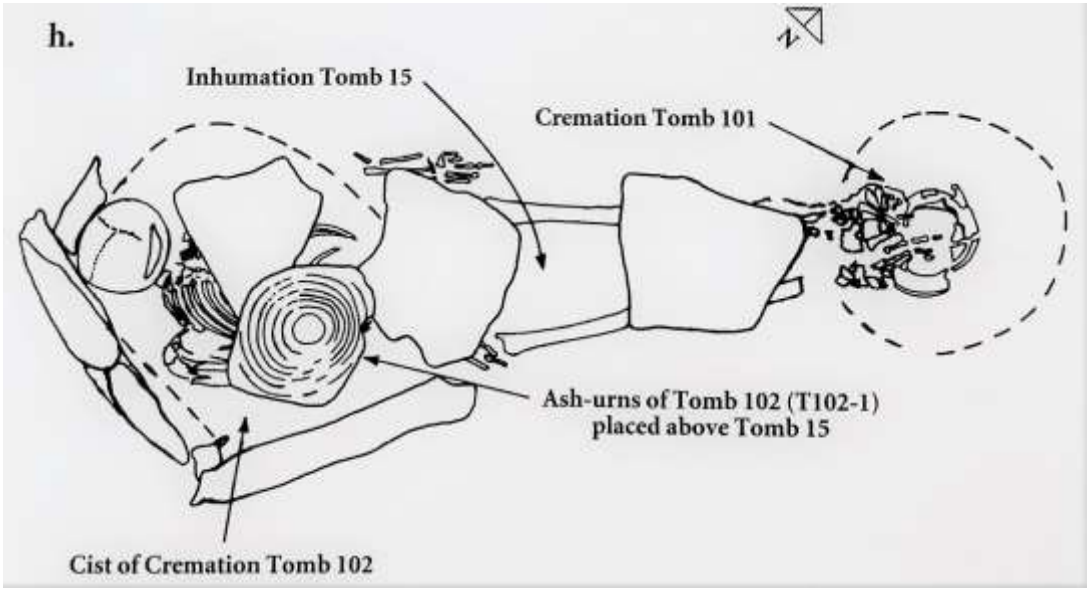

Figure 3.13 Plan of Tombs 15, 101, and 102 at the cemetery of EIA Torone. As the ash-urn of T. 102 was originally inside the cist, which later had two of its side walls removed in order to accommodate inhumation T. 15, indicating that the whole process was intentional (Papadopoulos 2005, Fig. 32.h).

3.1.3 Cremation and inhumation cist graves

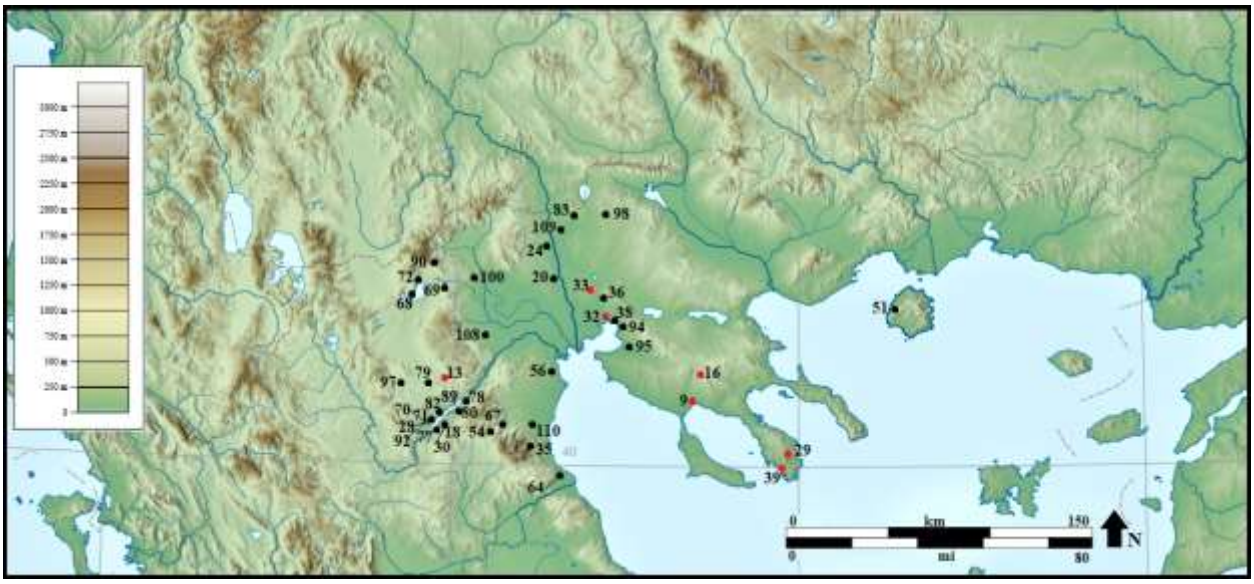

Figure 3.14 Map of cremation and inhumation cist graves in extramural contexts. Sites with cremations in cists are indicated in red; sites with only inhumations in cists are labelled in black.

Number	Date	Site	Region	Cremations	Inhumations
9	EBA	Ayios Mamas	Chalkidiki	x	x
13	EBA	Xeropigado Koiladas	WMac	x	x
16	LBA	Palaiokastro	Chalkidiki	x	
29	EIA	Koukos	Chalkidiki	x	
32	EIA	Nea Efkarpia	CMac	x	x
33	EIA	Nea Philadelphia	CMac	x	x
39	EIA	Torone	Chalkidiki	x	x
51	EBA	Skala Sotiros	Thasos		x
18	LBA	Tourla	WMac		x
54	LBA	Spathes-Agios Dimitrios	CMac		x
56	LBA	Ano Komi	CMac		x

64	LBA	Rema Xydias	CMac		x
68	EIA	Ayios Panteleimon	WMac		x
72	EIA	Arnissa	WMac		x
69	EIA	Agras	WMac		x
90	EIA	Panagitsa-Zervi	WMac		x
100	EIA	Nea Zoi-Terikleia	CMac		x
97	EIA	Kozani	WMac		x
79	EIA	Koilada-Potistra	WMac		x
92	EIA	Aiani-Rahi Kommenoi	WMac		x
70	EIA	Aiani-Ay. Ioannis Prodromos	WMac		x
28	EIA	Aiani-Isiomata	WMac		x
82	EIA	Aiani-Koupoutsina	WMac		x
71	EIA	Aiani-Leivadia	WMac		x
77	EIA	Rymnio	WMac		x
30	LBA-EIA	Kriovrissi Kranidia	WMac		x
89	EIA	Servia-Kokkinoi	WMac		x
80	EIA	Servia-Kolitsaki	WMac		x
78	EIA	Kato Bravas Velventos	WMac		x
108	EIA	Veria	CMac		x
35	LBA-EIA	Mt. Olympus	CMac		x
67	LBA-EIA	Petra-Treis Elies	WMac		x
110	EIA	Kondoriotissa	CMac		x

20	EIA	Agrosykia	CMac		x
24	EIA	Axioupoli	CMac		x
109	EIA	Karathodoreika	CMac		x
83	EIA	Chauchitsa	CMac		x
98	EIA	Plagia	CMac		x
36	EIA	Oraiokastro	CMac		x
38	EIA	Stavroupoli-Polichni	CMac		x
95	EIA	Thermi	CMac		x
94	LBA-EIA	Toumba Thessalonikis	CMac		x

Table 3.3. List of grave sites with cremation and inhumation cist graves through time.

The establishment of extramural cemeteries in the EBA did not lead immediately to the adoption of new grave forms, but soon new types of tombs began to appear. The cist grave – commonly attested throughout Bronze Age and Early Iron Age Greece – is one of them, and refers to a rectangular or trapezoidal pit that was both lined and covered by either worked slabs of schist or some other type of worked or unworked stone, with earth or soft rock typically serving as the floor of the grave. Sometimes the sides were lined with rubble walls rather than with single slabs, and the roof was sometimes made of clay, timber, or overlapping slabs corbelled toward the center. Although the cremations placed within cists were still within ash urns, this type of tomb should be distinguished from the urn pit graves. Cist graves first appear in the north Aegean in the case of the sole cremation grave of an infant at EBA Ayios Mamas in Chalkidiki, inhumation graves at EBA Goules, and 32 inhumation graves at Xeropigado Koiladas in the Kozani region. By the LBA, two sites evidence cist graves with stone covers for inhumed individuals. During the EIA, there is a significant increase in the number of cist graves constructed for both cremation and inhumation burials – four cemeteries with cremation cist

graves (Koukos and Torone in Chalkidiki, and Nea Efkarpia and Nea Philadelphia in the Thessaloniki area), and 28 cemeteries with inhumation cists, the latter constituting 41.7% of known EIA cemeteries. These numbers exclude cist graves that are found within tumuli.

Although all the tombs listed in this section fall under the general description and classification of cist graves, there are varieties both between and within cemeteries. At EIA Nea Philadelphia, for example, the 53 urn cremations (3.7% of burials at the site) were interred in circular or elliptical pits that were made of untreated stones (Aikaterinidis 2008: Fig. 24). At EIA Koukos in Chalkidiki, where the exclusive rite is secondary cremation in either stone-block cists (49 cases) or pits (49 cases), the cists do not exceed one meter in length – a size and appearance that is also found in EBA Cycladic cemeteries during this time (Doumas 1977; Mee 2010). There was a worked stone slab on each side of the grave and was closed by a single covering slab. In most cases, a single urn was deposited within the cist, although in T. 20 at Koukos, two sections were delimited – one contained three cinerary urns, and the other had two urns (Carington-Smith & Vokotopoulou 1996). At EIA Torone, a rectangular or square pit larger than standard pit graves was cut into bedrock, which was then enclosed within cists and filled with the remains of the pyre and the ash-urn (Papadopoulos 2005: 370; Fig. 2.17). One particularly well-preserved tomb (104) was built of four worked slabs of schist that measured 0.60 m in length and then covered by a fifth slab. At Nea Efkarpia, one out of the 14 secondary cremations was interred in a cist grave that was covered by local stones (Lambrothanassi-Korantzi *et al*. 2004: 249–256). The three cases of cist cremation burials at Nikiti-Ai Gianni were slightly different to the cases discussed above. For T. 22, the urn was found under a layer of rectangular (1.0 x 0.53 m) stones oriented N–S, closed by a layer of stones (Trakassopoulou-Salakidou 1991). The other two cases of secondary cremation are quite different: they are small, semi-circular stone constructions with

a diameter of 0.80 m, whose "low walls" range from 0.28–0.40 m in width. The opening, oriented to the south, is closed by two slabs of stone. The interior was washed out, but it is assumed that the bones once rested on the few fragments of pithoi found flat on the inside. As for the urns found interred within cist graves throughout all the sites, there does not appear to be a difference in the types of pottery used to inter the deceased.

Cist tombs for inhumations are well known throughout the Greek world during the Bronze and Early Iron Ages, and the north Aegean is no exception to this trend (Fig. 3.15; Fig. 3.16).

Figure 3.15 Cist grave made of multiple unworked, local stones (also known as "boulder cist" by Snodgrass) with a single inhumation at EBA Xeropigado Koiladas (Ziota 2000, Fig. 1).

Figure 3.16 Cist grave with singular slabs and multiple interments (two adults and a child) at LBA Agios Konstantinos (Karamitrou-Mentesidi 2013, Fig. 5).

As in the case of cremation cist graves, inhumation cist graves are comprised of a variety of construction types. In the case of the 14 inhumation cist graves at EBA Goules, which constituted 33.3% of the graves at the cemetery, large singular slabs of limestone that were locally available were primarily used, as well as more rarely slate (Ziota 2007: 267–275). The stone plates were reinforced with smaller limestone fragments in certain cases, including in the corners. The external dimensions of cists were, on average, 1.02 x 0.66 m, and internally 0.67 x 0.46 m, with an average wall height of 0.37 m and a depth between 0.52–1.27 m (Ziota 2007: 268). LBA Spathes – Ayios Dimitrios is an exception to the rule of stone cover slabs, with 24 cist tomb covers at the site noted as being carefully sealed with clay (Catling 1986), a practice also noted at LBA-EIA Treis Elies. The deceased in most cases were placed on smoothed bedrock, with the exception of singular tombs at EBA Goules and LBA Tourla, which had a floor of pebbles. By the EIA, the cist grave constructions become not only more numerous, but also monumental and elaborate at certain cemeteries. Excavators noted this trend towards greater monumentality at EIA Nea Philadelphia, where earlier EIA orthostat cists were described as

rudimentary and less built up than later EIA cists, which increased in size and degree of stone treatment (Savvopoulou 2004: 307–316). At EIA Palaiogynaikokastro, the inhumation cists were comprised of two types: cists with shaped slabs on the floor and sides with a single schist cover, and cists covered and lined by a layer of rough, unworked stones. In terms of orientation, the cist graves varied both within and between cemeteries; at some sites, such as at EIA Kolitsaki Servia, there was a consistent E–W orientation (Karamitrou-Mentesidi 1992), while at other sites, such as EIA Kato Bravas Velventos, there was no consistent orientation (Karamitrou-Mentesidi 2006).

In the case of EBA Goules, Ziota (2007: 264) notes that individuals used limestone in the immediate vicinity of the site for lining the cist graves. At EIA Koukos, there were concentrations of stone plates in the western area of the cemetery that were interpreted as reserves of materials for the construction of tombs (Carington-Smith & Vokotopoulou 1993: 442). Similarly, at EIA Nea Efkarpia near Thessaloniki, large clusters of schist slabs, with a dozen found during the 2002 excavations, were discovered in an area devoid of graves in the southern boundary of the cemetery (Lambrothanassi-Korantzi *et al*. 2004: 57). At EIA Paliogynaikokastro, the stone used was noted by the excavators to come from the Mesiano region, which is located 3 km to the east of the cemetery.

3.1.4 Built tombs and chamber tombs

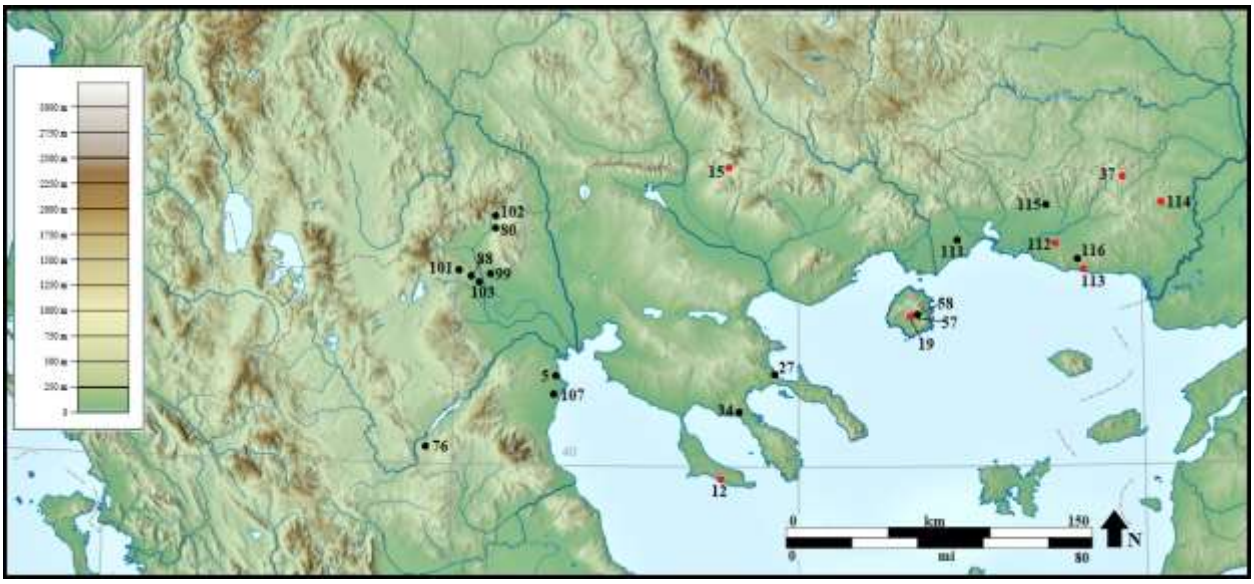

Figure 3.17 Map of built tombs and chamber tombs. Sites with cremations are indicated in red; sites with only inhumations in built/chamber tombs are labelled in black.

Number	Date	Site	Region	Cremations	Inhumations
12	EBA	Nea Skioni	Chalkidiki	x	x
15	LBA	Faia Petra	EMac	x	x
19	LBA-EIA	Tsiganadika	Thasos	x	x
37	EIA	Roussa	Thrake	x	
112	EIA	Mikro Dokato	Thrake	x	
113	EIA	Zone	Thrake	x	
114	EIA	Kotronia	Thrake	x	
34	EIA	Nikiti-Ai Gianni	Chalkidiki		x
27	EIA	Ierissos	Chalkidiki		x
58	EIA	Kentria	Thasos		x

57	EIA	Vrysoudes	Thasos		x
5	EIA	Makrygialos	CMac		x
76	EIA	Frourio-Kambos	WMac		x
116	EIA	Petrota	Thrake		x
115	EIA	Thaumna	Thrake		x
111	EIA	Vafeika	Thrake		x
107	EIA	Alykes Kitrou	CMac		x
103	EIA	Prophiti Ilias	WMac		x
101	EIA	Apsalos-Margarita	WMac		x
88	EIA	Nea Zoi-ΣT	WMac		x
99	EIA	Krania	CMac		x
80	EIA	Konstantia	CMac		x
102	EIA	Neromyloi-Prodromos	CMac		x

Table 3.4. List of built and chamber tombs with cremation and inhumation graves through time.

There are other rectangular, stone-built tombs which are misleading to call them cists. These graves are large and deep, with stone walls and a roof of one or several slabs, and very often had an entrance in one side. These tombs were often used for a succession of burials, differing from the pit and cist, which were only on occasion used more than once. Although it could be argued that these tombs were elaborations of the cist, they should be separately categorized as "built tombs." Built graves come in a variety of different designs in mainland and northern Greece, sometimes rectangular or oval with a small (false?) entrance in a corner or at one end, sometimes of a more irregular plan. Small to large tombs built of field stone or upright slabs are known from EBA Crete, most of which consist of a small, shallow burial chamber with a pebbled floor and a narrow entranced blocked with an upright stone slab, which separates the

chamber from an anteroom or shaft. These Cretan "house tombs" (as they are also referred to, *cf*. Younger & Rehak 2008) most closely resemble the cemeteries on the island of Thasos, which consist of three irregular groups of built tombs near the site of Kastri: 35 structures in the cemetery of Tsiganadika, three in Vrysoudes, and seven in Kentria (Koukouli-Chrysanthaki 1992). These tombs range in time from roughly 1300 to 700 BCE on the chronology drawn up by the excavators with reference to material from the Balkans, Macedonia, and the Aegean. The Thasos built tombs often consist of a number of chambers, many of which underwent reuse for mostly inhumation graves and a few cremations, although few were used for more than three or four generations. Koukouli-Chrysanthaki's (1992: 122–131; 369–382) discussion of tomb types has linked these structures most closely with the dolmens and built chambers under tumuli which are found in southern Thrake, such as the tomb at EIA Roussa in Evros, Thrake. The only other examples of free-standing tomb chambers of this date from northern Greece appear in Aegean Thrake either as megalithic monuments or as built chambers, both usually associated with a tumulus. The tombs at LBA Faia Petra in Serres, eastern Macedonia were noted by the excavators to have close parallels in layout with the LBA tombs in the Kentria cemetery on Thasos (Valla *et al*. 2013: 235), although they have been categorized as *periboloi* in the following section.

For the EIA built tombs at Thasos, local marble was used in the graves of all cemeteries, mostly available from the surface and suitable to be used for building material without any special processing, in addition to special quarries close to the Kastri settlement (Koukouli-Chrysanthaki 1992: 369; Fig. 3.18).

Figure 3.18 Reconstruction of EIA built tombs found near the settlement of Kastri on Thasos at the Thasos Archaeological Museum (M. Kontonicolas, June 2017).

The tombs themselves were built in dry-stone technique, without the use of a binder such as soil or clay; the use of large stones, embedded in an upright position within the built walls of the tombs, ensured greater consistency and support to the lateral walls of graves, which were not only stacked with marble slabs but also covered by large slabs (Koukouli-Chrysanthaki 1992: Pl. 232β, 307α, 320α, 216β). The principal architectural types of funerary monuments reflect two modes of burial: inhumation (I, the dominant rite) and cremation (II). Tombs of Type I can be divided into two classes - those with rectangular ground plans, Type A, and those with circular ground plans, Type B, all of which range from one to two stories high and have a designated entrance and single or multiple chambers. As for the built graves for cremations, there are two sub-types outlined by the excavator (Koukouli-Chrysanthaki 1992: 372). The first sub-type (IIA) is a constructed building platform and filled with rocks on the inside. At the core of the platform, between the stones and under a layer of stone, is the deposited ash-urn with gifts beside it (Koukouli-Chrysanthaki 1992: 372-373; Fig. 3.19). The second sub-type (IIB) is a built platform

with a rectangular or square top plan that is not always well-formed, in the interior of which a niche is created with a soil floor, into which the ash-urn is deposited (Fig. 3.20).

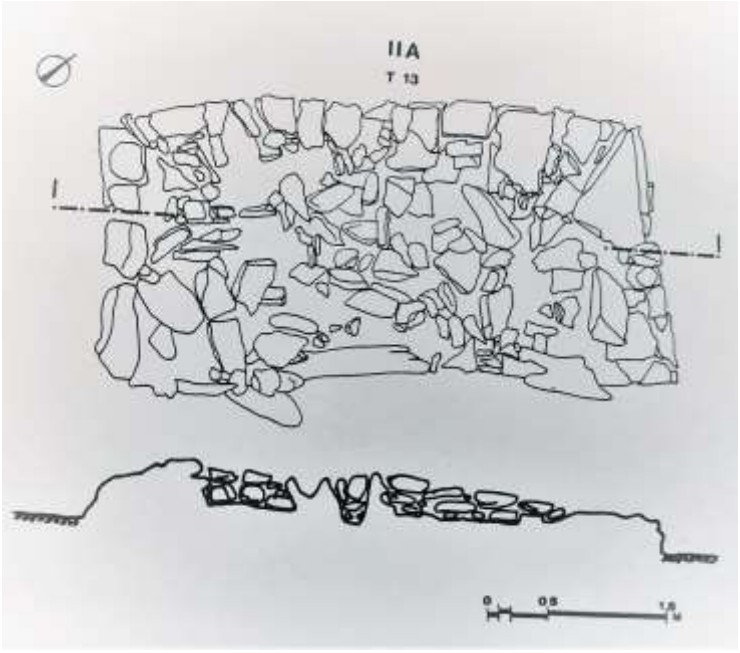

Figure 3.19 Sub-type IIA of cremation burials at EIA Thasos, consisting of a building platform (Koukouli-Chrysanthaki 1992, Fig. 69).

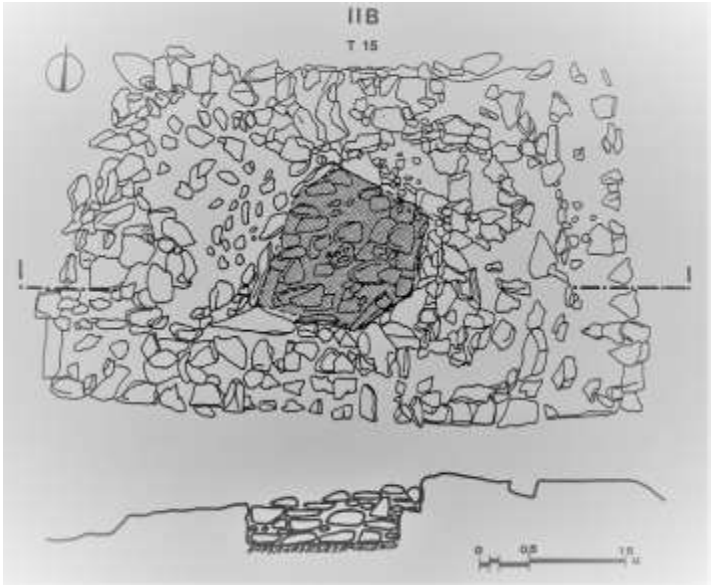

Figure 3.20 Sub-type IIB of cremation burials at EIA Thasos, consisting of a rectangular built platform with a niche (Koukouli-Chrysanthaki 1992, Fig. 70).

At LBA Faia Petra, five groups of single and multiple burials, of which three were almost intact, were excavated, with each of the five groups of burials bounded by a rectangular surround, comprised mainly upright stones (Valla *et al.* 2013: Fig. 3; Fig. 4). Each enclosure was covered by stone piles packed with earth which, although not forming a clear tumulus, were probably visible on the ground. The construction of enclosure 5 in particular deviated slightly from the norm, being surrounded by compact stone walls with inner facades and two entrances (Valla *et al*. 2013: Fig. 4). The rectangular shape of the enclosures is usually associated with domestic architecture and, in a mortuary context, is better known in the "house tombs" of Minoan Crete, EBA southern Greece, and the Cyclades (Soles 1992: 202, 224).

The tombs at EIA Roussa (Fig. 3.21), Kotronia, Mikro Dokato, and Zone most closely fit the categorization of dolmen tombs, which generally consisted of single – or sometimes multiple – chambers formed from single large slabs of schist, within which a number of cremation urns were interred (Baralis & Riapov 2007). The dimensions of the tombs were often not indicated in the preliminary reports. Owen (2000) notes that no simple burial dolmen has been demonstrated to have been constructed after the 9th century BCE, although continued reuse of dolmens (probably as loci of ritual feasting) is common.

Figure 3.21 Photograph of the dolmen tomb at EIA Roussa in Thrake (L), and sketch of tomb when discovered (R) (Maras 2012).

The use of two tomb types is broadly, although not exactly, coterminous with LBA Mycenaean civilization both geographically and chronologically: the chamber tomb and the tholos tomb, although both pit and cist graves continued to be common in the Mycenaean south (see esp. Papadopoulos & Smithson 2017: 586–597). It would be useful to introduce, briefly, the primary characteristics of Mycenaean chamber and tholos tombs in to order to compare them to north Aegean counterparts. Chamber tombs consist of an open passage, the rock-cut *dromos* (entrance passage), that leads underground to the *stomion* (doorway, usually walled up by stones) that seals the hollowed-out burial chamber(s). The major variations among chamber tombs are in the size and quality of shaping, number of chambers, and offerings. Unlike the rock-cut, irregularly shaped chamber tombs, tholos tombs are built, with corbel-vaulted burial chambers and neatly circular or elliptical plans. Tholoi also have the *dromos*, *stomion*, and chamber(s). The most famous tholos is the Treasury of Atreus at Mycenae, often referred to as the Tomb of Agamemnon, and is a testament to the highly level of workmanship required for its construction. The main chamber is circular, 14.6 m in diameter, rising in a corbelled vault to a height of 13.4

m, and has access to a small rectangular side chamber (Crowley 2008: 268). Although chamber and tholos tombs are widespread in the LBA mainland and Crete, it is worth noting that not all Mycenaean communities used them. Indeed, in the early Mycenaean period, chamber tombs were rare outside of the Argolid in Greece (Cavanagh 2008, Fig. 13.3), and even in the later LBA, at the height of their popularity, they were not widespread in certain regions (such as Messenia and Thessaly). By the transition to the LH IIIA, the numbers of chamber tombs increase significantly in small communities and societies peripheral to the Mycenaean sphere, as these "lesser chiefs" took up these types of tombs on a smaller scale (6 m or less in diameter) and less elaborate tholoi in imitation of their more powerful neighbors (Cavanagh 2008: Fig. 13.4; 331).

Figure 3.22 EIA Frourio-Kambos chamber tomb that was later turned into a kiln in the Roman period, constructed inside the rock-cut circular grave within the dromos. On the right, stones and pot-sherds that constituted the stone mound and grave goods respectively (Hondroyianni-Metoki 2015b, Fig. 4).

It is only in the subsequent EIA that chamber and tholos tombs are attested in the north Aegean. At EIA Frourio-Kambos in the Kozani region, two tholos tombs and four chamber

tombs were excavated. The two tholoi are oriented west-east with the dromos in the west, according to the slope of the ground and the general orientation of the site (Hondroyianni-Metoki 1998: 298; Fig. 3.22). The chambers of both tombs measured between 2.40–2.80 m in diameter, and the dromos 2.50 x 0.60 m and 2.30 x 2.60 m respectively. As for the four chamber tombs, they were circular and range from 0.70–1 m in diameter and up to 1 m in height. Some still bear the marks of two steps at the entrance. Due to the presence of numerous stones on the site, archaeologists assume that these tombs were originally covered with stone mounds. At EIA Makrygialos, the two chamber tombs were found amongst a variety of other graves and were hollowed out in the natural soil. The funerary chamber is circular, decorated with a dromos oriented to the east and a stomion constructed with stones. In one case (T. 11), above the layer corresponding to the collapsed vault, excavators identified a layer of reddish soil, which presupposes the presence of a mound (Besios 1994b: 172). A stone slab found over the grave likely served as the funeral marker. In the case of T. 4, the dromos was filled with local, unworked stones and the entrance was very narrow.

There is a final type of built tombs that will be discussed briefly here: *periboloi*. These stone structures, which are especially common in Athens and Attica in the Archaic period and later, have low walls that are typically rectangular or circular in shape and surround burials or a sacred area. One of the most well-known *periboloi* is the so-called Tritopatreion in the Athenian Kerameikos, a sacred precinct founded in the 6th century BCE (although there may have been an earlier 7th century sanctuary in the same place) for the worship of the *Tritopatores*. Thanks to an archaic inscription, archaeologists are certain of the identity of this trapezoidal-shaped structure, the foundations of which are preserved to a maximum height of 1.30 m, although they are less clear as to its significance. The site – which no one except priests could enter – had never been

employed for burial or other uses; the sanctuary overlooked the western entrance to the city and was the center around which the archaic tumuli developed (Banou & Bournias 2015: 165–167). It was an important and sacred area in the funerary spaces of ancient Greece; thus, their origins and development remain of interest. While there are identified *periboloi* in the study region, any resemblance between the two may be more apparent than real.

In the north Aegean, *periboloi* first appear in a funerary context at the EBA cemetery of Nea Skioni in Chalkidiki (Fig. 3.23).

Figure 3.23 One of 13 burial periboloi (L) and the rectangular "ritual" structure (R) at the EBA cemetery at Nea Skioni (Tsigarida & Mantazi 2005, Figs. 1 & 3).

Thirteen burial *periboloi* were investigated, primarily circular in shape with an average diameter of 1.50–2.50 m and 1–3 rows of stones in height, surrounding both cremation and inhumation graves (although cremations were more frequent) (Tsigarida & Mantazi 2005: 369). There is one rectangular foundation that could be another *peribolos*, although the excavators believe it to be the foundations of some kind of structure that was used for funerary ritual (Tsigarida & Mantazi 2005: 370; Fig. 3.19). What is peculiar is the discovery of intact cups and burnt debris within the foundations (made of local, unworked stone), and no burials. The tradition of *periboloi* in Chalkidiki continues at EIA Ierissos and Nikiti-Ai Gianni, where inhumation pithoi burials

(described in more detail in the relevant section below) are surrounded by stones demarcating the grave area (Trakassopoulou-Salakidou 2001: 349). In three cases at EIA Ai Gianni, these *periboloi* take on a monumental appearance in an oval shape, with walls 0.35 – 0.50 m wide. There are also *periboloi* attested at the LBA cemetery of Faia Petra in Serres, where five rectangular stone enclosures and one stone mound covered by a combination of stones and earth have been excavated (Valla 2007; Fig. 3.24).

Figure 3.24 Enclosure no. 5 at LBA Faia Petra (Valla 2007, Fig. 7).

Although the enclosures do not have fixed dimensions and there does not appear to be regularity in the number of deceased and type of artifacts interred inside, a certain uniformity is seen in the type and method of construction of the enclosures themselves. The choice of form was noted to bear a resemblance to the architectural forms of contemporary residences, as on Thasos (Koukouli-Chrysanthaki 1992: 372–372) and Crete (Soles 1992: 202; 224). The enclosures at Faia Petra were noted to be "simple" constructions: with an area of six to nine m being dug out of the natural ground to a depth of 35–55 cm. A stone structure or low wall was then built along the perimeter, usually 60 cm high (Valla 2007: 379). Valla (2007: 379) notes

that “usually, not much attention was paid to the construction, but effort was always made to lay out the boundaries and to clearly outline the rectangular plan.” The stone enclosures in two of the enclosures, however, was skillfully built – with low, compact walls, an entrance on one side, and clear inner facades. The arrangement and positioning of stones of two different colors - white and dark-colored slate – appears to be entirely random, although the predominance of white stones does point to a preference for that color on the part of the builders. All the stones were obtained from the surrounding area where they were abundant.

3.1.5 Tumulus graves

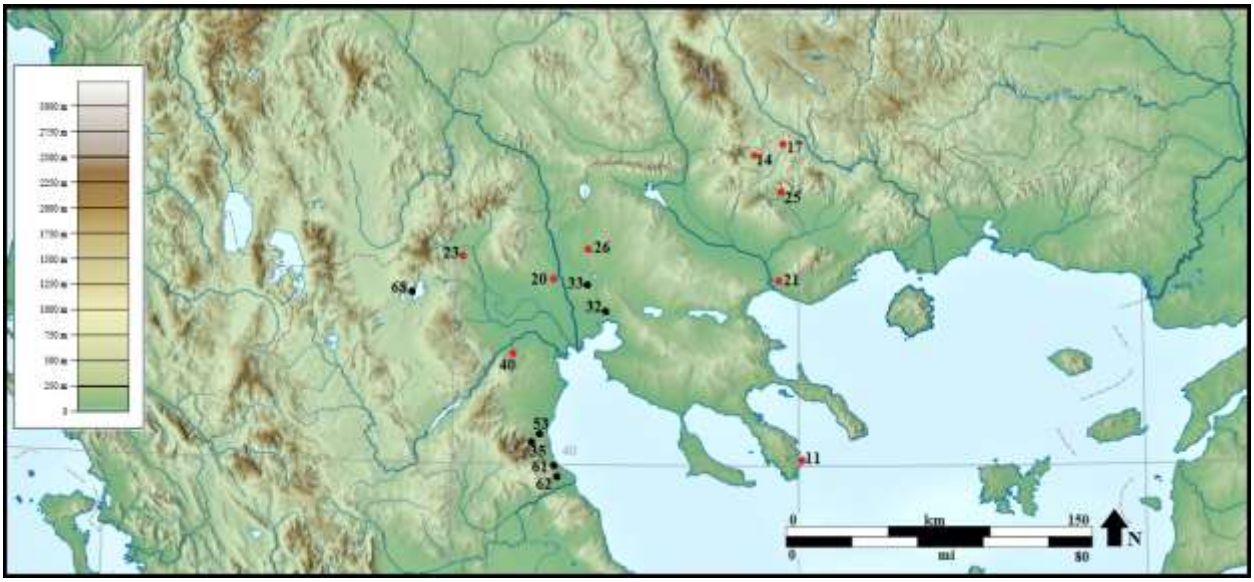

Figure 3.25 Map of cremation and inhumation tumulus graves. Tumuli with cremations in cists are indicated in red; sites with only inhumations in tumuli are labelled in black.

Number	Date	Site	Region	Cremations	Inhumations
11	EBA	Kriaritsi-Sykia	Chalkidiki	x	
14	LBA-EIA	Exochi	EMac	x	

17	LBA	Potamoi	EMac	x	
20	EIA	Agrosykia	CMac	x	x
21	EIA	Amphipolis-Kastas	EMac	x	x
23	EIA	Apsalos-Verpen	WMac	x	
25	EIA	Drama Z.I.	EMac	x	x
26	EIA	Palaiogynaikokastro	CMac	x	x
40	EIA	Vergina	CMac	x	x
53	MBA	Valtos-Leptokaryas	CMac		x
32	EIA	Nea Efkarpia	CMac		x
33	EIA	Nea Philadelphia	CMac		x
35	EIA	Olympus tumuli	CMac		x
61	LBA-EIA	Pigi Athinas	CMac		x
62	EIA	Pigi Artemidios	CMac		x
68	EIA	Ayios Panteleimon	WMac		x

Table 3.5. List of tumuli with cremation and inhumation graves through time.

A tumulus (essentially, an artificial mound) was an imposing monument, thanks to its stability, duration, and visibility, thus reinforcing the familial, social, territorial and ethnic ties of the deceased buried inside the same or similar tumuli. As a funerary monument visible from a long distance, the placement of tumuli within a landscape does not follow strict rules. Although hilltops are favored (see the example of Lofkënd in Albania, Papadopoulos *et al.* 2014), some tumuli are placed on slopes, plains, or near the coast or a water source (Mercouri & Kouli 2011: 203). There were individual tumuli, raised over a single burial, and family tumuli, containing many graves. Moreover, tumuli can be isolated structures or within cemeteries, together with cist graves, pit graves, pithos burials, and other tumuli. Funerary tumuli were widespread in Greece

from prehistoric periods through Late Antiquity. The construction of a tumulus and type of tombs it contained (cist graves, pits, and *pithoi*, among others) changed synchronically and diachronically, with regional variations in different time periods. Tumuli first appeared at a limited number of EBA sites in northern Greece, and subsequently appeared in small numbers in central and southern Greece during the Middle and Late Bronze Age. Specifically, tumuli appear at the end of the EH II period (Lefkas, Thebes, Vourna, and Tsepi) and at the beginning of the EH III in the Northern Peloponnese, and increase in number by the MH and early LH period (Dörpfeld & Goessler 1927 [1965]; Papakonstantinou 2011: 391). By the end of the Bronze Age, funeral tumuli occurred mostly in northern Greece. In central and southern Greece, tumuli were not particularly common during the LBA and EIA periods, although there are a few isolated cases (Georganas 2002: 289; Papakonstantinou 2011).

Tumuli do not form a homogeneous group, but have different morphological characteristics depending on the environment and available building materials in each area, their date of construction, and on the needs and living conditions of a particular group. Traits that differ with regards to the structure of tumuli include both external characteristics (shape, size, occurrence of enclosure walls, occurrence as single entities or as groups within cemeteries), and internal features (number, type, and placement of tombs, fill composition, burial customs). The EBA cemeteries at Kriaritsi-Sykia in Chalkidiki (Fig. 3.26) and farther south at Steno in Lefkas are the only examples of actual tumulus cemeteries in EBA Greece, each numbering several dozens of mounds slightly overlapping one another and thus forming solid rows. Groups of at least seven tumuli occur at EBA Gouvalari and Vranas, Marathon. All other instances of grouped tumuli, most of which occur in the Peloponnese, number one to four tumuli, with very different morphological characteristics. Tumuli in later periods are isolated in the landscape or within

cemeteries (such as at LBA Potamoi and Exochi in the Drama region, and EIA Apsalos-Verpen, Nea Efkarpia), or more rarely, in small clusters (LBA Pigi Athinas; EIA Agrosykia, Amphipolis-Kastas, Drama Z.I, Nea Philadelphia). EIA Palaiogynaikokastro and Vergina (Fig. 3.27) represent major, exclusively tumulus funerary sites in Northern Greece, with between 400–550 burials (Andronikos 1969; Radt 1974; Savvopoulou 2001). More modest numbers of tumuli are found at EIA Agios Panteleimon, with 12 tumuli and more than 300 cist graves, and EIA Olympus, which represents not a single cemetery but many groups of 19 mounds located at the foot of the chain of Mt. Olympus and along the rivers flowing towards the plain of Dion.

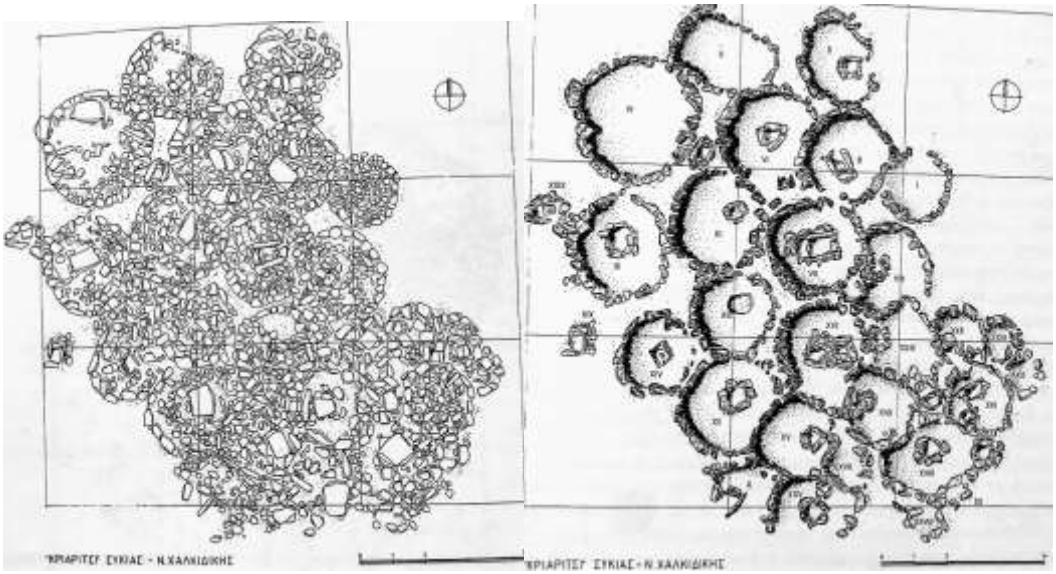

Figure 3.26 Before (L) and after (R) excavation of the 30 bounded mounds at the EBA cemetery of Kriaritsi-Sykia in Chalkidiki (Asouchidou et al. 1998, Fig. 5 & 6).

Figure 3.27 A view of the EIA tumulus cemetery at Vergina. Tumulus VII is at the center, with VIII behind it. Each tumulus contains several burials and is dated to the 9th-8th centuries BCE (Snodgrass 1971 (2000), Fig. 60).

Inhumation, usually in a contracted position inside burial *pithoi*, cist graves, or pits, was the dominant burial custom in tumuli throughout the late prehistoric Aegean sphere (Merkouri & Kouli 2011: 206). There are no recorded cemeteries with inhumations in tumuli in the EBA north Aegean, but there is one site in the MBA (Valtos-Leptokaryas in Pieria) and 22 cemeteries in the EIA. Among the tumuli with cremations in the north Aegean, one (Kriaritsi-Sykia in Chalkidiki) is dated to the EBA, two in the LBA (Potamoi and Exochi in the Drama region), and seven to the EIA (Agrosykia, Apsalos-Verpen, and Olympus in Pella; Amphipolis-Kastas in Serres; Drama Z.I in the Drama region; Palaiogynaikokastro in Kilkis; Vergina in Imathia). Of cemeteries with both cremation and inhumation rites, it should be noted that inhumation tombs outnumber cremations at 21 out of 28 cemeteries. At EBA Kriaritsi-Sykia, well-organized tumuli are the rule, with a compact group of 30 small intersecting stone circles – no more than 3.0 m in diameter – each covered by a low cairn, within which one or two cist tombs containing

individual cremations were interred. At MBA Valtos-Leptokaryas, three concentric periboloi have been identified, the external two preserved to a height of 1.0 m, as well as a Π-shaped structure that was suggested to be a monumental entrance to one tumulus. As for the other tumulus, the mound fill was composed of a stone peribolos, of which five rows of stones are preserved, before the graves within were covered with stones, a layer containing destruction material, and an earthen mound (Archibald 2012). During the LBA at Exochi and Potamoi, both sites had a single tumulus resting on natural soil and made of earth and piled rocks, with the tumulus at Exochi measuring 20 m in diameter and Potamoi measuring 7 m (Grammenos 1979). Burial mound construction techniques vary by the EIA, with the majority of sites consisting of tumuli on a stone foundation constructed by layers of different varieties of stone, schist slabs, or river pebbles that were locally sourced, sometimes mixed with soil. It is only at EIA Vergina where the 44 mounds were predominantly made of a clayey red soil which differs from the sandy loam of the local alluvial plain, although the excavators did not suggest where the red soil originated. In terms of size, the EIA tumuli had a wide range of sizes, with diameters of tumuli measuring between 2.20–25 m and overall heights from between 0.3–12 m. At EIA Palaiogynaikokastro, the cremation urns are placed in two types of structures, with the first described as types of stone enclosures (11 incomplete in a semi-circular shape and one complete circle) which are on average 2 to 3.50 m in diameter (Savvopoulou 2001: 170). From a masonry construction of dry rough stones, these enclosures are built up to three levels (0.40 m) of preserved height. The walls of Enclosure X, for example, measured 2.20 m in diameter and 0.30 m in height, and was reinforced with stones placed on the outside (Fig. 3.28). The urns were then placed on the inside and outside of the enclosures and enclosed by vase-lids or stone plates. The enclosures were then filled with stones, giving it the appearance of a platform. Then, the central

part of the monument was covered with a layer of earth brought from the slopes of the hill of Gynaikokastro, leaving the walls of the enclosure visible (Savvopoulou 2001: 171, note 8; Fig. 4). The second type of structure consists of quadrangular platforms (two cases) (Fig. 3.29). One of the two cases (1.60 x 1.70 m) contained four urns: one in the center, fixed vertically by stones, two others added on the east side of the structure, and one added in a stone and earth layer above the platform (Savvopoulou 1991: 220).

Figure 3.28 Representation of Enclosure X, EIA Palaiogynaikokastro (L), with detail of burial (R) at the Archaeological Museum of Kilkis, with the urn situated in a niche in the upper left-hand corner. (M. Kontonicolas, June 2017).

Figure 3.29 Representation of a quadrangular "family" platform from EIA Palaiogynaikokastro (L), with detail of multiple burials (R), at the Archaeological Museum of Kilkis. (M. Kontonicolas, June 2017).

Although tumuli in the EBA tended to be small and compact, containing one or rarely two individual cist tombs, by the LBA and EIA tumuli had multiple internments and different types of graves. The publication on Exochi and Potamoi is vague as to the exact number of tombs in each tumulus, but it is suggested that there are multiple cremations within. By the EIA, only one large Agios Vasilios tumulus at Olympus had one grave (a male burial with weapons), while other cemeteries averaged between 8–15 graves per funerary mound. Tumulus LXV at Vergina is exceptional with 59 identified graves. Moreover, at the funerary site of EIA Agrosykia, one stone heap located close to the tumuli may have been constructed as the site of funerary offerings (P. Chrysostomou *et al*. 2007: 224–226; Pl. III.13; Pl. III.14). Given the number of graves within each tumulus, it is worth considering whether the tumuli were constructed before the deceased were interred, after all graves had been prepared, or if the construction was done sequentially. Andronikos (1969: 150) hypothesized that the mounds at Vergina were built before the tombs were interred, but Petsas demonstrated that, based on the stratigraphy, the large Tumulus III with several graves did not form at one time and was instead constructed over a relatively long period of time (Bräuning & Kilian-Dirlmeier 2013: 112–114). At MBA Valtos-Leptokaryas, meanwhile, excavators noted that the two tumuli made up of stone circles were constructed sometime after the pit graves were constructed, as a layer of destruction deposit was unearthed between the tombs and monuments and was dated with C^{14} analysis (Poulaki-Pantermanli *et al*. N.D.). Unfortunately, given the preliminary nature in which most tumulus funerary sites have been published, it is difficult to state for certain what was the timeline in which the mounds were constructed.

3.1.6 Pithos (*enchythrismos)* graves

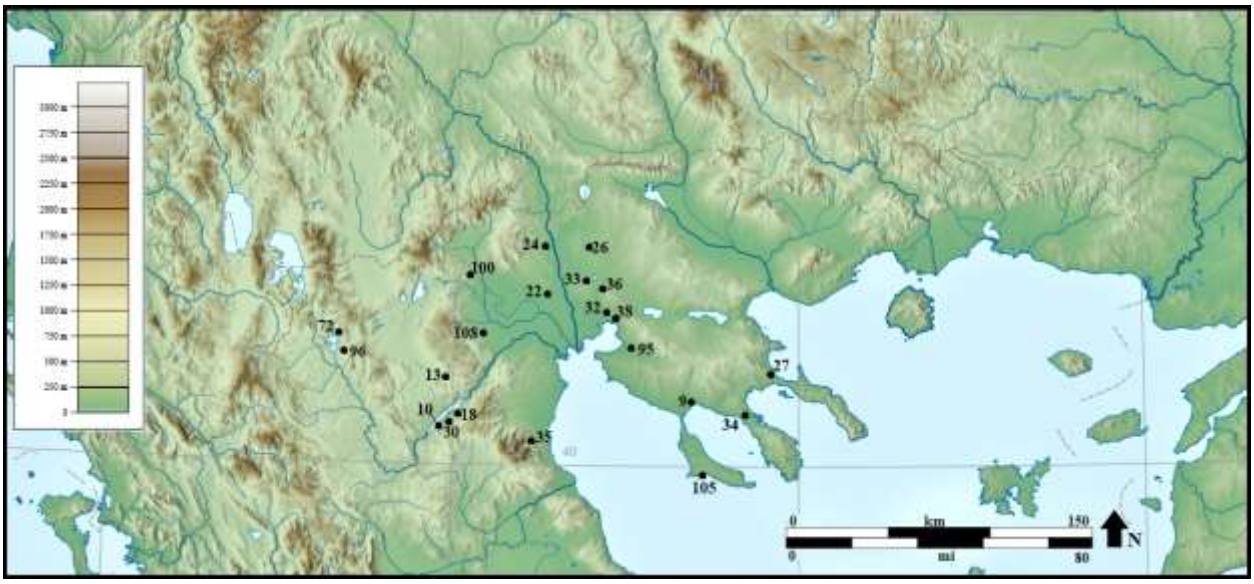

Figure 3.30 Map of inhumation pithos graves through time.

Number	Date	Site	Region	Cremations	Inhumations
9	EBA	Ayios Mamas	Chalkidiki		x
10	EBA	Goules	WMac		x
13	EBA	Xeropigado Koiladas	WMac		x
22	EBA	Archondiko	CMac		x
18	LBA	Tourla	WMac		x
96	EIA	Krepeni	WMac		x
72	EIA	Arnissa	WMac		x
100	EIA	Nea Zoi-Terikleia	CMac		x
24	EIA	Axioupoli	CMac		x
108	EIA	Veria	CMac		x
30	EIA	Kriovrisi Kranidia	WMac		x
35	EIA	Mt. Olympus	CMac		x
95	EIA	Thermi	CMac		x
38	EIA	Stavroupoli-Polichni	CMac		x

32	EIA	Nea Efkarpia	CMac		x
36	EIA	Oraiokastro	CMac		x
33	EIA	Nea Philadelphia	CMac		x
26	EIA	Palaiogynaikokastro	CMac		x
105	EIA	Mende	Chalkidiki		x
34	EIA	Nikiti-Ai Gianni	Chalkidiki		x
27	EIA	Ierissos	Chalkidiki		x

Table 3.6. List of sites with pithos inhumation burials.

Pithos graves are inhumation graves in which a pit was dug and a complete pithos or pithos fragments were used as a burial container for the deceased. Pithos graves are usually labelled for adults, while other pot-shapes are used for infant enchytrismoi. Pithos burials are almost exclusively found in extramural contexts. There are five EBA sites with *enchythrismoi* (Ayios Mamas and Nea Skioni in Chalkidiki, Goules and Xeropigado Koiladas in Kozani, and Archondiko in Pella), one LBA cemetery (Tourla in Kozani), and 16 EIA cemeteries with pithos graves (Nikiti-Ai Gianni, Ierissos, Koukos–Sykia, Torone (albeit with very few cases), and Kalandra–Mende in Chalkidiki; Axioupolis in Kilkis; Nea Philadelphia, Stavroupoli–Polichni, Nea Efkarpia, Oraiokastro, and Thermi in the Thessaloniki region; Nea Zoi–Tenkleia and Agras in Pella; Krepeni in Kastoria; Veroia–Anemonis Street in Emanthia; and Kossynthos in Xanthi). These pithos grave sites exclude *enchythrismoi* that were found either in intramural contexts or tumuli. Of these funerary sites, 15 out of 22 *enchythrismos* graves were found alongside cremations, while only seven sites had pithos graves unearthed in solely inhumation burial grounds. At the EIA cemeteries at Ierissos, Kossynthos, and Nea Zoi–Tenkleia, pithos graves were the sole burial type, while at Nikiti-Ai Gianni pithoi were the sole grave type for inhumations.

There is some variability in pithos graves on an inter- and intra-cemetery scale. The *enchythrismoi* are for the most part large amphorae, pithos, and pithoid vessels that are placed horizontally or laterally in the ground, with the mouth at a higher elevation and very rarely upright (Fig. 3.31; Fig. 3.32).

Figure 3.31 Infant burial in a vessel from Archondiko (2200 - 1800 BCE), Pella Archaeological Museum. (M. Kontonicolas, June 2017).

Figure 3.32 Photograph of MBA pithos burial at Goules (Hondroyianni-Metoki 2015b, Fig. 2).

The deceased is placed in the inner surface of the vessel, with the head towards the mouth, with one rare exception at EBA Xeropigado Koiladas (Zoita 2007: 33–34). In many cases, the upper part of the vessel is removed to accommodate the insertion of the deceased. The burial vessel is then closed with stones, or a fragment of a drinking or storage vessel at the mouth. Vessels used for pithos burials tend to measure 0.60 – 2.50 m long among all sites. Moreover, there are several cases of "pseudo-*enchythrismoi:*" multiple, large storage vessel fragments that are used to cover the dead (Ziota 2007: 34; Fig. 3.33). In some cases, unworked, locally sourced stones were used to stabilize and frame the burial vessel or fragments. The tombs were then covered with soil and in rare cases a layer of stones. Pithos burial, which was popular in the MBA south Aegean, is surprisingly rare in Mycenaean Greece (Cavanagh 2008: 330).

Figure 3.33 Pseudo-enchythrismos (T. 43) of an infant at EBA Xeropigado Koiladas (Ziota 2010, Fig. 8).

3.2 Grave use: interment practices and other ritual acts

This section will consider the process of interring the deceased and other funerary practices after the construction of the grave: namely, primary and secondary cremation rites, treatment and handling of the human remains (for cremains as well as single and multiple primary and secondary inhumations), the physical condition of the skeletal assemblage, and traces of other ritual acts before and after the grave was sealed. This discussion will not be structured by grave type, but by the funerary practice considered, although reference to the grave type will be noted where appropriate.

3.2.1 Primary and secondary cremations

As discussed in the first section of this chapter, primary cremations refer to burials that are interred in the same context where the process of cremation occurred, while secondary cremations are cremains that are deposited in a different context from the pyre or crematorium itself, following the burning and collection of the human remains. Primary cremations are rarely found in the archaeological record of the study region, and indeed in the surrounding Aegean sphere as well. Cases of primary cremations have mostly been documented in Mesolithic (8000–

4000 BCE) northwestern and western Europe, in a total of ten sites (Gil-Drozd 2010 (2011): 32–33; Fig. 1), although by the Early Neolithic period, there are no primary cremations to be found in Europe. No primary cremations were identified in survey literature for the European Bronze Age. Later in time, primary cremations are attested in EIA Albania (Cabanes 2008: 52–53; Bejko 2004: 42), Lefkandi (Popham *et al*. 1980: 200 – 201), Athens (Papadopoulos & Smithson 2017: 609–617) as well as in the EIA cemetery of Halos in Thessaly, although this practice is uncommon in the latter region outside of the site (Malakasioti & Mousioni 2004). As for the Near East, a mass primary cremation was uncovered alongside inhumations at the Late Neolithic site of Yumuk Tepe in Anatolia (Garstang 1953, from Croucher 2012: 58). There are also 37 cases of Neolithic cremations at Tell el-Kerkh, northwest Syria, primarily in four crematoria (Tsuneki 2011), which echoes the six cremations found in crematorium pits at the site of Yarim Tepe II in Iraq (Oates & Oates 1976: 108).

There are only three sites in the north Aegean with primary cremations identified from published field reports: one infant cremation at Early Neolithic Varemenoi (Blackman 1998: 89; Whitley 2003: 42), three infant cremations at EIA Makrygialos (Besios 1994b: 172; Karliabas *et al*. 2004: 343), and two cremations at EIA Ierissos (Trakassopoulou-Salakidou 2001: 350–352). The earliest primary cremation was identified in Early Neolithic strata at the site of Varemenoi. The cremated bones of an infant were interred in a small spot beneath the destruction horizon of the site, underneath which a layer of burnt logs was noted by excavators to be the remains of a pyre. At Makrygialos, three EIA primary cremations of children in pits were discovered at the site, devoid of burial goods but dated on the basis of stratigraphy (Besios 1994b: 172; Karliabas *et al*. 2004: 343). Unfortunately, the preliminary reports do not further detail these graves. In the case of EIA Ierissos, the sole instance of cremation was a rectangular pit found against the corner

of a Classical-era building interpreted as either a heroön or a place of worship dedicated to Cybele (Trakassopoulou-Salakidou 2001: 350). The pit contained three cinerary urns, covered with a layer of earth and bone, two of which had the remains of a child and an adult (interpreted as a "mother and child" burial). According to the excavation report, the pyre was constructed in the pit, as a significant quantity of the carbonized wood was recovered in situ (Trakassopoulou-Salakidou 2001: 351). Unfortunately, detailed measurements of these pit graves were not provided in any of the publications.

Secondary cremations constitute the dominant type of cremation funerary contexts in the study region, with a total of 41 sites evidencing this rite. Perhaps the earliest candidate for secondary cremation in the Mediterranean is at the Natufian site of Kebara Cave, Israel. The remains of 23 individuals were assigned a date of ca. 12,400 B.P. through AMS dating and were estimated by the researchers to be burned at a temperature between 200–600^{o}C after inhumation or after decomposition of their flesh (Bar-Yosef & Sillen 1993: 207–208). Also in the context of the Natufian culture, at Wadi Hammeh 27 in Jordan, 16 burnt cranial fragments were found scattered among the refuse of Structures 1 and 2 (Webb & Edwards 2002: 117). The next earliest site of secondary cremation is of two young adults at Mesolithic Franchthi Cave – the first instance of cremation in Greece – which is dated to c. 8000–7600 cal. BCE (Cullen 1995: 277–278). Three Mesolithic sites in modern-day France and Serbia have secondary cremation burials, and in the subsequent Early Neolithic period there are a total of 13 sites in Europe (Gil-Drozd 2010 (2011)). Two Neolithic sites with cremations are located in Thessaly, Greece: Early Neolithic Soufli Magoula, which also brought to light two burning pits, or pyres, interpreted as crematoria, and Late Neolithic Platia Magoula Zarkou. There are more numerous, if still proportionally rare, occurrences of cremation during the Mycenaean (LBA) period in the Aegean

sphere, in chamber- or vaulted-tombs at Thebes, Perati, Argos, Ialysos on Rhodes, Langada on Kos, Phaistos, Praisos, Olous, and Mouliana in Crete, among other sites (Snodgrass 1971 (2000): 199–200). In the East Mediterranean, several inurned cremations are identified on the Levantine coastal region during the Early–Late Bronze Age, as well as on the Anatolian plateau and coastline (Lewartowski 2000: 137–140). Cremation was an established rite among the Hittites on the Anatolian plateau, at sites such as Osmankayasi and Ilica, since about 1600 BCE, and in the community of Troy VI and the Mycenaean chamber-tomb cremations at Muskebi on the Halicarnassus peninsula. Cremation became a popular and in many areas dominant burial custom in third and second millennium Central Europe and Italy, and the rite continued in varying frequencies up until the EIA (*cf.* Lewartowski 2000: 144).

The specific context of burning the dead, whether it be crematoria or pyre locations, thus becomes more elusive in most cemeteries with secondary cremation rites. Rare early crematoria have been identified at Early Neolithic Soufli Magoula (Gallis 1982). The two large features consisted of shallow circular pits, 1.10–1.30 m in diameter and about 0.30 m deep, with heavily burnt walls, small fragments of charred human bones, and abundant remains of intense combustion (although no pottery or grave goods were found in the pits). Burnt bricks (pyre B) and post-holes (pyre A) may have been related to platforms supporting the corpses. The only two structures resembling crematoria in the north Aegean are at EIA Palaiogynaikokastro and EIA Koukos. At EIA Palaiogynaikokastro, it is very likely that a thick layer of ash resting directly on natural rock represents the remains of successive funeral pyres. Savvopoulou (2001: 171–172) remains cautious because these "pyre" remains may also be linked to funerary ritual activities. The identification of bones from the burnt layers would confirm the pyre hypothesis, although the excavators have not noted what was found in the burnt debris. At EIA Koukos, meanwhile, a

burnt stone structure that was covered by soil containing ashes, charcoal, and burned bones was identified by the excavators to be the location of the funerary pyre. The structure recalls the crematorium areas of EIA Eleutherna on Crete (Stampolides 1995: Fig. 9; Fig. 10) and the EIA pyre of the tomb of the warrior in Amorgos (Marangou 2001: 210). Blackened stones were found at the bottom of some graves at Lefkandi that scholars suggest may have served ventilation purposes (Blandin 2007: 40; Popham *et al*. 1980: 201). These two crematorium areas are at the cemetery limits of Eleutherna and Lefkandi, whereas at Koukos the area is amongst the tombs, as at Palaiogynaikokastro (Savvopoulou 2001: 171). At Koukos, moreover, the pyre location was argued to have been selected based on the topography of the site that allowed a flow of air to enable the fire to burn (Carington-Smith & Vokotopoulou 1992: 431). While pyres have been identified at other cremation cemeteries in EIA Greece (such as Athens, Lefkandi in Euboea, Tsikalario in Naxos, Halos in Thessaly, and Eleutherna in Crete), these sites evidenced individual pyres for primary cremations. Most attempts to identify the location of the pyre for secondary cremations are made more difficult by the lack of distinctive pyre structures, especially in cases where the pyre was likely located at a distance from the cemetery. In the case of EIA Torone, Papadopoulos (2005: 382–383) argued that some of the pyres were constructed on the beach, as evidenced by the presence of pebbles and seashells that were intrusive in some graves. It is unclear whether the sea played a symbolic role in this process, although one is reminded of the cremation of Patroclus in the *Iliad.* Nevertheless, what is clear is the visibility of not only the funeral pyre itself on the beach, but also the funeral procession that passed through the village of the coast to the cemetery, where the bones were buried in their final grave. In the context of both Torone and other sites with cremation burials, this procession from pyre to grave

(whether through the settlement or not) presented an opportunity for families to reaffirm their social position in the community.

In Homeric epic, building the bonfires of Patroclus and Hector required significant mobilization of people and materials. An expedition of men and animals is organized to get the wood for the pyre from Mt. Ida (*Il*. XXIII: 110–125; XXIV: 662–663). Beyond the excessiveness of these exceptional funerals that are meant to emphasize the heroic status of the warriors (Schnapp-Gourbeillon 1982: 82), the description of the preparation of pyres (both in Homeric epic and in the ethnographic examples discussed in the section above) raises important questions relating to choices of procurement and transportation of pyre fuel. The prehistoric north Aegean was known for its abundance of forests and the quality of its wood for building boats in the Classical period (Meiggs 1982: 356; Cambitoglou *et al*. 2001: 56). Residues of pine tree were identified at the Kerameikos (Breitinger 1939: 181), while residues of the olive tree were excavated at Lefkandi (Popham *et al*. 1980: 201, note 17). Ethnographic cases remind us, however, that certain species of wood was chosen for their scent, sacredness, or noise produced when burning – and that these species were not necessarily those closest or most convenient for the mourners. The architecture of the pyre, meanwhile, is still unknown throughout the Greek world. The Archaic and Classical Greek site of Istros (Tumulus XIX) on the west coast of the Black Sea had two exceptional pyre finds whose architecture echoes later Classical period iconographic representations (Alexandrescu 1966: 151–152; Fig. 18; Fig. 3.34). Questions of who in particular built these pyres, who tended to them, and who was in charge of organizing the funeral, however, remain unanswered.

Figure 3.34 Detail of Athenian red-figure amphora, which displays Kroisos of Lydia on a pyre, from Vulci. Inv. G 197, Louvre Museum (after Furtwängler et al. 1904, pl. 113).

3.2.2 Inferences based on human remains

This section will consider what inferences can be made regarding funerary rituals based on the skeletal remains – both cremated and inhumed. At Neolithic Avgi, the small quantity of bone found in the ash-urns limits the analysis with regard to information gleaned from cremated bones. The majority of the cremated fragments exhibited patterns of calcination, coloring, fragmentation, fissures, transverse and longitudinal fracturing and warping that is consistent with burning with the flesh still attached, as opposed to burning dry bone without flesh (Stratouli *et al*. 2010: 100). The evidence from the calcined bones demonstrated that pyre temperatures reached at least 700^{o}C at the level of the body, while exposure to high temperatures was probably a lengthy procedure. High fragmentation of the bones, meanwhile, may have been caused due to the continuous addition of fuel during the burning process and the subsequent mixing of pyre debris with long sticks. In the case of the sole cremation of a woman in her thirties at LBA Faia

Petra (where inhumation was the dominant mode of disposal), changes in bone color, shape and texture, and patterns of fragmentation offered valuable information on the conditions of burning. White coloring of the bone surface, frequently associated with alterations to bone texture due to firing (e.g., cracking, severe warping) is consistent with lengthy exposure of the corpse in fresh condition (i.e., shortly after death) to an intense and well-controlled fire that reached up to 800–900ºC (Valla *et al*. 2013: 239–240). High fragmentation of the human remains, moreover, suggested to the researchers that there was continuous stirring of the cremated material during firing to ensure flow of oxygen. At EIA Torone, the high degree of cremation of the bones and presence in certain tombs (T. 18, 58, 102, 104, 124) of small fragments of distorted bronze suggest a high heating capacity (900–1000ºC), more than what has been assumed for the pyres of the Lefkandi cemeteries (Popham *et al.* 1980: 429).

It is not clear from the evidence whether the pyre was left to extinguish itself or if the process was interrupted by pouring a liquid. This stage of the cremation ritual is difficult to identify archaeologically. In the case of Patroclus and Hector, wine is used to extinguish the pyre flames (*Il.* XXIII: 237–238, 250; XXIV: 791–792). In ethnographic cases, when water is used to put out the flames and pyre embers, this contributes to the extreme fragmentation and breakdown of the bones (Grevin 2005: 20). In archaeological contexts, however, it is difficult to attribute this fragmentation to liquid poured over the skeletal remains or the collapse of the pyre from extended periods of burning. It is perhaps noteworthy that at Torone, among the 27 graves that contained one or more accompanying vessels (in addition to the ash-urn and pyre residues), 25 included at least one jug. It may be the case that these jugs were used to extinguish the pyre.

After extinguishing the pyre, funerary participants had several choices available to them: abandoning the remains and offerings at the pyre, selectively collecting some human remains and

artifacts from the pyre (as seen in the ethnographic and historical cases discussed previously), or making a concerted effort to collect all human remains and pyre goods and subsequently inter them in a grave. It is generally accepted that the weight of bone recovered from an adult cremation varies between about 1000–3600 g (McKinley 2000: 404). From the limited information published in the excavation reports, it appears that procedures varied through time and between different sites in the north Aegean. Ten small pots containing between less than 10–165 g of burnt human remains (mostly adults) were excavated at Neolithic Avgi (Stratouli *et al*. 2010: 98. 101). These weights are not indicative of a careful and thorough collection of all cremains, and instead suggest a very selective collection of the deceased. At LBA Faia Petra, the presence of large pieces of charcoal along with a few burnt animal bones within the pyre debris in the ash-urn suggests that the cremated remains were collected by scooping up rather than careful manual selection of only the human remains. Moreover, the skeletal representation, which included all anatomical units (even small hand and foot bones), and the total weight of cremated bone (916 grams) reinforce the scenario of thorough scooping up of the pyre debris (Valla *et al*. 2013: 240). The collection of human remains at EIA Torone, however, was less careful; the weight of the collected bones is between 9–1522 grams, with an average of 301 grams. The Torone weights are half than those at contemporary Knossos and lower than the weight of bones collected for the female burial of Tomb II at Vergina in the late Classical period (Musgrave 2005: 247). Moreover, those tasked with collecting the human remains paid little attention to the collection of the majority of bones (the absence of very small bones, and the presence of pebbles and intrusive sea shells); instead, a handful of "representative" bones of the deceased was enough to complete the funeral (Musgrave 2005: 248). At EIA Palaiogynaikokastro, meanwhile, although no formal physical anthropological study has been

undertaken, preliminary observations show that the sorting was perhaps more selective. Only bones that were not fully burned seem to have been recovered (Savvopoulou 2001: 178).

In cemeteries practicing secondary cremation, bones appear to have been directly deposited in the urns. The practice of wrapping cloth around the cremated bones is not attested in the prehistoric material, as vestiges of textiles are not noted in any publications or simply not preserved. At the EIA site of Ierissos, the bones of the sole cremation were specially noted to be discovered clean in the urn, with no pyre residue. This perhaps evokes the scene in the Homeric epic, when the bones of Patroclus are washed with wine. This stage of the funerary ritual is difficult to identify archaeologically because the ashes do not necessarily adhere to the bone and manual sorting could be sufficient without the need for rinsing.

Like inhumation graves, cremation burials may have contained one or more individuals. While the primary cremations at EN Varemenoi and EIA Makrygialos contained only one individual, the grave of EIA Ierissos contained the cremains of one adult (supposedly a woman, taking into account the associated jewelry) and that of an adolescent. Among the secondary cremations in urns, there are both tombs with multiple, individual ash-urns and graves with urns that contain the cremains of multiple individuals. At Neolithic Avgi and Toumba Kremastis Koiladas, for example, there were multiple concentrations of cremation vessels as well as isolated urns. One cremation burial (T. 21) at Neolithic Toumba Kremastis Koiladas was found to contain two individuals: one adult and one fetus (Katsaveli 2017), reminiscent perhaps of the EIA Rich Athenian Lady burial with the remains of a woman and a fetus (Liston & Papadopoulos 2004; Papadopoulos & Smithson 2017: 124-176, 534-536). At LBA Exochi and Potamoi in Drama, multiple pot burials were interred in stone tumuli (Grammenos 1979), and at LBA Palaiokastro, one tomb had two urns in a cist made of orthostats. At EIA

Palaiogynaikokastro, the enclosures contained several urns, while at EIA Koukos they are in cists. Unfortunately, due to the absence of published osteological material, we do not know the number of deceased per urn. At EIA Torone, eight tombs enclosed several individuals; in two cases (T. 112, 118) there are individual urns grouped together, and in six other cases (T. 58, 83, 84, 103, 123, 124) the bones are grouped together in one urn. Four of the six, however, are hypothetical cases (Papadopoulos 2005: 250), as it may be the case that intrusive bones from previous cremations were included by accident when selecting bones from the pyre. These sites stand in contrast to cemeteries such as EBA Kriaritsi-Sykia and the EIA tombs on Thasos, in which single cremations in cist graves surrounded by compact stone circles or built graves were the norm. In two cases at EBA Xeropigado Koiladas, an interment of an inhumed individual and the cremated bones of another individual coexisted in the same grave (Maniatis & Ziota 2011), a rite that is also attested at the enclosures of LBA Faia Petra, EIA Palaiogynaikokastro, and EIA Nea Philadelphia. It is also noteworthy that at EIA Vergina, urns E5 and Δ10 were clearly deposited inside existing mounds (Andronikos 1969: 18).

The number of individuals per tomb is not correlated with the type of tomb or cemetery (whether a flat or tumulus cemetery). Single inhumations are attested at eight sites in the Neolithic, six in the EBA, three in the LBA, and 47 in the EIA north Aegean. Tombs containing several primary burials are distinguished from those containing one or more secondary deposits. *Primary* inhumation is commonly defined as the internment of the corpse in an articulated state shortly after death in the grave (Fig. 3.35).

Figure 3.35 Primary inhumation in a large earthenware storage jar with a stone grave marker at its left, from EBA Pella (Lilibaki-Akamati et al. 2011: 39).

This type of deposit is most common in the study region. Sites with multiple primary inhumations include two in the Neolithic (Dispilio and Nea Nikomedeia), two in the EBA (Xeropigado Koiladas and Korinos), four in the LBA (Pigi Athinas, Rema Xydias, Rymnio, and Toumba Thessalonikis) and at least 14 cemeteries in the EIA. Most frequently only two individuals are placed in the same grave, but in some cases there may be three or more interments (EBA Xeropigado Koiladas, LBA Ryma Xydias, Rymnio, Toumba Thessalonikis, EIA Assomata-Egnatia, Torone, Pateli, Drama Z.I, Zervi-Panagitsa) (Fig. 3.36).

Figure 3.36 One of 19 cist graves from the LBA site of Rema Xydias in Pieria (Koulidou 2014, Fig. 2).

The dead may either be placed on the side (as at EIA Vergina), or on top of each other (EIA Assomata-Egnatia, Dion, Olympus tumuli). At EIA Kastoria the dead are sometimes placed one above the other, separated by a layer of earth - thus uniting the corpses in the same grave but avoiding physical contact (Tsougaris 1999: 21). Collective graves can have groups of adults (EIA Agras, Archontiko, Koilada, Torone), adults and children (EIA Makrygialos T. 46), or only children (EIA Mende, Kozani- Philippou St. T. XXIII, Koilada-Potistra T. B-1983, Drama Z.I Tumulus A). The burial of several primary burials in the same tomb does not imply that the deceased were buried simultaneously, although it is difficult to establish from the excavation reports whether significant time passed between the first interment and subsequent interments, or whether the deceased were buried together simultaneously. Two double-burials are assumed in two tombs at EIA Mende, each containing two infants (Moschonissioti 2010: 211). At EIA

Makrygialos, T. 46 contained the remains of an adult woman and a young girl (established on the basis of burial goods), both of which were assumed to be interred at around the same time (Besios 1992: 155–156).

Secondary inhumation, meanwhile, is when the remains of the deceased are either re-interred in a preexisting tomb or if the remains of the individual are manipulated and/or disarticulated after the initial deposit was made. This practice is very common in the north Aegean and has been identified at five Neolithic sites (in the form of scattered remains at Dispilio, Makrygialos, Stavroupoli, Toumba Kremastis Koiladas, and Nea Nikomedeia), one EBA site (Goules), two LBA sites (Faia Petra and the Thasos tomb group of Tsiganadika, Vrysoudes, and Kentria), and 16 EIA cemeteries (Fig. 3.37).

Figure 3.37 Cist tomb 14 with one primary and two secondary burials shifted to the right-hand side of the tomb, from LBA Rema Xydias (Koulidou et al. 2013).

All of the Neolithic scattered remains were discovered in intramural contexts, albeit with variations. The scattered bones found throughout the habitation levels at Dispilio belonged to about 16 individuals at minimum, three of which were cremated (Hourmouziadis 2002; Petroutsa 2009). The 117 scattered human remains at Stavroupoli, by contrast, were recovered in a faunal assemblage (Triantaphyllou 2001). Nea Nikomedia also had disarticulated bones within settlement deposits (Yiannouli 1994). The majority of these bones are small hand and foot bones, as well as a few long bones. It is unclear from the preliminary reports, however, whether the scattered bones originated from intentionally disposed secondary burials, which were subsequently disturbed by later use of the disposal area, or were simply refuse coincidentally deposited among other discarded material. At Makrygialos, however, systematic excavations revealed disarticulated bones which displayed varying degrees of manipulation were concentrated in Ditch A, as well as small, scattered fragments found elsewhere in the habitation deposits (Besios & Pappa 1997). Such a practice is echoed at Toumba Kremastis Koiladas, where scattered human bones (of a minimum 14 individuals) were recovered in several pits (some of them of "ritual" character), in addition to complete inhumations, suggesting that periodic or systematic burial/ritual activities occurred (Hondroyianni-Metoki 2001; 2009b).

Typically, in the case of secondary inhumations at Bronze and Iron Age cemeteries, the skeletal remains of individuals interred earlier are shifted or pushed to the side in cists, chamber tombs, tholoi, and built graves, in order to make room for new interments (Fig. 2.36). At the EIA tumulus cemetery of Agios Panteleimon, a further handling of the remains is a practiced unique in the immediate region – the bones were rearranged according to size or anatomical parts. Skulls

were most often the object of special treatment, and were either gathered against the narrow side of the grave facing the center of the mound, or along the body of the new primary burial, and the other bones are reorganized at the foot of the new interment. Some of these spaces take the form of ossuaries by the cremation of small compartments inside the cist or added as an extension to the outside of the tombs. Indeed, in other EIA cemeteries, the bones of previous interments were found outside the tombs, without further treatment or care described (Agras, Aiani-Leivadia, Chauchitsa). At certain Olympus tumuli, pits were used to gather the bones of previous burials. There is a possible secondary deposit found in the dromos of T. 5 at EIA Konstantia and the dromos at T. 8 of EIA Nea Zoi. Although the site of EIA Konstantia is patchily published, possible manipulation of skeletal remains is suggested by the discovery of ten skulls grouped inside T. 2. Finally, there are a few cases in which the skeletal remains were briefly subjected to fire after the flesh had decomposed (Triantaphyllou 2004). This phenomenon has been noted in the case of a few skulls at LBA Faia Petra and a select group of skeletal remains at EIA Tsiganadika on Thasos (Koukouli-Chrysanthaki 1992: 647).

The position of the body of the deceased, as identified at the moment of discovery after excavation, is the result of both manipulations made by participants of the funerary ritual at the time of burial as well as taphonomic factors. The interaction of many forces (degradation of the body, type of tomb and its subsequent degradation, the type of shroud or clothing, etc.) all play a role in the position of the body when discovered by archaeologists. Unfortunately, the position of the inhumed body is not noted in most preliminary reports in the study region. Among the sites that have noted the position(s) of the corpse, however, there are four broad categories of positions identified, as well as some variants:

1 – Extended position on the back	→ legs extended
2 – Contracted position	→ dorsal contraction (folded knees) → lateral contraction → side (sleeping position) → fetal position
3 – Extended position on the stomach	→ also described as “face to the ground”; prone
4 – Seated position	→ legs extended

Throughout the Neolithic, the dead variously lay on their side, their back, or prone in a contracted position, sometimes in rather awkward positions imposed by the shape of the pit. Indeed, it is mentioned frequently in the excavation reports that the dead were disposed of without any particular care or treatment (Pappa 1997; Rodden & Rodden 1964). One unusual case was identified at Nea Nikomedia, where a tightly-flexed male burial in a pit was discovered with a pebble stuck into the jaws (Rodden & Rodden 1964b: Fig. 21; Fig. 3.38).

Figure 3.38 Male burial in a pit from Neolithic Nea Nikomedeia, with a pebble stuck into the mouth (Perles 2001, Fig. 13.2).

Ethnographic data provide ample evidence of individuals who could not be buried according to the normal rituals, either because they did not reach the required age or status, or because of the conditions of their death (violent death or illness, for example). The pebble and tightly-flexed nature of the burial could suggest that there was something unusual about this man or about his death, although flexed burials are generally standard throughout Greece in the Neolithic. By the EBA, the contracted or semi-contracted trend for inhumation burials continues at all sites where body position is reported. It is only at EBA Pella and EBA Xeropigado Koiladas that differential treatment of body position regarding sex is observed: in both sites, women are buried in a dorsal contraction, while men are buried in a lateral contraction. It is also worth underlining that the sizes of the graves were not always proportional to the dimensions of a flexed burial; sometimes the skeletons are in a strongly contracted position which may suggest that the legs were closely bound to the body (Ziota & Triantaphyllou 2004; cf. also the case of Lofkënd, Papadopoulos et al. 2014: 66–67). In the LBA the contracted position is exclusive in the cemeteries of northern Pieria (Aiginio, Nea Agathoupoli, Makrygialos, Korinos) and in the majority of cemeteries in the south of Pieria and the Olympus region (Pigi Artemidos, Spathes – Agios Dimitrios) and in the Haliakmon river valley (Ano Komi, Aiani – Leivadia, Polymylos) (Besios 2010: 61-62; Besios & Krachtopoulou 1998: 147–148; Poulaki-Pantermali 2013: 54–58; Karamitrou-Mentesidi 2008: 71–75). The supine position is attested in a small number of burials at LBA Aiani – Leivadia (six out of 30 tombs), as well as Rymnio and Spathes–Agios Dimitrios (Karamitrou-Mentesidi 2008: 73; Poulaki-Pantermali 2013: 54-55). The LBA tombs of Toumba Thessalonikis, all of which are in the supine position, are exceptional for this period (Kefalidou 2010: 139-140). The EIA is characterized by a marked break from the Bronze Age, when most

common position by far becomes the supine position (position 1). The dorsal position is mentioned, however, for burials at the sites of Agios Panteleimon, Mende, and the transitional LBA-EIA site of Treis Elies. Among the contracted positions, the fetal position is rare, with one case identified at Archondiko (T. 160A), and at Mende. The lateral contracted position is exclusive in the LBA cemetery at Kriovrissi Kranidia. The contracted side position is mentioned at Assomata-Egnatia, Olympus tumuli, Stavroupoli-Polichni, and Thermi, but the difference between the different contracted positions is difficult to grasp when a limited number of photographs are published. Overall, then, it appears that in most inhumation burials of the study region there is either a gradual or sudden change in the position of the deceased between the LBA and the EIA. Intriguingly, farther northwest in tumulus graves in southern Albania, the transition from the Bronze to the Iron Age is also marked by the gradual abandonment of the contracted position (Bejko 2004: 42; Cabanes 2008: 39, 57). Moreover, it is also noteworthy that the contracted lateral and dorsal position is characteristic of some Mycenaean tombs (Lewartowski 2000: 20–21), especially when taken together with the fact that the tombs in southern and mountainous Pieria are often to referred to as "Mycenaean" in terms of the grave type, treatment of the dead, and associated grave goods (Poulaki-Pantermali 2013: 45).

The seated burial of the great cist tomb (T. 2) of Tumulus II at Agios Panteleimon is unique and atypical throughout the study region. The deceased was found seated, leaning against something which the excavators suggested to be of organic material placed against the south wall of the tomb (seen also in EIA tombs at Eleusis, Skias 1898: col. 103). While Tomb 3 of Tumulus II had nine individuals and was much smaller than T. 2, the adult in T. 2 was buried alone. Other atypical burials are observed at Stavroupoli-Polichni, where three individuals were identified during the 1997 excavations as having been buried face down (Kefalidou 2010: 140). One would

be tempted to label these graves as "deviant" on the basis of their rare body positions and context, although caution should be used when labeling such graves (*cf.* Aspock 2008). These unusual burials will be explored in further detail in Chapter 3, through the perspective of personhood and examination of funerary goods found within these graves.

The positions of the head and arms of the deceased in the study region is similarly varied both through time and within different time periods. Of course, caution is also necessary when taking into account the complex taphonomic factors that intentionally (and unintentionally) shifted the positions of the dead, such as the presence or absence of materials that degraded and did not survive in the archaeological record (organic materials such as pillows, shrouds, coffins, etc.) and the decomposition of the body itself (cf. Papadopoulos & Smithson 2017: 495–498, for cases in EIA Athens). Generally, however, broad patterns can be identified in various sites in the north Aegean. During the Neolithic, EBA, and LBA, when the position of the arms was described or photographed, the arms were strongly or slightly flexed and the hands placed either underneath the skull or close to the head. By the EIA, in most cases the arms are placed along the sides of the body, but for some sites it is mentioned in reports that the arms are gathered to the pelvis or stomach area (Agios Panteleimon, Mende, Stavroupoli-Polichni, Nea Efkarpia, Makrygialos, Kato Bravas Velventos). In one burial at Toumba Thessalonikis, one hand is brought back to the pelvis while the other rests along the body. In some cases, one arm is folded and the hands are brought to the upper part of the body at the thorax (Agios Panteleimon, Mende, Nea Efkarpia, Makrygialos, Agras, Servia-Kolitsaki, Toumba Thessalonikis) and rarely at the level of the shoulders (one case at Stavroupoli-Polichni and one case at Agras), in a position that is not natural. The position of the arms and hands thus varies from one grave to another even

within cemeteries. There is no specific pattern, so it would appear that the choice fell to family members of the deceased.

Commonly, the orientation of the head and body is recorded by archaeologists in terms of cardinal points. However, it is worth questioning whether what was important was the direction of the head, gaze, or feet of the deceased, or whether it was an abstract cardinal direction or a specific landscape landmark that was intended to be the focus of the chosen orientation. For example, the EIA tombs of Mende and Nikiti-Ai Gianni were oriented in the direction of the sea. Moreover, at Mende, the heads of the deceased were oriented towards the east, not only in the direction of the rising sun but also in the opposite direction of the settlement to the west, perhaps accentuating the separation between the realm of the living and the dead. While burial ritual through the perspective of landscape will be further explored in Chapter 4, a brief discussion of diachronic head manipulation will suffice here. For Neolithic, EBA, and LBA burials, the heads faced the direction in which the bodies were flexed. As for EIA tumulus cemeteries, when information regarding grave orientation within the mounds is available, it appears that the circularity of each collective mound is reinforced by the orientation of the deceased. At EIA Vergina, of 77 inhumation graves with better preserved skeletal remains that are arranged around the center of tumuli (for which it is possible to deduce the orientation of the body), 68 have their head facing the center of the mound. Similarly, at the EIA tumulus cemetery of Agios Panteleimon, the graves are arranged in relation to the circularity of the mounds, and there are, as noted, cases where the skulls were moved and grouped together against the side of the tomb and oriented towards the center of the mound. In certain flat cemeteries during the EIA, there is a correlation between the orientation of the bodies and the sex of the deceased, although such information should be treated with caution, given that most skeletons are sexed on the basis of

grave goods, and not on the basis of the physical anthropology. In the case of the E–W oriented tombs in the EIA cemeteries of Nea Kallikratia, Thermi, Makrygialos, and Panagitsa-Zervi, the heads of female burials were oriented to the east. At EIA Axioupoli the female graves had their head oriented to the west (Savvopoulou 2007: 609). At Karathodoreika, among the deceased whose sex was identified on the basis of grave goods, male graves had their head oriented to the north while one female burial had her head oriented to the south (Savvopoulou 1998: 254-255). At the EIA cemetery of Tzamala, the majority of graves are oriented W-E (or S-W/N-E), with the head of the deceased facing the west. For cemeteries in the Thessaloniki region that continue to be used into the Archaic period (such as Thermi, Stavroupoli-Polichni, Archondiko, and Nea Philadelphia) and a few cemeteries in the Chalkidiki region (Nea Skioni and Ierissos), this orientation on the basis of sex appears to continue and become more common, but is rarely observed in other regions (Chemsseddoha 2015: 194-195).

3.3 Grave goods

This section will outline the categories of grave goods and their role in the overarching funerary ritual. A more in-depth discussion on the relationship between objects and the sex and age of the deceased will be considered more fully in the subsequent chapter. Here, objects will be discussed in terms of their role in the cremation ceremony (i.e., whether they were burned on the pyre along with the deceased) and their deposition as personal grave goods into the graves. Other material such as animal and plant remains will also be addressed in this section.

3.3.1 Personal grave goods with evidence of cremation

The first case of burial goods that have evidence of being burnt is at the LN cemetery of Toumba Kremastis Koiladas in the Kozani region. Traces of burning and the very poor condition of preservation indicate that all vessels were placed in the pyre, some of them as offerings. The

vessels (47 in total) belong to common ceramic types including bowls, small closed/open vessels, basins, and offering tables. Bowls (31 in total) must have played an important role in funerary ritual, given that they accompany almost all cremation burials and are all in a broken and damaged state (never complete). Similarly burnt are the ornaments: 1 ring fragment of Spondylus shell, 214 beads (164 of which were found on an offering table in T. 21), as well as four beads and one jewelry piece of stone. Their presence implies that these items were personal possessions and accompanied their owners in their final resting place (Hondroyianni-Metoki 2009b).

It is only in the EIA that objects with evidence of burning are attested with cremation graves. At EIA Drama Z.I, a pit with burnt remains, such as two fragmented fibulae, was discovered in the tumulus, although near an inhumation *enchythrismos* grave (Peristeri 2004b: 262). Another candidate may be found at EIA Apsalos-Verpen, where one ash-urn (A) contained a fragmentary iron knife (A. Chrysostomou 1999a: 141–143). Many metal objects at EIA Palaiogynaikokastro associated with cremations (both inside and outside the ash-urns) were noted by the excavators to have traces of heating: namely bronze and iron knives, and clothing accessories (fibulae, buttons, pins) and jewelry (hair accessories, necklaces, bracelets, and rings). At EIA Torone, although there was not a high quantity and wide variety of grave goods other than pottery, there were a number of bronze objects in the form of minuscule fragments that were misshaped by burning at Tombs 18, 58, 102, 104, and 124 (Papadopoulos 2005: 376). These bronze fragments were likely jewelry or clothing accessories worn by the deceased at the time of cremation at the pyre. Papadopoulos (2005: 376) notes that such small fragments – which were discovered through careful sieving of all the ash-urns – are often missed during excavation or not

mentioned in preliminary reports, which may explain why there are so few cases of burnt objects in the study region.

3.3.2 Personal grave goods with no evidence of cremation (cremation and inhumation graves)

Most grave goods interred with the deceased for cremation burials do not contain evidence that they were burnt with the deceased on the funerary pyre. They were thus likely interred after the cremains of the deceased were placed in the tomb. This was the case for the infant cremation underneath the floor of a home at the site of Neolithic Varemenoi, which was found with a deep, brown burnished bowl next to it (Whitley 2004: 42). With the intramural inhumation burials at Neolithic Makrygialos and Kleitos I, the occasional single handmade pot was found alongside the deceased in a narrow pit (Besios & Krahtopoulou 1998). An infant pit burial at the EN site of Paliambelia Roditi, meanwhile, was discovered with an astragalos (Hondroyianni-Metoki 2000).

Although the number of ceramic vessels that are interred with the deceased are paltry during the Neolithic, they increase in quantity and variety by the EBA in extramural cemeteries. Almost all burials (mostly inhumations) at seven cemeteries are furnished with one or two handmade, local pots placed by the head, while cremations had one pot or no grave goods at all. For the most part, the 12 cremation graves at EBA Xeropigado Koiladas had one, two, or three small associated vessels. When there are goods, they are inside the tomb or urn itself and never burned. Only one small shell appears to have been burned and collected from the pyre, together with the bones of T. 9 (Ziota 2007: 56). At EBA Nea Skioni, no funeral gifts were found inside the enclosures with ash-urns, but only broken vases, possibly from burial rituals (Tsigarida & Mantazi 2005: 369), while at EBA Kriaritsi-Sykia, one pot (resembling wares found at Troy) or

no grave goods at all were found within the small periboloi (Asouchidou *et al*. 1998). An exceptional inhumation burial at EBA Ayios Mamas in Chalkidiki was furnished with a jug, cup, and necked jar with vertically-pierced lugs (with parallels to the Cyclades), and in the jar, 71 faience beads were deposited (Pappa 2010). Such a burial is unique in its signaling of distant contacts and wealth, both within the cemetery of this coastal community and in the region as a whole.

By the LBA, cremations continue to be poorly furnished compared to inhumation graves. Indeed, almost all cremation burials are devoid of furnishings beyond one or two small cups. At the LBA stone mounds of Exochi and Potamoi in East Macedonia, the ash-urns are surrounded by other, smaller vessels (Grammenos 1979). The accompanying vessels include handmade, local vessels, and incised ware that has been identified in Balkan and north Italian areas, as well as in LBA Faia Petra in eastern Macedonia and Thasos (Fig. 3.39).

Figure 3.39 Four-handled kantharos with a tall, conical foot found at LBA Faia Petra. The white-incised decoration is common in the Balkans (Valla 2007, Fig. 13).

Figure 3.40 Imported Mycenaean skyphos from the LBA settlement of Kastanas (Grammenos 2004: 34).

To the west of east Macedonia, however, the ceramic assemblages are considerably different. Imported and imitated Mycenaean pottery in the form of drinking, pouring, and perfume/unguent alabastra vessels (Fig. 3.40) are attested at almost all inhumation graves in the regions of Chalkidiki, central, and western Macedonia, at a total of twelve sites. The alabastron, a form associated with Mycenaean culture, is commonly deposited in the tombs of Northern Pieria (Besios & Krahtopoulou 1998: 147-148), those of southern Pieria (Leivithra, Agios Dimitrios, Rema Xydias), and in western Macedonia (Aiani, Ano Komi). Multiple Mycenaean, as well as local handmade, vessels were interred at the head or feet of the deceased. Residue analysis of vases with an amphoriskos shape has shown that they probably contained oil-based substances, perhaps to anoint the deceased's body (Andreou *et al*. 2013). At the cemetery of Korinos in Pieria, it was noted by the excavators that the majority of ceramics were handmade and local, but they were often accompanied by one or two Mycenaean vases (Besios 2010). At LBA Agios Konstantinos, where a series of stone cairns and a cist tomb with a triple burial was

discovered, sherds of Mycenaean cups were found in the fill of the tomb, perhaps alluding to a funerary ritual of drinking and feasting at the grave site of the deceased (Karamitrou-Mentesidi 2009a). Although associated with table vases, this inclusion of perfume vases (alabastra) in the graves of certain regions of the LBA north Aegean is a pattern also found in the rest of the Mycenaean world (Lewartowski 2000: 29).

During the EIA, table vases (in particular pouring and drinking vessels) are present in the majority of cemeteries (52) and largely dominate the ceramic repertoire of both cremation and inhumation graves. Storage and transport vases are more unequally distributed, interestingly most often associated with tumuli sites in the east Macedonia and Thrake region and elsewhere in the north Aegean. Typically, in the case of cremation burials, the cremation urns had one to three associated small drinking vases. Unlike other cemeteries, ceramic objects such as vases constitute the minority (19%) of the total interred objects at EIA Vergina, with an average of only two vases per tomb. Metal objects, meanwhile, represent 60% of the grave goods (Chemsseddoha 2015: 187–202; Radt 1974). At EIA Makrygialos, the most frequent types of objects are vases and personal ornaments, with weapons and utensils being less numerous. The large number of pouring and drinking vases may reflect the importance of drinking in funerary rituals. In tombs of cemeteries west of Vergina (particularly those south and southwest of the Prespa lakes) and east of the Strymon river, however, the preference is given to everyday, handmade ceramic vessels, as opposed to wheelmade and decorated cups. Moreover, deliberately broken *kantharos* sherds at the dromoi of the tombs of Konstantia (T. 2) and Prophiti Ilias (T. 2) were described by the excavator to have been intentionally destroyed ("killed") vessels used for libations or at the funeral banquet in honor of the deceased (Kontorli-Papadopoulou 1995: 118–

119). Andronikos (1969: 10–12) makes a similar argument for a few isolated vessels discovered towards the top of the mounds, although the function of these broken vessels is less clear.

Tools begin to be interred with the dead from as early as the Neolithic period, and are attested at two sites with inhumation graves (Anargyroi and Kleitos I), as well as the LN cremation cemetery of Toumba Kremastis Koiladas. At the latter site, a fragmented mattock was discovered in T. 6, which suggests that such utilitarian tools were considered personal or useful enough to function as burial gifts (Hondroyianni-Metoki 2009b). Stone tools were found interred in the inhumation pit graves at Neolithic Anargyroi and Kleitos I. By the EBA, loomweights and spindle whorls, along with generally very few copper, bone, clay, and stone tools, also begin to be found at mostly inhumation but also cremation graves at Nea Skioni and Xeropigado Koiladas, while several graves at Pella contained metal knives and arrowheads (Besios 2010). During the LBA, while spindle whorls, beads, or buttons continue to be found at some graves (Fig. 3.41), we begin to see increased quantities of fibulae, bronze jewelry, and metal weapons interred with the deceased.

Figure 3.41 Clay spindle whorls, beads or buttons excavated from a domestic context at the LBA-EIA settlement of Assiros (Grammenos 2004: 31).

In the sole urn cremation at LBA Faia Petra, a small bronze knife and clay bead or spindle whorl had been placed inside the urn, together with the dead woman's ashes, along with a small amphora next to the urn (Valla 2007: 384), while at the cremation graves of Exochi and Potamoi were associated with fibulae, and ceramic and bronze beads that formed a necklace (Grammenos 1979). With inhumation graves, bronze daggers were recovered at LBA Agios Dimitrios, Korinos, and Rymnio. Swords (usually described as "Mycenaean" in style) were found at LBA Aiani, Longas Elati, Rema Xydias, and Toumba Thessalonikis. At LBA Spathes–Agios Dimitrios a sword of Sandars Type G in particular was identified, along with a bone hilt and traces of the wooden scabbard (Koulidou *et al*. 2013; Fig. 3.42).

Figure 3.42 Tomb 16 at LBA Spathes–Agios Dimitrios, with sword found in situ in the cist grave (L) and the sword of Sanders Type G with the wooden scabbard (R) (Koulidou et al. 2013).

By the EIA, the quantity of metal weapons increases substantially across most cemeteries in the north Aegean. Although such metal objects are usually associated with inhumation graves, cremations have also been found with associated metal objects. A secondary cremation in an amphora at the EIA tumulus of Amphipolis-Kastas was associated with two iron swords of the Naue II type (Koukouli-Chrysanthaki 1993: 683–684). At the sole cremation of EIA Axioupoli, the urn was associated with burnt animal bone, one iron sword, one knife, and one biconic bead (Savvopoulou 2007: 670; Fig. 4). Knives (found with both male and female graves) have been identified at nine sites with cremation burials, as well as iron blades, spears, and daggers at EIA Axioupoli, Palaiogynaikokastro, Makrygialos, Nea Philadelphia, and Koukos. Weapons such as spears, daggers, swords, and arrowheads, however, are most often attested with inhumation graves (23 sites). Other items such as tweezers and whetstones are also attested at a handful of sites during this period. Vergina is unique amongst all cemeteries in northern Greece in terms of

its sumptuous deposition of metal objects: 90 weapons associated with burials are distributed in 69 graves, almost all made of iron. There is only one bronze sword and another sword containing bronze and iron. Utensils and accessories, mostly include knives and daggers with very few spindle whorls, beads, or buttons, tweezers, or whetstones are attested. In some cases, such as at EIA Koukos, there are concentrations of weaponry in a select few graves (as opposed to being equally distributed): seven spears were found, five in T. 75 (Carington-Smith & Vokotopoulou 1989: 428–430). Although weaponry did not have a direct correlation with tomb type, weapons were much more likely to be identified in cist graves, tumuli, built graves, and chamber/tholos tombs during the EIA, and less likely in pit graves.

Personal ornaments and other objects are found alongside burials from the Neolithic era, albeit at low quantities. During the Neolithic, beads, pendants, and figurines are found in a handful of inhumation burials (but none in cremations) at Anargyroi, Kleitos I, Paliambela, and Phyllotsairi. An exceptional gold pendant was found in one burial at Anargyroi along with clay figurines, and clay stamps were found in one inhumation at Kleitos I (Whitely *et al*. 2006; Archibald 2012). By the EBA, cremations at the cemeteries of Nea Skioni and Xeropigado Koiladas (and one cremation at Ayios Mamas) generally had poor offerings, such as small pieces of jewelry made of stone, seashells, bronze, silver, and gold, or some kind of copper/bronze ornament. There is a general lack of differentiation in burial offerings, although three circular earrings made of a rare alloy of silver and gold are attested at EBA Xeropigado Koiladas (Ziota 2007). At EBA Nea Skioni, a bronze bracelet was found inside an *enchythrismos* burial, and bronze jewelry is also attested in EBA Pella (Besios 2010; Tsigarida & Mantazi 2005: 370). The most exceptional personal object in the EBA was identified at Ayios Mamas, where one

inhumation grave had 71 faience beads in a Cycladic-style jar – the earliest incidence of faience beads in the prehistoric north Aegean.

Fasteners and clothing accessories such as fibulae and pins begin to appear during the LBA in both cremation and inhumation graves. At LBA Potamoi and Exochi, spindle whorls, fibulae, and bronze beads from a necklace were recovered from the stone-built tumuli (Grammenos 1979). Among the inhumation graves at LBA Tourla, Korinos, Rema Xidias, Rymnio, Spathes, and Toumba Thessalonikis, jewelry in the form of stone, clay, bronze, silver, and gold beads, bronze rings, and stone or clay "buttons" (as well as an amber bead at Toumba Thessalonikis) were noted in the preliminary reports. Moreover, at LBA Spathes–Agios Dimitrios and Rymnio, seal stones were noted to have been found in situ on the chest. Overall, however, where metal jewelry and accessories are found, they appear to be relatively evenly distributed among graves. This trend changes dramatically in the EIA, which is marked by the development of vast cemeteries and the deposition of record quantities of metal artifacts, ranging from jewelry and clothing accessories to weaponry and a category of objects known as "Macedonian bronzes" – a peculiar set of artifacts—mostly items of jewelry—that have thus far only been found in funerary contexts in the north Aegean and southern Balkans (Fig. 3.43).

Figure 3.43 A set of typical "Macedonian bronzes" from EIA Vergina.

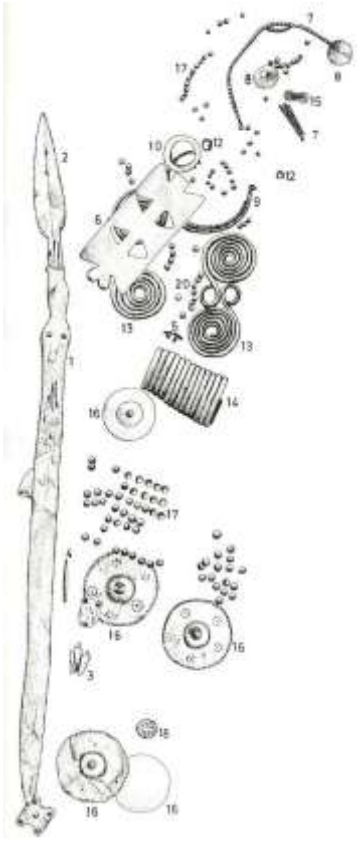

Figure 3.44 Tomb I with multiple metal artifacts and weaponry from Tumulus Malamas Gamma at Vergina (Rhomiopoulou & Kilian-Dirlmeier 1989: Fig. 20).

Fasteners and clothing accessories are the most numerous items at EIA Vergina, including clothing fasteners, spiral tubular trimmings, diadems, belt elements of bronze, buttons or small nails made of bronze, body ornaments, and earrings, necklaces, bracelets, and rings (Fig. 3.44). In the case of cremation burials, typically the associated personal objects include clothing and body ornaments such as fibulae, pins, and jewelry made of a variety of materials. However, it is the inhumations at 40 sites that contain the overwhelming majority of the sumptuous metal jewelry, ornaments, and weaponry interred with the dead during the EIA. Certain categories of objects are only found with inhumations, such as gold mouthpieces, bronze diadems, and the Macedonian bronze amulets discussed previously. One particularly unique find was a bronze belt found interred in an inhumation stone-lined pit burial at the cemetery of Agrosykia (Fig. 3.45).

Figure 3.45 Bronze accessories of a belt and clay vase from a female grave at the EIA cemetery at Agrosykia (800-700 BCE). Pella Archaeological Museum (M. Kontonicolas, June 2017).

3.4 Faunal and archaeobotanical remains

Faunal and floral remains are attested at several sites during the Neolithic and a few burials in the LBA and EIA. Plant remains have thus far only been identified at Neolithic

settlements and EIA Torone, although it is worth noting that such remains would easily escape the notice of excavators if careful flotation and sieving was not practiced. At Neolithic Mavropigi, large quantities of wheat and barley, discovered in inhumation burials of a neonate and a child, were interpreted by excavators to be intentionally deposited in the graves as part of a mortuary rite (Valamoti 2009). A wealth of charred archaeobotanical remains (wheat, lentils, peas, pomegranate seeds, raspberry, and elderberry) was also found at a burial in Neolithic Anargyroi (Whitely *et al*. 2006). As for the cremations at Neolithic Avgi, burnt seeds were placed in two cremation urns out of the ten such urns discovered at the site (Stratouli *et al*. 2010: 102). Archaeologists have suggested that such seeds may have functioned as a link emphasizing the link between the deceased and fertility; farming activities, which had an important role in daily life; or representing the agricultural cycle and its relationship to the life cycle of humans, thus attempting to transcend the effects of life and death and establish permanence (Bradley 2005; Stratouli *et al*. 2010; Williams 2003).

Animal bones have been discovered at a variety of sites during the Neolithic, LBA, and EIA, and while they are usually briefly noted in preliminary reports, reports from other sites (such as LBA Faia Petra and the EIA Thasos tombs) go into more detail regarding the context and type of animal species. Often found alongside broken vessels, such finds allude to feasts or other funerary rites. At Neolithic Phyllotsairi, a child burial was found with animal bones and a stone frog figurine. At almost all of the 16 burials recovered in the settlement, animal offerings were found alongside the human remains. At LBA Faia Petra, Enclosures 1, 5, and 6 each contained disarticulated and unburnt remains of a likely whole animal each: a young calf, young sheep, and older sheep respectively (Valla *et al*. 2013: 238; Fig. 3.46).

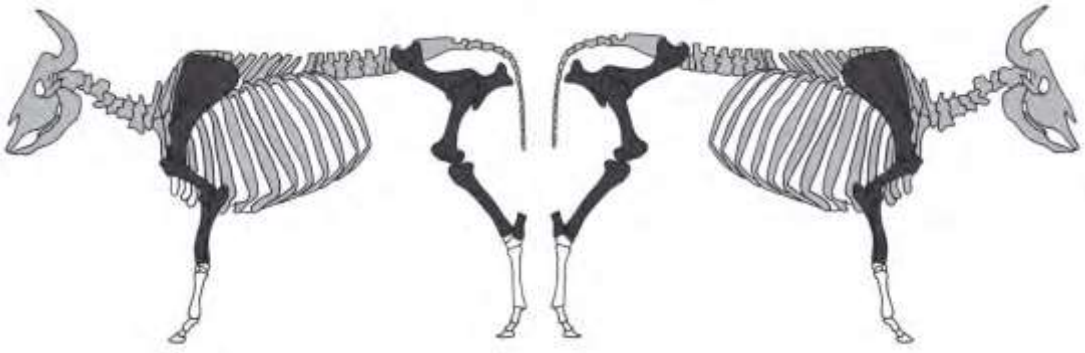

Figure 3.46 Anatomical representation of the young calf in Enclosure 1 at Faia Petra. Bones shaded black = present, white = absent, gray = partly present but difficult to quantify (Valla et al. 2013, Fig. 8).

All three animals had been butchered, dismembered, and stripped of their meat, presumably after skinning. Given the archaeological context and indications of rapid deposition, the animals had thus been butchered for consumption, no doubt some form of funerary meal. Although the animals consumed were not large, they probably provided enough meat to cater for a gathering of at least an extended kin group. Moreover, in contrast to normal settlement refuse, the bones in the Faia Petra enclosures had not been broken to extract marrow and had been collected up for rapid burial, underlining the significance of these episodes of consumption. Special structures or piles of stones in LBA cemeteries from the north Aegean may be related to feasts or other funerary rites. Archaeological evidence for such activities comes from Aiani, where a large pyre with animal bones and broken vessels has come to light (Karamitrou-Mentesidi 1990), and the island of Thasos, where rituals involving consumption of meat seem to have been performed in the anteroom or outside the tombs (Koukouli-Chrysanthaki 1992: 644). In 16 tombs at EIA Torone, burned and unburned faunal remains from sheep and goat were identified (Bökönyi 2015: 317–318). At EIA Mende, small concentrations of carbon, ash, broken animal bone, and broken vases likely were offerings made to the dead after the funeral.

3.5 Discussion

All societies have to deal with the practical, psychological, and social problems created by death. As evidenced by the discussion of tomb types and funerary ritual in this chapter, the responses vary widely synchronically and diachronically in the study region. There are, however, broad patterns that can be discerned at this stage, which will be built on in subsequent discussions on artifacts and personhood (Chapter 4) and placing the dead in the broader landscape (Chapter 5).

This examination of funerary rituals through time reveals the geographic discontinuity in the distribution of cremation graves. Kozani is the region with the earliest cremation in the north Aegean (Varemenoi), the extramural cemetery of Toumba Kremastis Koiladas, and three intramural cremations at Kleitos II, with cases also in Kastoria (Avgi), Pella (Makrygialos), and the Thessaloniki region (Stavroupoli). Cremation is then attested in higher numbers during the EBA in Chalkidiki (Kriaritsi-Sykia, Nea Skioni, and one case at Agios Mamas), in Kozani (Xeropigado Koiladas), and two cremations at the cemetery of Goules in Kozani. In the LBA, there are two cremations in Tourla at Kozani, three cases in Tsiganadika on Thasos, and two cremations at Palaiokastro in Chalkidiki. East of the Strymon River, one cremation is noted in Faia Petra, while the new cemeteries of Potamoi and Exochi in east Macedonia exclusively contain cremation urns, the latter site continuing to be used into the EIA. The tumulus cemeteries of Amphipolis-Kastas and Drama Z.I and dolmen tombs of Kum Tarla and Roussa with cremations seem to continue the tradition of cremation graves in the region of east Macedonia and Thrake. In the rest of the north Aegean, the number of cremations increases substantially in the EIA, constituting the majority rite in cemeteries of Apsalos-Verpen in Pella, Palaiogynaikokastro in Kilkis, and Koukos and Torone in Chalkidiki, while occurring as the

minority rite in cemeteries in Pella (Agrosykia, Archondiko), Chalkidiki (Ierissos, Nikiti-Ai Gianni), Pieria (Makrygialos, the Olympus tumuli, Pella), the Thessaloniki region (Nea Efkarpia, Nea Philadelphia, Oraiokastro), and Kozani (Aiani-Isiomata, Kriovrisi Kranidia B). Urn cremations at Axioupoli and Vergina are among the later tombs, dating from the mid-8th to 7th century BCE.

At first glance, the available data on Neolithic funerary customs in the north Aegean reveals a pattern shared with the Balkans: no organized cemeteries (with the exception of LN Toumba Kremastis Koiladas), no conspicuous monuments, but a variety of seemingly domestic funerary rituals comprised of primary burials in pits, secondary burials, cremations, and bone scatters. The interpretations for similar rituals in the southern Aegean have converged in pointing out the lack of sophistication and "simplicity" of funerary rituals, the latter being, in turn, considered as the expression of a simple, "egalitarian" society (Gallis 1996; Hourmouziadis 1973). The sample of Neolithic burials both in the study region and farther south in the Aegean, however, has remained extremely meager in spite of further excavations and the discovery of several cremations at cemeteries such as Soufli Magoula, Platia Magoula Zarkou, and Toumba Kremastis Koiladas. Throughout the almost 4000–year span of the Neolithic, the remains of no more than 107 inhumed individuals and 40 cremated individuals have been accounted for in the north Aegean. It is thus clear that we do not know how the vast majority of the Neolithic north Aegean population was treated after death (e.g., Morris 1987 for EIA Athens). What has been recovered appears to be the exceptions: those very rare, probably atypical cases, in which individuals were buried in a special way that led to their recovery. It is as exceptions that they should be analyzed – to understand why they were denied typical burial rituals –and not as a reflection of the norm. Hourmouziadis (1973: 210) long ago raised the most probable alternatives

for “normal” funerary rituals: corpses could have been disposed of in nature, cremated, or buried in cemeteries outside of settlements.

Several features are noteworthy in the example of Toumba Kremastis Koiladas: the concentration of burials in a special burial ground on the side of the settlement, the complex funerary rituals in the cremation of the deceased and broken ceramic pots, and the presence of indisputable grave goods that include specific offerings like the miniature vessels. There is thus a distinct possibility that such cemeteries (also including Soufli Magoula and Platia Magoula Zarkou – both discovered by chance), located away from the core of the settlement, constituted a regular feature rather than an exception. Since the practice of cremation is demonstrated from the EN at Varemenoi, another alternative put forward by Hourmouziadis, that of ash dispersal, also becomes plausible. However, other funerary practices could also account for the scarcity of intramural burials. Cremations and inhumations (with the exception of sites with scattered inhumation graves and the cremations at Avgi) are usually not exclusive in the study region (nor in the European Neolithic), and cemeteries with regular pit burials, a few hundred meters away from settlements, could also have gone unrecognized. It is also clear, conversely, that intramural burials are a rarity. Can we thus make sense of these exceptions to the rule? Amongst intra-settlement burials, the most frequent in the north Aegean (and indeed in southern Greece as well) are primary pit burials, largely consisting of single burials. As for the pits themselves, they are usually located outside houses or, more rarely, under the floors of homes. As discussed earlier, the burial pits are shallow and irregular, dug without care, and it seems clear that in some cases clay digging-pits or rubbish pits, too small to hold an extended body, were re-employed as burial pits. The dead variously lay on their side, their back, or their face, sometimes in rather awkward positions imposed by the shape of the pit. As pointed out by Rodden and Rodden (1964: 607),

"remarkably little attention appears to have been focused on the disposal of the dead." The difference between these casual intramural burials and cremations – considering the amount of time, fuel, and care between these casual intramural burials and the cremations – could not be stronger. This would seem to confirm that inhumed, intramural graves concern individuals who were denied normal funerary rituals. Discussion of age and sex in the following chapter will delve into whether the category of person played a role in who was chosen for cremation and who was inhumed in the Neolithic period.

The analysis of funerary rituals in the Neolithic thus allows for the distinction between at least two different patterns: the first, exemplified by the cremations from Toumba Kremastis Koiladas, is characterized by the existence of a distinct funerary area, by complex rituals, the presence of grave goods and, seemingly, the predominance of adults. The second, found in some 20 settlements, is characterized by the absence of a distinct burial realm, burial practices reduced to the minimum, and the absence of grave goods. I would argue that only the first case reflects, albeit only in part, the "normal" funerary rituals that were applied to the majority of the Neolithic north Aegean population. If this argument is accepted, then the strong symbolic association between the house and the dead, claimed for the early periods of the Neolithic in the Near East and the Balkans (Cauvin 1997; Chapman 1994; Hodder 1990) would not hold true in northern Greece. Taken together with the fragmented vessels and tools at Toumba Kremastis Koiladas, which was suggested earlier to represent the "killing" of objects, this practice may also be viewed as a strategy to underline further the concept of separation from the living.

Among the various developments in the funerary realm during the third millennium BCE in the north Aegean, the most obvious was the widespread (and archaeologically-attested) establishment of formal cemeteries beyond the limits of habitation areas. By the EBA,

extramural cemeteries – with the exception of the intramural burials at Archondiko – definitively constitute the main context of death ritual and burial in the north Aegean, a phenomenon observed throughout the east Mediterranean and Balkan sphere. A variety of tomb types, body positions, and mortuary practices are adopted during this time, reflecting pluralistic approaches to death on an inter- and intra-cemetery scale. Tomb types include urn cremations in a variety of tomb types, pits, pithoi/*enchythrismoi*, cists, and the first case of tumuli at the cemetery of Kriaritsi-Sykia in Chalkidiki, the latter of which contains only urn cremations. While burials for both cremains and inhumations remain the norm, there are a few cases of double and triple burials at Xeropigado Koiladas and Korinos. For the first time, there is intentional positioning of the bodies in terms of orientation (in most cases consistent throughout the cemetery) and type of position at Goules, Makrygialos, and Pella. Pebble floors at Goules and Ayios Mamas, and a variety of grave covers in the form of slabs or rough stones also alludes to a greater concern with proper interment of the dead. What is more, there is also a standard repertoire of funerary goods intentionally interred with the deceased, including ceramic vessels and personal objects such as jewelry made of a variety of materials.

It is worth noting, however, that the funerary goods have been described as "scant" or "poor" by excavation reports, meaning that the participants of funerary rituals in the EBA north Aegean did not feel compelled to inter their deceased with lavish goods. Although there is a variety of tomb types, the consistent orientation of graves and burials, the lack of differentiation in grave objects, and the existence of special areas for post-funerary rituals at sites such as Xeropigado Koilada seem to emphasize a symbolic collective identity among those interred in the idealized world of extramural cemeteries, seemingly at the community-level. There are, however, exceptions to this trend: the faience jewelry from the cemetery and settlement of Ayios

Mamas (among the earliest instances in the Aegean), the marble bowls from Pella and Pieria, and the eastern "depas" cups from Pella and Thasos. The role of these objects as items of display, and their circulation in long-distance networks, will be further analyzed in the following chapter. Moreover, it is unclear at this stage whether the cemeteries and burials accounted for during this period are generally representative of the EBA north Aegean population, or whether an interment in these cemeteries was limited to a select few. An analysis of EBA settlements in Chapter 5 may aid in answering this question.

During the LBA, organized cemeteries remain the rule and the number of cremation burials decreases substantially. In contrast with the EBA, there is a standardization to be found with tomb types, with the overwhelming majority of cemeteries containing one, or at most two, tomb types as opposed to the variety of tomb types found at EBA cemeteries. New collective tomb types, such as built tombs, periboloi, and tumuli appear during the time period, alluding to new funerary rituals involving the manipulation of multiple and secondary burial skeletal remains. The broken ceramic drinking cups and sherds found outside tombs of Agios Konstantinos, in addition to the animal bones and broken vases outside the enclosures of Faia Petra and in the anterooms or outside the built tombs of Thasos, all allude to increasingly elaborate drinking and feasting activities as part of the funerary ritual. At LBA Aiani, a large pyre with animal bones and broken vessels was uncovered, perhaps indicative of a larger communal participation in these death rituals. Such indices of feasting, while sometimes found with Neolithic graves, is not evident in the EBA.

The greater standardization of burial practices, primarily contracted inhumations and a few cremations, is contrasted by the growing variability of burial offerings - a trend also noted in the south Aegean. Precious local artifacts and imports or imitations of foreign products, such as

gold, silver, amber, or glass jewelry, Mycenaean-type swords and seals, Mycenaean-style perfume and unguent containers, and matte-painted ceramic drinking sets occurred often as prestige items in western and central Macedonia. The graves of east Macedonia and Thrake, as well as the island of Thasos, however, contained a higher concentration of a different repertoire of goods that signaled an appreciation for different artifacts from other regions, in particular incised pottery from the Balkans (although this type of pottery is also discovered in certain parts of Greek Macedonia). The gold and silver jewelry and personal accessories, however, occurred in select graves, and were quite simple in form, while personal objects and weapons made of copper, bronze, or bone display a variety of types also known in the Balkans and the southern Aegean. In sum, there is increased elaboration in some respects with regards to grave goods, the introduction of certain tomb types (e.g., built graves), and a shift in funerary ritual in the form of feasting and drinking.

By the EIA, however, there is a profound increase in expenditure with regards to tomb type and funerary goods, seen especially in select cemeteries such as Vergina and Palaiogynaikokastro, in a manner that does not have many parallels with the southern Aegean. The EIA is characterized by the re-emergence of cremation practices, which were dominant at Roussa and other Thracian *dolmen* tombs, Torone, Palaiogynaikokastro, and Koukos, and present in smaller quantities at many more cemeteries. Burial positions at almost all cemeteries change to the fully extended supine position, a marked break from the contracted position that was common in the Neolithic and Bronze Ages. There is a remarkable heterogeneity, however, in tomb assemblages at the level of the cemetery, a feature which is not as obvious in previous periods. There are both single and multiple/secondary burials, inhumations and cremations, and a variety of tomb types (pits, cists, pithos, and built graves) often found together at the same

cemetery. A tendency towards a greater ritualization of the funeral is observed with the introduction of collective tombs such as chamber tombs, tholoi, and dolmen tombs, as well as an increase in stone- and earth-built tumuli. Like tumuli and various types of built tomb, chamber tombs, dolmen, and tholoi were designed to be reopened at intervals for successive burials and to allow access for other ceremonies. In the case of tholoi and chamber tombs in particular, Papadimitriou (2016) argued for the use of the *dromos* for formalized ritual and public performances, and that such ritualized contexts provided the material frameworks for the creation and reproduction of collective identities and memories. One could extend this argument to other collective tombs such as dolmen, built tombs, and tumuli as well.

While the ceramic assemblage of LBA graves in the north Aegean included a significant quantity of unguent and perfume vases inspired by Mycenaean types, the overwhelming majority of ceramic vessels found in EIA graves have a drinking or pouring function. Despite standardization in some categories of grave goods and their placement in relation to the body, there is evident differentiation with regard to the variability and quantity of burial objects, seen especially at Vergina, Nikiti-Ai Gianni, Makrygialos, and Palaiogynaikokastro. At these cemeteries, we find three main categories of grave object assemblages: graves without any artifacts, graves moderately furnished with grave goods, and rich assemblages that contain a large variety of items made of different, expensive materials, including imported or exotic products of specialized craftsmanship of bronze, gold, silver, iron, or faience. The interment of these objects by the kin of the deceased during the funerary ritual must have created a competitive environment. What is evident at this stage, however, is that the overwhelming majority of rich assemblages are associated with inhumation graves. A more in-depth analysis of

these objects and their relationship to the cremated and inhumed deceased will be further explored in the following chapter.

Chapter 4 – Pathways to Personhood: Cremation and Inhumation as a Social Practice

4.1 The power and identity of the dead

Personhood – a term used in identity research – is constructed both in life and at death through multiple interactions of the living with the dead. Scholars who have studied mortuary practices and identity through the lens of "personhood" envision people as participating in mutually identifying community relationships and practices. In this chapter, I use the concept of personhood to explore complex relationships between the dead, the living, and material culture in the prehistoric north Aegean. By examining how the cremation and inhumation graves of different communities across time were furnished, I explore how north Aegean societies created similar and different pathways to personhood for the dead.

Marcel Mauss (1925 [1985]) was one of the first anthropologists to question the notion of the person or self. He posited that frames of reference for personhood changed through time and space, according to distinct cultural ideologies. Building on this idea, Meyer Fortes (1987) added that personhood was also negotiated and dependent upon social relationships and specific moral codes. Gillespie (2001: 75), also drawing from Mauss (1925 [1985]) argued that personhood derives from the enactment of connections within a society including relationships between different individuals, individuals and groups, individuals and objects, and the living and the dead. These connections shape social constructions that symbolize and refer to individuals. Personal identities can be extremely diverse and agile, since a sense of individuality derives from the combination of multiple "identities" created through membership in various social groupings – from family and kin associations to political and professional affiliations, each having its own codes of representation (Casella & Fowler 2005). Personhood can be explored in archaeology by

reconstructing social relationships and interactions between individuals and material culture (Fowler 2010; Williams 2004). Throughout an individual's life, social relationships change and new ones are formed. These relationships are also dependent on the individual's age, sex, class, race, and particular group affiliations, among other factors. It is important, however, to remember that identity and personhood are not the same concept. While some qualities may become identity markers, they do not denote a person (Fowler 2010). These ideas suggest that personhood is a social construct, that it is inherently dynamic and relational, and that it only takes on meaning through the enactment of relationships to other people, groups, and objects.

Death-ritual was an important social institution in the prehistoric Aegean world; it was a means of expressing community, identity, and social differentiation. With death, relationships change between the living and the dead, and between different members of the society. During the life-death transition, the personhoods of both the deceased and mourners are reconfigured through processes of dissolution, cremation, negotiation, and transformation (e.g., Bloch & Parry 1982; Metcalf 1981). The individual, formerly a living, active member of the society, is transformed into the deceased with a new identity or identities and personhood. While proceeding through stages associated with death rituals, the deceased passes from being biologically dead into a transitional stage, and only later becomes socially dead (Hertz 1907 [1960]; van Gennep 1908 [1960]). The full sequence of death rituals can thus be considered a dynamic transformative process for the personhoods of both the deceased and mourners. Beginning in the liminal stage and continuing to the end of the funeral and mourning rituals, the deceased transition to the "land of death," and in many cultures the deceased become ancestors that have ongoing interactions with the living. In parallel, the mourners pass through processes of separation and reintegration into society as the funerary rituals conclude (Metcalf & Huntington

1991: 57–60). As Liston and Papadopoulos (2004: 7) note, “death is only one of the rites of passage described by van Gennep for an individual, a *social persona*, and it is, ironically, the most archaeologically visible.” Some scholars (e.g., McGuire 1992; Parker Pearson 1999) suggest that mortuary rituals often mask or transform actual power or social relationships of the living. Cremation customs, as with most funeral customs, are composed of different stages in which the bodies are prepared, burned, and disposed. However, cremations also involve an intentional and relatively rapid transformation. Burning transforms the body, but also the mourners and community (Kuijt *et al*. 2014). Cremation leads to a fast, physical change of the deceased, whereby physical features such as facial and body attributes are no longer recognizable. Cremated bones are also manageable; they are light-weight and easily transported. Cremains can thus facilitate “diversification, providing a substance for commemoration that is part-person, part-material culture with a distinctive, malleable, and shifting materiality of its own” (Williams 2011: 114). Following Williams’ ideas, a cremated body may evoke the deceased person’s life, but it also evokes the absence of the embodied person. This approach has done much to theorize cremation beyond an index of particular social attributes and its misunderstanding as “low status” or “destruction” (Cerezo-Román & Williams 2014: 246).

In addition to the fire transforming the body into bone fragments and ashes in a matter of hours, cremation can also transform the way mourners and community members interact with the deceased and each other. Numerous studies have sought to explore how cremation operated as a technology of remembrance: a chain of commemorative operations, not a single technique. It is thus important to explore the relationship of these practices with social memory – how uses of cremation can have enduring influences – particularly in sites (such as Neolithic Makrygialos, EBA Ayios Mamas, LBA Faia Petra, and EIA Stavroupoli-Polichni) where cremation is not the

normative mode of burial. By analyzing how these remains were treated, it is possible to explore how a person was perceived through time and the complex relationships that existed between the living and the dead. Another value of this approach is the attention paid to the materialities of cremation – the many kinds of materials drawn into the cremation process and, at different stages, serving to transform the dead. Researchers need to explore the active roles of materials and substances in transforming the dead physically and conceptually in cremation processes, as well as thinking about funerary cremation rituals as a series of practices and a dynamic process that includes much more than just burning the body (*cf*. Williams 2013).

In funerals, however, it is also important to emphasize that representations are constructed by the burying groups, not the dead, and as such are more likely to promote collective values and interests, as opposed to recording the personal biography of the deceased (Hertz 1907 [1960]: 55–57). For example, the way of commemorating dead soldiers in military cemeteries today (Kearl & Rinaldi 1983), and in some ancient cases (Arrington 2010), clearly reflects the ideology of collectivities on a state level and is meant to advertise socially useful ideals rather than the character of individual combatants – many of whom might have preferred to be remembered without their military outfit and be buried with their families. The funeral could thus be argued to be an abstraction, where the multiple identities of the deceased are subsumed into an overarching image, aimed at emphasizing a few socially-meaningful qualities. Given that funerary representations may be further conditioned by normative conventions, cultural restrictions (Goody 1962: 42–46, 70–80), and religious beliefs, it is highly unlikely that they can reflect personal identity with any accuracy or that they are meant to do so in the first place. Some scholars argue that funerary representations are ultimately more useful to the living members of the group and their social claims than to the deceased, whose personal story is

probably known to the attendants (especially in small communities, like many of those in the prehistoric north Aegean) and need no further demonstration (Barrett 1994: 50–51). It is important, however, to note that we should not exclusively prioritize the role of the living, as this diminishes the role of the dead as an individual and source of remembrance (e.g., Tarlow 1999).

Sex and age are important facets of identity that shape most rites of passage, such as the onset of puberty, marriage, pregnancy, childbirth, and death. Taken together with the likelihood of burying groups emphasizing collective values and interests, this might provide a possible explanation for the rather restricted range of attributes (high-quality jewelry, weapons, imports, etc.) accompanying many prehistoric north Aegean burials, which will be further explored in detail in later sections of this chapter. Differences in the deceased's personhood are potentially reflected in at least three different ways: as decorative ornamentation as part of the clothing or accessories, as objects accompanying the body in the pyre, and/or as objects deposited with the body after burning. It is also worth considering objects that entered the archaeological record in later mourning rituals, although such cases are not noted in extant north Aegean excavation reports. However, interpreting all those buried with weapons as male warriors not only defies the fact that some of these attributes are also found with women (Drakaki 2011) and at least in one case with a child (buried with a sword in Argos grave 92, Protonotariou-Deilaki 2009: 163–168), but is also an essentialist approach, which ignores other "identities" of the dead and draws an odd picture of societies consisting of "too many warriors," as argued by Whitley (2001). Of course, funerary representations of personhood cannot be manipulated in an entirely arbitrary way. For example, there are instances of high-status individuals, whose "identity" is portrayed in impressive detail, as we know from royal burials in Egypt and Mesopotamia or from epic narratives. Yet, when it comes to the study of preliterate societies such as the prehistoric north

Aegean, where we can only rely on observable patterns of behavior to acquire some sort of meaning, one should be cautious not to confuse cultural symbolisms and the representations of social ideals with the portrayal of individuals.

4.2 From the point of view of things: values and value-making objects

Value is key to understanding social phenomena, as it "lies at the intersection of economy and politics, the individual and society, personal desire and collective values, the subject and object" (Voutsaki 2012: 161). How value is created and sanctioned, however, is difficult to define and trace through time, especially in pre-modern societies. Archaeologists have uncovered huge and elaborate tombs, lavish grave goods, and the remains of associated ritual feasting and libations in the prehistoric north Aegean (especially in the EIA), indicating that at least some members of society found death-ritual important enough to dedicate significant energy and resources to its celebration. In funerary archaeology, energy expenditure theory (Saxe 1970; Tainter 1975) was proposed as an objective and universal measure of value. Value was thus defined in Marxist terms as based on labor and production, and was used as a direct indicator of status. This was critiqued by post-processualists (e.g., Hodder 1982) in its failure to take into account the symbolic significance of objects, the role of ideology in transforming social reality, and the importance of context in understandings of value systems. It is clear that the position of individuals and communities in synchronous or diachronic contexts cannot be assessed solely on the basis of basic identifications of "rich" or "poor" burial assemblages. As Pader (1982: 61) noted, the assumed direct link between valuable objects and hierarchical rank hampers our understanding of the role these objects played in indicating horizontal social roles, such as gender or kin positions. Yet value is at the same time a diffuse concept that embodies social, cultural, symbolic, and economic facets. In light of this, how can archaeologists assess value,

particularly object value, in burial contexts? How is value created and sanctioned in any given context?

As a starting point, I reference the work of Graeber (2001; see further Papadopoulos and Urton 2012), who outlines that theories of "object value" might refer to the degree to which an object is desired or to characteristics of an object that distinguish it from others (Graeber 2001: 46). In so doing, Graeber (2001: 77) points out two important points: value must be understood as social (embedded within a meaningful network of individuals) and dynamic (not static, set, or unchanging). Strathern's (1988) analysis of gender, objects, and personhood is similarly grounded in the web of social relationships. Her understanding of object and person value is the meaning they take on by being assigned a place within a larger social system. As such, the social context in which an object is used and how this social context changed over the life history of an artifact must be considered (Flad 2012: 309).

Value in this project is also understood to be not a fixed entity defined at production, but, in the context of mortuary ritual and social structure, created in and through the process of production as well as exchange, consumption, and deposition with the dead. A whole series of anthropological studies in the 1980s and 1990s emphasized gift exchange and consumption as powerful strategies for the expression of value and legitimation of status and identity, and the dynamic and socially contextual nature of regimes of value in object life histories (Appadurai 1986; Kopytoff 1986). Such studies have given us further insights into the ways in which value accrues through circulation and by association with distant locales, exotic value systems, and specific individuals (e.g., Munn 1986; Wiener 1992). While these approaches focused on exchange, Wiener (1992) took Mauss' observation of "inalienable" gifts as her starting point. Wiener argued that the ultimate valuables of a society or group will normally be those that are

never given away, and that there are treasures that are the real origin of the power of objects that are actually competitively exchanged. Munn's (1986) theory of value, meanwhile, starts from the position that what is ultimately being evaluated in the construction of value are not the qualities of objects, but human action, with objects acting as the medium for social relations. Thus, archaeologists' attempts to reconstruct object value from the material record will always be incomplete, although this does not mean that identifying objects that are "valuable" is not feasible.

But how can object value be assessed in mortuary contexts, in which it is necessary to consider not only a set of attributes, such as labor investment or material scarcity, but the intersection of a range of factors? Voutsaki (1997; 2012) aimed to distinguish between two strategies for the creation of value and prestige: gift exchange and conspicuous consumption. In gift exchange, the value attached to objects in constant circulation is both transitory (because of its inalienable nature) and ambivalent (because the gift cannot be separated from the actors and transactions). Consumption, on the other hand, establishes a completely different relation between subject and object. When the object is removed from circulation, consumed, and withheld in its fusion with the subject, value becomes fixed. Thus, paradoxically, by depositing goods and valuables with their deceased, the living can retain a symbolic "ownership" and create "wealth differential" even while seemingly giving them away and putting them out of circulation, in a system in stark contrast to reciprocal obligations of gift exchange. Conspicuous consumption in the mortuary domain – a liminal space removed from everyday reality – and its increasing formal institutionalization through time, is therefore an important strategy in not only creating value, but also creating (rather than merely expressing) asymmetrical relationships (Voutsaki 2012). As Voutsaki (2012: 184) argues, "value can emerge only in the form of

symbolic accumulation, of ostentatious disposal and deposition with the dead… value can emerge only at the moment it is destroyed." These dynamics relate to Appadurai's (1986: 20-1) "tournaments of value," which are defined as events culturally separate to the routines of economic life, in which participation is a privilege of those in power and a forum for status contests between them. Beyond individual actors' status, rank, or fame, what is also at stake are the central tokens of value in the society in question, which are consequential even for the mundane realities of power and value in day-to-day life.

The deposition of valuable goods such as in the EIA cemeteries of Axiochori and Vergina is thus undoubtedly a powerful strategy that creates status and transforms power relations. Kopytoff alludes to this in his conceptualization of the "singularization" of an object, or a set of objects, through which power is symbolically asserted, and "terminal commodities," or objects that are solely created for one trajectory and form of consumption – both which could be applicable to certain artifacts interred with the deceased (Kopytoff 1986: 74–76). Many anthropologists (including Graeber 2001), however, emphasize that such social distinction needs to be understood within a given total system, in other words the socio-cultural system, collective understandings, moral norms, and values within which they emerge, while simultaneously transforming them. As Appadurai (1986: 34) notes, "when we look at classes or types of a thing, it is important to look at longer-term shifts and larger-scale dynamics that transcend the biographies of particular members of that class or type." Thus, in terms of certain facets of social organization, a connection between valuable commodities interred in tombs with aspects of vertical differentiation must be demonstrated through a contextual analysis of the grave goods themselves, their arrangement and deposition, and their place within the specific funerary

customs and cultural traditions of the society in question. Value can be understood to emerge in the tension between adherence to, and departure from, cultural norms and traditions.

This creation of value should be discussed not only in connection with status, power, and prestige. Another aspect of the relationship between persons and things are other, horizontal facets of identity, such as age and gender, communicated and constructed through the selection, omission, combination, and manipulation of funerary offerings. While objects are valuated by being positioned and ordered around the body by means of performative rituals, aspects of personal identity are highlighted and constructed through the careful selection and omission of funerary offerings. Therefore, material culture in conspicuous consumption in the mortuary sphere is not only a social strategy of asymmetrical power relationships and display, but also an opportunity to (re)assemble and objectify personal history and identity in the face of death. Taken together with bioarchaeology, the distribution of objects can also provide insights into relative degrees of relatedness among different social groups, whether kin, gender, age, or other social groups. An example of this could be relative degrees of relatedness/homogeneity amongst different males as one group, and females as another. This theoretical approach will assist in identifying the components of funerary ritual that certain communities shared or did not share; the ways in which burial groups were internally structured, and how these patterns changed through time.

Although this research emphasizes the importance of cultural context at a variety of scales in understanding the social construct of "value," there are certain expressions of value that seem to transcend time and space. In this respect, Donnan's (2012) expressions of value for the Moche provide a useful framework towards identifying certain classes of material culture as "valuable objects." His expressions of value include the value of precious materials,

extraordinary craftsmanship, color, shiny surfaces, shimmering light and translucent surfaces, forms derived from nature, sound, animation, and enhanced surface. Donnan's (2012) analysis examined the types of objects that constituted high-status attire, and from there he discusses the values that governed their manufacture and function. I aim to contextualize this model for interpreting the objects found in mortuary contexts throughout the study region.

4.3 The skeletal remains: problems and prospects

The population identified in the cemetery almost never reflects the original population who lived at the location of the site. As Ingvarsson–Sundström (2008: 25) wrote, "only a portion of the population were: (1) buried on the site, (2) preserved, (3) discovered, (4) excavated and finally identified." Indeed, one of the first factors that affects the burial populations discovered in cemeteries is related to excavation, because it is rare that a cemetery is brought to light in its entirety. The varied nature of publication quality and thoroughness has already been discussed, but skeletal data have especially received short shrift. Methods and strategies of excavation, especially with rescue excavations and earlier excavation projects, were likely destructive. Osteological studies were often conducted on only a sample of the buried population, and studies of cremated remains are even fewer in number than students of inhumations. In many earlier excavations of cemeteries, the human remains were reburied and never studied. Excavators in most sites have tried to assign sex based on grave goods or, in some cases, the orientation of the skeleton. In general, these are informed guesses, but they will be noted and treated with caution in this analysis. Unfortunately, this means that few of the cemeteries in this study are sexed and aged on the basis of the skeletal remains alone. Moreover, skeletal conservation can vary greatly from one grave or site to another, seen especially in the case of EIA Vergina, where human bone was rarely preserved, with variables including the chemical properties of the soil, type of grave

container, the ritual and manipulation of the corpse, among others. Cultural factors also play a key role; indeed, not all the deceased were permitted to be interred in a common cemetery. The question of burial access and funeral recruitment will be further discussed in the subsequent chapter (4) on landscape and settlements. Overall, it should be emphasized that the population observed in the cemetery is not a passive reflection of the community of the living, but the end result of a variety of factors.

The osteological analysis of burned and cremated human remains is essential to the interpretation and reconstruction of cremation funerary rituals. There is little doubt, however, that the degree of thermal alteration and fragmentation, among other factors, will influence the attempt to reconstruct demographic profiles of the cremated deceased. What is more, limited (yet growing) analysis has been conducted on cremains in the prehistoric north Aegean, which means that the reconstruction of basic biological profiles including sex, biological age at death, pathological conditions, and height, among others, is restricted in the study region. Sites that have been the focus of skeletal analysis (as opposed to sexing and aging on the basis of grave goods) include four out of 24 Neolithic sites, five out of 14 EBA sites, five out of 25 LBA sites, and four out of 60 EIA sites (Table 4.1).

Sites with Skeletal Analysis

Neolithic	**EBA**	**LBA**	**EIA**
Avgi	Goules	Faia Petra	Makrygialos
Makrygialos	Kriaritsi-Sykia	Pigi Athinas	Dion-Mt. Olympus
Nea Nikomedia	Korinos	Korinos	Nea Philadelpha (partial)
Toumba Kremastis Koiladas (partial)	Makrygialos	Spathes	Torone
	Xeropigado Koiladas	Treis Elies	

Table 4.1. List of sites (Neolithic – EIA) that have been the subject of skeletal analysis.

Most archaeological cremations face a varied set of other post-depositional destructive agents that lead to additional fragmentation. As a result, it is no wonder that weight analysis of archaeological cremains, used to infer some parameters regarding funerary practice and the sex of an individual, encompass a few assumptions that can be "something of a leap of faith" (Gonçalves *et al*. 2015: 68). The use of cremation weight to draw bioarchaeological inferences is one analytical target that is at researchers' disposal, although certain variables (possible presence of fauna, inefficient cleaning of the bones, and incomplete relocation of the skeletal remains) may skew the data (McKinley 1993). As ethnographic studies have demonstrated, there is the possibility that only a small number of skeletal remains were chosen for interment in an ash-urn, which raises the possibility that some cremations aged as "infant burials" on the basis of skeletal weight may very well be adults. It should be noted, however, that it is a relatively straightforward process for a bioarchaeologist to distinguish between cremated adult and infant bones.

For inhumations (and some well-preserved cremations), the determination of age is more certain for juveniles than adults. Children and young adults benefit from recognizable markers of growth (skeletal ossification points, diaphyseal lengths of long bones, degree of dental calcification, etc.) that vary little from one individual to another. For individuals over the age of 20 and under the age of senescence, age determination is difficult. The indicators of old age make it somewhat possible to make broad age ranges (pathologies on the joints, degenerative pubic symphysis, wear of teeth, synostosis of cranial sutures, etc.), but the margin of error is larger since the general state of health varies from one individual or population to another (Triantaphyllou 2001: 35–36). In the study region, most skeletal analyses were conducted by Triantaphyllou (2001; Grammenos & Triantaphyllou 2004; Stratouli *et al*. 2010; Valla *et al*.

2013), as well as select studies by Tritsaroli (2016) for the LBA tumulus cemetery of Pigi Athinas, and Musgrave (2005) for the EIA Torone cemetery (Tables 4.4; 345). Triantaphyllou and Musgrave used slightly different age classes of individuals in their research (Tables 4.2; 4.3).

Triantaphyllou Age Classes	
0-1 years old	Neonate
1-6 years old	Infant
6-12 years old	Child
12-18 years old	Juvenile
18-30 years old	Young adult
30-40 years old	Prime adult
40-50 years old	Mature adult
50+	Old adult

Table 4.2 Age classes as defined by Triantaphyllou (2001: 36).

Musgrave Age Classes (Cremations)	
0-3 years old	Infant
<10 years old	Child
18-25 years old	Young adult
36-45+ years old	Middle aged
Ind.	Adults of unknown age

Musgrave Age Classes (Inhumations)	
0-3 years old	Infant
<10 years old	Child
11-15 years old	Young adolescent
16-20 years old	Older adolescent
20-35 years old	Young adult
35+ years old	Older adult

Table 4.3 Age classes as defined by Musgrave (Papadopoulos 2005: 251–252).

Sub-Adult Age Group					
Population	**Neonate**	**Infant**	**Child**	**Juvenile**	**Indeterminate subadult**
EN Nea Nikomedia	8	8	2	3	0
LN Avgi	0	1	0	0	0
LN Makrygialos I	0	4	5	4	3
LN Makrygialos II	2	1	0	2	0
EBA Kriaritsi-Sykia	0	1	0	1	4
EBA Makrygialos	1	1	1	0	0
EBA Goules	0	0	3	3	0
EBA Xeropigado Koiladas	10	42	14	10	16
EBA/LBA Korinos	0	0	4	0	0
LBA Faia Petra	1	2	2	0	0
LBA Spathes	0	2	2	2	0
LBA Treis Elies	0	0	2	1	0
EIA Makrygialos	0	4	2	5	2
EIA Nea Philadelphia	12	32	15	9	1
EIA Olympus tumuli	0	0	2	1	0
EIA Tzamala	1	0	1	1	4

Table 4.4 Counts of analyzed subadult skeletal remains from select prehistoric cemeteries in the study region. (1) Neonate: birth to one year; (2) infant: one year to six years; (3) child: six to 12 years; (4) juvenile: 12 to 18 years.

Adult Age Group					
Population	**YA**	**PA**	**MA**	**OA**	**Indeterminate adult**
EN Nea Nikomedia	2	8	2	1	0
LN Avgi	0	0	0	0	6
LN Makrygialos I	6	1	0	0	49
LN Makrygialos II	0	0	0	0	7
EBA Kriaritsi-Sykia	2	0	0	0	42
EBA Makrygialos	2	0	0	0	5
EBA Goules	6	6	4	0	15
EBA Xeropigado Koiladas	21	26	13	2	16
EBA/LBA Korinos	7	2	0	1	10
LBA Faia Petra	1	1	0	0	5
LBA Pigi Athinas	2	2	4	0	9
LBA Spathes	9	4	1	1	6
LBA Treis Elies	14	0	6	0	12
EIA Makrygialos	20	11	3	1	6
EIA Nea Philadelphia	48	58	35	3	27
EIA Olympus tumuli	12	8	3	0	9
EIA Tzamala	0	0	0	0	15

Table 4.5. Counts of analyzed adult skeletal remains. (1) Young adult: 18 to 30 years; (2) prime adult: 30 to 40 years; (3) mature adult: 40 to 50 years; (4) old adult: 50+ years.

Age Categories (Cremations)	Number of Individuals
Neonates, infants, adolescents	15
Young adults (18-25)	5
"Not very old"	11
Middle aged	7
Adult (indeterminate age)	56
Indeterminate Age	18
Total	**112**

Age Categories (Inhumations)	Number of Individuals
Infants >10 years	2
Young adolescents (11-15)	2
Older adolescent (16-20)	3
Young adult (20-35)	6
Older adult (35+)	6
Total	**19**

Table 4.6. Table of the aged dead at Torone, out of 127 individuals studied (after Musgrave in Papadopoulos 2005: 251–252).

In the preliminary reports of cemeteries for which an osteological study was (assumed to have been) conducted, the criteria used to distinguish adults from juveniles are rarely explicit. In other cases, other criteria such as the size of tombs and grave goods associated with children are used to substantiate age identification, for example at the EIA cemetery of Vergina (Bräuning & Kilian-Dirlmeier 2013: 94), although the teeth of the Vergina cemetery were studied and published (Rhomiopoulou & Kilian-Dirlmeier 1989: 150–151). Andronikos (1969: 152) argued that the distance between vases placed at the ends of tombs should be correlated with the size and age of the deceased, which would thus serve to identify the graves of children. Of course, the correlations between the length of the tomb, size of the deceased, and age are all problematic in their assumptions and are no longer taken to be an absolute rule by most excavators today. Such a method assumes, for example, that the deceased were lying on their backs with their legs extended, that vases were at the ends of the body (and not placed next to the head, which they

often were), and that "children's objects" are social, not biological, markers and may not always refer to the deceased's identity when buried.

Population	Female	Male	Indeterminate
EN Nea Nikomedeia	9/13 (69%)	4/13 (31%)	0
LN Makrygialos I	24/33 (73%)	9/33 (27%)	23
EBA Makrygialos	1/6 (17%)	5/6 (83%)	1
EBA Goules	7/10 (70%)	3/10 (30%)	21
EBA Xeropigado Koiladas	34/68 (50%)	34/68 (50%)	10
EBA/LBA Korinos	7/10 (70%)	3/10 (30%)	10
LBA Faia Petra	2/6 (33%)	4/6 (66%)	6
LBA Pigi Athinas	5/9 (56%)	4/9 44%)	8
LBA Spathes	14/19 (74%)	5/19 (26%)	2
LBA Treis Elies	13/24 (54%)	11/24 (46%)	8
EIA Makrygialos	26/33 (79%)	7/33 (21%)	8
EIA Nea Philadelphia	18/34 (53%)	16/34 (47%)	136
EIA Olympus tumuli	16/28 (57%)	12/28 (43%)	4
EIA Torone	16/35 (46%)	19/35 (54%)	101

Table 4.7. Counts and percentages of sexed skeletal remains.

As for determining the sex of the deceased, it is only possible for those who have passed puberty (Table 4.7). DNA analysis provides verification and diagnosis for all ages but it is an expensive and complicated procedure. For the cemeteries studied by Triantaphyllou (2001: 35), sex determination was only proposed for the dead aged over 18 years from the bones of the pelvis, skull, and long bones, depending on the degree of conservation of the skeletal remains. In

the absence of osteological study, researchers typically used funerary goods based on what de Polignac (2007: 352) calls the recurrent systems of symbolic oppositions (women's adornments and men's weaponry) and gender markers (the spindle whorl for women, the blade for men, etc.). This method has been used at EIA Vergina, where a large number of tombs have been "sexed" on the basis of markers that generally characterize men and women from cemeteries outside of Vergina (Bräuning & Kilian-Dirlmeier 2013: 93–94). Granted, the small amount of bone preserved would have made the biological sexing of skeletal remains difficult, but Bräuning & Kilian-Dirlmeier (2013: 103) advance high figures for "sexed" tombs that seem to include tombs with relatively fewer gendered objects (such as some rings, bronze buttons, and small domestic knives). This method, of course, conflates gender and sex, because while the identification of biological sex is based on physical and anthropological criteria, gender identification is a constructed social phenomenon, and therefore susceptible to fluctuation, manipulation, and even inversions that prevent any simple mechanical relationship to biological sex. What is more, the use of objects for determining the gender of the deceased is usually applicable only to rich tombs with sufficient material indices and gendered objects, which can be compared with deposits from burials where biological sex has been determined (Strömberg 1993: 108), assuming that all objects interred in the burial belong to the dead. In cases where the skeletal remains have not been sufficiently analyzed, it will be noted in the analysis below.

4.4 Constructing the feminine

Although in most sites we are not fortunate to have a detailed breakdown of age and sex categories, it is worth discussing at this stage at which point a female in the prehistoric north Aegean would have passed the rite of passage from "child" to "woman" or "maiden." In her study of representations of children in fifth-century BCE Athens, Beaumont (2000: 40–41)

identified three stages of life preceding adulthood: infancy (0–3 years), pre-pubertal childhood (approximately 3–13 years), and pubertal youth (13–adulthood). Moreover, Demand (1994: 10) argued that menarche, estimated to occur around the age of 14 in Classical Greece, was the time that marked the separation between childhood and readiness for marriage. Other studies of fertility, demographics, and reproductive age in pre-industrialized societies ("active" hunter-gatherers, sedentary hunter-gatherers, horticulturalists, and pastoralists/agro-pastoralists) often estimated that the female reproductive age begins around age 15 (Hewlett 1991: 3), although Pennington (2001: 183) reported that among the !Kung hunter-gatherers of the Kalahari, the reproductive age begins as late as 19 years of age. Generally, anthropological and historical sources seem to converge around the age of 15 as the age commonly associated with reproductive capacity. As Langdon (2008: 33) notes, "identities are constructed through life cycle rituals that produce and replicate gendered social types within an ideological founded order," for which ceremonial objects were "used to convey the ideological framework on which the order depends." The role of material culture broadly, and funerary objects more specifically, in attempting to reconstruct social identity in prehistory is a difficult undertaking in archaeology, to say the least. Not only, as discussed in the previous section, is an individual's identity never singular – with gender, age, class, ethnicity, lineage, and other possible affiliations – but not all such categories have specific and consistent material correlates. For these reasons, the investigation of the gendered body will always result in an incomplete view of personhood in the past. Yet what the archaeological record does offer us is broad patterns over long stretches of time, which is what this research aims to deduce, while attempting to tease out more detailed inferences at specific sites.

In the Neolithic period, graves of men and women are typically less obviously gendered than later periods. Neolithic cremations are interred in small urns, with burnt seeds in some cases (Stratouli *et al*. 2010). At Neolithic Toumba Kremastis Koiladas, concentrations of ash-urns and miniature vessels were accompanied by animal bones, a mattock, and burnt ceramic vessels and jewelry fragments. Of the latter, more than 200 burnt bead fragments were recovered, as well as unburnt personal ornaments (Fig. 4.1).

Figure 4.1 Beads made of spondylus shell from a necklace found in T. 21, a cremation burial (Hondroyianni-Metoki 2016, Fig. 5).

Among Neolithic cremations, then, there are no obvious signifiers of gender. Among the inhumations (excluding the scattered remains), the deceased were buried in a contracted position in simple pit-graves with minimal grave goods, consisting of handmade pots, clay figurines, animal remains and charred archaeobotanical remains. In a few cases, for example at Toumba Thessalonikis, the deceased were disposed of as primary burials in refuse pits without any particular care (Pappa 1997). There are a few cases of artifacts interred with only women: a gold pendant interred with a woman at Anargyroi, and ceramic beads associated with a female burial

at Amyntaio. There is also the case of a mature female burial discovered during a rescue excavation in Thessaloniki, buried with scant ceremony (Pappa 1997). There are, however, more stark differences between adult and child graves in the Neolithic, which will be explored in Section 3.5.

With the EBA, grave goods consisted primarily of pottery, possibly used during life, and began to accompany the majority of cremation and inhumation burials. A limited number of burials were equipped additionally with stone and occasionally faience, copper/bronze, and gold ornaments and tools. At Kriaritsi-Sykia, pottery interred with the exclusively cremated deceased correlated with ceramics found at Troy, Thessaly, and in some cases southern Greece, although there were no obvious distinctions between male and female graves. At Goules, the two cremations lacked grave goods besides an ash-urn in one tomb. Most of the 12 cremations at Xeropigado Koiladas had between one to three associated vessels, and one (T. 10, argued to be female on the basis of the grave goods) had two vessels and four jewelry items. When there are grave goods, they are inside the tomb or urn and never burned (Ziota 2007: 47–49). For the inhumations at Xeropigado Koiladas, grave goods other than vases (often intentionally broken) are quite scarce: only a few pieces of jewelry – earrings, pendants, beads, and a hair ring. There was also a total of 11 items, all accompanying women and children, made of a wide variety of materials, including gold, silver, an alloy of silver and gold, copper, bone, stone, clay, and shell. In addition, there was a small number of stone tools, clay spindle whorls, and a single copper knife with the remains of linen fibers. It is worth noting here that except for the intentionally broken ceramic vessels, there are also indications of incomplete offerings in both “female” and “male” designated graves, such as the knife mentioned above, two earrings, and isolated practical artifacts lacking their functional part, such as a bone handle without the tool. Such disposal

practices suggest a well-known rite in other later prehistoric European assemblages of "killing" objects, a rite which can be associated with the threat of impurity or the concept of separation from the living (Hodder 1982: 198–199; Cavanagh & Mee 1998: 112). One exceptional grave at Ayios Mamas (Grave 6) contained a gold foil pendant and 73 faience beads from a necklace that also included several perforated dog/wolf canine pendants, in addition to unique vessels (Pappa 2010). The faience beads, signs of contact with the Near East or Egypt, are the earliest found in the north Aegean. Such exotica, interred together with local pottery, gold from local deposits in the region (Vavelides & Andreou 2008), and worked animal artifacts, form a unique assemblage of converging cultures. Taken together with the artifacts, it is only at Xeropigado Koiladas that we begin to see consistent differential treatment by sex (and not just by age), with women clearly laid on their left side in a contracted position, and men on their right side.

The LBA contains the lowest number of cremation burials in total from throughout the prehistoric north Aegean. At LBA Exochi and Potamoi in east Macedonia, cremation is the dominant rite, with ash-urns placed in rock cavities within stone-built tumuli (Grammenos 1979). The tumuli were noted to have likely been disturbed. The finds recovered were scant in quantity, and included fragmentary beads, bronze fibulae, and spindle whorls, as well as Balkan white-incised wares. At LBA Palaiokastro in Chalkidiki, one cist tomb made of orthostats was recovered, with two ash-urns and no associated grave goods. In two out of five total cemeteries with cremations, there are only one or two cremations within a cemetery dominated by inhumations (Faia Petra in east Macedonia, Tsiganadika on Thasos, and Tourla in Kozani). Intriguingly, the sole cremated body at Faia Petra, found in an urn within a stone enclosure with other interments, was that of a woman over the age of 30 – one of two women (and the only adult woman) recognized in the cemetery population. One small amphora had been placed next

to the urn (a four-handled amphora, Fig. 3.2), on top of which a bowl with wishbone handles was placed. A small bronze knife and clay spindle whorl, bead, or button, both unburnt, had been placed inside the urn, together with the dead woman's ashes (Valla 2007: 380; Fig. 4.2). Although the sample is very small, it is tempting to suggest that the cremated woman – given the unique nature of her burial at Faia Petra and the high expenditure of energy and specialized knowledge associated with cremation – may have held special status in the living community.

Figure 4.2 Four-handled amphora with a flat base, common in the Balkans (L) (Valla 2007: Fig 12), and the grave goods of the cremation burial (R) (Valla et al. 2013: Fig. 14).

In the case of inhumations, while single burial is the rule, there is a growing interest in multiple and secondary burials that involved the reopening of the grave. This trend in some cemeteries makes it difficult to associate specific artifacts (such as ceramic vessels) with specific individuals interred in the same grave. Nevertheless, we do see a tendency towards greater standardization in the treatment of the deceased females in the LBA, with a more repetitive repertoire of funerary goods. Out of 25 LBA sites with inhumation graves, 17 sites have

distinctively different types of burial goods accompanying the female graves. Jewelry of metal, bone, or stone usually accompanies the female burials, as well as local and imported Mycenaean pottery, and spindle whorls, beads, or buttons (Fig. 4.3).

Figure 4.3 Grave goods interred in T. 10 at LBA Methone, including ceramic vessels, beads, rings, spindle whorls, and perfume/ointment implements. Excavators have inferred that this grave belonged to a woman, although the bones were not located since excavation.

At Faia Petra, for example, grave offerings included a bronze bracelet still fitted around the wrist of the inhumed body, two spiral-shaped bronze jewelry pieces, possibly hair spirals, and two gold discs with centric ridges and a hole in the middle. There is a marked increase in Mycenaean and "Mycenaeanizing" artifacts typically found in female graves in the Mycenaean *koine*, such as strings of glass paste and amber beads, the former with volute designs at Toumba Thessalonikis, and pottery of Mycenaean type at cemeteries like Spathes and Rema Xydias (Andreou *et al.* 1996; Triantaphyllou 2001). It is thus evident that while in the LBA, there are female burial assemblages, there is also the accumulation of personal items such as clothing

equipment and jewelry of “exotic” material (such as amber and glass paste), and Mycenaean or “Mycenaeanizing” pottery in some regions of the north Aegean (especially western Macedonia). There is an attempt in these deposits to display a particular kind of social identity, reflected in the possession and destruction after death of distinctive imported or imitated personal items. It is worth noting that the LBA – EIA transitional cemetery of Treis Elies indicates a marked decrease in Mycenaean and “Mycenaeanizing” items compared to other LBA assemblages (Triantaphyllou 1998).

By the EIA, as discussed in Chapter 2, there is a substantial increase in not only the number of cemeteries in the north Aegean overall, but an increase in instances of cremation burials as well as the size of cemeteries. Unfortunately, most EIA cemeteries have not been the subject of osteological analysis, with the exception of the cemeteries at Torone, Makrygialos, the Olympus tumuli, and a partial analysis at Nea Philadelphia (240 individuals out of 2,228 graves). Moreover, with the rise of tumulus cemeteries and other collective burial practices, it is difficult to tell from the publications, as at Drama Z.I, for example, which artifacts and burials were associated. Sadly, no formal osteological study has been conducted at EIA Palaiogynaikokastro, where the number of burials exceeds 500 and the most common rite is cremation. According to Savvopoulou (2001), ash-urns were accompanied by small and miniature vases within the stone-built tumuli, as well as numerous bronze ornaments and accessories like fibulae, pins, buttons, hair jewelry, necklaces, bracelets, rings, and headdresses that are typically associated with female cremation and inhumation burials in the EIA. Many of these objects (though not specified in the publications) bore traces of heating, which suggests that they accompanied the deceased for a short period of time or were burned or “killed” symbolically on the funerary pyre. Bronze objects typically referred to as “Macedonian bronzes” in scholarship are found with both

cremations and inhumations. At Nea Efkarpia, where there was a mixture of cremation and inhumation graves, only 40% of the tombs had goods, usually one or two objects, which were unevenly distributed. There were approximately seven assumed female graves with bronze beads, bracelets, earrings, rings, and terracotta spindle whorls, beads, or buttons. At Stavroupoli-Polichni, although less than half of the inhumation and cremation tombs had grave goods, among the artifacts, metal objects such as bronze pins and fibulae, bracelets, rings, and body ornaments in a variety of metals were more numerous than ceramic vessels, and similarly unevenly distributed. This is in contrast to Torone, where most of the offerings were ceramic. Although overall counts of funerary objects are small, there are some differences between male and female graves at Torone. Female graves witnessed a greater variety of interred object types (predominantly spindle whorls, beads, or buttons, fibulae, bracelets, armbands, anklets, and whetstones), and adult females tended to be associated with large closed vessels.

It is in certain EIA inhumations that we see an opulent display of funerary goods associated with female elites in the north Aegean sphere (Gimatzidis 2017: 217–219). The metal objects (primarily bronze, with iron and gold used as well) found in female graves mark a break with the LBA as we know from the current data at hand. Clothing accessories multiplied in the EIA in the form of complex headdress elements and elaborate belts. Body ornaments were also enriched, especially with the adoption of armlets. Gold is used for earrings or spherical ornaments, while necklaces include a variety of materials (carnelian, bone, amber) that are already present in the "Mycenaeanizing" cemeteries of LBA southern Pieria (Poulaki-Pantermali 2013: 61). These objects reflected a new way of dressing, at times similar to southern Greek traditions (some bow fibulae, for example), but are more reminiscent of Balkan and Hallstattian traditions in central Europe (Aikaterinidis 2008: 50–52; Fig. 4.4).

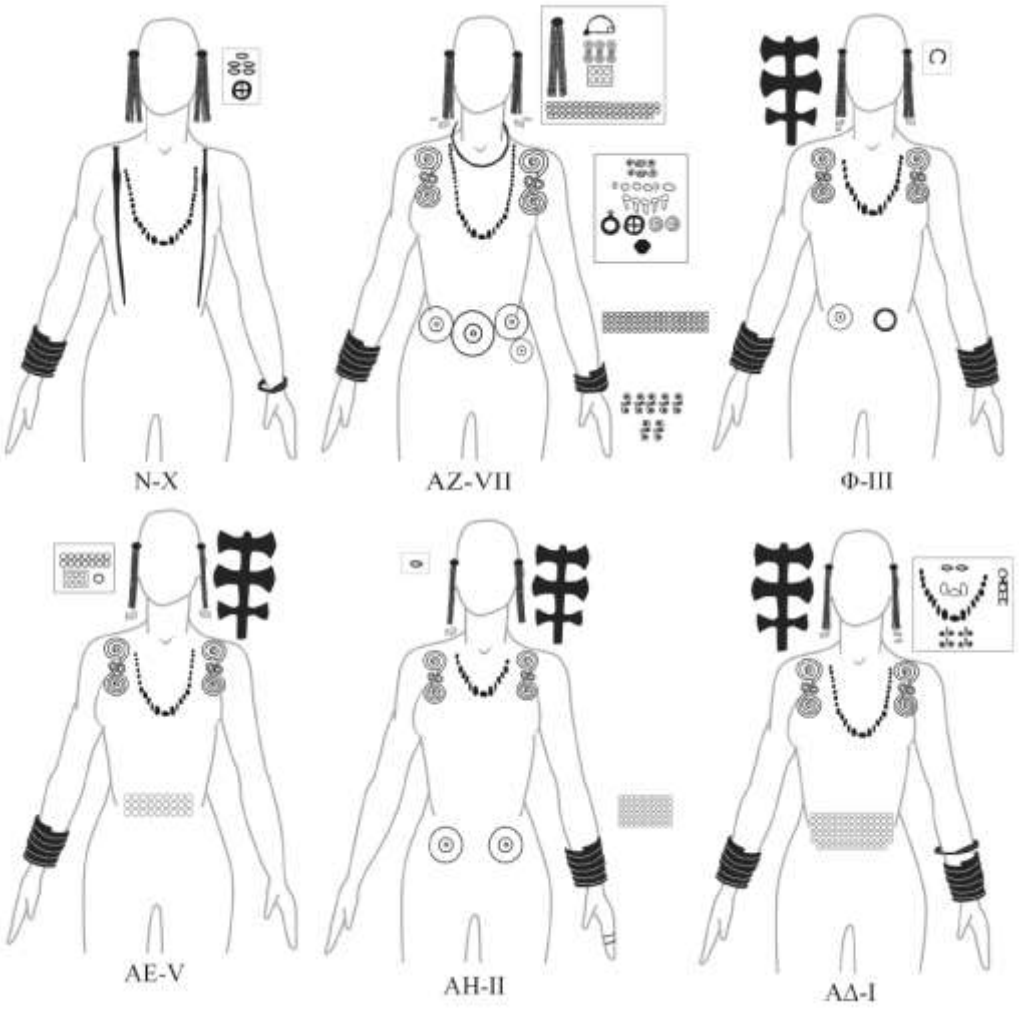

Figure 4.4 Simplified depictions of the location of ornaments on female silhouettes, for select tombs from EIA Vergina. The jewelry placed in boxes or beside the bodies were found at the head, waist, or hand but their exact position is uncertain (Adapted from Chemsseddoha 2014, Fig. 4)

By the end of the eighth century in the Axios valley, on the eastern coast of the Thermaic Gulf, numerous Macedonian bronzes with animal, human, and symbolic forms were interred with the deceased. It is worth noting that there is evident differentiation with regard to the variability and quantity of burial assemblages witnessed at the cemetery level for female graves. Of course, while at some sites, some of these feminine ornaments are found in few or no graves, at other large cemeteries such as Vergina, Agrosykia, and Axioupolis, they are found in a

substantial number of tombs. In the cemetery of Vergina, most prominently, these bronze female ornaments (including elaborate headdresses and triple double bronze axes) represent more than 40% of all the burial goods discovered in the EIA graves thus far. Tomb AZ-VII alone contained more than 50 objects for adornment, including four gold spherical hair ornaments and a necklace with 50 carnelian beads (Andronikos 1969: 143–146). These burials contain almost all types of finery known in the EIA, as well as distinctive signs of wealth, and a sign of prestige and power with the triple double axes (Fig. 4.5). At other EIA sites such as EIA Agras, meanwhile, typical offerings include one or two ceramic vessels, spindle whorls, beads, or buttons, jewelry, and clothing ornaments such as fibulae.

Figure 4.5 Bronze triple double axe found in Tomb AZVII ("Lady of Aigai") at EIA Vergina. Made of a fairly thin bronze plaque, it had a symbolic rather than practical function and could have been used as a kind of scepter. Similar objects have only been found in the richest women's and men's tombs at EIA Vergina (Kottaridi 2012, Fig. 1).

4.4.1 Maiden graves

One of the intriguing trends in the prehistoric Aegean sphere is the emergence of relatively rich tombs of adolescent women, described as "maiden graves" by Langdon in the context of EIA southern Greece (2008). These relatively wealthy prehistoric young female graves with jewelry, clothing ornaments, and diadems are also found in other parts of the Mediterranean during this time, including the Aegean, Italy, Cyprus, and the southern Balkans (Stampolides 2012; Stapleton 2014). Five tombs at the IA Lofkënd tumulus in Albania, for example, contained an adolescent female or child with a bronze headband (typically identified as a diadem), or another head ornament (Papadopoulos 2010: 50–51). Here Langdon's work (2008) is also relevant for this study, particularly for the later Bronze and Early Iron Age. Langdon's approach combined iconography and contextual archaeology for Early Iron Age Greece, and the underlying theme of her book is that the iconography, largely on ceramics, expresses a concern with initiatory rites, especially pertaining to adulthood, marriage, and death. For example, Langdon analyzed the recurring representation of young women on Geometric vessels, with their iconographic emphasis on fertility and vulnerability through a generic corpus that expresses the qualities of the *parthenos*, or virgin. Langdon also drew on evidence such as burials, documenting the unusual concentration of wealthy burials of young women from this period. She argued that these are "maiden graves," and that they reflect the status and high value of women in early Greek society and their importance in family marriage alliances. Although the study focused on central Greece during the 9th and 8th centuries BCE, Langdon's approach allowed her to draw meaningful conclusions that will be appropriate to this project. For example, highlighting the occurrence of jewelry in north Aegean female graves has been amply noted in prior studies, but if jewelry is only attested in certain types of female graves (e.g., child, young

adult, or adult), along with a repertoire of other objects, relevant and interesting patterns can potentially emerge.

One of the first arguable cases of a "maiden" grave found in the prehistoric north Aegean was at the cemetery at Pydna, which dates from the LBA to the Hellenistic period and contains over 1,000 graves. A grave of a young girl, dated between 1500–1200 BCE, contained a diadem with three layers of decorative jewelry across it, as well as a necklace with glass beads and carnelian, a bracelet, bronze belt, and three bronze rings (Besios 2010, Fig. 3.6; Fig. 4.6).

Figure 4.6 Grave of young woman at the LBA cemetery of Pydna (Besios 2010, Fig. 3.6).

While this is the only case of a diadem in the LBA, headdresses increase in frequency at select EIA cemeteries: most evidently at Vergina, but also at Tzamala, Agrosykia, Axioupolis, Kastoria-Dailaki, and Makrygialos. There are 52 inhumation graves (assumed to be female) at EIA Vergina with elaborate metal headdresses, composed of buttons and long hanging spirals that would have adorned a diadem or veil (Fig. 4.7).

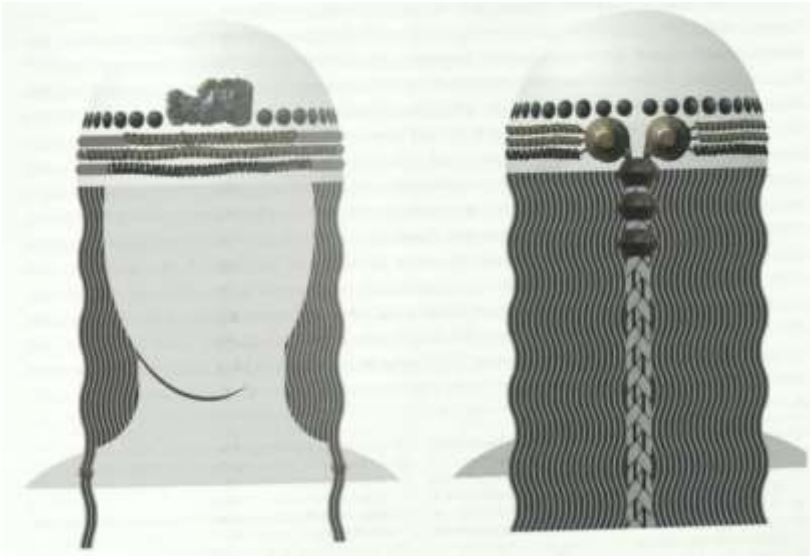

Figure 4.7 Reconstruction of the headdress found in Tumulus AE, Grave V (Bräuning & Kilian-Dirlmeier 2013, Fig. 11).

One bronze headdress was decorated with circles and repoussé points, whose motifs are reminiscent of the Villanovan culture in Italy (Andronikos 1969: 251). Two graves identified as those of children or young adolescents by Bräuning & Kilian-Dirlmeier (2013: 103; Tumulus A, Grave IX & Z, Grave IV) had an elaborate headdress with spiral ornamentation and a narrow diadem respectively, and another diadem was found in Tumulus III, Grave Delta in the Petsas (1961–1962: 224) excavations. Although Bräuning & Kilian-Dirlmeier interpreted this choice of "adult" grave goods as inherited status, one could also view these two tombs as cases of maiden graves similar to the LBA Pydna grave, those analyzed by Langdon (2008) in central and southern Greece, and other relatively wealthy young female burials in the southern Balkans, Italy, and Cyprus (Stampolides 2012; Stapleton 2014). Indeed, there may be more cases of maiden graves that have yet to be identified at Vergina, given the poor skeletal preservation and researchers' tendencies to sex and age the graves by the size of the tombs and burial goods (cf. Bräuning & Kilian-Dirlmeier 2013: 94). For example, only a few kilometers away from Vergina,

the EIA tumulus cemetery of Tzamala contained a burial of a young woman who had many bronze ornaments: two long spiral ornaments and buttons for a headdress, a bracelet, ring, and a ring and two buttons on the torso for a belt. Such a grave is in contrast to the older female graves, which – while the burial goods are generally similar to that of Vergina – the women are not adorned with jewelry as in the exceptional case of the young girl. More interesting analyses could also be conducted on other EIA inhumations, if the sites were fully published and skeletal remains analyzed.

Unfortunately, we do not find bronze diadems or any other obvious markers of "maidenhood" in the case of LBA – EIA cremation burials. Part of this problem of identification is the fact that EIA cemeteries with cremations, with the exception of Torone, Makrygialos, the Olympus tumuli, and a partial analysis at Nea Philadelphia (240 individuals out of 2,228 graves), do not have skeletal analyses published. Since EIA Makrygialos only had infant cremations (which will be discussed further in Section 3.5), this leaves the female graves of Torone, the Olympus tumuli, and (partially) Nea Philadelphia, which do not have obvious markers as in the case of the inhumed EIA dead. On the basis of the grave goods, I would argue that Palaiogynaikokastro would be the most likely cemetery to contain cremation "maiden" graves. Although numerous objects bore traces of being fired-affected, found in and around the urns, many bronze and iron objects were interred unburnt, including numerous clothing accessories and body ornaments: various types of bronze fibulae, pins, buttons, and (of most interest here) bronze hair ornaments and headdress pieces (spiral tubular ornaments in bronze, gold circular ornaments of a similar shape to the bronze ornaments typically found on complete diadems). Intriguingly, such headdress and diadem components are only described as being associated with cremation burials, and not among the 85 inhumations recovered. A more fully published account

of all the graves, and which artifacts were found with specific tombs, would elucidate more patterns on the interment of (potentially young) female graves in EIA Palaiogynaikokastro.

4.4.2 Mother, interrupted

A number of tombs in the prehistoric and ancient Greek world contain a woman found together with a fetus or neonate, thus bringing together the rites of passage of birth and death in a unique and remarkable way. Perhaps one of the most evocative ancient Greek evidence is the grave stele of Hediste, depicting a woman (Hediste) dying in pregnancy with her grief-stricken husband and female attendant beside her, the latter of which holds the body of the dead infant. The painted scene on the stele shows the immediate aftermath of this tragedy, with Hediste's pain-wracked body still on the bed (Fig. 4.8).

Figure 4.8 Stele of Hediste from Demetrias-Pagasai, ca. 200 BC (Liston & Papadopoulos 2004: Fig. 15).

The sadness and suddenness of the death interplays remarkably with the epitaph carved at its base:

> A painful thread for Hediste did the Fates weave from
> their spindles when, as a young wife, she came to the
> throes of childbirth.
> Ah wretched one! For it was not fated that she should
> cradle the infant in her arms, nor moisten the lips of her
> new-born child at her breast.
> One light looks upon both and Fortune has brought
> both to a single tomb, making no distinction when she
> came upon them.

One prominent example of a woman-fetus/neonate burial from the protohistoric period is the Late Geometric Tomb 15 (H 16:6) in the Agora area of Athens, described as the "Rich Athenian Lady" for the fine objects interred in the grave, including gold jewelry, ivory seals, and faience beads (Liston and Papadopoulos 2004; Papadopoulos & Smithson 2017: 124–176; 534–536). Although scholars previously interpreted the tomb as simply that of a woman from a wealthy, elite propertied family in post-Mycenaean Athens, skeletal analysis by Liston and Papadopoulos (2004) revealed that the cremation urn contained the cremations of a woman in her 30s and a fetus, which fundamentally changed the interpretation of this tomb. As Liston and Papadopoulos (2004: 28) argue, by dying during childbirth or pregnancy, "the female in Tomb H 16:6 would have upset the normal link between burial and property transmission, particularly if the child that accompanied her to the grave was her first, or her first male offspring." Thus, it is not the wealth of the tomb, but the failed pregnancy, two lives cut short, and personal history of the woman that

assumes importance. Demand (1994: 71–86), in discussing the risks of childbirth in ancient Greece, argued that the situation as described for early modern Europe would apply to Classical Greece, with a whole variety of conditions, such as hemorrhage, pelvic deformity, eclampsia, were likely to have posed problems which severely threatened the mother's life. Some archaeological literature has estimated ancient maternal mortality as high as 14%, although much lower rates are documented in present-day rural, undeveloped regions of the world (Lancaster 1990: 281; Loudon 1991: 56).

Although Liston and Papadopoulos (2004) and Langdon (2008) discussed such trends in southern Greece, a few examples of inhumed and cremated adult women buried together with infants also exist in the prehistoric north Aegean, dating from as early as the Neolithic period. One of the closest parallels to the Rich Athenian Lady tomb is found at EIA Torone. Although most of the six infants were cremated in their own ash-urns, one fetus or neonate in Tomb 123 was interred with a young female adult aged 18–25 years at death, most likely the mother who died in pregnancy or during childbirth. One unique characteristic of this grave was the largest number of fragmentary tripod terracotta cauldrons in the cemetery that were interred (possibly totaling four), which, unlike other tombs, did not constitute a single, individual tripod. The fragmentary state of the tripod cauldrons and the context of their discovery indicates some facet of funerary ritual, perhaps in the burning of incense or preparation of food. Liston and Papadopoulos (2004: 28) suggest that "the tripod cauldrons may have been associated with a taboo, or its aversion, and used in some purification ritual." At another EIA cemetery at Ierissos, the sole cremation burial was that of a child in an ash-urn, which was interred in the same rectangular pit grave as an inhumed female adult in an amphora (Trakassopoulou-Salakidou 2001: 350–352). The adult female was interred with two bronze bracelets, six iron rings, three

beads, and two fibulae. Two urns with ash were also found in the pit, but did not appear to contain burnt human remains; instead, one had a small fragmentary tripod. It is also worth noting that the pyre was arguably made in the pit, as part of a fragment of carbonized wood was found in situ. Intriguingly, this tomb was found next to the corner of a Classical-period building interpreted as a heroön or a place of worship dedicated to Cybele. Such a practice mirrors a double mudbrick-lined pit burial of an inhumed female adult and cremated child burial in an urn (with no associated finds) under a home thousands of years earlier at Neolithic Mandalo (Pilali-Papasteriou & Papaefthimiou-Papanthemou 1989). Finally, recent skeletal analysis of the cremains at Neolithic Toumba Kremastis Koiladas by Katsaveli (2017) revealed that Tomb 21 contained the cremated remains of an adult and a fetus in the same ash-urn. Intriguingly, we find the EIA practice of interring terracotta tripod vessels also in the Neolithic period, with two fragmentary terracotta "offering table" vessels interred in the grave (Fig. 4.9), as well as dispersed sea shell beads (Fig. 4.1). Given that complete skeletal analyses of cremation burials in the study area are rare, tombs containing the remains of a mother and child may be more common than is currently realized.

Figure 4.9 Burial urns, covering and accompanying pots (including offering tables) from T. 21 at Neolithic Toumba Kremastis Koiladas (Hondroyianni-Metoki 2016, Fig. 4).

There are also a handful of identified female adult–child inhumation burials in the north Aegean. Among 20 individual, intramural inhumation burials at Neolithic Nea Nikomedeia, one grave had a woman holding two children, with no associated grave goods (Rodden 1962; Cavanaugh & Mee 1998: 7; Perles 2001: 276–277). At EIA Makrygialos, there is one case of a double burial of a woman and a girl (T. 46), which was noted by the excavators to have been interred in one episode (Besios 1989: 155–156). While the woman was interred with two iron pins, the grave goods associated with the infant (possibly a girl) were more numerous, including one bronze pin, one probable diadem with bronze applique, two spiral tubular ornaments in bronze, one necklace, bronze bracelets, and one iron ring.

4.5 Child graves

Langdon (2008: 58) states that "children are newly prominent in the Early Iron Age" in the context of central and southern Greece, but in the north Aegean, cremated and inhumed

children are noted among burials from the Neolithic period onward. Of course, cemeteries where children are not represented does not prove their absence. According to the few anthropological studies and more general information provided for other cemeteries, there are three general trends across time in the north Aegean: (1) cemeteries with a majority of adults interred, as well as a sizable share of infants/children; (2) cemeteries where infants/children are absent or very few in number; (3) cemeteries that are mostly comprised of infants/children.

Intramural cremation burials in the Neolithic period tend to be associated with children. Indeed, the first case of cremation in the north Aegean was at the EN site of Varemenoi Goulon, where one infant was cremated in a small bowl of brown burnished wear with gray linear decoration underneath the destruction horizon (Whitley 2003: 42). At the site of Avgi, which only contained cremations, one ash-urn had the cremains of an infant (Stratouli *et al*. 2010). At other sites, the sole cremation among intramural inhumation burials was that of an infant or child. At Mandalo, one child was cremated and interred with an inhumed adult, and at Makrygialos, one infant cremation was found within the settlement area, while several inhumations were interred beyond the edge of the inhabited area (Pilali-Papasteriou & Papaefthimiou-Papanthemou 1989; Besios & Pappa 1994; Triantaphyllou 2001). Not all children in the Neolithic, however, were chosen to be cremated, especially in intramural contexts. At the sites of Anargyroi, Nea Nikomedeia, and Paliambela, children and infants were buried together with adults (Rodden 1962; Hondroyianni-Metoki 2000). At other sites, minors were buried together, including a double burial with two children at Dispilio and Mavropigi–Phyllotsairi (Petroutsa 2009; Valamoti 2009; Whitley *et al*. 2006). Amyntaio, Axos A, and Limenaria on Thasos contained individual infant burials. An infant pot grave was interred under the floor of an EN house at Axos A (A. Chrysostomou 1997c), and a child (three to five years old) was

discovered in a storage pit at Limenaria, intriguingly found lying on its back with plenty of slabs placed on top of the deceased and around it (Papadopoulos & Malamidou 2008). Six MN burials of adults and infants in contracted positions were found at Anargyroi, with finds including clay figurines, jewelry, tools, and pottery. Charred archaeobotanical remains of wheat, barley lentils, peas, pomegranate, raspberry, and elderberry were found in several inhumed child graves at Anargyroi, Mavropigi, and Phyllotsairi (Karamitrou-Mentesidi *et al*. 2013). Other finds interred with children include an astragalos and beads at Paliambela, and stone beads at one child's burial at Phyllotsairi. One exceptional child's burial at Phyllotsairi was accompanied by an assemblage of animal bones and stones, a stone figurine depicting a frog, a pierced piece of limestone, a stone axe, a bone tool, and two large flint blades (Fig. 4.10). As argued in Chap. 2, however, such rituals above do not reflect the "normal" funerary rituals that were applied to the majority of the Neolithic north Aegean population. Indeed, the instances of child burials above (and especially the child grave at Limenaria) seem to confirm that these (mostly inhumed) intramural graves concern individuals who were denied normal funerary rituals.

Figure 4.10 A sample of the grave goods found with a child's burial at Phyllotsairi, including the stone frog figurine at the lower left-hand corner (Karamitrou-Mentesidi et al. 2013, Fig. 30).

By the EBA, child burials are situated exclusively in extramural contexts. Three out of five cemeteries with cremations contained child or infant burials. At Ayios Mamas, the sole cremation grave out of 14 tombs in total was that of an infant, while at Goules, two out of six children (out of 53 total graves) were cremated. At Xeropigado Koiladas, the 12 cremations (out of 222 total tombs) mostly belonged to "sub-adults." It is worth noting that at Xeropigado Koiladas, there is a markedly high representation of infants and neonates, and subadults overall (41.4%), and underrepresentation of mature and old adults (Ziota & Triantaphyllou 2004: Fig. 8). The sub-adult segment of the Xeropigado Koiladas population (80) is exclusively associated with the small cist graves and pot burials when they contain inhumations. In these particular groups, there is a large number of burials without offerings (with a few children accompanied by jewelry), and overall expenditure in the construction of tombs is low. Three children and three juveniles with minimal grave goods were noted at EBA Goules, as well as one neonate, one infant, and one child at EBA Makrygialos (Triantaphyllou 2001: Table 4.5). At the transitional EBA–MBA tumulus cemetery of Valtos-Leptokaryas, T. 7 and 8 of children aged four and nine years old respectively contained exceptional grave goods of gold and bronze jewelry, including a necklace of gold, bronze, glass paste, and stone beads, a ring, a one-handled goblet and a cup (Poulaki-Pantermali *et al*. 2007; Fig. 4.11).

Figure 4.11 Tumulus II (R) and associated jewelry of T. 8 at Valtos-Leptokaryas (Poulaki-Pantermali et al. 2007, Fig. 4).

During the LBA, there are no infant cremations recorded in the north Aegean. It is unfortunate that so few LBA cemeteries (particularly the six identified with cremation burials) have skeletal analyses conducted and published in full. There are, however, a few recorded instances of subadult inhumations during this time period. At LBA Faia Petra, a jar with two loop-handled handles was found together with a necklace of amber beads in the stone mound covering the burial of a four-year-old infant (Valla 2007: 383). The infant burial was located in the most complete and elaborate structure (Enclosure 5), together with two adults. At Spathes and Treis Elies, small numbers of infants, children, and juveniles were interred in the cemetery in single cist or simple pit graves with minimal grave goods (Table 4.4). It is noteworthy that subadults constitute a small percentage of the cemeteries (17.6% for Spathes and 5.5% for Treis Elies). Of note is an infant grave in the cemetery of Tourla, which contained a bronze pendant in the shape of a half-moon. This shape is attested at a child's grave in Eutresis in Boiotia in the same period, and an LH III child grave at Eleusis in Attica. This shape for amulets is well-known during the Archaic and Classical period in Greece; its symbolism, which is related to childhood,

also appears in Egypt (Pomadère 2012: 436–437). For the historic Greek period, these shapes are interpreted as vectors of protection by the goddess Artemis. Some scholars have argued that we can project this relationship between the moon, growth, and childhood back to the Bronze Age (Pomadère 2012: 437).

In the EIA, there are several cemeteries composed of a majority of adults as well as sizable percentages of infants and children: Nea Philadelphia (29.2%); Oraiokastro (30%), Nea Efkarpia (40%), Stavroupoli-Polichni (42% and 17% depending on the years of excavation), and perhaps also at Thermi and Toumba Thessalonikis (Soueref 2009: 254). At Torone, subadults constitute 14.3% of the cemetery population and infants only 4.1% (Papadopoulos 2005: 377). It is noteworthy that neonates have only been identified in cremation graves (Papadopoulos 2005: 360–367). At the other EIA cemeteries, subadults are absent or few in number: Olympus tumuli (3), Giannitsa (1), Agrosykia (0), Panagitsa–Zervi (1). Nea Zoi–Terikleia is an outlier in this respect, with only one adult out of 15 tombs attested, although the cemetery was also not fully excavated. In terms of finds, the subadults studied in the partial skeletal analysis at Nea Philadelphia were found to be present throughout the cemetery, and there was no mention of any special funeral treatment. There are intriguing bronze discs covered with gold, found at Oraiokastro and Stavroupoli-Polichni; at the former, the discs were found on top of an infant interred in a single grave, and at the latter, the discs were found on the jaw of an infant. At Makrygialos there is a possible age distinction in the category of bronze bracelets, associated with infant and child burials (Triantaphyllou 1998). Children overall appear to have been more richly furnished with offerings. Thus, with the possible exception of Nea Zoi-Terikleia, there is, thus far, no cemetery in the north Aegean that is exclusively devoted to children/infants, such as the Classical period cemetery at Astypalaia (Hillson 2009).

4.6 The male graves

4.6.1 Neolithic – LBA male graves

As discussed in Section 3.4, graves of men and women in the Neolithic period were typically less obviously gendered than graves in later periods. Many burials, such as an adult male burial at Makri II, several burials at Makrygialos, and the double burial of two adult males aged 35–55 at Dispilio, had no finds. When there are grave goods accompanying the inhumed, intramural deceased, there are very few and comprised mostly of everyday items, such as bone and stone tools, clay figurines, or pottery (Triantaphyllou 2001: 21), as well as animal remains and charred archaeobotanical remains. Five male burials at Kleitos I, for example, contained animal offerings, lustrous pottery, clay stamps, and stone tools. At Nea Nikomedia, where a tightly-flexed male burial in a pit was discovered with a pebble stuck into its mouth (Rodden & Rodden 1964b: Fig. 21; Fig. 2.38). One unusual case is the Neolithic child grave at Limenaria on Thasos that is excessively surrounded by slabs, perhaps both evidence of individuals who could not be buried according to the normal rituals, either because of the conditions of their death (violent death or illness, for example), or because they did not reach the required age or status. As for the Neolithic cremation burials at the cemetery of Toumba Kremastis Koiladas, ash-urns were accompanied by (non-gender specific) tools such as a mattock, animal bones, and burnt ceramic vessels (Hondroyianni-Metoki 2009a). Perhaps one of the few cases of artifacts interred with only men are blades and other sharpened stone tools, such as these blades from Grave 7 at EN Mavropigi (Fig. 4.12).

Figure 4.12 Artifacts from Grave 7 at Mavropigi. Upper tool is a retouched blade from "silex blonde," the lower tool is a radiolarite blade (Karamitrou-Mentessidi et al. 2013, Fig. 62).

Burial goods continue to be minimal in the EBA, particularly so in the case of male graves. Inhumation burials of both men and women at EBA Goules and Ayios Mamas are accompanied by a standard set of grave goods, consisting of one or two types of handmade pots usually placed by the head. With the cremations at Nea Skioni and the inhumations at Ayios Mamas, as noted prior, the only distinguishable grave goods apart from pots are personal ornaments typically interred with women (such as bronze jewelry and loomweights). Perhaps the only distinctive differential treatment by sex during the EBA is to be found at Xeropigado Koiladas, where there is a consistent opposite placement of female (resting on their left sides) and male bodies (resting on their right sides) in the grave. Intriguingly, although most of the undisturbed burials had grave offerings – usually one to three vessels, placed beside the head of the dead – very few copper, bone, clay, and stone tools were found interred with male graves. Thus, men and women at the Xeropigado Koiladas cemetery were not distinguished by grave

goods, but by funerary practices; such differential treatment by sex is not evident from the data at hand from other EBA cemeteries.

During the LBA, a standard funerary program in grave goods is cross-cut by the variable deposition of wealth within cemeteries, including carved seal stones, ceramic drinking sets, and bronze weapons – often of Mycenaean type – together with artifacts of "exotic" and imported material, such as amber and glass paste, and Mycenaean- and Danubian-style aromatic containers. Such goods have been found in male inhumation graves at the extramural cemetery of Toumba Thessalonikis, Rymnio, Korinos, Spathes–Agios Dimitrios, and Aiani. Of course, there was variability between male graves both across and within cemeteries. For example, at Toumba Thessalonikis, only two swords were found interred with two males, in addition to a limited number of seal stones on the chest of males at Toumba Thessalonikis, Rymnio, Aiani, and Spathes–Agios Dimitrios. One male tomb among the 24 discovered at Spathes–Agios Dimitrios was found interred with a dagger and sword of Sandars Type G, the latter with its bone hilt and trace of its wooden scabbard preserved (given that the cemetery is located in the Mt. Olympus area) (Fig. 2.42). The cemetery of Aiani, meanwhile, yielded a Sanders Type D bronze sword that, based on its spiral decoration, the excavators argued most likely came from a Mycenaean palatial workshop, in addition to four more male graves with spears (Karamitrou-Mentesidi 2000: 606, Fig. 11). At LBA Korinos in Pieria, bronze daggers seem to be preferred (Besios & Athanasiadou 2001: 363–368). In particular, while jewelry of metal, bone, or stone usually accompanies the female burials, metals or tools of metal and stone mostly accompany the male burials. Although the latter distinction was already becoming evident in the EBA at sites such as Xeropigado Koiladas and Goules, by the LBA such an association is a much more frequent occurrence. In cases of multiple burials that involve the re-opening of the grave, as at

the Kastri cemeteries on Thasos, Faia Petra, Spathes, and Treis Elies, the position where the vessels and the rest of the grave offerings were discovered in the communal graves makes it difficult to determine which inhumation they belong to. Nevertheless, at Faia Petra excavators noted a Mycenaean stirrup jar, together with a bronze spearhead and three arrowheads accompanying a buried man (with a slightly burned skull) found in the largest enclosure (Valla 2007: 383). No specific pottery shapes were strictly associated with any particular sex or age group; only weaponry accompanied (skeletally analyzed) male burials. Although the remains of both men and women at Faia Petra were manipulated in post-funerary activities (such as skulls being gathered in the center of burial enclosures), three out of four individuals (out of a total of 12) that were burned in the skull and upper skeleton area were adult men (Valla *et al*. 2013: 242; Fig. 4.13). At the tumulus cemetery of Pigi Athinas, however, the offerings in the four single male burials were limited to ceramic vessels such as *kantharoi* (Poulaki-Pantermali 2008).

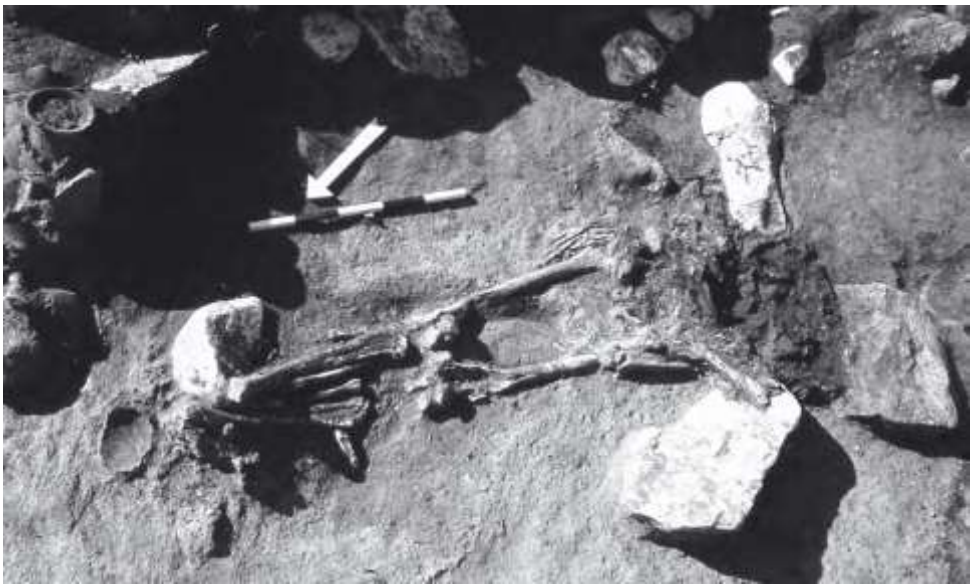

Figure 4.13 The skeleton of a young adult man in Burial Enclosure 5, with the skull and upper skeleton burned and the lower part completely unaffected by fire (Valla et al. 2013, Fig. 18).

4.6.2 Of swords and spears: the EIA (elite) warrior body

Numbers of both cremation and inhumation male burials increase substantially by the EIA, although inhumation remains the most popular rite in the study region. Although only a few cemeteries with cremations have undergone skeletal analysis, it would appear that both men and women were cremated in equal numbers (seen especially in the case of Torone). For cemeteries where there were no analyses conducted of the cremains, excavators at certain sites (such as Amphipolis-Kastas, Palaiogynaikokastro, and Drama Z.I) sexed graves on the basis of grave goods. At the tumulus cemetery of Amphipolis-Kastas, Koukouli-Chrysanthaki (1978) noted a cremation in a 10th – 8th c BCE amphora associated with two iron swords of the Naue II type, as well as fragmentary iron daggers and two iron rings. Similar finds were associated with cremations in eastern Macedon and Thrake, including the dolmen tombs of Roussa (with cremations in ash-urns and pits, associated with an iron dagger and spearheads) and the tumuli of Drama Z.I (with ash-urns associated with two spears of iron, two iron tools, and a Naue II type sword. According to Savvopoulou (2001), ash-urns at Palaiogynaikokastro were accompanied by small and miniature vessels within the stone-built tumuli, as well as bronze and iron ornaments and accessories like daggers, pins, and knives that are typically associated with male cremation burials in the EIA. At Palaiogynaikokastro, the only known sword was found outside the EIA stratigraphic context in the owner's field before excavations began. Many of these objects were noted to have born traces of heating, ranging from almost completely melted down to a brief exposure to fire. As noted earlier bronze objects typically referred to as "Macedonian bronzes" (such as miniature double-axes) in scholarship were found with both cremation and inhumation burials at Palaiogynaikokastro. At Torone, although overall counts of funerary objects are small, there are some differences between male and female graves. While female graves evidenced a

greater variety of interred personal ornaments and object types, male graves were more limited to beads or buttons, pins, fibulae, and worked bone. What is more, adult male graves tended to be associated with large open vessels (typically used for mixing wine, perhaps associated with the symposium tradition emerging around this time), in contrast to the large closed vessels associated with female graves. While the tombs of Koukos-Sykia were looted, cremation graves yielded iron blades, stone tools, and a spearhead. It is worth noting that five spears (out of the seven total found in the cemetery with 98 graves) were interred in a single grave (T. 75) (Carington-Smith & Vokotopoulou 1989). As for cemeteries where cremation was the minority rite, the sole cremation at Axioupoli (Tomb A24) was of a male burial, interred with one iron sword, one knife, and one bead. At Nea Efkarpia, only 40% of the cremation and inhumation tombs had grave goods, and when they did it was usually one or two objects that were unevenly distributed. Overall, then, it would appear that while some cremation "male" burials were associated with some kind of weaponry, it was not the case that all the deceased males who were cremated were interred with spears or swords. It was more the case that male graves that were sexed on the basis of grave goods contained daggers, pins, and knives (the latter two of which were also found interred with female cremations).

While "warrior" assemblages are not new to the EIA, an increasing number of tombs are characterized by a standardization of different types of elite weaponry and other high-quality accoutrements at a much grander scale, seen especially at the cemetery of Vergina and to a lesser extent at other cemeteries. Knives and spearheads were discovered either inside or outside eight out of the 13 secondary cremations at Vergina, but it is the inhumations that contained the most lavish grave good deposits in the cemetery, with 90 weapons associated with burials distributed in 70 graves (*cf*. Bräuning & Kilian-Dirlmeier 2013). When weapons were discovered in graves,

the most common deposits consisted of a single sword or spear; exceptions include the tombs of Γ 1 (three weapons) and Tomb LXVIII-Z (one sword and one spear) at Vergina (Bräuning & Kilian-Dirlmeier 2013: 200, 293–296). At Vergina, the distribution of the weapons in the tombs clearly showed four types of assemblages: those with a sword, those with a spear, those with one or two arrows, and those with a dagger. Whetstones and tweezers have only been found associated with spears at Vergina, and according to the phases established by Bräuning & Kilian-Dirlmeier (2013: 118, 126), it appears that these types of deposits appear throughout the use of the cemetery, with swords more frequently interred during the Protogeometric period. What is more, the distribution of weaponry shows distinction between certain tumuli, with five mounds containing only sword tombs, while two mounds contained only spear graves (Bräuning & Kilian-Dirlmeier 2013: 130–131). It is striking that metal objects constitute 60% of all grave goods, while vases constitute only a third of the objects. Of the metal objects, 65% are bronze, while iron constitutes only 7%, and include not only weapons for men, but also fasteners and clothing accessories, belts, and sets of buttons. This construction of an elite, male warrior class in the EIA may not be an exact mirror of the society of the living, but rather a reflection of the symbolic and social value of these weapons – embodying heroic, warlike values, a certain privilege to carry the weapons, and the prestige of the weapons' bearer and his family, in particular by the intrinsic qualities of the object (its manufacture, materials used), which testify to the exchange networks mobilized for its acquisition. Indeed, "warrior" graves have been identified in a range of contemporary contexts in the prehistoric south Aegean (Steinmann 2012; D'Onofrio 2011; Whitley 2002c; 2013).

While Vergina is exceptional in the quality and quantity of its male (and female) grave goods, instances of interred weaponry rise in the EIA in other cemeteries. Eight slab-lined male

cist tombs at Arnissa contained iron spears, knives and daggers, and paired bronze pins that were characteristic of "warrior"-type tombs of the period. The six tombs identified as male at Axioupoli had iron knives, daggers, one sword, and spearheads, with many finds coming from outside the tombs, perhaps indicative of offerings placed outside the graves or the contents of other tombs that are now destroyed. The two tumulus cemeteries of Agios Panteleimon and Agios Vasilios both had male burials with bronze and iron weaponry and tools. Intriguingly, at the center of a large 21.0 m diameter mound at Agios Vasilios (part of the Mt. Olympus tumuli) was the largest grave with a male burial with vases and an iron dagger. Other cist tombs and pit graves were also found, several of them radiating from the central male tomb. There are, however, a number of cemeteries where weapons are rare, and it is drinking and mixing ceramic vessels as well as tools that are more commonly interred in male graves. At EIA Ierissos, only one tomb (T. 976) contained a small spiral tubular ornament of gold, and an iron sword of type Naue II. Nearby at Oraiokastro, weapons were also rare, with a dagger, flint arrowhead, and spearhead attested, all found on the thorax of a man buried in a pithos burial. At Makrygialos, weapons are almost absent, with just one iron sword of type Naue II and arrowheads attested, in addition to some whetstones and iron knives (the latter of which are found in both male and female graves). Only two swords, associated with male inhumations (T. 206 & T. 526), were discovered at Archondiko, with knives interred in both male and female graves. It is noteworthy that while female graves at Archondiko were distinguished by jewelry and spindle whorls, no particular items were characteristic of males or children. On Thasos, men were interred with local and imported objects, including metal weapons, ceramic vessels, knives, and other ornaments of Greek, Trojan, and European origin (Koukouli-Chrysanthaki 1992). The tumulus cemetery at Konstantina had no imported pottery and no weapons found, although there were

small iron knives, whetstones, fibulae, and personal ornaments typically associated with female graves (hair coils, bracelets, etc.). Finally, at Nea Philadelphia, weapons such as swords and spears were very rare, with only two iron swords in T. 1543 and 1544, and three spearheads; only 40% of graves contained grave goods, which were unevenly distributed in tombs that were either relatively "poor" in deposited objects or very "rich." Due to the lack of basic palaeodemographic data, however, the exact number of male individuals were not in the "warrior" category is unknown.

4.7 Discussion

During the Neolithic, differentiation is attested between adults and children. While the sole extramural cremation cemetery of Toumba Kremastis Koiladas (from preliminary skeletal analysis) skews towards greater adult representation, intramural burials (both inhumation and cremation) are largely comprised of children during this time. This is not to say that children and infants were completely excluded from extramural cemeteries, as there is one case noted of a female and child grave at Toumba Kremastis Koiladas (T. 21), and other cases of inhumation "mother-child" burials interred in settlements. Male and female graves, however, do not tend to be gendered to the same extent as they are in later periods, with a few exceptions of graves that contain small counts of jewelry and tools. Interestingly, there are also a few examples of burials that are peculiar for the region during this time (such as the Nea Nikomedia tightly-flexed male burial and the Limeneria child burial), which, taken together with the fact that such intramural inhumation burials do not reflect "normal" burial rites applied to most of the Neolithic population, may suggest some cases of "social outcast" burials. Such cases may have been due to the conditions of their death (by violence or illness, for example), or because they did not reach the required age or status to be interred according to customary death-ritual. It should be noted,

however, that most observations for the Neolithic (and later periods) are of overall tendencies, but do not carry statistical significance at this stage of research.

Extramural cemeteries dominate EBA funerary patterning. We begin to see the beginnings of male and female differentiation at the cemetery of Xeropigado Koiladas in terms of body positioning, but otherwise grave goods are interred sparingly. Women tend to be interred with more personal ornaments such as jewelry than men, the latter of which were more likely to be found with tools and ceramic vessels. It is also at Xeropigado Koiladas that a high percentage of children and infants were interred (41.4%), which, given that it is in line with pre-modern mortality profiles, suggests that children were not excluded in this extramural cemetery. In other cremation and inhumation cemeteries during this time, however, children were excluded from formal burial grounds. However, it is interesting that at the transitional EBA-MBA cemetery at Valtos-Leptokaryas, a female child was interred with exceptional grave goods of a quality not found with the adults (Fig. 3.11). Perhaps the most exceptional grave during this time period was the female inhumation burial at Ayios Mamas, which was interred with the earliest faience beads in the north Aegean. It is noteworthy that such exotica were interred with a woman.

By the LBA, instances of cremation decline across all sites. The sole cremation of a female at Faia Petra was of particular note, and it is tempting to suggest that given the unique nature of her burial and the high expenditure of energy and specialized knowledge associated with cremation, the woman may have held special status in the living community. The finds recovered with male and female cremations were scant in quantity, and included fragmentary beads, bronze fibulae, spindle whorls, and stone tools, as well as Balkan white-incised wares. Among the inhumed females, however, we see a tendency towards greater standardization in the LBA, with a more repetitive repertoire of funerary goods. Such burial goods include jewelry of

metal, bone, stone, or "exotic" imported material (such as amber and glass paste), local and imported Mycenaean drinking and perfume ceramic vessels (especially in western Macedonia), and spindle whorls, beads, or buttons. There is also, arguably, the first case of a "maiden" grave of a woman interred with a diadem at LBA Pydna. Apart from the LBA male burials with weaponry, there is less of a distinctive assemblage associated with male graves, besides ceramic vessels and a few implements. Children continue to constitute a low percentage of the cemetery population, which suggests that they were largely excluded from the extramural burial grounds. This exclusion begins to change at four cemeteries (Nea Philadelphia, Oraiokastro, Nea Efkarpia, Stavroupoli-Polichni) by the EIA, where children constitute between approximately 30-40% of the cemetery population. Such percentages align with mortality profiles from pre-industrialized societies (*cf*. Morris 1987), which suggest that children were for the most part not excluded from these cemeteries.

The "warrior" assemblage in the north Aegean is not new in the EIA, as evidenced by the LBA Aiani cemetery, where five men were buried with a sword and spear (Karamitrou-Mentesidi 2011: 119–121), as well as to a lesser extent in Spathes and Agios Dimitrios (Poulaki-Pantermali 2013: 59), or in northern Pieria, where bronze daggers seem to be preferred in Korinos (Besios & Athanasiadou 2001: 363–368). By the EIA, the "warrior" assemblage—or what Steinmann (2012) refers to *Waffengräber*—manifests itself more clearly with the rise of numbers of tombs and types of weaponry interred with the deceased, not to mention the quality of the weapons, some of which would appear to be stylistically related to weapons found in the Balkans (Bräuning & Kilian-Dirlmeier 2013: 102). The accumulation of arms and, in many cases, the association with wealthy female graves undoubtedly reinforces the image of an elite position, as well as that of the individual's family within the community. While most of the

warrior burials were inhumations, the sole cremation at Axioupoli (T. A24) was the only grave that had a sword; in this particular case, the weapon, the ritual, and the close association with two inhumed individuals with spears served as marks of distinction compared to the other inhumations. Moreover, many graves at Palaiogynaikokastro were reported to have been associated with weaponry, although not at the same scale as Vergina. Not all communities in the study region participated in this mode of elite male expression. Such an assemblage is not seen in Pieria, the eastern coast of the Thermaic Gulf, the Gallikos Valley, and Chalkidiki, considering the very small number of swords or spears associated with the tombs. Clearly, then, men in communities outside of Vergina and east of the Strymon (Amphipolis-Kastas, Drama Z.I) were represented in death in other ways – whether by the funerary ritual, the type of grave, or the location of male tombs both within the landscape or within the cemetery.

Another factor to consider is the destination of the property of the deceased. Testart (2004) proposed two types of deposit policies: one in which all, or a great deal, of property was deposited in the grave (deposit policy), and another where the deceased's property was distributed between the heirs and the community (distribution policy). One could argue that, in the case of EIA male graves, the distribution policy seems to have prevailed, with the personhood of these men reduced to a minimal number of elements – whether related to the occupation of the deceased, his position and power in society, or communal, potentially male-specific activities (such as feasting).

It is clear that between the female and male elites in the EIA, the deposition of grave goods was noticeably different. While for the men, the associated objects were reduced to one or two significant elements referencing war, occupation, or (perhaps) sympotic activities, for women, the multitude of personal ornaments and clothing accessories reflect a more complex

discourse (depending on age, social status, and perhaps regional affiliation), where a large part of their "wealth" was interred with them. While we begin to notice an increase in personal ornaments and imported exotica interred with women in the LBA, the types of ornaments (such as armlets, elaborate headdresses, triple double-axes, and Macedonian bronzes) and the substantial increase in quantity of such accessories marks a break between the LBA and the EIA. These objects reflect a new way of dressing and communicating a woman's status and position, and serve as markers of wealth by the accumulation of metal. Armlets, fibulae, and some bronze accessories are related to a northern Balkan and central European tradition, and the spiral hair accessories that are typical in northern Greece are also found in Italy (Aikaterinidis 2008: 50-52), but worn together form an original synthesis that is specific to the EIA north Aegean. In the Vergina cemetery, the female personal adornments alone represented more than 40% of all the burial goods unearthed in the tombs. While Vergina attests to the greatest opulence in the sphere of female burial objects, numerous graves in other cemeteries (such as the elaborate anchor belt interred in a female grave at Agrosykia, Fig. 3.45) also allude to similar clothing codes and something of a common symbolism. The vast majority of such interments (excluding the unique case of Palaiogynaikokastro) were for inhumed female graves, not cremations.

With a few exceptions (namely, EIA Palaiogynaikokastro), cremations throughout the prehistoric north Aegean tend to be associated with a general lack of grave goods. Moreover, when the skeletal remains were analyzed and sexed, no significant differences were found between sex or age at death with regards to the cremated deceased. If cremation reflects a different social status or personhood, this differentiation does not extend to the type and quantity of grave goods or to the grave type (e.g. pit or stone cist). The communal structure of the cremation tombs (whether built tombs or tumuli), the placement of the dead in the landscape or

within the cemetery, or the group of individuals within the area of interment, may have held far greater importance than the funerary objects. It is worth exploring the spatial distribution of cremation (and inhumation) burials, to see whether placing the dead held particular importance for cremations. This facet of death-ritual will be explored in the following chapter.

Chapter 5 – Placing the Dead

5.1 Spaces of the living: houses, villages, and bounded communities

While a detailed analysis of settlement patterns in the prehistoric north Aegean is beyond the scope of this work, a broad, diachronic overview of the character of prehistoric settlements will be presented, in order to situate burial patterns in their contexts (Fig. 5.1). It is worth reiterating that although some settlements were the subject of long-term research excavations, the overwhelming majority of sites were excavated in short-term contract settings, oftentimes rescue excavations, and published in brief preliminary reports. This overview of settlements will largely be based on those sites that have been more fully excavated and studied. Geomorphological factors such as soil deposition or erosion also contribute to the recovery rates of sites and overall demographic estimations. It is evident that settlement pattern analysis (and any attempt to estimate population sizes) will necessarily be incomplete and would require much more systematic and intensive survey and excavation in the study region.

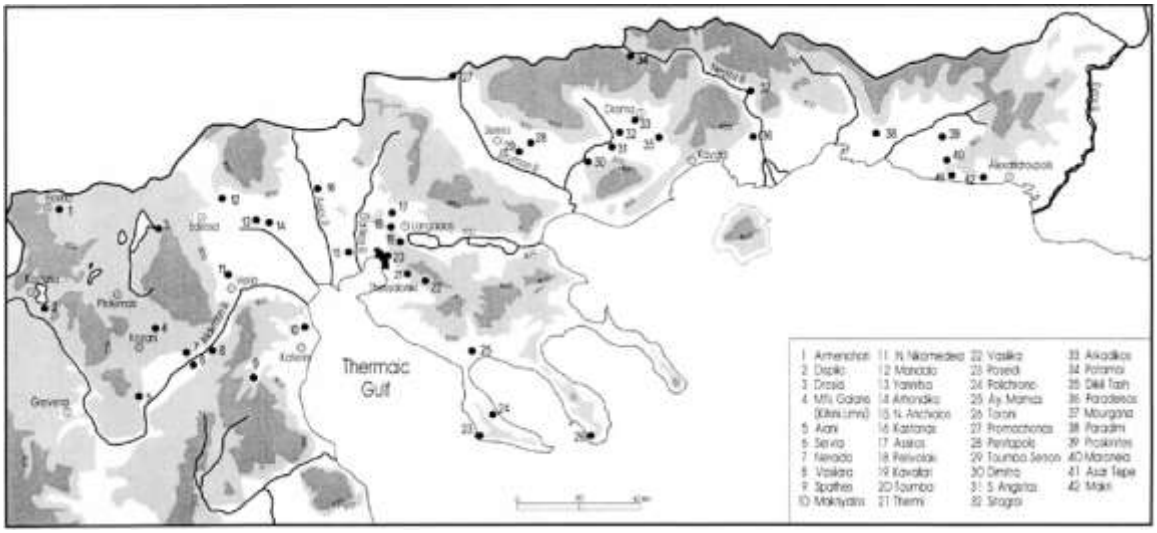

Figure 5.1 Principal sites discussed in settlement review, with contours at 500 and 900 m asl. (From Andreou et al. 1996, Fig. 2).

The first Neolithic settlements in the north Aegean date to the last quarter of the seventh millennium BCE. They are later than corresponding Thessalian settlements, which are dated to the first quarter of the seventh millennium (Kotsakis 2010: 4). While the "origin" of the Neolithic populations of the study region has been the subject of scholarly debate, what is certain is that in the late seventh millennium BCE, the north Aegean was inhabited by farmers and pastoralists. During the early phases of the Neolithic, the majority of sites were located in the lowlands, especially near water sources. The EN settlement of Nea Nikomedeia, currently located in the fertile plains of western Macedonia and near the Thermaic gulf during the Neolithic, has long been considered one of the earliest farming settlements in Europe (Rodden 1965: 83; Rodden & Wardle 1996) and is one of the most extensive and best investigated settlements in Neolithic Greece. Covering an area of around 2.5 hectares, the settlement is typified by free-standing square houses built with wooden posts and clay. A larger structure located in the center of the settlement had dimensions of 11.78 by 13.64 m, unusual for the period, and was suggested by the excavator to be a "shrine" or "community house", perhaps similar to EN central buildings found in southeast Anatolia from the tenth millennium BCE, and the central large, post-framed structure at EN Mavropigi, also located in western Macedonia (Karamitrou-Mentessidi *et al*. 2013). Its size and contents differentiate this building from other structures at the site, with finds including five large female figurines, two unused stone hoes with color traces, groups of hundreds of flaked stone tools, and unbaked clay. Later in the Neolithic, settlements became characteristically visible points on the landscape, which with time and the accumulation of building materials became tells, known in the study region as *toumbes*, with some sites reaching 20 m. On settlements of this type (e.g., Mandalo, Dikili Tash, and Sitagroi), each new building is constructed on or near the foundations of an older one, a practice that soon

results in the elevation of the site. While practical factors, such as availability of space or the ease of laying down foundations for a new building certainly played a role as to why inhabitants insisted on building in the same place, other, less tangible social meanings – such as a close relationship with a place, or declaration of descent of a specific group that inhabited the building or site – may have also held sway.

By the later phases of the Neolithic, settlements seem to expand to a variety of locations in the north Aegean, including elevated dry terraces north of the Haliakmon (Andreou *et al*. 1996: 575), and suggest an increase in population. There is the co-existence of two settlement types which are well-known from the Balkans (Bailey 2000: 161): tells (or *toumbes*), and flat, extended settlements. While the former occupied a restricted, densely nucleated area (often less than one hectare), the latter often extended over several hectares, perhaps indicating widely-spaced habitation closely attached to agricultural land, with various forms of earthworks defining the site space. Collective large-scale works found in both types of settlements, such as a stone wall partly surrounding the mound of Mandalo (Pilali-Papasteriou *et al*. 1986) and the ditches surrounding both phases of Makrygialos suggest community solidarity. The horizontal extent of flat settlements could be very large (Makrygialos is over 60 hectares), but the density of buildings is exceptionally low as they are surrounded by extensive open spaces. Pit dwellings, semi-subterranean, and subterranean houses are found in these settlements (including Makrygialos, Kleitos, Thermi, Korinos, Liti, and Stavroupoli), with relatively low-quality construction, leading some scholars to suggest that these were temporary structures (Grammenos & Kotsos 2002: 319–320; Pappa & Besios 1999). Kotsakis (2010: 7) goes so far as to suggest that "the lack of emphasis on the house itself and its spatial continuation, and by extent the role of the *oikoi* and their descent, can be seen as an indication that in these settlements there was a

greater margin for collectivity to be imposed as the main mechanism of ideology." We can surmise that a network of settlements – substantially denser than that which archaeological surveys have so far identified – existed, such as those uncovered in surveys in the Yannitsa plain near the Haliakmon River (Andreou *et al*. 1996: 570–571).

Although the internal organization of Neolithic settlements is not clear through the region, the excavated sites suggest that overall there was no distinctive indicator of spatial differentiation within settlements. Typically, such settlements include individual, free-standing buildings (likely residential units built for one nuclear family) that were in use until the early phases of the Bronze Age. There is, however, evidence of buildings with multiple rooms in phase II of Makrygialos, which may suggest domestic structures for extended families in some settlements of the north Aegean (Pappa & Besios 1999). Such relatively undifferentiated domestic structures have led researchers to suggest that, in terms of social organization for the Neolithic and EBA north Aegean, society was essentially egalitarian, with the (nuclear?) family household being the basic unit of production and consumption. From the LN onward, however, there are indications of the mobilization of materials beyond the limits of the local community. In both flat and tell settlements in the late and final Neolithic, there is a spread of settlements (and likely an increase in population), and an expansion of communication and trade. The occurrence of Melian and Karpathian obsidian at Kitrini Limni, Makrygialos, and Servia (Pilali-Papasteriou & Papaefthimiou-Panathimou 1997), the widespread exchange of fine-painted pottery, the introduction of metalwork at Makrygialos and Mandalo (Besios & Pappa 1997), and the spread of worked *Spondylus* shell (Nikolaïdou & Ifantidis 2014) are all consistent with the development of long-distance exchange networks extending beyond the north Aegean to Thessaly, the Aegean islands, as well as southeast and northern Europe. There are also examples

of rituals of a collective character at Toumba Kremastis Koiladas and Makrygialos. At almost the central point of Makrygialos, for example, within the boundaries of a large, shallow pit, the archaeological remains of hundreds of animal bones confirmed an episode of mass meat consumption on a unique scale (Pappa 2007). It is evident that this consumption on such a scale had broader ramifications: based on the amount of meat consumed, the inhabitants of settlements in the wider region as well as the Makrygialos community possibly participated in this communal event (Pappa *et al.* 2004).

The Bronze Age is characterized by rapid changes in economy and social organization in the south Aegean (Crete, the Peloponnese, and the Cyclades) and the Balkans, which led to a substantial rise in hierarchy and social complexity in these societies, culminating in the palatial cultures of the Minoans and Mycenaeans. The evidence in the study region, however, differs in many respects from the trajectory observed in the south. In terms of similarities, there is a settlement disruption between the late fifth millennium and the end of the fourth millennium BCE in the Aegean and Balkans, where a drastic reduction of population is observed compared to a high point in the LN (Andreou 2010: 644). Habitation was interrupted for a period of several centuries in Servia, Mandalo, Sitagroi, Dikili Tash, and several other tell sites. Such a pattern is also seen in other areas, such as the region of Langadas, where the number of sites shrinks by the EBA and a rise in sites only by the end of the third millennium and in East Macedonia overall (Kotsakis 2010: 10). The extent to which this settlement disruption was primarily caused by a climatic episode of intense aridification and/or a breakdown of social structures in communities and widespread trade networks is still a matter of debate (Anthony 2010: 45–54).

By the EBA, new settlements were established throughout the north Aegean, often at higher elevations with less access to the richer soils of LN habitation areas, or on coastal hills

and promontories with access to secure ports. This expansion of settlement to new areas was perhaps facilitated by a more diversified subsistence strategy and the use of donkeys for overland communications and transport (Valamoti 2007), as well as sea-based travel. Also supporting this view is the discovery of a variety of cultivated and wild plants and fruit remains, as well as domesticated and wild animals, and large quantities of fish bones and shell found in domestic contexts (Bökönyi 1986; Valamoti *et al*. 2005; Theodoropoulou 2007). More than half of the EBA sites in the Serres basin in east Macedonia were new foundations of very small settlements, with a rise in settlements also observed in coastal Thrake and the Chalkidiki peninsulas during the second half of the third millennium (Andreou *et al*. 2001). Several new EBA settlements were short-lived, leaving elusive traces or were occasionally signified by small cemeteries (Asouchidou *et al*. 2000; Mavroidi *et al*. 2008). Some sites (especially those in coastal regions) were surrounded by fortifications, a pattern also noted in third millennium sites in the south Aegean (Papadopoulos *et al*. 1999; Özdogan 2003; Smagas 2007; Fig. 5.2).

Figure 5.2 Excavation of walls at the EBA site of Skala Sotiros (Papadopoulos & Aristodimou 2001-2004: Pl. 1a).

Such a settlement pattern contrasts with the re-occupation of older Neolithic *toumbes* such as Sitagroi, Mandalo, Servia, and Dikili Tash, with flat, extended Neolithic settlements abandoned by this time. This dichotomy indicates that while some communities were establishing new settlements, other groups were marking their presence in the landscape more visibly. A typical feature of EBA habitations was the placement of working areas, food storage, and processing installation inside houses, usually elongated with or without an apsidal end, at sites such as Sitagroi, Ayios Athanasios, and Archontiko (Elster 1997; Mavroidi *et al*. 2008; Papaefthimiou-Papanthimou & Pilali-Papasteriou 1997). Uniform house plans and orientations, clear settlement boundaries, and compact settlement plans are also attested, suggesting advance site planning, autonomous households, and the existence of well-defined and regulated social practices.

Although there is not significant evidence of the expression of strong inequalities in communities, competition between individuals and households is implied by the circulation of personal, bronze-crafted objects. Metals appear to have acquired a particular kind of symbolic value during this period, demonstrated in one respect by an anthropomorphic stele from the small, fortified settlement of Skala Sotiros on Thasos (Fig. 5.3; Fig. 5.4).

Figure 5.3 Anthropomorphic stele from the settlement of Skala Sotiros (Koukouli-Chrysanthaki & Papadopoulos 2009: Fig. 6).

Figure 5.4 Fragment of similar stele found on the island of Thasos, displayed at the Thasos Archaeological Museum (M. Kontonicolas, June 2017).

The engraved, re-purposed stele depicts a male figure holding a dagger in his right hand, a double-headed-ax on a belt around his waist, a spear on the chest area, and a necklace (Koukouli-Chrysanthaki 1987). It is clear that these objects were used metaphorically as evidence of the success, strength, and power of the figure associated with the stele (Kotsakis 2010: 12). The chance find of EBA bronze objects hoarded in a pit at Petralona in Chalkidiki likely had a similar significance, and must have held great value for their unfortunate owner (Grammenos *et al*. 1994). It is interesting to note that the display of wealth and access to distant contacts is slightly more evident in coastal communities, such as Pella and Ayios Mamas. Moreover, molds and copper and gold slag discovered in different settlements suggest that the production and circulation of metal tools, jewelry, and other small objects was not uncommon in north Aegean communities during the mid-third millennium BCE (Heurtley 1939; Renfrew & Slater 2003; Ziota 2007). Indeed, it has been suggested that Minoan involvement in Samothrace by the end of the MBA was probably prompted by an interest in metal sources in the north Aegean (Davis 2001). The material culture imports from the Aegean sphere – including characteristic east Aegean "depas" cups in Pella and Thasos, a tin bronze awl in Sitagroi, faience jewelry from the settlement and cemetery of Ayios Mamas, and marble bowls from Pella – indicate the effects of a rising, mid-third millennium maritime network that was also felt in the north Aegean, in sites up to the northern tip of the Thermaic Gulf (Vouvalidis *et al*. 2003). The value of the objects, as discussed in Chapter 4, could have been derived in part from their "object biography" (i.e., their circulation in long-distance networks), which likely played an important role as objects of prestige and display during this time.

The emerging settlement pattern shows a gradual shift from small, dispersed sites during the Neolithic to increasingly larger, nucleated communities during the Bronze Age, especially by

the LBA. By the end of the Bronze Age, the number of sites rises markedly, and by the EIA the density of sites is so high that such a number has not been seen in the north Aegean since, even during the Ottoman period (Kotsakis 2010: 10). By the latter phases of the Bronze Age, sites established at higher elevations that allowed for expansive views, presumably for territorial surveillance, tended to be preferred. There is also the expansion of sites into new micro-environmental regions previously considered marginal, such as isolated hills (Andreou *et al*. 1996). In east Macedonia, the sectors inhabited are located in the foothills or the hill slopes rather than the central part of the basins; farther to the north, finds in the western Rhodope mountains reveal settlements along the Nestos River and in the adjacent valleys (Koukouli-Chrysanthaki 1978: 184–188; Baralis & Riapov 2007). Thasos, however, offers a very distinct situation; except for Potos, all of the coastal settlements were deserted for fortified settlements located on hill sites, well away from the shores as revealed by the acropolis of Kastri (S. Papadopoulos 2005: 252). The prevalent type of settlement, however, was the long-lived, nucleated tell site, known from preceding periods (Fig. 5.5; Fig. 5.6).

Figure 5.5 Aerial photograph of the site of Toumba Thessalonikis (Thessaloniki Toumba Excavation website). Reproduced with permission by S. Andreou.

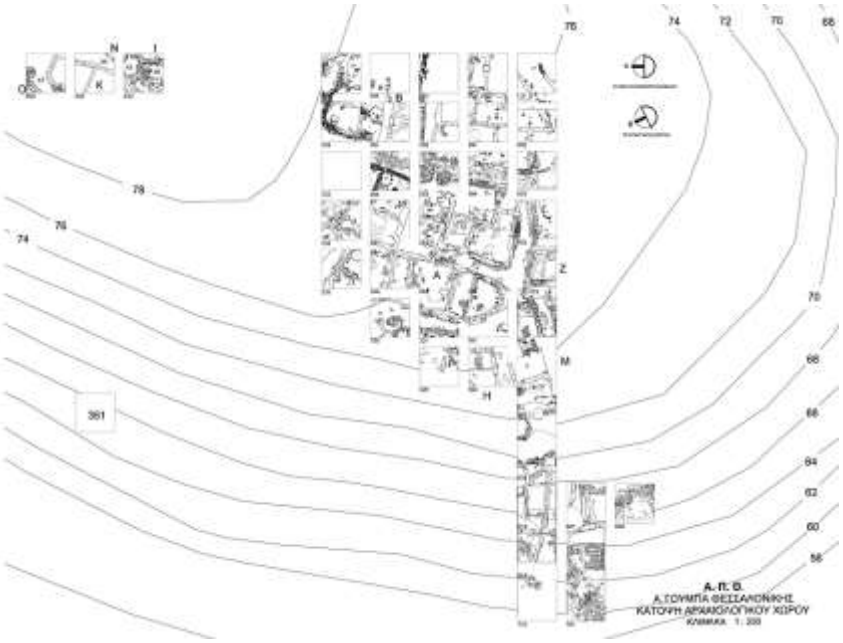

Figure 5.6 Plan of Toumba Thessalonikis (Thessaloniki Toumba Excavation website). Reproduced with permission by S. Andreou.

The scholarly work in the region proposes that in the LBA, there are more distinct archaeological signs of social complexity and small-scale settlement hierarchies as a result of political and economic changes in the study region. This hierarchy, it is argued, was broadly contemporary with the introduction and imitation of craft goods from the south Aegean, which may have served to mobilize local surplus production (Andreou *et al*. 1996; 2001; Andreou & Kotsakis 1999; Wardle 1997a). This interpretation is based primarily on the archaeological evidence for the presence of large-scale terracing and walls around some of the mounded sites (Assiros, Toumba Thessalonikis, and Axiochori), as well as for extensive granaries and "communal" storerooms (*cf*. Margomenou 2005). The settlement hierarchy proposed involves fortified, large, central sites such as Assiros and Toumba Thessalonikis, and non-fortified, smaller satellite sites like Kastanas (albeit on an island in the Axios, *cf*. Hänsel 1989); the larger settlements acquired the principal position as the focus of agricultural storage which exceeded the needs of the site population (Wardle 1993: 127). Taking into account the fact that not all the sites from this period share the same characteristics (the same great height and sharp slopes that are believed to be the result of the massive earthworks), it is assumed that in this period the settlements were organized hierarchically, with one settlement at the center, probably the seat of the most powerful "households." It is worth underlining that apart from discrete hints of social "complexity" in the north Aegean during this time, they bear no comparison to the contemporaneous highly stratified, palatial Minoan and Mycenaean societies that emerged in the south Aegean.

Although there are subtle signs of social change in the LBA, the daily reality of its inhabitants does not seem to change dramatically in relation to earlier periods. The sites remain at their core farming and pastoralist settlements, with small-scale intensive farming carried out

instead of large cultivated areas (Kotsakis 2010: 13). There are indications, albeit scarce, of a possible shift in household size in the LBA, with previous nuclear family units in the earlier phases of the Bronze Age giving way to expanded residential units comprising more than one household. Examples of this latter pattern come from the LBA settlement of Kastanas, also supported by the multiple cooking and storage facilities serving a large number of occupants (Margomenou 2005; Fig. 5.7).

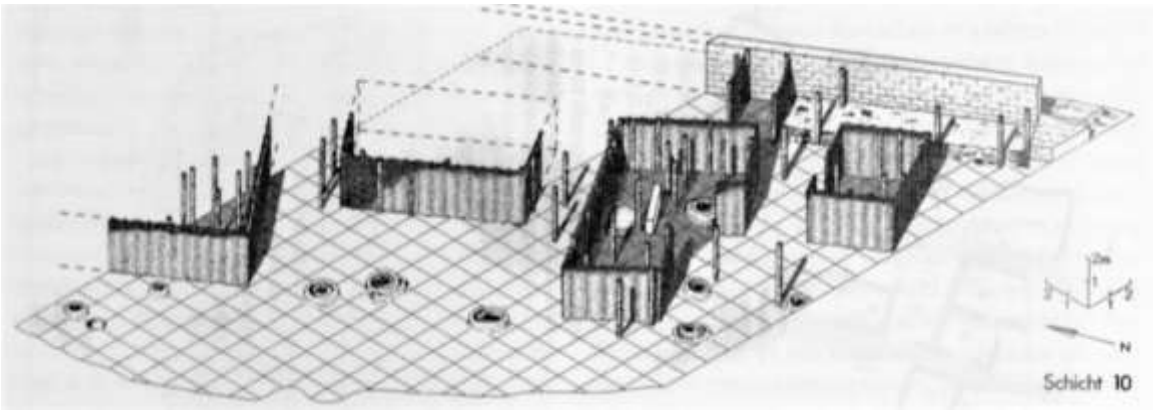

Figure 5.7 Reconstruction of domestic and storage structures at LBA Kastanas, stratum 10 (Hänsel 1989: Fig. 87).

Bronze tools, weapons, and smaller implements were widely used and manufactured in the latter part of the LBA, with traces of metalworking found in almost all excavated sites (Koukouli-Chrysanthaki 1992; Wardle & Wardle 1999; Mavroidi *et al*. 2006). Valuable, luxurious objects documented in Minoan and Mycenaean palatial areas are unknown in even the major north Aegean sites during this time. Perhaps one exception was Mycenaean pottery, which was imported and locally produced in the region. One significant concern among archaeologists studying the LBA north Aegean has been the extent of contacts with the south Aegean during this time period; specifically, Mycenaean material culture found in the region in the form of ceramic vessels, weaponry, and jewelry (e.g., Andreou & Kotsakis 1999). It is possible that

Mycenaean pottery – exclusively associated with eating and drinking – played a key role in food consumption, social bonding, and private social display between communities in the north Aegean *toumbes*. Despite the high visibility of Toumba Thessalonikis (standing to a height of almost 23 m), which might have placed the settlement in a central position among local communities, the only ceramic evidence for potential differentiation within the settlement comes from a slightly uneven distribution of certain categories of decorated vessels, as well as differences in access to wheelmade pottery and to greater variability of ceramic fabrics (Vliora *et al*. 2014). These differences render one building distinct from another in subtle but (the authors argue) crucial manifestations of social distinction. It is worth noting that Mycenaean and "Mycenaeanizing" pottery did not appear throughout the north Aegean; instead, such ceramics were concentrated in central Macedonia, west Macedonia, and Chalkidiki, with imported pottery discovered in east Macedonian sites and local production of Mycenaean-type pottery discovered in two sites in Aegean Thrake (Baralis 2007: Fig. 3). Finally, very strong links with the broader Balkan and central European area are suggested by metal finds, such as bronze and copper ornaments and weaponry recovered in Bronze and Iron Age grave deposits. As Triantaphyllou (2001: 16) noted, "the emerging stability of the preceding periods seems to be replaced by a fluidity in the definition of new social roles, identities, and perhaps a 'new order' in the LBA communities."

The transition from the LBA to the EIA in the south Aegean is typically associated with the collapse of palatial societies, movement of populations, and an overall decline in standards of living. Scholars have increasingly highlighted several critical developments and innovations that occurred during the EIA, including the adoption and adaptation of the Greek alphabet, the invention of coinage, the beginnings of the *polis*, Greek overseas mobility and settlement, and

the widespread use of iron (Papadopoulos 2014). What is more, recent scholarship contends that "some of the most important developments in political structure occurred in the tribal, clan-based areas of the Greek world, often regarded as the fringes", *i.e.,* the north Aegean, during this time (Papadopoulos 2014: 178). The "clan-based" states of Macedon were called *ethne* by ancient authors. Written sources from the fifth century onward such as Herodotus (5.98), Thucydides (1.10, 3.94) and Aristotle (*Poetica* 1448a.36; *Politica* 1261a.28) describe a fragmented, kinship-based organization and of different groups of people living in unwalled villages (*komai*) in the north Aegean, as well as of a focus on pastoralism (Papadopoulos 2014: 186–187; Papadopoulos 2016; although the issue of the extent of pastoralism should be taken with extreme caution, *cf.* Cherry 1988; Halstead 1990; Wardle 1997a: 528). Although ancient authors have labelled multiple groups in the north Aegean (*cf.* Hammond 1972; 1989: 16–24), detailed descriptions of the structure of Archaic and Classical Greek *ethne* are lacking. While Hammond (2000: 345) argues that *ethnos* designates a state governed by monarchy and constituted with reference to kinship as opposed to territory, Hatzopoulos (1996: 220) states that "tribal state" as a label is misleading, and that *ethne* were instead "original groupings of rural communities" coalesced under an overall leader or chief appointed for life. Disputed and problematic as a "tribal" society is, in essence it involves the use of real or ascribed kinship, age, and gender, as the basis for structuring the political community.

In the study region, there is a lack of a significant break in settlement and material culture in the LBA – EIA transition. In contrast to the tale of a decline in the south Aegean, the archaeological record of the north Aegean suggests a slow rise in socio-political complexity throughout the Bronze Age, and, with no evident disruption, on into the Iron Age, culminating in the formation of northern Greek kingdoms by Archaic times. The movements of populations and

tribes are difficult to prove through archaeology, although changes are perceptible. The archaeological record of the EIA north Aegean is characterized by a large number of settlements in all regions (although few have been excavated), the reorganization of tell sites in central Macedonia (some of which grew considerably in size after the middle of the ninth century BCE), and the rapid expansion of cemeteries throughout the area that attest to larger populations during this time. Kotsakis (2010: 15) and Andreou (2010) suggest that the archaeological record suggests the continuation of "small toparchies" formed in the LBA that continued over the next few centuries.

While the form of settlements and houses generally remained the same, with almost all LBA settlements continuing to be occupied (e.g., Toumba Thessalonikis, Assiros, Axiochori), the overall extent of settlements spread beyond the small area at the peak of the mounds by expanding the base of *toumbes*, forming a type of settlement known as *trapeza*, and creating for the first time extensive and densely populated settlements (Wardle 1997b). This is in addition to new, smaller sites of one hectare or less in size, established on hill tops or upland locations (Andreou & Kotsakis 1999b; Koukouli-Chrysanthaki & Vokotopoulou 1993: 129). The Langadas survey indicated significant demographic expansion for the EIA compared to the Bronze Age (Andreou & Kotsakis 1999a: Fig. 3.7). At the intra-site level, the EIA does not indicate dramatic differences from the LBA. It is noteworthy, however, that the large storage facilities in Assiros decreased in size by the EIA, with individual households revealing the shift to private storage (Wardle 1989; Margomenou 2005), and that previous "communal buildings" at Toumba Thessalonikis and Kastanas were replaced by structures of a private character (Andreou & Kotsakis 1991; Hänsel 1989).

5.2 Cemetery organization

5.2.1 Intra-cemetery organization in flat cemeteries

Toumba Kremastis Koiladas is the only known extramural cemetery in the Neolithic north Aegean. The 23 cremation burials and two inhumations were dispersed relatively evenly within the 1.5 hectare excavated area, which, coupled with the lack of contemporary buildings, implied that the cemetery was organized (Hondroyianni-Metoki 2009b: 308). The cremations were individually interred, but Hondroyianni-Metoki (2009b: 308–309) noted that 15 burials were concentrated in three groups, while seven were scattered (Fig. 5.8).

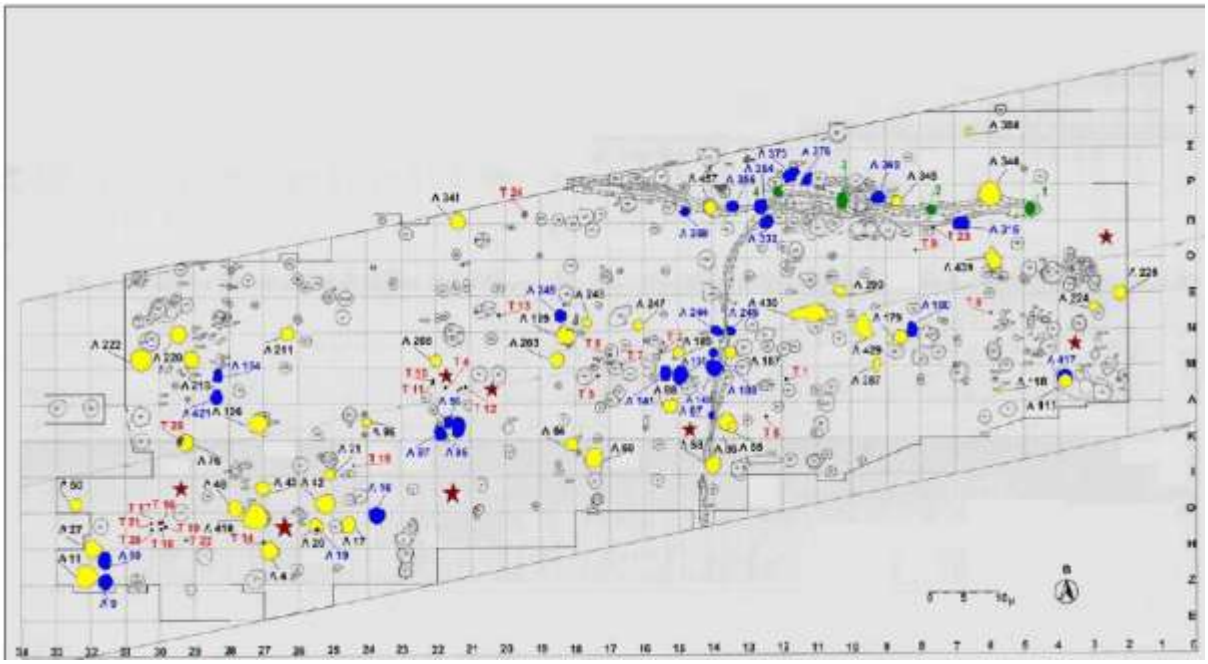

Figure 5.8 Plan of Toumba Kremastis Koiladas, with tombs indicated in red. The clusters indicated by the excavators include Group 1: T. 2, 3, 7, 8; Group 2: T. 4, 10–12; Group 3: T. 16–22. The remaining seven tombs (1, 5, 6, 9, 13–15) are dispersed throughout the burial ground (Hondroyianni-Metoki 2009b, Fig. 34).

This is the first case of intra-cemetery clustering in the north Aegean, which indicates that even as early as the Neolithic, certain groups of people wished to distinguish themselves from the rest of the cemetery population. Such clusters could be associated with groups of people who lived in

another area, or perhaps represented kin or family units (cf. Papadopoulos 2005: 399-404, for EIA Torone). It should be noted, however, that the cremation burials were interred alongside ditches and 462 pits that contained animal and archaeobotanical remains, pottery, figurines, house models, bone-flutes, and, in a few cases, disarticulated human skeletal remains in an area estimated to cover approximately four hectares (Hondroyianni-Metoki 2009b).

It is during the EBA that the north Aegean witnesses the establishment of multiple extramural, formal burial grounds, especially in Chalkidiki (Ayios Mamas; Nea Skioni), western Macedonia (Goules; Xeropigado Koiladas), and central Macedonia (Makrygialos). In terms of intra-cemetery organization in flat cemeteries, there was variability between cemeteries but increasing standardization in terms of orientation of the deceased within cemeteries. Single inhumations interred in a contracted position were oriented east–west in Goules and south–north in Makrygialos. Nea Skioni had the most standardized intra-cemetery organization in the EBA, containing 13 circular stone enclosures (*periboloi*) with an average diameter of 1.5–2.5 m, with 12 cremation urns and five *enchythrismoi* in total. Cremation and inhumation also co-occurred at Xeropigado Koiladas, with cremation graves located among inhumations in the 1500 m^2 walled, densely-built cemetery. If cremation reflected a different social status, this differentiation did not extend to the type and quantity of grave goods or grave type, nor was it symbolized by their spatial distribution. The consistent orientation of the majority of graves (south/southwest – north/northeast) and a designated area for post-funerary rituals allude to a well-organized burial ground, despite its use over more than 400 years (Maniatis & Ziota 2011). Although there is not much evidence from the EBA as a whole of intra-cemetery groups, there are possible indications of clustering at Xeropigado Koiladas. At the last stage of cemetery use, 26 graves formed in

small groups of two or three individual burials were discovered to be built on top of 20 older graves, without disturbing the earlier burials (Fig. 5.9).

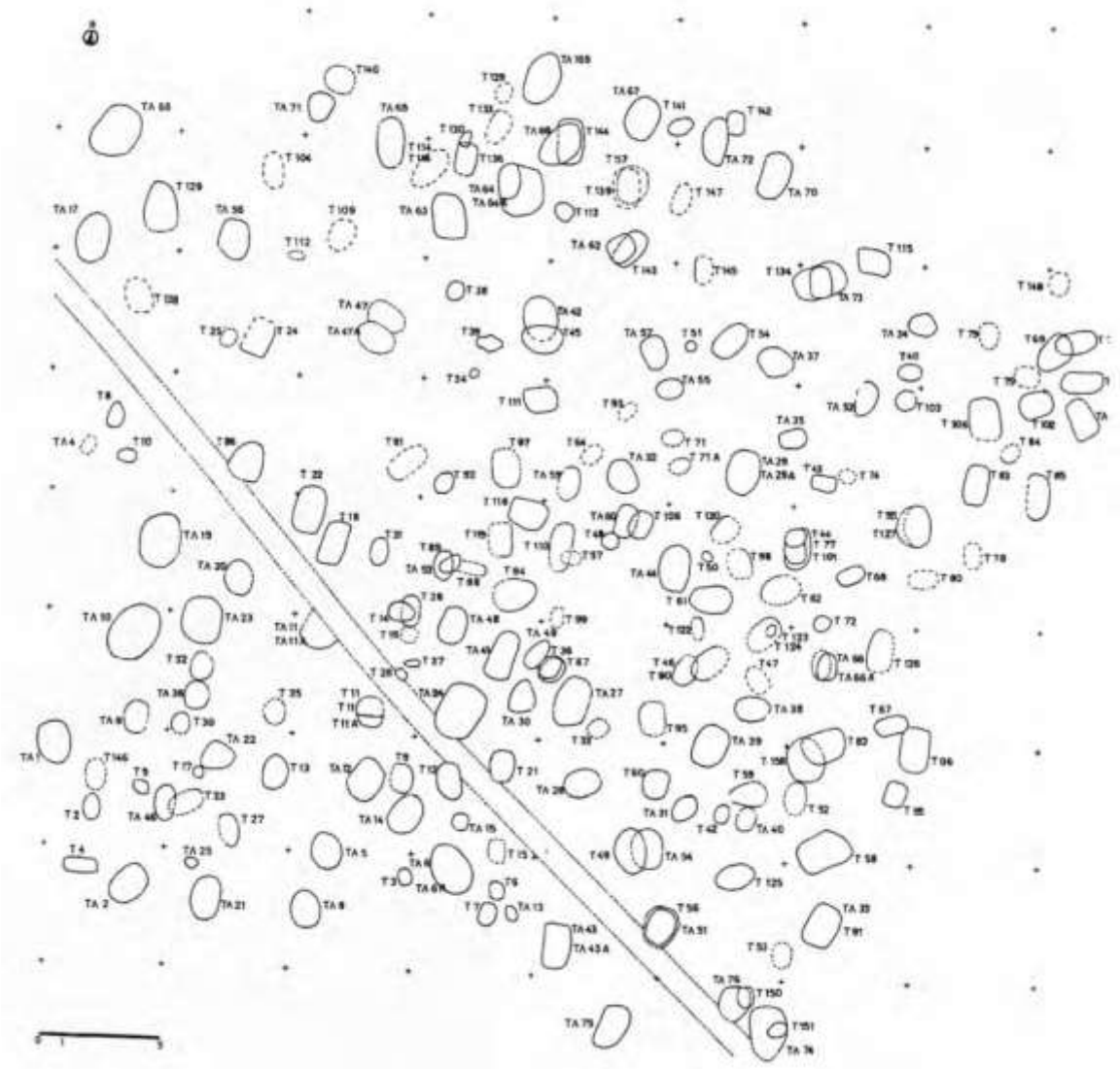

Figure 5.9 Plan of Xeropigado Koiladas cemetery (Ziota & Triantaphyllou 2004, Fig. 1).

Given that the new burials did not disturb earlier ones, it is highly likely that the existence of the earlier tombs was known to the community burying the new graves – thus constituting a deliberate action of burying people that perhaps had some sort of connection between them. There were more associations of the dead evident at Xeropigado at the last stage

of cemetery use, in which graves were densely built inside a restricted, clearly defined area, although there were no natural or artificial boundaries preserved during excavation (Fig. 5.9). Stone piles covered around 35% of the tombs and stone circles were also used as tomb markers (Ziota & Triantaphyllou 2004). At Ayios Mamas, in addition to stone piles placed on top of many graves, burials were also delimited by low rows of stones, perhaps serving as tomb markers as well as increasing the visibility of the graves from the settlement (discussed further in Section 5.3.2). However, taking into account the diversity in grave types and orientations, the excavator noted that in the case of Ayios Mamas, the one-hectare cemetery was overall typified by a lack of cohesion, suggesting either different groups of people interred in the same burial ground or a high degree of individualism in grave choice (Pappa 2010: 394).

Most cemeteries have only been partially excavated, which makes it difficult to determine their overall layout and analyze aspects of spatial organization. There are, however, some indications from LBA Korinos and Makrygialos of clustering at the intra-cemetery level (Besios 1997a: 202). A new emphasis on descent (alluding to a desire to emphasize family, kin, or other group belonging, to the exclusion of others) is also suggested by the delimitation of graves by rows of stones at Aiani-Livadia in west Macedonia, and the multiple burial enclosures at Faia Petra in east Macedonia and Kastri on Thasos (Koukouli-Chrysanthaki 1992; Poulaki-Pantermali 1991; Valla 2007; Fig. 5.10).

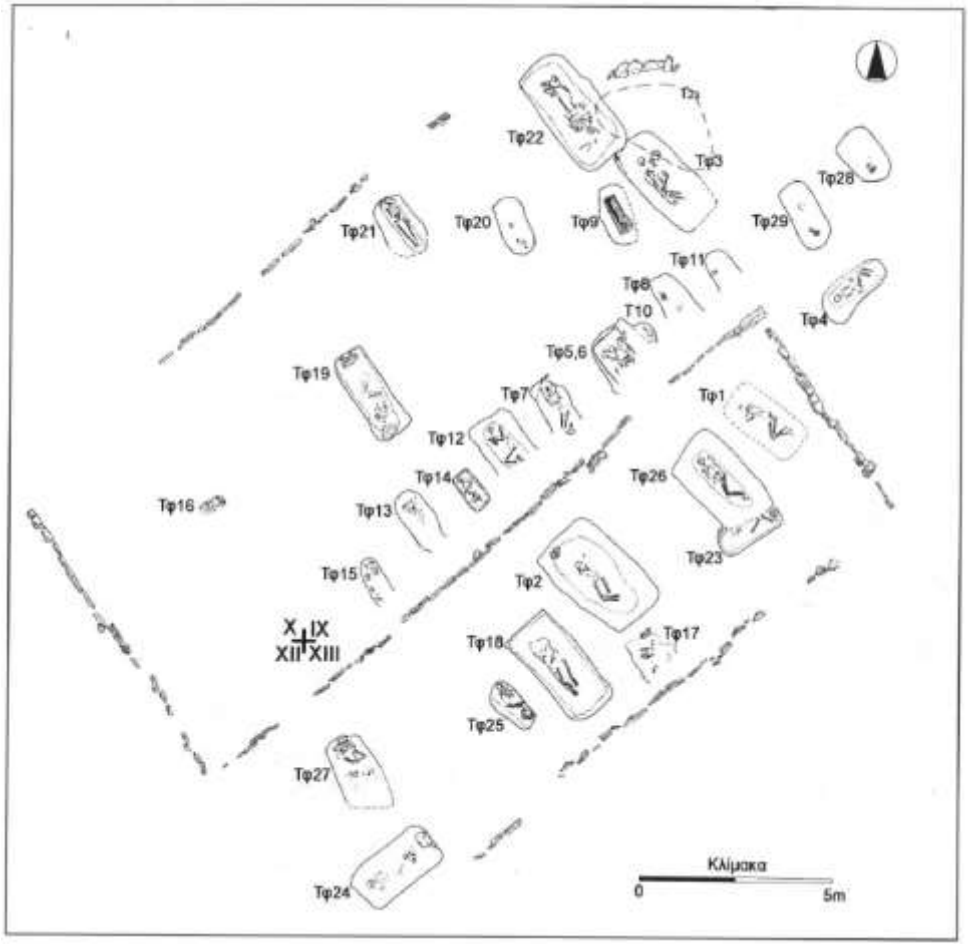

Figure 5.10 Plan of LBA cemetery of Aiani-Livadia (Karamitrou-Mentesidi 2000b: Fig. 42).

At Faia Petra, for example, each of the five groups of multiple and single burials was surrounded by rectangular upright stones of between six to nine m^2. Moreover, the regular spacing between the enclosures and similar orientation (southwest – northeast, with one northwest – southeast) suggest a somewhat organized burial ground (Valla 2007). Although Andreou (2010) suggests that the placement of burial enclosures on a prominent hill top in Faia Petra and the wall surrounding a group of burials in Aiani allude to an emphasis on "status" and the rise of elites during this period, I would argue that such measures could be indicative of the importance of family and kin groups and an attachment to specific places in the landscape.

Koukouli-Chrysanthaki (1992: 819) makes a similar argument regarding the spatial organization of the Thasos cemeteries near the site of Kastri, arguing that, although communities on Thasos appeared to be divided into kin groups, the built tomb structures and their layout may be indicative of the "steady increase in importance of the smaller family unit within the clan group."

In most organized burial grounds in the LBA, inhumation appears to have been the most common burial rite in the north Aegean. Although there was variable deposition of wealth and artifacts of exotic material within the cemeteries, such variability was contrasted by relatively standardized grave types and orientations, as well as several cases of groups of tombs surrounded by walls or enclosures that distinguished them from the rest of the cemetery. At Spathes in west Macedonia (in the Mt. Olympus region), the 34 graves were arranged in rows within an area of ca. 0.2 hectares (Poulaki-Pantermali 1987). At Ano Komi in west Macedonia, almost all graves (chamber tombs, cist graves, and pit graves) were oriented west – east, with a few burials oriented north – south. Four rectangular, stone enclosures encircled four to five graves of varying types (mostly pit graves) within the cemetery (Karamitrou-Mentesidi 2000a). Kriovrissi Kranidia was comprised of ten cist tombs arranged in three rows oriented northeast – southwest, built on a Neolithic habitation site and very close to another LBA settlement (Hondroyianni-Metoki 2000). Similarly, the 22 inhumation cist graves (two with multiple interments) excavated recently at Rema Xydias were located very close to the settlement and were all oriented northeast – southwest (Koulidou & Tritsaroli 2017).

The present state of knowledge regarding the internal organization of EIA flat cemeteries is limited to the cemeteries of Chalkidiki, the Thessaloniki region, and the middle valley of the Axios. Despite the similarity of funerary practices between Ierissos and Nikiti-Ai Gianni, the latter has more in common with the inhumation cemetery of Mende in terms of the organization

of tombs. While the tombs at Ierissos are arranged in a single stratigraphic layer with a variety of orientations, the tombs at Nikiti-Ai Gianni and Mende were superimposed on several levels and were oriented according to the seafront (west – east). At Koukos, the tombs seem to be organized into two groups, with a greater density of graves that are sometimes superimposed on three levels in the north-east area that contains the remains of probable pyres. It is unclear from the preliminary reports whether this pattern could also be related to the chronology of the tombs. The rather anarchic intra-cemetery organization of Koukos, in which the tombs do not follow a distinct orientation and seem to adapt to the hilly terrain of the hill, contrasts with the more orderly organization of the neighboring cemetery of Torone. The development of a large terrace indicates a well-managed and planned cemetery. Phase I contained a dozen tombs in the southern portion of the cemetery, the earliest of which dates to the "Submycenaean" period, with a second nucleus established to the north with four graves. The whole space is gradually used for cremations (Phase II), a rite that supplants inhumation during the Protogeometric period. In addition to the different chronological phases, 17 groups or clusters of graves were also identified (Papadopoulos 2005: 399–404). What exactly these groups represented, however, is difficult to determine. The small percentage of sub-adults in the cemetery population, as well as the small size of the clusters that span several generations, problematize the interpretation of these clusters as "family groups" (Papadopoulos 2005: 403). It is noteworthy that very few infants and children were chosen to be interred in the cemetery (often in the same tomb type as adults), despite the fact that the vast majority of sub-adults were excluded from burial. A high percentage of the central graves of these clusters were female, of early date, and contained more rich grave goods, suggesting "that if these clusters have any meaning, it was not always a male that assumed primary importance" (Papadopoulos 2005: 403).

The flat cemeteries located near the settlements in the broader Thessaloniki region and Pieria vary greatly and did not follow the same patterns in their internal organization, due to differences in the density and orientation of the graves, although generally the cemeteries increase greatly in size from the LBA and are formal, organized burial grounds. The EIA graves of Makrygialos were scattered over a very large area, while at Nea Philadelphia the tombs were interred in one stratum. At Stavroupoli-Polichni, the tombs were sometimes superimposed on three levels. No distinct orientation was reported at Nea Philadelphia and Stavroupoli-Polichni. At Toumba Thessalonikis, Thermi, and Axioupoli, the graves were organized according to an east – west orientation, and north – south at Oraiokastro (fitting the natural slope of the ground). The vast, flat cemetery of Nea Efkarpia, meanwhile, was organized in two phases: tombs hollowed in the natural ground and others, hollow in a brown layer of 0.50 m of thickness, which rarely overlap the other tombs and were circumscribed by a shallow northeast – southwest trench (10 m long and 1.40 m wide). There were also eight tombs (all inhumations, out of a total of 437) grouped under a rudimentary mound formed of slabs of piled schist. At Oraiokastro, the graves were arranged side-by-side on one level and were mostly oriented north – south. Interestingly, the orientation of collective chamber tombs was relatively homogeneous in the EIA north Aegean: with almost all oriented east – west with the entrance to the east; the only exceptions were two tholoi at Frourio-Kambos (two *dromoi* oriented to the west). Such homogeneity contrasts with the greater variety of EIA Thessalian chamber tomb orientations (Georganas 2002: 48–49).

In Archontiko, the tombs are organized around two roads that cross one another, the crossing of which would have already existed by the end of the EIA. Chrysostomou and Chrysostomos (2009: 479) argue that the tombs were grouped into family units, the richest of

which were at the crossroads of the two main thoroughfares. It is unclear from the data presented, however, whether such divisions may be underlined by chronological differences (with the richest tombs reflecting later Iron Age burials). Similarly, the vast cemetery of Nea Philadelphia (with over 2,228 tombs spanning the ninth to the beginning of the sixth centuries BCE) was delimited by two traffic routes (north – south and east – west), inside of which graves were arranged next to each other in various orientations in a single stratigraphic layer, with rare cases of overlapping tombs. In the southwestern portion of the cemetery, seven stone *periboloi* (one of which was 20 m in diameter) were identified. Unfortunately, no additional information on the type or organization of the graves inside these stone enclosures is specified, although surely this indicates a desire by some groups to demarcate themselves from the rest of the cemetery population. In almost all cases, cremations were not grouped together in any discernible pattern, but were spread throughout the cemetery among inhumations. The one exception is of the one cremation tomb of a "mother and child" at Ierissos, which was found against the corner of a later classical building interpreted as a heroon or a place of worship dedicated to Cybele.

5.2.2 Tumulus cemeteries

The earliest tumulus cemetery in the north Aegean is EBA Kriaritsi-Sykia in Chalkidiki. Although 20 of the stone mounds were disturbed (and likely more had collapsed due to ground subsistence), ten were well-preserved (Fig. 5.11).

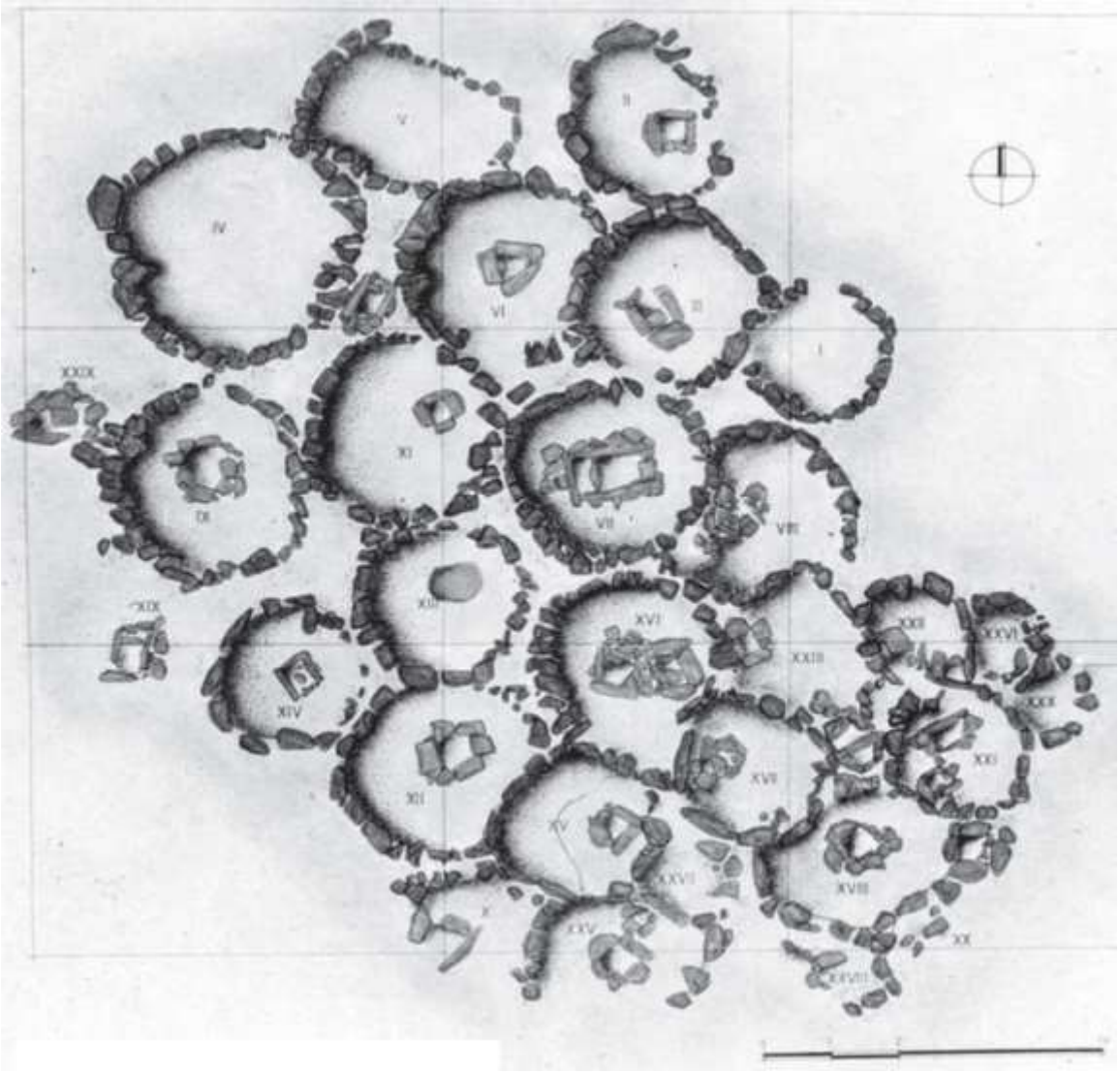

Figure 5.11 Plan of the EBA Kriaritsi-Sykia cemetery (Asouchidou 2011, Fig. 3).

Located on a 400 m^2 plateau on a rather low hill, the site consists of a compact group of 30 small intersecting or joining stone circles, each no more than 3 m in diameter (Asouchidou 2011). Although similar in some respects to the stone enclosures at Nea Skioni in Chalkidiki, the graves at Kriaritsi-Sykia were covered by slabs and then a pile of stones, forming small mounds (Tsigarida & Mantazi 2005: 370–371). One or two cist graves containing an individual cremation was interred in each cairn. These low, small, individual stone mound burials likely constitute the

beginning phase of the cemetery, gradually covered by one pile of crude and semi-crude stones that overlay the neighboring enclosures and open spaces between them. Although Kriaritsi-Sykia has a similar intra-cemetery organization to the EBA cemetery of Steno at Lefkas (Dörpfeld & Goessler 1927 [1965]; Kilian-Dirlmeier 2005), there are no other contemporary parallels of tumulus cemeteries with dozens of mounds slightly overlapping one another in the Aegean sphere. It is worth underlining that unlike flat cemeteries, there are no obvious cases of intra-cemetery clustering at Kriaritsi-Sykia, in which a small group of tombs are distinguished from the rest of the cemetery population. The only separate intra-cemetery group at Kriaritsi-Sykia included five ash-urns that were found southwest of the stone mounds, and according to the excavators predate the cemetery to the earliest phase of the EBA (Tsigarida & Mantazi 2005: 370).

By the LBA and EIA, there are two facets of intra-cemetery organization that need to be considered: the placement of tumuli themselves and the arrangement of graves within the tumuli. Regarding the former, the five tumuli at Pigi Athinas appear to have been grouped in pairs, with Tumuli 1 and 2 forming one pair and Tumuli 4 and 5 forming another (Fig. 5.12).

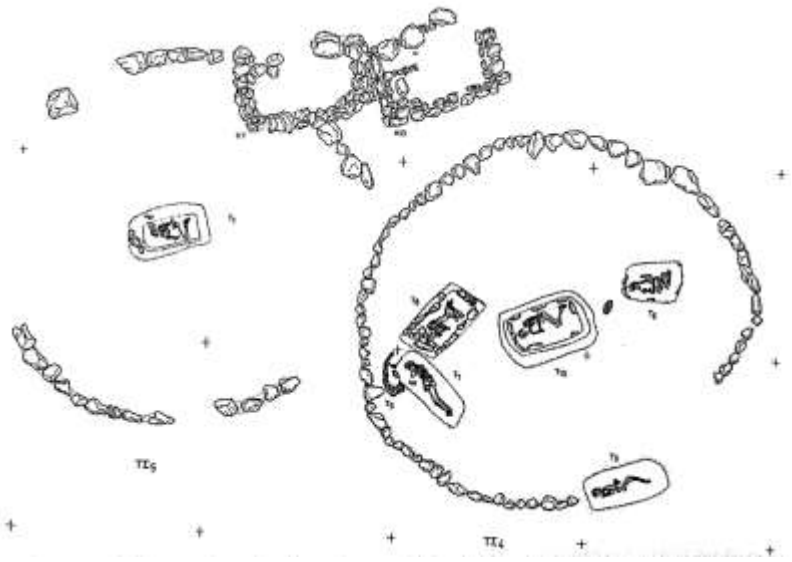

Figure 5.12 The pair of Tumulus 5 (left) and Tumulus 4 (right) (Tritsaroli 2016, Fig. 9.2).

As for the placement of tombs within the tumuli, there are graves at Rymnio in western Macedonia that are described as being placed in a radial pattern in relation to the center of the tumulus (Karamitrou-Mentesidi 1990: 355). At Pigi Athinas, all tumuli were encircled by a stone ring and comprised of a centrally-located grave with a west – east orientation, and lateral graves interred either parallel or vertical to the ring (Poulaki-Pantermali 2008). It is noteworthy that the central tombs – which consisted of larger, deep pits (0.85–1.30 m) with internal steps to ease access to the grave – were more elaborately constructed than the graves in the edges of the tumuli and were exclusively comprised of older males (40–50 years) (Tritsaroli 2016: 230). Other tumulus sites in the region display similarities and differences with Pigi Athinas. Approximately 12 km north of Pigi Athinas, near the contemporary settlement of Valtos-Leptokaryas, a tumulus with three adult graves was similar with respect to the presence of males and females and the absence of subadults (Tritsaroli 2010). The central grave of the tumulus at Valtos-Leptokaryas, however, was of a female individual. Meanwhile, the unpublished LBA

tumulus of Pigi Artemidos contained ten burials, much like Tumulus 4 of Pigi Athinas. Additionally, several LBA tumuli situated over pastures at 1,050–1,150 m ASL were identified by the Mt. Vermio survey, although they too remain unpublished (Andreou *et al*. 1996: 569). It is clear that despite the small sample size, these initial comparisons demonstrate local similarities and differences and perhaps varying expressions of diverse social structures that existed in the study region during the LBA.

Although there are many more cases of tumulus cemeteries during the EIA, only a few cemeteries (Palaiogynaikokastro, Vergina, Tzamala, Agios Panteleimon, and Konstantia) have published plans that showcase intra-cemetery organization, of which only Palaiogynaikokastro and Vergina have cremation burials. Most of these plans do not convey a sense of diachronic development. Unfortunately, the intra-cemetery organization of tumulus cemeteries containing cremations such as Amphipolis-Kastas, Drama Z.I, and Apsalos-Verpen is not published in detail. Palaiogynaikokastro, a tumulus cemetery with more than 500 tombs – the vast majority of which are cremations – is characterized by a high density of dozens of stone enclosures and platforms that overlap in a rather small 450 m^2 area (Fig. 5.13).

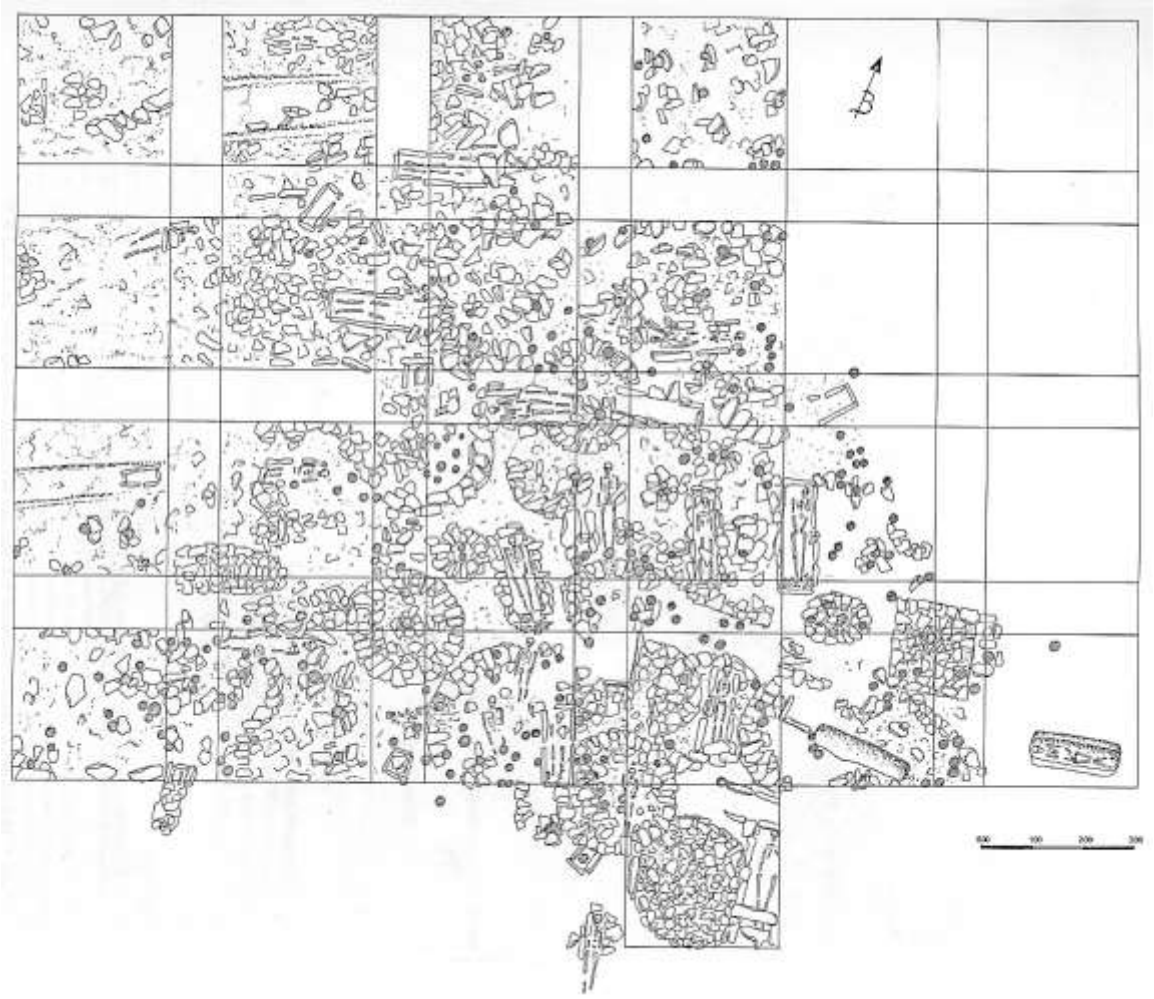

Figure 5.13 Plan of Palaiogynaikokastro cemetery (Savvopoulou 1992, Fig. 8).

The cremation urns were placed inside and outside the stone enclosures. As for the two quadrangular platforms (approximately 1.60 X 1.70 m) excavated at the cemetery, both contained several urns, with one cinerary-urn in the center fixed vertically by stones, and others added along the sides of the structure. Inhumations were placed alongside cremations in the cemetery, without any obvious clustering or grouping between the two rites, although the cemetery plan does not provide a sense of diachronic development in intra-cemetery organization. Unfortunately, there have been no studies of the cremains. The tumuli at Konstantia formed two groups that were separated from each other by approximately 160 m

(Chemsseddoha 2015: 77). Tumulus 13, the largest of the mounds (17 X 11 m) was situated in the void between the two groups, and had no additional tumuli built around it (Chrysostomou 1995: 160). At Tzamala, the orientation of the tombs is not related to the center of the mound; the majority are instead oriented west – east, with the exception of three tombs oriented north – south (Kottaridi 2001-2004: 422). For the exclusively inhumation tumuli at Agios Panteleimon and Mt. Olympus, the majority of graves were interred in a radial formation, facing the center. Two tumuli at Mt. Olympus, Agios Vasilios and Gavria-Arapi T. 16, contained an inner stone circle that surrounded the central tomb, and a second outer stone circle delimiting the outer boundaries of the tumulus.

The 41 EIA tumuli at Vergina, where inhumation was the majority rite, were published in several preliminary reports and two monographs by multiple scholars, which makes the process of determining intra-cemetery organization difficult. While Andronikos initially thought that the cemetery grew from north to south, Bräuning and Kilian-Dirlmeier (2013: 139-142) have argued that the cemetery was initially organized around eight mounds scattered throughout the cemetery, around which other mounds were constructed. The few cases of cremations at the cemetery were incorporated from the seventh century BCE (during the last phase of the use of the cemetery) into earlier EIA mounds. The great majority of the mounds themselves, between 8.5–22 m in diameter and between 0.50–2.10 m in height, contained several tombs, averaging eight graves per mound. Tumulus LXV is exceptional with its 59 graves (including three interred seventh century cremation urns) (Fig. 5.14).

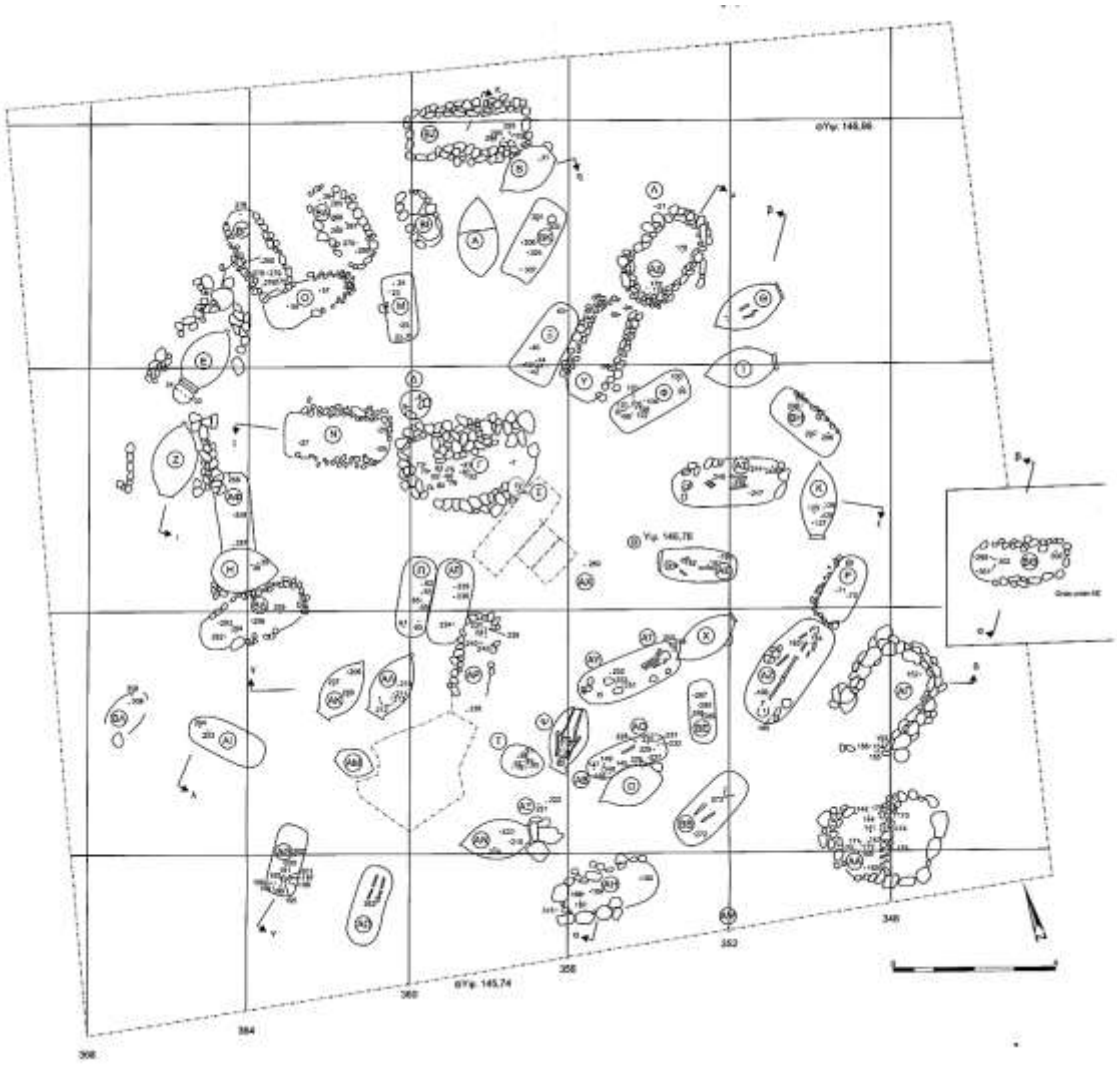

Figure 5.14 Tumulus LXV at EIA Vergina, with identified male and female graves indicated (Bräuning & Kilian-Dirlmeier 2013, Pl. 8).

Inside the mounds the graves are arranged in a mostly radial configuration or, more rarely, concentric. In radially-arranged tumuli, the tombs are often oriented towards the center, sometimes towards a central grave (Fig. 5.15; Fig. 5.16).

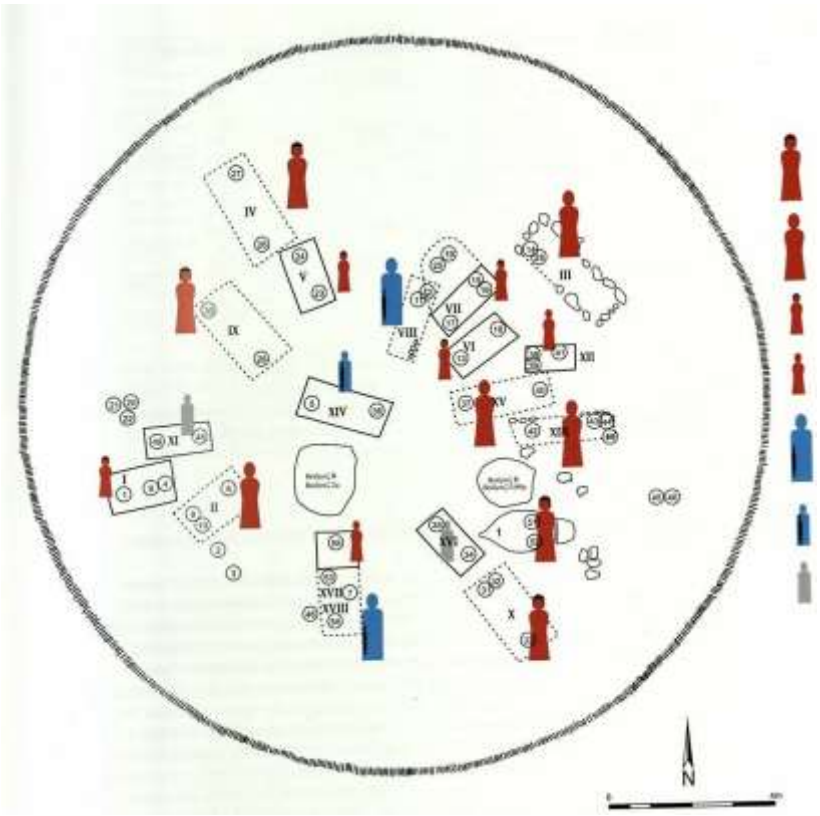

Figure 5.15 Tumulus N from the EIA cemetery of Vergina. The red symbols refer to graves identified as female, while the blue symbols refer to male-labelled graves (Bräuning & Kilian-Dirlmeier 2013, Fig. 24).

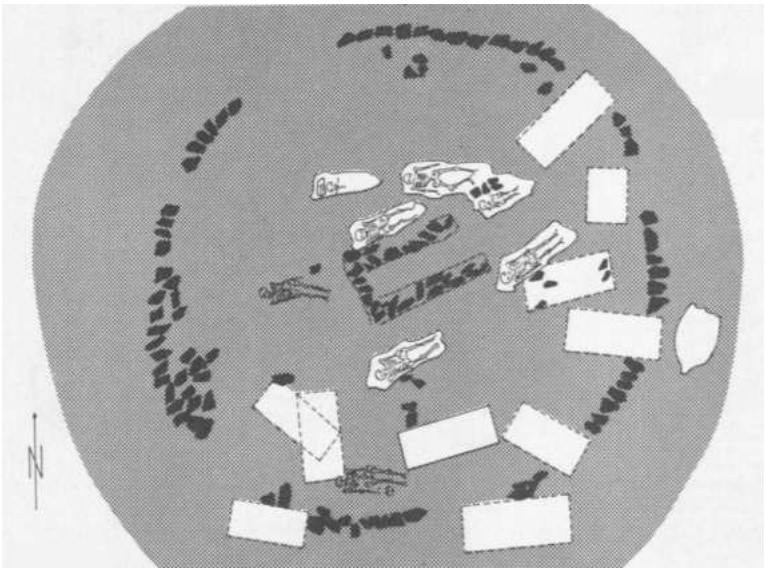

Figure 5.16 Plan of Tumulus Δ from EIA cemetery of Vergina (Radt 1974, pl. 30.2).

As Fig. 5.15 and 5.16 demonstrate, however, the identification of centrally-positioned tombs can be difficult when the tumulus becomes crowded.

5.3 Necrogeography and location choice

5.3.1 Sacred spaces of death: organized cemeteries

This section examines the location of cemeteries in relation to potentially significant or distinctive features in the landscape, including shorelines, waterways, hilltops, plains, mountain ranges, and/or possible communication routes that existed in antiquity. Were cemeteries with cremation burials (either as the exclusive rite or together with inhumations) associated with particular parts of the landscape at specific periods in the north Aegean? How do these locations compare to cemeteries with exclusively inhumation graves? Is it possible that these cemeteries played a role in marking territories and communication routes in the north Aegean, given the physical presence of some tombs and their visibility in the landscape? Such an endeavor is difficult as not all tombs and cemeteries in the study region could be precisely located. In some cases, the cemeteries are indicated on maps but the graves themselves are not placed. As for the cemeteries of LBA Kriovrissi Kranidia, EIA Velventos Kato Bravas, and EIA Servia Kokkinoi, the sites were discovered during low-water periods, and subsequently submerged under water following the construction of a dam in the artificial Lake Polyphyto. The sites discussed in this section are extramural cemeteries; isolated graves and tumuli such as Exochi and Potamoi will be discussed in Section 5.3.3 (Isolated graves).

The sole extramural cemetery in the Neolithic, Toumba Kremastis Koiladas, was located at the north-east limit of a low tell, in the valley of Kitrini Limni of Kozani (Fig. 5.17; Fig. 5.18).

Figure 5.17 View of the basin of Kitrini Limni from the north, with the Neolithic settlement of Toumba Kremastis Koiladas indicated with the red arrow and the Agios Dimitrios Power Station in the center (Hondroyianni-Metoki 2015a, Fig. 1).

Figure 5.18 View of the Toumba Kremastis Koiladas mound indicated to the left, and the area containing the cremations, pits, and ditches indicated to the right (Hondroyianni-Metoki 2015a, Fig. 5).

The site was situated outside an area covered by the Kitrini Limni marsh that was drained in the 1950s (Hondroyianni-Metoki 2015a). Thanks to archaeological surveys from the 1970s onward, the area where Toumba Kremastis Koiladas was situated was noted for being densely inhabited in prehistoric times, especially in the Neolithic period, with just under 40 sites being recorded in the 35 km^2 area (Hondroyianni-Metoki 2009a: 61). The cemetery of Toumba Kremastis Koiladas is dated to the LN phase, which was noted as having witnessed the densest habitation of the basin. The relationship between the cemetery and the assumed associated settlement will be further discussed in the following section (5.3.2).

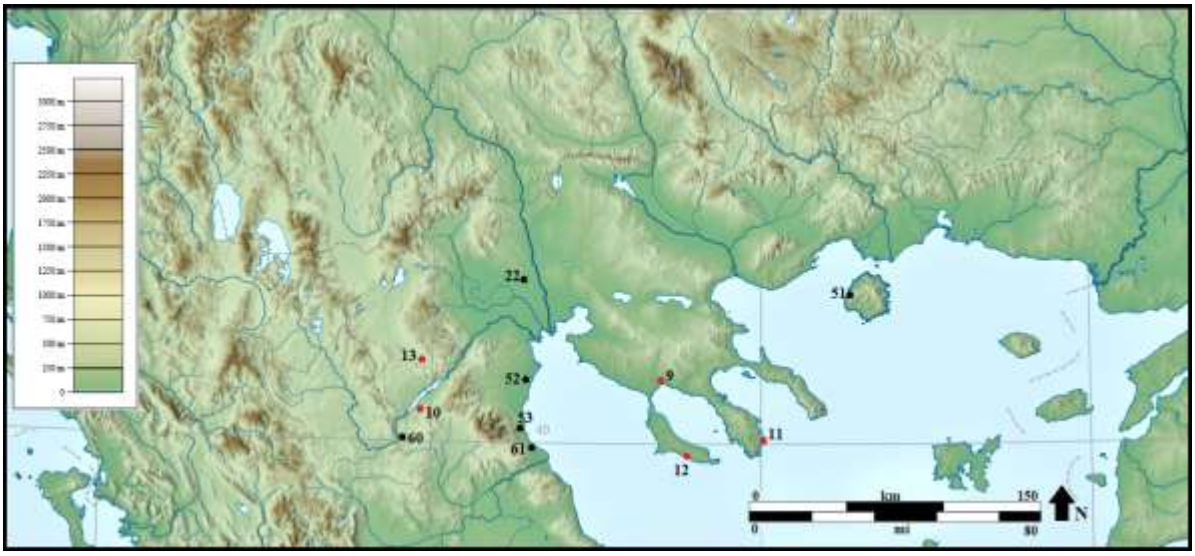

Figure 5.19 Map of EBA and MBA sites with burials in the north Aegean.

By the EBA, there are two general types of environmental settings for cemetery locations: the coastal zones in Chalkidiki and Pieria (Kriaritsi-Sykia, Ayios Mamas, Nea Skioni, Makrygialos), and valleys, such as the middle Haliakmon valley and Kitrini Limni upland basin (Goules, Xeropigado Koiladas; Fig. 5.19). In Chalkidiki, the cremation tumuli of Nea Skioni and

Kriaritsi-Sykia were situated close to the shore. The burial mounds of Kriaritsi-Sykia were described as located on a 400 m^2 plateau on rather low hill (an altitude of 40 m ASL), rising almost perpendicularly above the sea surface (Asouchidou *et al*. 2000; Fig. 5.20)

Figure 5.20 Aerial view of the EBA cemetery at Kriaritsi-Sykia (Asouchidou 2012: Fig. 2).

The burial ground was described as "quite inaccessible, rocky with a thin layer of surface soil… and covered by low bushy vegetation" (Asouchidou 2012: 383). The stone enclosures of Nea Skioni followed the inclination of the natural soil, although more detailed information regarding the elevation of the cemetery is not provided (Fig. 5.21).

Figure 5.21 View of the enclosures at EBA Nea Skioni (Tsigarida & Mantazi 2005: Pl. 1).

The EBA cemetery at Ayios Mamas, of which only a small section was excavated, was situated on a low slope approximately four km away from the coast in the natural red, loamy soil (Pappa 2010: 383–384). Perhaps more importantly, the burial ground was located close to the contemporary settlement. Xeropigado Koiladas, meanwhile, has been fully explored and its borders securely defined. Situated at the edge of the Kitrini Limni basin, the cemetery covered an area of 1500 m^2 (Ziota 2007). Since a large majority of graves were surrounded with rows of limestone, covered by stone piles or soil, or were built cist graves, it has been argued that the cemetery was a landmark visible to Kitrini Limni communities of that time for some 500 years. The associated settlement has yet to be identified, and the number of sites in the basin drops dramatically from the high number of sites in the later Neolithic phases (Andreou *et al*. 1996: 568–570, 547–575). The cemetery of Goules in the middle Haliakmon valley is currently underwater on account of the artificial lake of Polyphytos and was only recovered after the level of the lake was lowered in 1993 (Ziota & Hondroyianni-Metoki 1997).

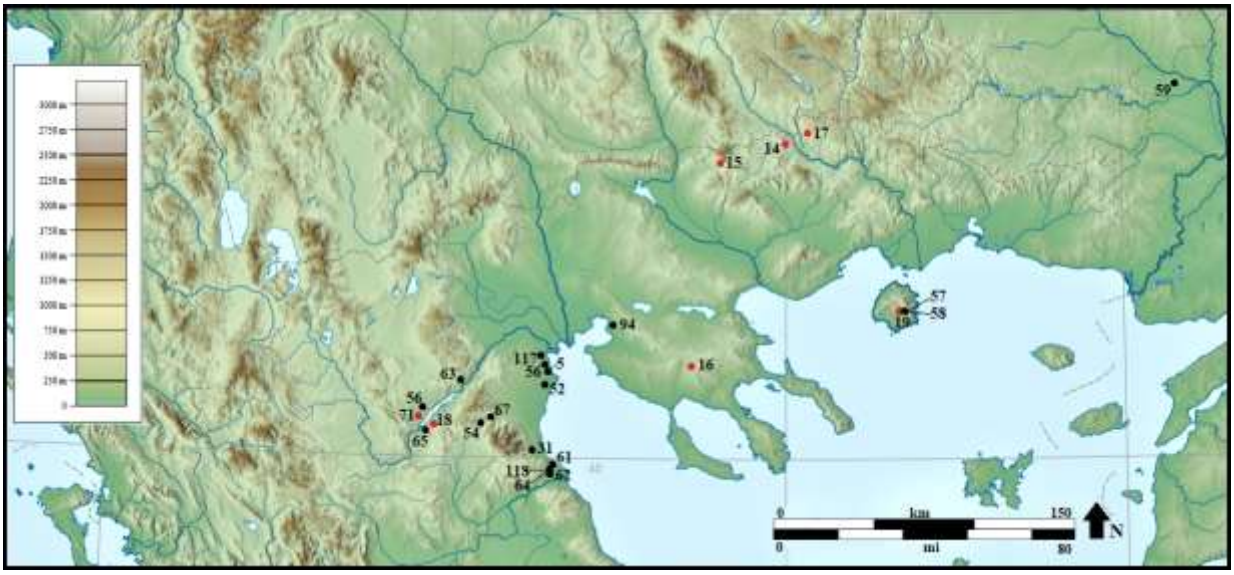

Figure 5.22 Map of MBA and LBA sites with graves in the north Aegean.

Many LBA cemeteries (of exclusively inhumation graves, with the exception of Tsiganadika and Faia Petra) are situated in semi-mountainous or mountainous areas (Fig. 5.22). At Tsiganadika, one of the most extensive of the LBA cemeteries on Thasos that contained four cremations and mostly inhumation burials, the cemetery was spread on the eastern side of the Tsiganadika hill, with built graves scattered on the top of the hill (Koukouli-Chrysanthaki 1992: 34–35). In Serres, 15 km south of the Greco-Bulgarian border, the cemetery of Faia Petra was located on a terrace with distinctive red clay soil in a semi-mountainous area and sits right on the edge of a deep and steep gorge (Fig. 5.23).

Figure 5.23 Part of the Faia Petra cemetery terrace, interrupted to the east by a steep gorge (Valla 2007: Fig. 2).

The location of the burial ground at high elevation on a terrace, clearly visible from the settlement area in the valley below, may have been critical to the selection of the site. The tumuli of Pigi Athinas were situated on the foothills of Mt. Olympus, close to contemporary settlements of Krania and Valtos-Leptokaryas and 1,200 m from the sea (Poulaki-Pantermali 2005). Excavations at Spathes-Agios Dimitrios, meanwhile, revealed a cemetery with Mycenean-type objects located on a steep, westward slope of Mt. Olympus (at 1100 m ASL), overlooking the Petra Pass. The Petra Pass is the major link between the Voloustana Pass and the Pierian coastal plain near Dion. Indeed, Xerxes may have moved through the north – south pass in 480 BCE to bypass the Vale of Tempe and enter Thessaly from behind Mt. Olympus (Borza 1992: 64). The existence of a contemporary LBA settlement in the Petra Pass confirms the importance of the corridor as a route between Thessaly and the north Aegean from prehistory, the latter of which provides context for the placement of cemeteries in the area. The placement of the cemetery on a high slope, seen also with comparable graves at some distance along the same mountain pass and unpublished tumuli at Mt. Vermio, is noteworthy. Andreou *et al*. (1996: 573–574) question

whether the graves that were situated on a high slope overlooking the Petra Pass belonged to mountain bandits that collected booty from traffic through the pass, or military personnel dispatched by a Thessalian/Myceneaean chief. More recently, Eder (2009) proposed that – based on the Mycenaean seals found in the graves – the individuals interred in these tombs were of high status.

Not all cemeteries were located at relatively high altitudes. Many grave sites (Aiani-Livadia, Ano Komi, Tourla, Kato Bravas Velvendo, Palaiokastro, Servia) were located in the Haliakmon valley, a fertile area with many LBA settlements. Most cemeteries are located along the shore of the artificial Polyphytos lake (Fig. 5.24); while some have been damaged by the lake water (Fig. 5.25), others have been recovered through excavation.

Figure 5.24 Western view from Aiani of the Haliakmon valley and the artificial lake of Polyphytos (Hondroyianni-Metoki 2015b: Fig. 2).

Figure 5.25 Excavation photo of graves at Kato Bravas Velvendo, some partially submerged and eroded from the artificial lake (Hondroyianni-Metoki 2015b: Fig. 5).

Tourla, a LBA cemetery which contained two cremations and 41 inhumations, was situated right in the center of the valley, discovered after the erosion of the area from the waters of the lake (Asouchidou 2001: 33; Hondroyianni-Metoki 1998: 291–292). The inhumation cemetery of Ano Komi was located in the Haliakmon valley, with the graves oriented west – east just above the Haliakmon river (Karamitrou-Mentesidi 2000a). In Pieria, the LBA cemetery of Rema Xydias was located close to the (perhaps contemporaneous) settlement and situated close to the coast – one of the few burial grounds located close to the sea in the LBA.

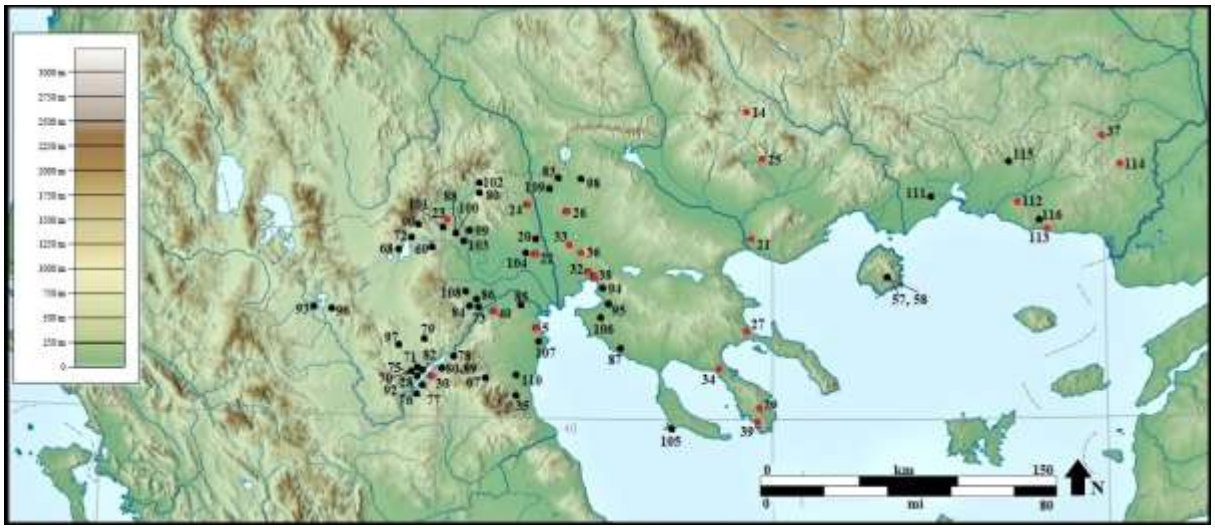

Figure 5.26 Map of EIA cemeteries in the study region. Black denotes cemeteries with only inhumation graves; red represents cemeteries with cremations.

A patterning that continues into the EIA is the placement of cemeteries along the coastline at Chalkidiki (Fig. 5.26). Although the EIA cemetery of Ierissos, parallel to the southwest of the Archaic cemetery, is approximately 200 m inland from the modern-day shoreline, Ierissos may have been closer to the ancient shoreline and Mende and Nikiti-Ai Gianni were discovered at present-day beaches. Moreover, at Nikiti-Ai Gianni and the inhumation cemetery of Nea Kallikratia, the tombs were oriented west – east, parallel to the seafront. Although the cremations of Koukos, located on the steep hills of Sithonia, did not have any discernible orientation towards the sea, an outstanding find from an early ninth century BCE grave of a miniature clay boat with a prow, stern, and extended keel suggest that at least some members of the community had a meaningful connection to the sea (Carington-Smith & Vokotopoulou 1992). The cemetery of Torone was also located close to the sea, but is different from the aforementioned cemeteries by its position on a terrace that also overlooks the EIA settlement (Papadopoulos 2005: 354–356). However, it is worth underlining that the coastline played a significant role in the funerary rituals of Torone, as Papadopoulos (2005: 355) has

argued that, on the basis of sea shells and pebbles found in some grave fills, it is likely that some of the cremation pyres were located on the beach. There are also cases of cemeteries that are situated somewhat close to the coastline, but not directly on what was believed to be the ancient shoreline. In the northern area of Pieria, the tombs near ancient Pydna and Makrygialos were situated along the coastline on a north – south band, which also corresponded with a major road in antiquity (Hammond 1972: 123). There are also cases of cemeteries that formed just below settlements situated relatively close to the Thermaic Gulf, such as Toumba Thessalonikis, Nea Efkarpia, Stavroupoli-Polichni, and Oraiokastro, although the tombs were not oriented towards the sea. It is noteworthy that tumulus cemeteries seem to be absent from the Chalkidiki coasts during the EIA, in contrast to the EBA with Nea Skioni and Kriaritsi-Sykia.

There are also numerous EIA cemeteries located farther inland, in valleys (Nea Zoi), slopes and summit of hills (Panagitsa-Zervi, Chauchitsa, Neromyloi-Prodromou), and close to lakes (Agios Panteleimon, Arnissa) and rivers (Axioupoli, Kriovrisi Kranidia, Velventos-Kato Bravas). Indeed, the tumulus of Agios Panteleimon was situated in a passage between two lakes, which would have been visible from the adjacent hill to the north and farther to the northwest (Chemsseddoha 2015: 64–65, Fig. 6). Most inland cemeteries are situated in plains or foothills, including Palaiogynaikokastro, Vergina, Amphipolis-Kastas, Drama Z.I, Axiochori, Konstantia, Nea Philadelphia, and Melissia. Although we should avoid exaggerating the visual impact of tumulus cemeteries such as Vergina, the mounds collectively must have made an impression on observers and played some sort of role in demarcating territories (Fig. 5.27).

Figure 5.27 Photo by Petsas of excavations at the EIA tumulus cemetery of Vergina, view from the east, August 1960 (Bräuning & Kilian-Dirlmeier 2013: Fig. 4).

Of these inland locales, most cemeteries with cremations seem to be situated in the plains or foothills, a notable exception being the cremation-only cemetery of Koukos, located in the steep hills of Sithonia in Chalkidiki (Carington-Smith & Vokotopoulou 1991; 1992) and Torone, located on a terrace within view of the settled community (Papadopoulos 2005: 354). Generally, there are few cemeteries located in high altitudes, mostly as a result of fewer rescue excavations and surveys being conducted in the mountainous areas. Indeed, the many rescue excavations that fueled archaeological discoveries in the region were as a result of road-building, modern development along the coast, and other public works that were located on lower terrain. There are, however, a few cemeteries such as the Mt. Olympus tumuli, Tzamala, and Petra-Treis Elies that have been documented in higher altitude areas.

Other important aspects of the landscape that are necessary to consider include roads, paths, rivers, and other thoroughfares in antiquity. Indeed, with regards to the Mt. Olympus

tumuli – located on the lowest slopes of the Mt. Olympus range near Dion – and Treis Elies, the cemeteries were not far from where the Petra Pass opens into the Pierian coastal plain, a route between Thessaly and the north Aegean known from at least the LBA (Borza 1992: 64; Fig. 5.28).

Figure 5.28 Map of west, central and part of east Macedonia, with topographic features labeled. Note the Petra Pass circled in red and situated between Mt. Olympus to the right and the Pierian mountains to the left (Bräuning & Kilian-Dirlmeier 2013: Fig. 1).

The tombs near Pydna and Makrygialos in Pieria may have been installed parallel to a coastal road, and the cemetery of Stavroupoli-Polichni was located next to a road oriented north – south. Two ancient roads located 700 m northwest of ancient Pydna had several tombs nearby, two of which were dated to the Iron Age (Besios & Athanasiadou 2010). The majority of cemeteries and settlements have been discovered in valleys, such as the valley that connects the Aridaia Basin to central Macedonia or to the fertile plateaus of mountains. Indeed, the valley where Nea Zoi is located, also called the Τέμπη της Αλμώπιας (Tempi tis Almopias), referencing the narrow valley between Thessaly and Macedonia, is the main route since the 1950s to the

Aridaia basin, although this route is not reported in ancient sources or travelers' accounts (Chemsseddoha 2015: 73). The Almopias valley (ancient Loudias), where the site of Krania and Prophiti Ilias were located, was an important communication route in antiquity (A. Chrysostomou 1997c: 476-477). The area of the inhumation cemetery of Agras, situated north of the modern-day Edessa-Thessaloniki highway, also contained a portion of an (undated) ancient road, which confirms the use of the Edessa plain as a thoroughfare in antiquity, perhaps going back to the EIA (A. Chrysostomou 2013). At Konstantia, on the north bank of the Xiropotamos, the mounds were divided into two distinct groups that were spaced approximately 150 m apart. While the alignment of the southern tumulus group may be oriented along a path that went through the mountains and led to the settlement associated with the cemetery (Chemsseddoha 2015: 63), the northern group of tumuli are parallel to the river (Fig 5.29; Fig. 5.30).

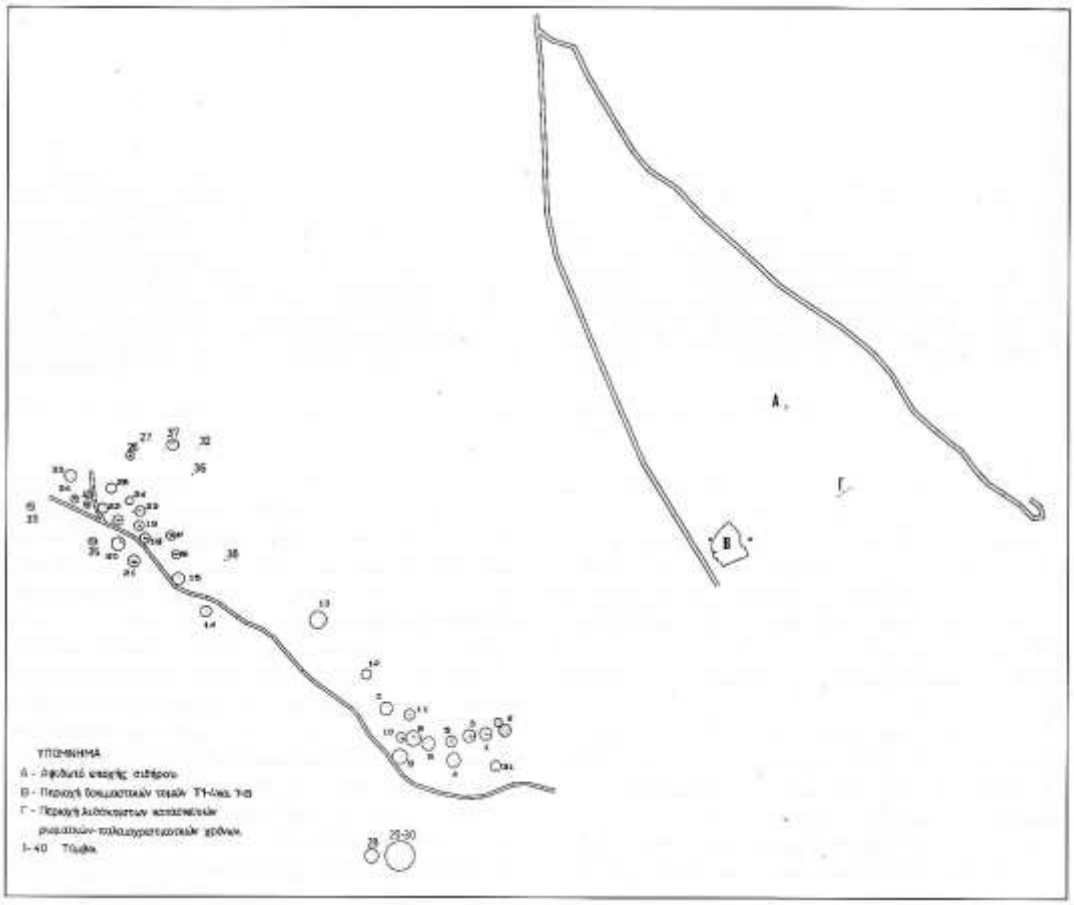

Figure 5.29 Plan of Konstantia site, with EIA tumuli located on the bottom left, and an EIA apsidal structure and area of stone-built structures on the right dating to the Roman and Palaeochristian periods (A. Chrysostomou 2000c: Fig. 29).

Figure 5.30 Aerial view of region where Konstantia was located, with T representing the location of the tumuli and O representing the settlement area (Chrysostomou 2011: Fig. 7).

Finally, it is worth considering the placement of cemeteries near rivers for material necessities. Based on descriptions from preliminary reports, the Mt. Olympus tumuli and Konstantia were situated near river streams that provided material (such as stones) necessary for the construction of the mounds. A pile of stones found near the river on the foothills of Mt. Olympus was interpreted by the excavators to be a reserve of materials for the tumuli. The examples presented above would benefit from further exploration of these cemeteries and their locales, and more detailed excavation reports that consider the placement of the cemetery within the broader landscape.

5.3.2 The cemetery and its spatial relationship to settlements

This section examines the spatial relationship between extramural cemeteries and associated settlements. Knowledge of settlements associated with cemeteries is uneven, in some cases (most notably in the case of EIA Vergina, with its 44 tumuli and 390 graves), due to the

lack of an identified site associated with a cemetery, and in other cases the lack of systematic excavations of settlements close to cemeteries. Moreover, in cases where a settlement has been noted to be linked to a cemetery, this is assumed due to the close proximity of the settlement to the cemetery, when of course some cemeteries could also have been used by other communities that have yet to be identified. In the analysis below, I incorporate the observations of the excavators of the cemeteries and use their reports to form the basis of my discussion of the spatial relationship between cemeteries and settlements through time.

In the north Aegean, the first case of an extramural cemetery is LN Toumba Kremastis Koiladas, located in close proximity to the settlement of the same name (Fig. 5.17). Excavation beyond the limits of the low tell site to the north-east exposed cremation burials, ditches, and 462 pits, all dated to the early LN. In order to understand the relationship between the multi-use burial ground and the associated settlement mound, it is worth considering the function of these pits. Although the majority of the pits have been interpreted as areas where everyday waste and remains of re-construction and repair activities were disposed of, Hondroyianni-Metoki (2009b) has proposed several other explanations for their use, including the deposition of "ritual" or "ceremonial" material and the extraction of clay. Overall, this sector of the site is overwhelmingly characterized by its non-domestic use of space, reflected not only by the cremation burials, but also the deposition of "ceremonial" and animal remains in some of the pits, perhaps suggesting a structured deposition (Hondroyianni-Metoki 2009b: 619). Despite the close proximity of the area to the settlement mound, its use was in direct contrast to—yet in clear view of— the domestic space of the living. As discussed in Chapter 3, most graves discovered at other Neolithic sites in the north Aegean were buried within the settlements, typically under domestic structures or thoroughfares within the site. One small exception to this trend is found at

LN Avgi, where a group of cremations in ten small pots were interred in a small, open space of about three m^2 in the five-hectare village (Stratouli *et al*. 2010). The fact that a small group of people were chosen to be disposed in this distinct area within the domestic environment – visible to members of the living community on a daily basis – is significant, although the criteria by which the deceased individuals were chosen remains a mystery.

It is during the EBA that formal, planned burial grounds outside the settlement limits become the norm rather than the exception in the north Aegean. Despite the relatively high number of EBA settlements discovered, however, there is still a small number of sites that have been extensively excavated and studied (Pappa 2010: 382). Of the cemeteries containing both cremations and inhumations that have been excavated, most are located in close proximity to their associated settlement. The burial ground near the *toumba* settlement of Ayios Mamas was located close to, and within clear view of, the settled community (Fig. 5.31).

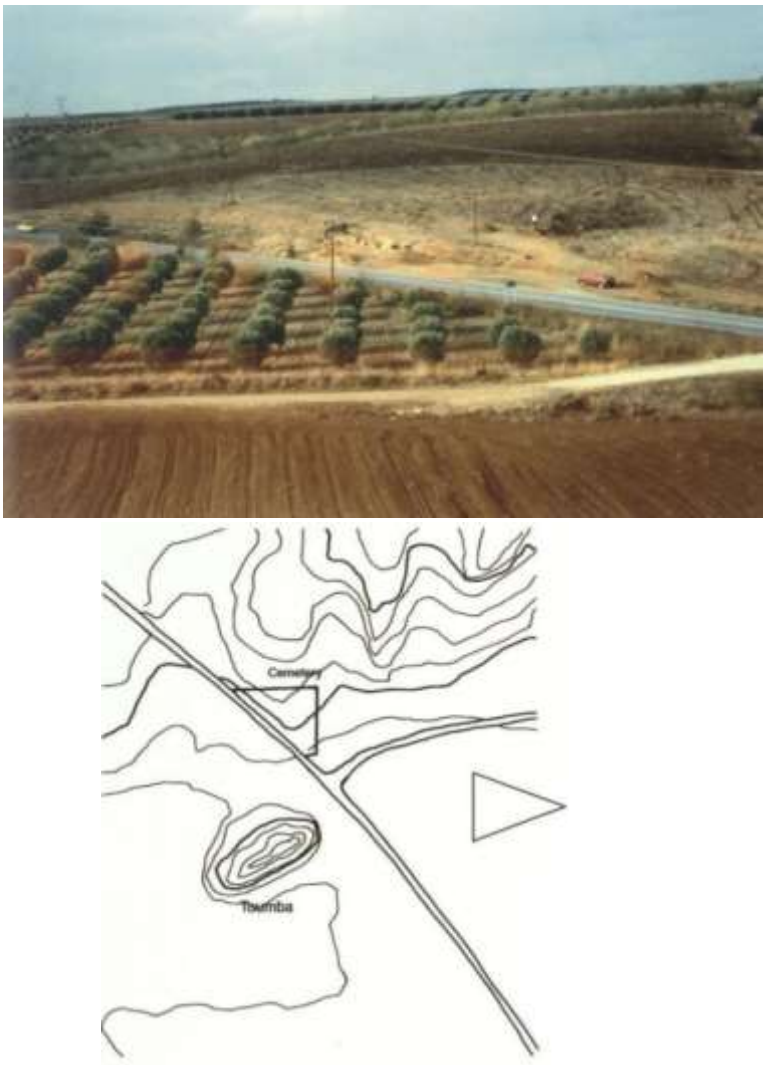

Figure 5.31 View of the cemetery from the top of the toumba settlement (above) and topographic representation of the toumba and cemetery of Ayios Mamas (below) (Pappa 2010, Pls. 1.1 & 1.3).

In the case of Kriaritsi-Sykia, an intensive surface survey discovered 13 sites in the broader region, one of which was identified as an EBA settlement (Asouchidou *et al*. 2000). For other sites, however, which settlement(s) the burial ground was connected to remains a matter of debate. The closest prehistoric site to the cemetery of Xeropigado Koiladas is the site of Servia, located 20 km south of the burial ground (Maniatis & Ziota 2011: 476, Fig. 1). Although Servia flourished during the LN period, EBA ceramics that partially correspond with the cemetery's

700-year use were also reported from the settlement (now submerged under the artificial lake of Polyphyto. Several other sites in the region (such as Tourla and Plemistra near Aiani) have undergone radiocarbon dating, which again partially fall within the use of the burial ground (Maniatis & Ziota 2011: 476). Excavators suggest that the settlement to which this cemetery most probably belongs has been discovered in extensive surveys but not excavated (Ziota & Triantaphyllou 2004), but it could also be argued that this cemetery was used by several of the surrounding small communities as opposed to just one settlement. Indeed, the cemetery of Goules (now also submerged under lake Polyphyto is located in the same area and excavators did not note an associated settlement in the preliminary reports. At one of the few MBA sites identified in the study region (Valtos-Leptokaryas), two tumuli were discovered in immediate proximity to the settlement of the same name (Fig. 5.32). It was noted by the excavator that the burials were slightly older than the stone mounds that covered them, and moreover were founded on the destruction deposit of Phase 3 and contemporary with the Phase 2 settlement (Poulaki-Pantermali 2013: 42–43).

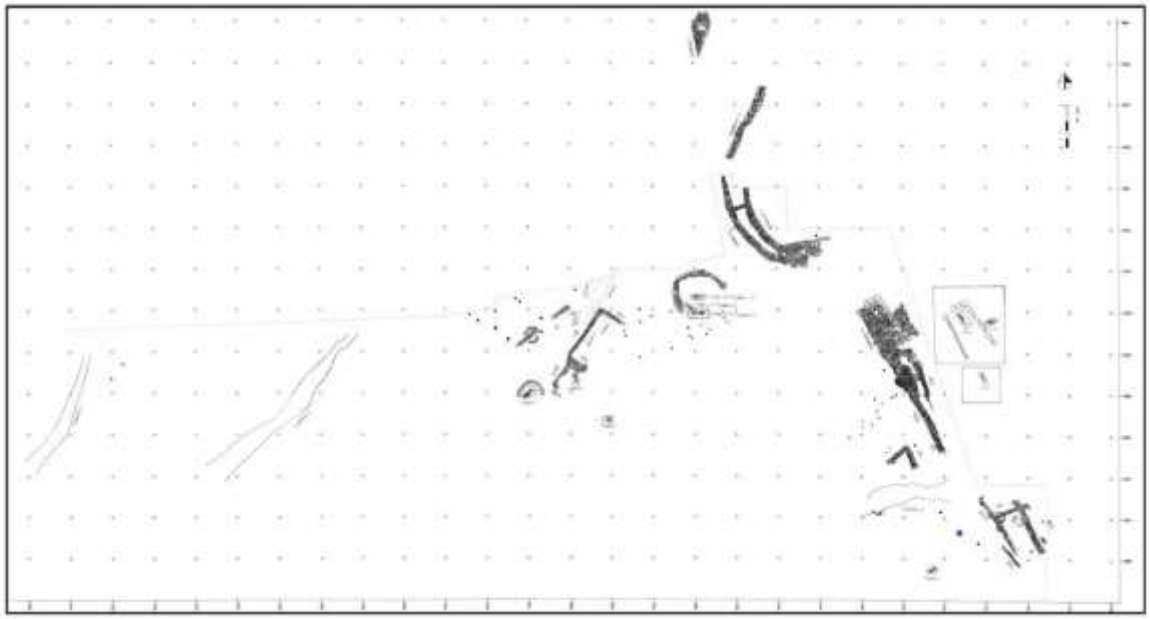

Figure 5.32 Overall plan of the Valtos-Leptokaryas site, with settlement located on the right and two tumuli located on the left (Poulaki-Pantermali et al. N.D.: Fig. 1).

By the LBA, when associated settlements and cemeteries were identified, there are instances of cemeteries being placed at a higher elevation yet in close proximity to the settled community. On Thasos, the LBA–EIA site of Kastri was surrounded by three irregular groups of built tombs: Tsiganadika, Vrysoudes, and Kentria (Koukouli-Chrysanthaki 1992: 33–34). The largest and most extensive of the three cemeteries (and the only cemetery with three cremations), Tsiganadika, was situated on the southeastern slope of the modern-day Tsiganadika hill, rising to its flat top to the northwest, at a higher elevation than the acropolis of Kastri. Kentrias, meanwhile, was situated on the southeast sloping side of the hill on which Kastri was based, while Vrysoudes consisted of scattered tombs in the low forested plateau east of the settlement (Koukouli-Chrysanthaki 1992: 34). A path which still leads to the north side of the Kastri acropolis, the only flat side of the fortified hill, was identified as the only way to approach the cemeteries by the inhabitants of the settlement, as well as a source of water close to the Tsiganadika cemetery. Based on the geographical description of the burial ground areas, it

appears that the cemeteries were installed in areas not suited to cultivation, but may have been used for livestock or hunting. The cemetery area was certainly used for quarrying, both for the construction of tombs and for domestic structures at Kastri. Thus, although there was a clear demarcation between the community of the living and the burial grounds of the dead, the latter may have still been involved in the daily lives of the former given the close proximity of the cemetery to the settlement, the location of some groups (e.g., Tsiganadika) on a higher elevation within view of Kastri, and the existence of water sources and quarries close to the burial grounds.

In the case of Faia Petra, the location of the cemetery at high elevation on a terrace may have been important in the selection of the site as a cemetery, especially given its clear visibility from the settlement of the living below (Valla 2007). Similarly, the Bronze Age cemetery of Methone is on higher ground, west of the coastal settlement. In the foothills of the Mt. Olympus region in southern Pieria, the tumulus cemetery of Pigi Athinas was identified alongside LBA sites such as Valtos-Leptokaryas and Krania, although so far, the associated settlement has not been located (Poulaki-Pantermali 2008, 2013; Poulaki-Pantermali *et al*. 2010). The burial ground of Pigi Athinas predates the other Mt. Olympus cemeteries of Spathes-Agios Dimitrios and Treis Elies (Poulaki-Pantermali 2013). Andreou *et al*. (1996: 574) note that the fertile valley floor below the steep, westward slope of Mt. Olympus, on which Spathes and Treis Elies are located, has potential for farming and the location of settlements. If it was the case that settled communities were located in the valley floor, the placement of the cemeteries on such a high slope with a broad horizon is significant, and is similar to the situation at Lofkënd (Papadopoulos *et al*. 2014).

No information is provided regarding specific settlement and cemetery associations for the cemeteries of Tourla, Rymnio, Aiani-Livadia, and Ano Komi, all located in the Haliakmon

valley. It was noted that Tourla is located close to the site of Goules and not far from Servia, which were both occupied intermittently between the EN to the Bronze Age and later (Hondroyianni-Metoki 1993: 105–119). Indeed, settlements identified in surveys in the region were only 0.5–1 km apart (Hondroyianni-Metoki 1993: 108), indicating that some of the cemeteries located in the region during this time may have been used by multiple communities. As for Aiani-Livadia specifically, the main site in the surrounding area is Megali Rahi, rising 40–80 m above its immediate surroundings and occupied from the Bronze Age to the first century BCE (Andreou *et al*. 1996: 567), although specific distances between the two sites were not provided in preliminary reports. It is striking that one of the most prominent LBA settlements (Toumba Thessalonikis) does not have a dedicated, organized LBA extramural cemetery, with a handful of intramural tombs discovered underneath roads or walls (Kotsakis & Andreou 1997: 282; Mulliez 2010: 137). It should be noted that a predominantly Archaic cemetery has been identified under the neighborhoods of Ano and Kato Toumba, but preliminary reports have not noted the discovery of LBA graves.

The EIA marks the development of vast, expansive cemeteries, typically located in relatively close proximity to the associated settlement. Many flat and tumulus cemeteries were situated at the foot of *trapeza* settlements, including Nea Philadelphia, Oraiokastro, Stavroupoli-Polichni, Agrosykia, Archondiko, and Makrygialos (as well as the exclusively inhumation cemeteries of Frourio-Kambos, Thermi, Toumba Thessalonikis, and Nea Kallikrateia). The *trapeza* settlement associated with the cemetery at Oraiokastro, for example, was located 500 m to the southeast of the cemetery (Lambrothanassi-Korantzi & Papagianni 2001: 268). At Stavroupoli-Polichni, the cemetery was situated almost equidistant from both the LBA *toumba* and the EIA t*rapeza* (Chemsseddoha 2015: 68–69). The associated cemetery of Toumba

Thessalonikis (under the modern neighborhoods of Ano and Kato Toumba) is within 500 m of the tell to the south and east, with graves dated between the ninth and the fourth century BCE (Soueref 2009: 351–354). Out of the approximately 150 tombs, the majority of which were of the Archaic period, 12 were dated to the EIA. In the case of Nea Philadephia, the cemetery was situated in the plain between the Gallikos River and the *trapeza* (Iron Age and historical periods), and was also close to the Bronze Age *toumba* settlement (Rey 1917–1919: 64–67; Aikaterinidis 2008: 25). By the beginning of the sixth century BCE, the cemetery occupied a vast amount of space in the plain, with the number of graves exceeding 2,200. At Thermi, the EIA tombs were discovered at the foot of the mound, extending from the settled mound out towards the valley. The cemetery of Frourio-Kambos was located next to the contemporary settlement, located 200 m to the east, with the entrance of the four chamber tombs facing the opposite direction to the settled site, to the west (Hondroyianni-Metoki 1998: 297–299). However, the relationship between settlements and cemeteries was at times more complex than straightfoward and distinct divisions between "intramural" and "extramural" spaces. At Kriovrissi Kranidia, the inhumation graves of Group A (1190–1040 BCE) were built on a Neolithic settlement and very close to another LBA site, while a group of seven later EIA graves (three of which were secondary cremations) were built on a nearby plateau (Hondroyianni-Metoki 2000). In some cases, however, tombs also extended beyond the direct view of the associated settlement, as seen at Archondiko, where the cemetery was located about 900 m from the *toumba* (Chrysostomou & Chrysostomou 2009: 477–480). In the case of Makrygialos, the EIA dead were buried over an approximately two km strip along the coast (Besios & Athanasiadou 2010).

Ditches dug at the foot of the settlements of Makrygialos and Thermi seem linked to the delimitation of funerary and domestic spaces. At Makrygialos, the construction of a monumental

moat during the EIA, accompanied by the annexation of a part of the cemetery to the north for the settlement, was the community's way of redefining the limits of the urban center (Besios 1997b: 233–238). Ditches are noted in the Thermi preliminary reports, although their exact function is not known (Ignatiadou & Skarlatidou 1996: 440). In most cases, however, funerary spaces and settlements are rarely marked by archaeologically identifiable features. In the case of Torone, Fig. 5.33 shows the site of the EIA cemetery on Terrace V looming over the settlement on Promontory 1, or Lekythos (after Thucydides) (Papadopoulos 2005: 354–356).

Figure 5.33 General view of the site from the upper terraces of Hill 2 facing NNW, showing Terrace V in the center (Papadopoulos 2005, Pl. 12).

As demonstrated in Fig. 5.33, the terrace is clearly visible from the associated settlement and occupies a prominent place in the topography of the site. The burning of some burials on the terrace (but not all, as it is clear that some cremations were carried out on the beach) would have enhanced and made more visible the experience of cremating the deceased. As Papadopoulos (2005: 354) argues, the "physical prominence of the terrace, its location and height above the settlement, coupled with a raging pyre large enough to consume a body to the state of the

cremated remains found in the cemetery, amount to a funerary ritual … of what can almost be described as great theatricality."

Other cemeteries, such as Palaiogynaikokastro, Ierissos, Nikiti-Ai Gianni, and Aiani (as well as the inhumation cemeteries of Konstantia, Nea Zoi, Krania, and Mende), were situated on hills or mountain slopes approximately 500 m or less from the associated settlement. Cemeteries found in mountainous terrain are rare, partly due to the relative lack of archaeological surveys or rescue excavations conducted in such environments. In the case of Treis Elies and Chauchitsa, the graves were located on hills that were adjacent to those of the associated settlements, although there were other isolated tombs near Chauchitsa that were discovered in the lowlands (Casson 1919–1921: 8–9, 12). In the case of Tzamala, the cemetery overlooks the settlement, the latter of which is located on lower, more sheltered slopes (Kottaridi 2005: 504). As for Koukos, the cemetery was located on the hilly slope of the same hill where the associated settlement was situated, although they are spaced 100 m apart (Carington-Smith & Vokotopoulou 1988). The cemetery of Mende, by contrast, was situated in the extension of the lower city (Moschonissioti 1998: 257–258).

5.3.3 The case of isolated graves

There are two isolated grave sites (or at least, grave sites for which the associated settlement has not been found) with cremations in the LBA: the tumuli of Potamoi and Exochi just south of the Greek–Bulgarian border in east Macedonia. Both funerary mounds are spaced 30 km apart in the Nevrokopi region, with Potamoi dated to the LBA and Exochi used in the LBA and again in the ninth century BCE. The Exochi and Potamoi tumuli are located on a piedmont near a river (Grammenos 1979). Unfortunately, the primary publication for the tumuli focuses on the pottery and does not provide detailed information regarding the geographical

context of the tombs. As for the isolated LBA inhumation graves, a triple burial, consisting of two adults interred back-to-back and a child, was discovered at Ayios Konstantinos in the Haliakmon valley, and at Palia Hrani in Pieria, two pit graves were discovered in the same area with building remains and domestic pits dated between the EBA–LBA (Besios *et al*. 2003; Karamitrou-Mentesidi 2009).

Isolated EIA graves are primarily found in north Aegean Thrake and contain cremations. At the beginning of the EIA, stone tumuli associated with secondary cremations in urns (similar to Exochi and Potamoi) are grouped in the western Rhodope mountain range but scattered elsewhere (for example, Apsalos-Verpen in central Macedonia and other sites in the FYROM). These stone-built graves are related to the "megalithic culture" of southern Thrake and span the mountain ranges of the Rhodope, Sakar, and Strandja, as well as the north Aegean coast in east Macedonia and the island of Samothrace (Fig. 5.34; Owen 2000: Fig. 3).

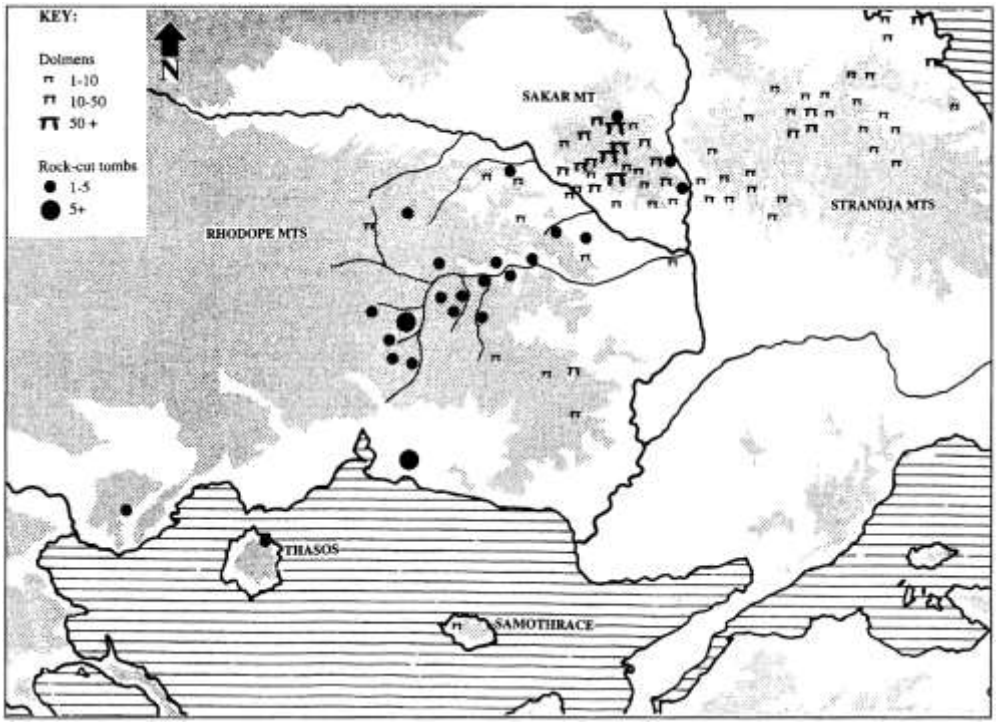

Figure 5.34 Map of EIA dolmen and rock-cub tomb distribution in modern-day Greece and Bulgaria (Owen 2000: Fig. 3).

There are two main tomb types: dolmens, dated between the twelfth to ninth centuries BCE, which are built of large slabs of schist with multiple chambers and covered with mounds; and rock-cut tombs, dated between the eighth and sixth centuries BCE, which were carved into the living rock and sometimes consist of multiple chambers (Delev 1984; Owen 2000: 141). The large numbers of burial monuments (750 in Bulgaria alone), the location of the rock-cut tombs on high ridges in sight of one another, and rock art recorded in the region has led some scholars to designate Sakar as a "sacred mountain" (Gotsev 1997: 411). Indeed, the rock-cut tombs in particular are distributed from the south-west towards the Sakar. Based on these distributions, Owen (1999) has argued that these rock-cut tombs (as well as rock art) chart paths through the landscape (and in the study region, the Rhodope mountains), thus indicating both a high level of communication and a gathering point for communities from throughout north Aegean Thrake. One more isolated grave site, that of Apsalos-Verpen in Almopia, central Macedonia, consisted

of a 15 m stone-built tumulus with four urn-cremations. Such a custom is common in Epirus in the LBA (Douzougli & Papadopoulos 2011: 16, 19, 29).

As for the isolated EIA inhumation graves, there is little information provided regarding precise location and archaeological context. In the Haliakmon valley alone, close to the artificial Polyphytos lake, an archaeological survey identified eight isolated burials dated to the EIA (located at Kato Bravas-Velventos and Kolitsaki-Servia). Rahi Kommenoi and Kali, each comprised of three and four cist graves respectively, were also noted in the Kozani region (Whitley 2004: 69). Finally, four cist graves were identified in the Vermion mountains near a water course (Mulliez 2010).

5.4 Burial customs through time and space

In examining the placement of the dead through the lens of intra-cemetery organization, necrogeography, and the relationship between settlements and cemeteries, a kaleidoscope of funerary trends emerges both synchronically and diachronically, which makes it elusive at times to pin down overarching patterns. There are, however, certain observations that can be made, which will be outlined in this section by time period.

In the Neolithic period, the sole extramural cemetery is Toumba Kremastis Koiladas. It is perhaps noteworthy that the only extramural cemetery during this time period was overwhelmingly comprised of cremations (as well as two inhumations). Excavators noted loose clusters of tomb groups within the area, which also consisted of pits that may have been used for trash or "ceremonial" purposes. The burial ground was situated in a fertile valley that was dotted with multiple settlements during the LN, including its associated site in close proximity. Another Neolithic site, Avgi, had ten small cremations under three layers of large pottery fragments

deposited in the center of the settlement. Overall, taken together with the handful of inhumed intramural burials discovered at other Neolithic settlements, such patterns seem to suggest that both the inhumed and cremated dead were placed purposefully in close proximity to or within the area of the living. However, it is noteworthy that the cremations found in intramural contexts were of infants or children, while both adults and minors were found inhumed in settlements.

The establishment of multiple extramural, formal burial grounds in the EBA allows for more observations to be made on placing the dead in the north Aegean. Increasing standardization in intra-cemetery organization is found at both flat and tumulus cemeteries, ranging from similarly-sized stone enclosures at Nea Skioni and stone tumuli at Kriaritsi-Sykia to uniform orientations at Goules and Makrygialos. A noteworthy exception to this trend was noted at the partially-excavated cemetery of Ayios Mamas, where the excavator noted a lack of cohesion in the one-hectare cemetery. Intra-cemetery clustering is also found at cemeteries like Xeropigado Koiladas and Kriaritsi-Sykia. At the latter cemetery, the one cluster included a small group of ash-urns that predated the rest of the cemetery to the earliest phase of the EBA. When considering the spatial distributions of cremations and inhumations, however, there were no discernible differences between the two rites at cemeteries like Xeropigado Koiladas.

The environmental settings for EBA cemeteries also expands to the coastal zones in Chalkidiki and Pieria, the Haliakmon valley, and the Kitrini Limni upland basin. The location of cemeteries with mostly cremations close to the shoreline is noteworthy at Chalkidiki (Kriaritsi-Sykia, Nea Skioni). At other EBA cemeteries, the close association of the burial ground with the contemporary settlement was more important than other natural features in the landscape. The cemetery of Ayios Mamas, for example, was located close to and within clear view of the settled community on the toumba. For other cemeteries, however, the associated settlement(s) remains

unknown, and in the cases of Xeropigado Koiladas, Kriaritsi-Sykia, and Goules, it may be the case that multiple settled communities or hamlets in Chalkidiki and the Haliakmon river valley used these cemeteries. At one of the few MBA cemeteries identified in the study region (Valtos-Leptokaryas), two tumuli were discovered in immediately proximity to the associated settlement, albeit in the destruction deposit of one phase of the site.

By the LBA, there are some indications of clustering at the intra-cemetery level from the flat cemeteries of Korinos and Makrygialos. Groups of graves surrounded by rows of stones at Aiani-Livadia and burial enclosures at Faia Petra and Tsiganadika indicate a desire to emphasize descent or other types of familial groups. The five tumuli at Pigi Athinas, meanwhile, appear to have been grouped in pairs, with internal placement of tombs within tumuli varying between the sites of Pigi Athinas, Valtos-Leptokaryas, and Pigi Artemidos. Standardized orientations within cemeteries were also noted at Spathes, Ano Komi, Rema Xydias, and Kriovrissi Kranidia. All the cemeteries above, however, were overwhelmingly comprised of inhumation graves. The cemeteries that did contain cremations had at most three cremation graves that were undistinguished from the rest of the cemetery population. The exceptions to these cemeteries are the isolated stone tumuli of Exochi and Potamoi, spaced 30 km apart in the mountainous Nevrokopi region in east Macedonia.

In terms of location, many LBA cemeteries (again, of mostly inhumation graves, with the exception of Tsiganadika and Faia Petra) were situated in semi-mountainous or mountainous areas, a distinct departure from previous geographic trends for burial ground locations. Spathes, for example, was located on a steep, westward slope of Mt. Olympus, overlooking the Petra Pass, while the tumuli of Pigi Athinas were located on the foothills of Mt. Olympus. The placement of cemeteries on a high slope – with broad views ranging from a major pass into the north Aegean

to associated settlements – is noteworthy during this period. The only coastal cemetery noted in the LBA is that of Rema Xydias. However, many grave sites were also located in the fertile Haliakmon valley that had a number of settlements, although it is difficult to associate settlements and burial grounds for many LBA cemeteries in the region. It may have been the case that these cemeteries were used by multiple communities, perhaps comprised of small farming hamlets. It is clear that in some cases, such as Tsiganadika, Kentrias, and Vrysoudes on Thasos, the location selected was closely related to where the settled community was situated. This is also seen in the case of Faia Petra, where the location of the cemetery on a high terrace overlooking the settlement may have been significant in the selection of the site as a cemetery.

The EIA witnesses not only a substantial increase in the total number of cemeteries (with both cremations and inhumations), but also in their overall size. Tumulus cemeteries such as Palaiogynaikokastro and Vergina evidence up to 500 tombs. Clustering both among tumuli and radial and concentric orientations within the burial mounds are attested at tumulus cemeteries, which further underline some sort of group identity – whether of immediate family in the case of small tumuli, or extended kin in the case of larger tumuli (seen especially in the elite graves of Vergina). An increase in overall cemetery count is followed by diversity in orientations and intra-cemetery organization. Chalkidiki in particular has heterogeneous trends in intra-cemetery organization, with nearby cemeteries such as Ierissos, Nikiti-Ai Gianni, Mende, Torone, and Koukos varying in terms of grave orientation and overall cemetery layout. Tombs at Nikiti-Ai Gianni and Mende were superimposed on several levels and oriented towards the seafront. While an orderly organization of tombs is found at Torone, Koukos displays a rather anarchic intra-cemetery organization. Clusters of tomb groups is noted at Torone, with a high percentage of the central graves occupied by female cremations. In cases where cremations occurred alongside

inhumations, the former were not grouped together in any discernible pattern but were spread throughout the cemetery alongside the inhumation graves. An exception to this rule is the sole cremation of a "mother and child" at Ierissos, which was separated from the other inhumation tombs at a location that later became the site of a heroon or place of worship to Cybele. While it is unclear whether later inhabitants that built the heroon were aware of the tomb, its separation from the other contemporary inhumation tombs – taken together with the unique rite of cremation selected for the infant – suggests that mourners wished to distinguish the deceased from the rest of the community, and perhaps highlight the tragic early death of the infant, seen also in the Neolithic and in select EBA cemeteries.

With regards to the geographic placement of cemeteries, a patterning that continues from the EBA to the EIA is the placement of cemeteries (Mende, Ierissos, Nikiti-Ai Gianni, Nea Kallikratia, Koukos, Torone) along the coastline of Chalkidiki. Although close to the sea, Torone differed by its position on a terrace that also overlooked the EIA settlement. The northern half of Pieria contained a broad spread of tombs near ancient Pydna and Makrygialos that were situated along the coastline on a north – south band, perhaps corresponding with a major road noted in antiquity. Tumulus cemeteries, however, are absent from the Chalkidiki coasts during the EIA, in contrast to the EBA (Kriaritsi-Sykia, Nea Skioni). There are also numerous cemeteries located inland in a variety of contexts, including valleys, hills, lakes, rivers, and alongside ancient roads and thoroughfares. Tumuli continue to be found in the Mt. Olympus region, not far from where the Petra Pass opens into the Pierian coastal plain. Chemsseddoha (2015: 82) has argued that the tumuli in the Aridaia basin (Konstantia, Nea Zoi, Neromyloi-Prodromos) may have played an important role in marking the roads and territories of these communities, which share many similarities in funerary practices across the same geographical area. Cemeteries with cremations

are mostly located in the plains or foothills, with the exception of Koukos and Torone. As for the area near the artificial lake of Polyphyto, the dispersed, small tomb sites (and settlements identified through surveys) seem indicative of a network of small hamlets in the valley.

The size of the vast cemeteries is particularly seen in the broader Thessaloniki region (e.g., Nea Philadelphia, Oraiokastro, Stavroupoli-Polichni, Nea Efkarpia, Thermi), already highlighted by scholars as a sub-region in which a hierarchical settlement network was based, and one in which cemeteries may have played a key role in marking territories of small-scale "toparchies." This theory is strengthened by the fact that most cemeteries were located in close proximity to toumba or trapeza sites in the region (Axiochori, Toumba Thessalonikis, Assiros, Mesimeriani). Most of these cemeteries in the region contained mostly inhumation graves, except for Palaiogynaikokastro (a stone tumulus cemetery with mostly cremation burials). The extent and spaced-out nature of the Makrygialos cemetery in Pieria, especially considering its location along an ancient road, may be interpreted as an attempt by the community to mark their presence on a vast coastal area. Vergina occupies a strange case as one of the largest cemeteries in the EIA but without a known or located associated settlement. The mounds collectively must have made an impression on passersby and played some sort of role in demarcating territories and prestige. It may be the case that the EIA levels of ancient Aigai (the first capital of Macedon later in antiquity) have not been identified, but it is also possible, given the elite nature of the graves, that the cemetery was used by a select few individuals from the surrounding area. It is this competitive atmosphere, and the strategic placement of cemeteries close to settlements, that will be discussed further in the concluding chapter, alongside funerary rituals and the construction of recurrent (elite) identities.

Chapter 6 – Ashes and History: Death Rituals and Social Order in the North Aegean

The burial record of the north Aegean over 5,000 years is marked by a high degree of synchronic and diachronic diversity in funerary ritual, grave types, grave objects, and location choice, which reflect pluralistic approaches to death. If there is one commonality that links burial customs from the Neolithic to the EIA, it is that the region lacked a cohesive death ritual and was instead characterized by heterogeneity and multiplicity, from the intra-cemetery scale to the inter-regional sphere. The rite of cremation especially was a complex phenomenon not limited to one tomb type or region through time, appearing both in cremation-exclusive cemeteries and in isolated tombs within inhumation-dominant burial grounds. This study has attempted to make sense of the burial data by analyzing it through three facets: the funerary ritual, recurring categories of personhood, and the placement of the dead in the landscape. The remainder of this concluding chapter will be structured around the questions posed at the beginning of this dissertation: first, why cremation was adopted so early in the north Aegean; second, why the rite of cremation persevered in the EBA and LBA and re-emerged as a more frequent rite in the EIA; and third, was cremation associated with tribal, kinship-based states (*ethne*), or linked to social status, gender, age, or personal preference.

First of all, why was cremation adopted in the north Aegean in the Neolithic? There are two main contexts of cremation in the Neolithic: the extramural cemetery of Toumba Kremastis Koiladas and group of intramural burials at Avgi (where both adult and subadult individuals were interred), and isolated, intramural burials (the overwhelming majority of which were infants). It would thus appear that there are two different reasons why cremation was adopted so early by these communities. The first, relating to the individual infant cremations discovered under homes and settlement contexts (and in one case, underneath a settlement destruction

phase), is, I would argue, due to the infants not reaching a critical rite of passage. Although the reasons why cremation in particular was chosen are not clear, the overview of ethnographic cases of cremation in Chap. 2 have demonstrated that, among the variety of reasons underlining the burning of the dead, whether or not an individual has passed a rite of passage into adolescence or adulthood determines whether they are inhumed or cremated (as at Nepal, for example). While there are isolated infant cremations (and no other burials) in settlements, there are also infant cremations alongside inhumed children, adolescent, and adult individuals. It would thus appear that in certain communities, cremation was selected for infants who did not pass a crucial stage to the next age category, that is, at the point of being truly considered part of the community. The incorporation of charred seeds at Avgi and Varemenoi Goulon alludes to a symbolic funerary ritual that emphasized links between the deceased and the agricultural cycle, perhaps attempting to transcend the effects of life and death and establish a semblance of permanence. Thus, in referring to explanatory frameworks for cremations presented in Table 2.1, some of the earliest cremations in the study region were related to the age of the deceased and perhaps a broader social belief system related to memory and the human and agricultural life cycle.

By the LN, the site of Avgi and cemetery of Toumba Kremastis Koiladas have groups of cremations that mostly include adults and some subadults, with very few infants. Taking into account the similar funerary rite, lack of distinctive or individualistic grave goods, and close proximity to the associated settlement, cremation appears to have been chosen for the community of Toumba Kremastis Koiladas as a means to dissolve the individuality of the deceased and promote community collectivity. While there are hints of specialized treatment for some individuals (like the woman and fetus for T. 21, which was found with a high concentration of beads and the highest count of fragmented tripod vessels), overall the graves are markedly

similar. It is clear that the funerary rituals conducted for this group – which included not only the cremation of the deceased, but also the breaking or "killing" of objects and ceramic vessels – promoted collective values and interests. It is also possible that religious beliefs inaccessible to us may be a factor in why certain communities cremated their dead. In contrast, at LN Avgi, only a select few people of the community were chosen to be buried in this particular rite and interred at the center of the settlement, visible and accessible to individuals in the domestic environment. Although the criteria which determined this selection escape us, it is evident that cremation in this instance was not chosen as a means to destroy the identity of the deceased, but instead to celebrate or highlight a select group of individuals (most of whom were adults), albeit in a collective manner. While in the case of Toumba Kremastis Koiladas, cremation was chosen to subsume the multiple identities of the deceased, at Avgi a select group of people was chosen for this complex and lengthy rite – perhaps related to ancestor veneration and tokens of memory, as the excavators suggest.

The reinforcement of group identity and communality is applicable as an explanatory framework for why cremation perseveres in certain EBA communities. The tumulus cemetery of Kriaritsi-Sykia in Chalkidiki was exclusively comprised of cremations, which – taken together with the small, nearly identical intersecting and joining stone tumuli and the lack of grave goods besides the occasional pot – indicates an emphasis on communal integration. While Nea Skioni in Chalkidiki contained 12 cremation burials in stone periboloi, as well as five inhumations, it is less clear at this site why certain individuals were cremated and a minority were inhumed. This may be a matter of chronology, as the cemetery was in use from the earliest phase of the EBA to the early MBA, but the grave dating is not precise enough in the preliminary reports to confirm this hypothesis. At the other cemeteries in the study region during the EBA, cremation was a

minority rite, confined to one instance at Ayios Mamas, two examples at Goules, and 12 cases at Xeropigado Koiladas. At all three cemeteries, the individuals who were cremated were infants (Ayios Mamas and Goules) or subadults (Xeropigado Koiladas). Once more, the age of the deceased played a key role in determining who was inhumed and who was cremated in certain north Aegean societies, a continuation of a practice established in a select few Neolithic communities and perhaps also related to an early, tragic death, one in which the deceased did not reach a critical rite of passage.

The LBA witnesses the lowest numbers of cremation burials throughout the prehistoric period in the north Aegean. As discussed in Chap. 4, the use of cremation ritual can have enduring social influence, particularly in sites where cremation was not the normative mode of burial. At LBA Faia Petra, one of two women recognized in the cemetery was cremated and buried with a small selection of grave goods. Although the sample size is small, it is tempting to suggest that – given the energy expenditure required for the cremation ritual and unique status of the burial – the woman over 30 interred may have held special status in the community. Such status of the deceased may explain the few cremations found among the hundreds of inhumations at the cemetery of LBA–EIA Tsiganadika on Thasos, although caution should be exercised in this interpretation. These trends are contrasted with two stone tumuli located east of the Strymon river (Exochi and Potamoi), which exclusively consist of cremation burials. Given that both are located about 30 km from each other in the mountainous Rhodope region, it is likely that related but separate communities used both tumuli. The similar architecture of the tombs, exclusive rite of cremation, and similar types of grave goods indicate that people in east Macedonia and Thrake may have begun to associate with group identities beyond the immediate community.

Cremation increases in popularity during the EIA with 22 out of 60 cemeteries providing evidence of the rite, alongside a massive increase in the number of cemeteries and an expansion of their overall extent. Before discussing possible explanatory frameworks as to why cremation increased in popularity compared to the relative dearth of the rite in the LBA, cemeteries with cremations need to be distinguished between a) cemeteries with a majority of cremations and b) cemeteries with a minority of cremations (typically between 1 – 6% among hundreds of graves). Beginning with cemeteries that are exclusively or predominantly comprised of cremations, many of the cremation-exclusive sites are stone tumulus or dolmen graves located east of the Strymon river in east Macedonia and Thrake (Fig. 5.25). With a tradition going back to Exochi and Potamoi from the LBA, stone-built graves and tumuli that are associated with cremations in the region could be indicative of a broader community and sense of group identity (or identities) in east Macedonia and Thrake. While there are a few cases of inhumations found in rock-cut tombs, they are in the minority. As discussed in Chap. 5 in the case of the cremation sites found in Thrake in particular, the large number of burial monuments, their location on high ridges in sight of one another, presence of rock art with warriors and horses, and distribution in the Rhodope mountains in northern Greece led scholars to argue that the tombs charted paths through a landscape designated as sacred. We thus see the mobilization of different communities across the vast region of Thrake adopting similar burial rituals, integrating and defining themselves within a broader social – perhaps also political or religious – group.

Moving west to Chalkidiki, after an abandonment of cremation in the cemeteries of the region (with the exception of two cremations at Palaiokastro), Koukos and Torone produced an exclusively cremation and majority cremation cemetery respectively, with similar types of grave goods found in both sites. Despite the anarchic intra-cemetery organization at Koukos, the

cremation graves are remarkably similar, with half of the ash-urns interred in cists and the other half in pits. Grave goods mostly consisted of drinking and serving vessels (as well as a few cooking vessels) and a limited number of personal ornaments. Once more, the most likely explanation for why cremation was adopted at Koukos is the sense of community identity that the ritual reinforced while dissolving the individuality of the deceased. The possibility of a funeral pyre being located at the Koukos cemetery may have strengthened a sense of social cohesion if all members of the community burned their dead at the same location. However similar most graves were in terms of funerary rite and grave type, certain individuals were distinguished by the living from the rest of the cemetery population, seen especially in T. 75, in which five (out of the seven spears attested from the entire cemetery) were interred. As for Torone, the choice of cremation as opposed to inhumation had a chronological basis, with inhumations dating, for the most part, to an earlier period than the cremations. Bringing together the overall similar deposition of grave goods, close proximity to the associated settlement, and the "theatricality" of the funerary ritual, cremation in this context was arguably also used to strengthen communal social bonds. It is important to bear in mind, however, that not all inhabitants of Torone were interred in the cemetery, so this communal integration would have been limited to only a portion of the population (perhaps along age lines, since the number of infants and children was low in proportion to the adults). Moreover, the fact that most of the central graves in the tomb clusters were of females indicates that even within the restricted burial ground, some members of the community were perhaps given more importance than others.

Palaiogynaikokastro was an exceptional cemetery, being the largest cremation-majority burial ground throughout the study region with 542 cremations and 85 inhumations located in small, stone-built tumuli and enclosures. The EIA Palaiogynaikokastro cemetery was situated in

a plain close to the contemporary settlement, located on the terrace on the slope of a hill in the lower Axios valley. Although no osteological study of the cremations has been published, it is more likely that, unlike Torone, almost all members of the neighboring community were permitted to be interred. In addition to storage, drinking, and pouring ceramic vessels, we also find bronze and iron ornaments, utensils, and accessories that are partially (but not completely) burned. Macedonian bronzes in the form of zoomorphic ornaments, miniature double-axes, and other elite indications of wealth, power, and prestige are attested (and unevenly distributed) at the cemetery. As to why 84% of individuals interred at Palaiogynaikokastro were cremated, the explanation is unclear. The finds and rites are synthesized in the preliminary reports, but it is not explicitly stated which grave goods are associated with which graves, and there have been no skeletal analyses on the cremations or inhumations. It is significant that the inhabitants of the settlement chose the plain as their burial ground, especially given that the valley is the site of dozens of large (mostly inhumation) cemeteries (Fig. 5.25). It may be the case that most residents of Palaiogynaikokastro (both elite and non-elite) – through burning the dead and some of their associated finds (perhaps at a section of the cemetery identified as a funeral pyre context) and occupying a 450 m^2 area of stone-built tumuli – differentiated themselves from their neighbors in the Axios valley, while participating in settlement hierarchies and territorial antagonisms that may have characterized the fertile valley during this time (*cf.* Ch. 5, Section 1). The cultivation of this funerary ritual in a region dominated by inhumations, while also incorporating both non-elite and elite grave goods (such as Macedonian bronzes) found elsewhere in the region, suggests that most of the inhabitants of Palaiogynaikokastro were aware of their difference and cultivated it. Whether Palaiogynaikokastro was the seat of an independent

ethnos or part of a larger hierarchical settlement network, however, cannot be determined from the evidence at hand.

Cremations are not always located in the same region or are located in an expansive cemetery but can also be in small and isolated grave sites. This is seen at Apsalos-Verpen in Almopia, which consisted of one 15 m diameter stone-built tumulus with four urn cremations. Drama Z.I, located east of the Strymon and south of Exochi, had five cremations and four inhumations among three tumuli. Although information provided in preliminary reports is slim, it is noteworthy that one tumulus (Gamma) contained only cremations, and the inhumations were of children. It may be the case that at Drama Z.I, the deceased who were chosen to be cremated had reached adulthood, while sub-adults were inhumed, a pattern seen also in EIA Athens.

There are 12 EIA cemeteries where cremation is the minority rite, primarily located in central Macedonia and Chalkidiki. Typically, not much information is provided in preliminary reports regarding these cremations, their associated grave goods, and their placement within the cemetery, which unfortunately makes it more challenging to infer why a small group of people were cremated instead of inhumed. Of the cemeteries that do provide more detailed information regarding the cremations, the circumstances and contexts vary from site to site. The three primary cremations discovered at Makrygialos in Pieria were of children, and the sole cremation at Ierissos in Chalkidiki was of an infant interred with an inhumed adult woman, described by the excavators as a mother and child burial. In these cases, much like the Neolithic and in select EBA cemeteries, infants and children were selected for cremation rites. At Vergina, cremation graves do not appear until the last phase of the EIA cemetery in the late eighth and early seventh centuries BCE. The only cremation at Amphipolis-Kastas in east Macedonia was interred in a tumulus with a Naue II sword, while similarly at Axioupoli in central Macedonia the only

cremation was buried with one iron sword, one knife, and a bead. At cemeteries where cremation was the minority rite and adequate information was provided, then, it would appear that the abstracted (i.e., "warrior") identity or age category of the deceased was the critical factor in determining whether the individual was cremated. Although this would be difficult to prove, it may also be possible that some of these cremations from cemeteries with hundreds or even thousands of graves (e.g., Archondiko, Ierissos, Nea Efkarpia, Oraiokastro, Nea Philadelphia) may have been a personal choice on the part of the deceased and their family. Furthermore, it is also worth considering whether some cremations are a marker of an individual who had migrated to a region away from their place of birth and wanted to replicate the death rituals of their homeland.

It is noteworthy that besides a few isolated cremations that were either female or male, gender does not appear to play a large role in determining who was cremated and who was inhumed. Of course, more skeletal analyses of cremains are well overdue in the study region and could shed further light on cremation and gender dynamics in the prehistoric north Aegean. For the cemeteries that have included skeletal analyses, however, it appears that women and men were cremated in equal numbers through time. It is also interesting that, despite southern Pieria and the Thracian coast being referenced in Homer's catalogue of ships in Book 2 of the *Iliad*, there do not appear to be clear-cut allusions to a heroic, Homeric-style cremation, as witnessed in the study region later in antiquity.

It is worth turning briefly to the inhumation graves, which have provided an important comparison to the cremation burials. With inhumations, this study began with Neolithic intramural inhumations, and also outlined EBA and LBA extramural inhumations. In both the Neolithic and the EBA, no strong inequalities were noted (similar to the cremations), although

some competition is implied by the circulation of personal, bronze-crafted objects and display of imported objects at maritime sites on Thasos, Chalkidiki, and the Pieria coast during the EBA. The LBA ushers in a variability in tomb types as well as grave goods and wealth within cemeteries, including carved seal stones, Mycenaean drinking sets, Danubian- and Mycenaean-style aromatic containers, and bronze weapons (often of Mycenaean type), together with exotic artifacts. Such finds, which mark a careful crafting of personal identity through heterogeneous objects, are predominantly associated with inhumation graves. It is possible that while cremations during this time were associated with the reinforcement of group identity and communality (as well as subadults and infants), inhumation became a more appropriate venue for the display of personal ornaments, weapons, and/or distant contacts.

The EIA is marked by the development of vast cemeteries and the multiplication of grave types, reflecting diverse approaches to death. Situated close to settlements and communication routes, both flat and tumulus cemeteries became important elements in the territorial claims of various communities. The cemetery of Vergina in particular is exceptional in its numerous tumuli, standardized and sumptuous grave goods, and lack of an associated settlement (or, at least, the settlement has not been located). Although the mounds themselves were not tall, it was the set of mounds that collectively showcased the power of the community and their presence in the landscape. In contrast to the fragmented and diverse nature of other cemeteries during the EIA, a strong and repetitive burial tradition constituted an important means of forging an aristocratic warrior male and elite female community and identity. Few communities in the study region (such as Pieria, the eastern coast of the Thermaic Gulf, the Gallikos Valley, and Chalkidiki) participated in this mode of elite male expression. In the case of Vergina, and to a lesser extent at other cemeteries such as Agrosykia, inhuming the dead was a means of forging a

particular type of elite identity, at a time when rapid changes were taking place in socio-political organization. While cremation in most contexts in the region eroded the specific identity of the deceased, inhumation and the deposition of a large part of their "wealth" allowed for a different kind of abstract personhood to be established in the north Aegean burial record, one which would become even more and more elaborate by the Archaic and Classical periods.

The burial record is marked by a diversity and richness once one probes the complex web of rituals that characterize the study region from the Neolithic to the end of the EIA. This study has demonstrated that the north Aegean was anything but a homogeneous entity or a simple periphery of the Greek and Balkan world. It is better to characterize the area as a micro-regional, highly fragmented point of confluence that gradually grew from small communities of farmers to tribal, kinship-based states. The work of the dead – and specifically the study of cremation through the lens of funerary ritual, identity, and landscape – provides a fascinating insight into the lives, death, and aspirations of individuals and communities in the prehistoric north Aegean.

Appendix I – List of Sites and References

No.	Date	Site	Region	C	I	References
1	Neo	Avgi	WMac	X	X	Stratouli et al. 2010
2	Neo	Dispilio	WMac	X	X	Hourmouziadis 2002; Petroutsa 2009
3	Neo	Kleitos I & II	WMac	X	X	Archibald 2012; Karamitrou-Mentesidi 2008b; Ziota 2009; 2014
4	Neo	Mandalo	CMac	X	X	Papaefthimiou-Papanthimou & Pilali-Papasteriou 1989; 1997; Pilali-Papasteriou et al. 1986
5	Neo-EIA	Makrygialos	CMac	X	X	Besios 1992; 1993; 1994a; 1994b; 1997a; 1997b; 2010; Besios & Athanasiadou 2001; Besios & Krahtopoulou 1998; Besios & Pappa 1995; 1997; 1998a; 1998b; Pappa & Besios 1999; Pappa et al. 2004; Triantaphyllou 1998; 1999; 2001; AΔ 44 B'2: 325; 45 B'2 311; 46 B'2: 292; 50 B'2: 484; 52 B'2: 659; 54 B'2: 561-562; 55 B'2: 712-713
6	Neo	Stavroupoli	CMac	X	X	Grammenos & Kotsos 2004
7	Neo	Toumba Kremastis Koiladas	WMac	X	X	Hondroyianni-Metoki 2001; 2009b
8	Neo	Varemenoi Goulon	WMac	X		Blackman 1998; Whitley 2003; Hondroyianni-Metoki 2014
9	EBA	Ayios Mamas	Chalkidiki	X	X	Asouchidou 2001; Pappa 1995; 2010
10	EBA	Goules	WMac	X	X	Ziota & Hondroyianni-Metoki 1997; Ziota 2007
11	EBA	Kriaritsi-Sykia	Chalkidiki	X		Asouchidou et al. 2000; Asouchidou 2001; Triantaphyllou 2004; Asouchidou 2012
12	EBA	Nea Skioni	Chalkidiki	X	X	Asouchidou 2001; Tsigarida & Mantazi 2005; 2006
13	EBA	Xeropigado Koiladas	WMac	X	X	Asouchidou 2001; Ziota & Triantaphyllou 2004; Ziota 2007; Maniatis & Ziota 2011
14	LBA-EIA	Exochi	EMac	X		Grammenos 1979; Asouchidou 2001
15	LBA	Faia Petra	EMac	X	X	Valla 2007; Valla et al. 2013; Triantaphyllou 2004

16	LBA	Palaiokastro	Chalkidiki	X		Whitley 2004; AΔ 61 B΄2: 786
17	LBA	Potamoi	EMac	X		Grammenos 1979; Asouchidou 2001
18	LBA	Tourla	WMac	X	X	Ziota 2007
19	LBA	Tsiganadika	Thasos	X	X	Koukouli-Chrysanthaki 1992; Asouchidou 2001
20	EIA	Agrosykia	CMac	X	X	A. Chrysostomou 1994a; 1997a; 1999b; 2000a; Chrysostomou et al. 2007
21	EIA	Amphipolis-Kastas	EMac	X	X	Peristeri 2004a: 138; Koukouli-Chrysanthaki 1993; Lazaridis 1997
22	EIA	Archondiko	CMac	X	X	Chrysostomou & Chrysostomou 2004; 2005; 2006; 2008; 2009; Ziota 2010; AΔ 55 B'2: 769-774; 56-59 B'3B: 344-349, 404-405, 450
23	EIA	Apsalos-Verpen	WMac	X		A. Chrysostomou 1999a; 2003; AΔ 52 B'2: 727; 55 B'2: 780-782
24	EIA	Axioupolis	CMac	X	X	Savvopoulou 1988; 2007; AΔ 43 B'2: 367; 48 B'2: 354
25	EIA	Drama Z.I	EMac	X	X	Koukouli-Chrysanthaki 1993; Peristeri 2004; AΔ 34 B'2: 334-335
26	EIA	Palaiogynaikokastro	CMac	X	X	Savvopoulou 1987; 1991; 1992; 2001; 2004; AΔ 40: 239; 42 B'2: 360-363; 45 B'2: 310-311; 47 B'2: 390-391; 49 B'2: 462-463; 51 B'2: 459
27	EIA	Ierissos	Chalkidiki	X	X	Trakassopoulou-Salakidou 2001; 2004; AΔ 55 B'2: 709-711; 56-59 B'3A: 33-34, 83-84
28	EIA	Aiani-Isiomata	WMac	X	X	Karamitrou-Mentesidi 2011; AΔ 42 B'2: 430; 43 B'2: 401; 50 B'2: 567
29	EIA	Koukos-Sykia	Chalkidiki	X	X	Carington-Smith & Vokotopoulou 1991; 1992; 1993; 1996; AΔ 42 B'2: 370-371
30	LBA-EIA	Kriovrissi Kranidia A & B	WMac	X	X	Hondroyianni-Metoki 1998; 2000; 2009a; AΔ 47 B'2: 447; 52: 741
31	EIA	Pydna	CMac		X	Besios 1993; 1994a; 1994b; 1997a; 1997b; 2010; Besios & Athanasiadou 2010; Besios &

						Krachtopoulou 1998; Karliabas et al. 2004; Triantaphyllou 1999; 2001
32	EIA	Nea Efkarpia	CMac	X	X	Lambrothanasi-Korantzi et al. 2004; AΔ 51 B'2: 436; 54 B'2: 547-548; 56-59 B'3A: 17-18, 57-58
33	EIA	Nea Philadelphia	CMac	X	X	Misailidou-Despotidou 2000: 264; Grammenos & Triantaphyllou 2004; Aikaterinidis 2008; AΔ 51 B'2: 443-444; 52 B'2: 645
34	EIA	Nikiti-Ai Gianni	Chalkidiki	X	X	Trakassopoulou-Salakidou 1991; 2001; 2004; AΔ 39 B: 224-225; 43 B'2: 361-362
35	EIA	Olympus tumuli	CMac	X	X	Poulaki-Pantermali 1991; 2008; 2013; AΔ 44 B'2: 324
36	EIA	Oraiokastro	CMac	X	X	Lambrothanasi-Korantzi & Papagianni 2005; Lambrothanassi-Korantzi 2005; AΔ 56-59 B'3A: 18 & 67
37	EIA	Roussa	Thrake	X		Triantaphyllos 1980; Baralis 2007; Baralis & Riapov 2007
38	EIA	Stavroupoli-Polichni	CMac	X	X	Lioutas & Gkioura 1999; AΔ 53 B'2: 575; 54 B'2: 548; 56-59 B'3A: 174-175
39	EIA	Torone	Chalkidiki	X	X	Cambitoglou et al. 2001; Papadopoulos 2005
40	EIA	Vergina	CMac	X	X	Andronikos 1961; 1964; 1969; Radt 1974; Rhomiopoulou & Kilian-Dirlmeier 1989; Bräuning & Kilian-Dirlmeier 2013; Petsas 1961–1962
41	Neo	Amyntaio	WMac		X	Mulliez 2010
42	Neo	Anargyroi	WMac		X	Whitley et al. 2006; P. Chrysosotomou 2008
43	Neo	Axos A	CMac		X	Chrysostomou 1997c
44	Neo	Limenaria	Thasos		X	Koukouli-Chrysanthaki & Papadopoulos 2009; Papadopoulos 2005; Papadopoulos & Malamidou 2008
45	Neo	Makri II	Thrake		X	Agelarakis & Efstratiou 1996
46	Neo	Mavropigi-Phyllotsairi	WMac		X	Valamoti 2009; Karamitrou-Mentesidi et al. 2013

47	Neo	Nea Nikomedeia	CMac		X	Rodden 1962; 1965; Rodden & Rodden 1964a; Rodden & Wardle 1996; Angel 1973
48	Neo	Paliambela	CMac		X	Hondroyianni-Metoki 2000b; Kotsakis & Halstead 2004; Blackman 2001; Mulliez 2012
49	Neo	Revenia, Korinos	CMac		X	Besios & Adaktylou 2004
50	Neo	Xyrolimni	WMac		X	Karamitrou-Mentesidi 2000c; Whitley 2004
51	EBA	Skala Sotiros	Thasos		X	Koukouli-Chrysanthaki 1987; Koukouli-Chrysanthaki & Papadopoulos 2009; Papadopoulos 2005
52	EBA, EIA	Korinos	CMac		X	Besios 1997a; Triantaphyllou 2001
53	MBA	Valtos-Leptokaryas	CMac		X	Poulaki-Pantermali 2008; 2013; Poulaki-Pantermali et al. N.D.; Tritsaroli 2010
54	LBA	Spathes-Agios Dimitrios	CMac		X	Poulaki-Pantermali 1987; 1991; 2005a; 2008; 2013; Koulidou & Tsangaraki 2014
56	LBA	Ano Komi	CMac		X	Karamitrou-Mentensidi 2000a
57	LBA-EIA	Vrysoudes	Thasos		X	Koukouli-Chrysanthaki 1992
58	LBA-EIA	Kentria	Thasos		X	Koukouli-Chrysanthaki 1992
59	LBA	Kanadas	Thrake		X	Triantaphyllos 1997; Baralis 2007; Baralis & Riapov 2007
60	LBA	Longas Elati	CMac		X	Evely et al. 2007
61	LBA	Pigi Athinas	CMac		X	Poulaki-Pantermali 2005a; 2005b; 2008; 2013; Tritsaroli 2016
62	LBA	Pigi Artemidios	CMac		X	Poulaki-Pantermali 2008; 2013; Koulidou 2014; 2015
63	LBA	Polymylos			X	Karamitrou-Mentesidi 2008b
64	LBA	Rema Xydias	CMac		X	Koulidou & Tritsaroli 2017
65	LBA	Rymnio			X	Karamitrou-Mentesidi 1990; 1996; 2005; 2006
66	LBA	Toumba Thessalonikis	CMac		X	Andreou & Kotsakis 1991; 1999b; Andreou et al. 2013; Kotsakis & Andreou 1997; Triantaphyllou 2001; Soueref 2009

67	LBA	Treis Elies	WMac		X	Poulaki-Pantermali 1988; 1989; 1992; 2013; AΔ 43 B'2: 366; 44 B'2: 324
68	EIA	Agios Panteleimon	WMac		X	Heurtley 1939; Hammond 1972; Whitley 2006; AΔ 56-59 B'3B: 385-387, 434-436, 466-469, 507-511; 63 B'2: 829
69	EIA	Agras	WMac		X	A. Chrysostomou 1999; 2000; 2008
70	EIA	Aiani-Prodromos	WMac		X	Karamitrou-Mentesidi 2008a; 2011; AΔ 24: 332
71	LBA-EIA	Aiani-Livadia	WMac		X	Karamitrou-Mentesidi 2000b; 2002; 2008; 2011; AΔ 51 B'2: 530
72	EIA	Arnissa	WMac		X	Hammond 1972: 266-267; Koukouli-Chrysanthaki 1992: 631; A. Chrysostomou 2006; 2008; AΔ 47 B'2: 458-459
73	EIA	Assomata-Delik Tas	WMac		X	AΔ 56-59 B'3B: 415
74	EIA	Axiochori	CMac		X	French 1992; *Nike* 4.11.92
75	EIA	Aiani-Giannouka Vrisi	WMac		X	Karamitrou-Mentesidi 2008a; 2011; AΔ 42 B'2: 423-424
76	EIA	Frourio-Kambos	WMac		X	Hondroyianni-Metoki 2000a; AΔ 50: 572-573; 51 B'2: 536
77	EIA	Rymnio-Ampelia	WMac		X	Karamitrou-Mentesidi 2005; AΔ 45 B'2: 355; 46 B'2: 304
78	EIA	Kato Bravas Velventos	WMac		X	Hondroyianni-Metoki 1998; Karamitrou-Mentesidi 2010
79	EIA	Koilada-Potistra	WMac		X	AΔ 38 B'2: 307; 39 B: 257
80	EIA	Kolitsaki Servia	WMac		X	Pateli 2009; AΔ 42 B'2: 418-419; 63 B: 950-951
81	EIA	Konstantia	WMac		X	A. Chrysostomou 1998a; 1999b; 2000; 2002; 2011a; AΔ 50 B'2: 559-561; 53 B'2: 658; 55 B'2: 782-783
82	EIA	Aiani-Koupoutsina	WMac		X	Karamitrou-Mentesidi 2011; AΔ 43 B'2: 399
83	EIA	Chauchitsa (Tsaousitsa)	CMac		X	Gardner & Casson 1918-1919; Casson 1919-1921; Casson 1926; Hammond 1972
84	EIA	Tzamala	WMac		X	Kottaridi 2005; AΔ 56-59 B'3B: 372-378
85	EIA	Kypseli	CMac		X	Rey 1917-1919
86	EIA	Assomata-Egnatia	WMac		X	Koukouvou 2002; 2005; AΔ 56-59 B'3B: 362

87	EIA	Nea Kallikratia	Chalkidiki		X	Bilouka & Graikos 2005; 2009; Bilouka et al. 2002; 2006; 2007; AΔ 56-59 B'3A: 27-28; 60: 625
88	EIA	Nea Zoi ΣΤ	WMac		X	A. Chrysostomou 1997c; 1998b; AΔ 52 B'2: 726-727
89	EIA	Servia-Kokkinoi	WMac		X	Karamitrou-Mentesidi 2005; AΔ 56-59 B3'B: 461-462
90	EIA	Panagitsa Zervi	WMac		X	A. Chrysostomou 2012; AΔ 56-59 B'3B: 354-355; 60: 722
92	EIA	Rahi Kommenoi	WMac		X	AΔ 53 B'2: 666
93	EIA	Kastoria-Daïlaki	WMac		X	Tsoungaris 1999; AΔ 53 B'2: 683; 56-59 B'3B: 474
94	EIA	Toumba Thessalonikis	CMac		X	Triantaphyllou 2001; Soueref 2001; 2009; AΔ 54 B'2: 529-553
95	EIA	Thermi	CMac		X	Skarlatidou & Ignatiadou 1997; Skarlatidou 2007; AΔ 45 B'2: 308-309; 46 B'2: 461-465; 51 B'2: 436-441; 53 B'2: 567-573; 54 B'2: 532-544; 55 B'2: 675-680; 56-59 B'3A: 59-63
96	EIA	Krepeni	WMac		X	Tsougaris 2001; AΔ 54 B'2: 644; AΔ 56-59 B'3B: 440, 474
97	EIA	Kozani-Philippou St.	WMac		X	Petsas 1960; Hammond 1972; AΔ 17 B: 216-217
98	EIA	Plagia	CMac		X	Grammenos et al. 1997; AΔ 51 B'2: 456-457
99	EIA	Krania	CMac		X	A. Chrysostomou 1997b; P. Chrysostomou 1997; AΔ 46 B'2: 308; 55 B'2: 765-769
100	EIA	Nea Zoi-Terikleia	CMac		X	A. Chrysostomou 1997c; 1998b; 2000; AΔ 35 B'2: 411; 48 B'2: 364-365
101	EIA	Apsalos-Margarita	WMac		X	A. Chrysostomou 1997b; AΔ 56-59 B'3B: 357-358
102	EIA	Neromyloi-Prodromos	CMac		X	Chrysostomou 2011b; AΔ 56-59 B'3B: 361
103	EIA	Prophiti Ilias	WMac		X	AΔ 56-59 B'3B: 411-412
104	EIA	Giannitsa	CMac		X	A. Chrysostomou 2000; AΔ 29: 653; 55 A': 37-56
105	EIA	Mende	Chalkidiki		X	Moschonissioti 1998; 2010; Vokotopoulou & Moschonissioti 1993
106	EIA	Plagiari	CMac		X	Soueref & Havela 2000; AΔ 53 B'2: 574

107	EIA	Alykes Kitrou	CMac		X	Besios 1986; AΔ 38 B'2: 274-275
108	EIA	Veria	CMac		X	AΔ 21 B'2: 355-357
109	EIA	Karathodoreika	CMac		X	Savvopoulou 1998; AΔ 50 B'2: 487-490; 56-59 B'3A: 156
110	EIA	Kandoriotissa	CMac		X	Hammond 1972
111	EIA	Vafeika	Thrake		X	Triantaphyllos & Kalantzi 2000; Baralis 2007; Baralis & Riapov 2007
112	EIA	Mikro Doukato	Thrake	X		Triantaphyllos 1983; Baralis 2007; Baralis & Riapov 2007
113	EIA	Zone	Thrake	X		Baralis 2007; Baralis & Riapov 2007
114	EIA	Kotronia	Thrake	X		Triantaphyllos 1980; Baralis 2007; Baralis & Riapov 2007
115	EIA	Thamna	Thrake		X	Baralis 2007; Baralis & Riapov 2007
116	EIA	Petrota	Thrake		X	Baralis 2007; Baralis & Riapov 2007
117	LBA	Methone	CMac		X	Besios & Athanasiadou 2001; Besios 2010
118	LBA	Platamonas	CMac		X	Koulidou et al. 2017

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