LANDSCAPES OF SETTLEMENT IN SOUTH-EAST CYPRUS

THE LATE BRONZE AGE ORIGINS OF A PHOENICIAN POLITY

INCORPORATING THE RESULTS OF FIELDWORK BY THE AUTHOR AT PYLA-KOKKINOKREMOS 2007-2009

MICHAEL GARETH BROWN

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I hereby declare that this thesis has been composed entirely by myself and, except where explicitly acknowledged, represents my own work. Its contents have not previously been published, nor submitted for any other degree or professional qualification.

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"*Journeys, like artists, are born and not made. A thousand differing circumstances contribute to them, few of them willed or determined by the will—whatever we may think.*"

Lawrence Durrell, Bitter Lemons (1957, 15)

ABSTRACT

The origins of Early Iron Age polity in south-east Cyprus have traditionally been attributed to the formal imposition of Phoenician dominion over Kition in 707 BC. It is proposed that this paradigm fails adequately to acknowledge local agency in the preceding development of relations with Canaan and the Nile Delta from c.1650 BC onwards. Longue durée trends in settlement and societal development suggest that Late Bronze Age communities became pre-adapted to incorporation into wider Levantine spheres of interaction through participation in 'orientalizing' exchange. An emphasis is placed upon the significance of bulk commodity industry as a catalyst for social innovation, including the adoption of urbanism, concurrent with secondary state formation.

Three case studies examine the development of regional settlement landscapes within the environs of Ayios Sozomenos, Pyla, and Hala Sultan Tekke. Discussion chiefly incorporates the results of new fieldwork conducted by the author [2007-2009] at the site of Pyla-*Kokkinokremos*. This involved pedestrian, geophysical and remote sensing survey combined with trial excavation. Several previously unknown archaeological features were identified, providing significant new information concerning the character and intramural composition of this important maritime centre. These findings complement those of previous missions, and reflect an established community rooted in its surroundings.

A dominant trend of continuity in settlement and societal development, most clearly apparent through successive episodes of synoecism, is proposed for south-east Cyprus as a whole across the Bronze-to-Iron Age transition. Changes in occupation throughout the eastern Mediterranean at this time have conventionally been attributed to successive waves of migration and colonisation. This thesis constitutes an attempt at a pre-colonial narrative for Phoenician Cyprus, and by extension a conceptual framework to structure investigation of Levantine diaspora communities elsewhere in the Mediterranean.

CONTENTS

ILLUSTRATIONS

(*Prepared by the author unless otherwise stated*)

FIGURES

PLANS

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PREFACE

The following examines the relationship between Late Bronze Age settlement in south-east Cyprus and the Phoenician polity of Kition (fig. 1.1). Analysis is divided between three landscape case studies. The scope of these regional surveys is intended to allow for detailed discussion of individual site formation, while providing a sufficiently broad interpretative context within which environmental factors affecting the evolution of settlement patterns can be fully appreciated. Discussion of Asiatic influence on the island has more conventionally taken the form of diffusionist narratives, based upon the distribution of individual artefacts, which are taken to chart the spread of diaspora populations.

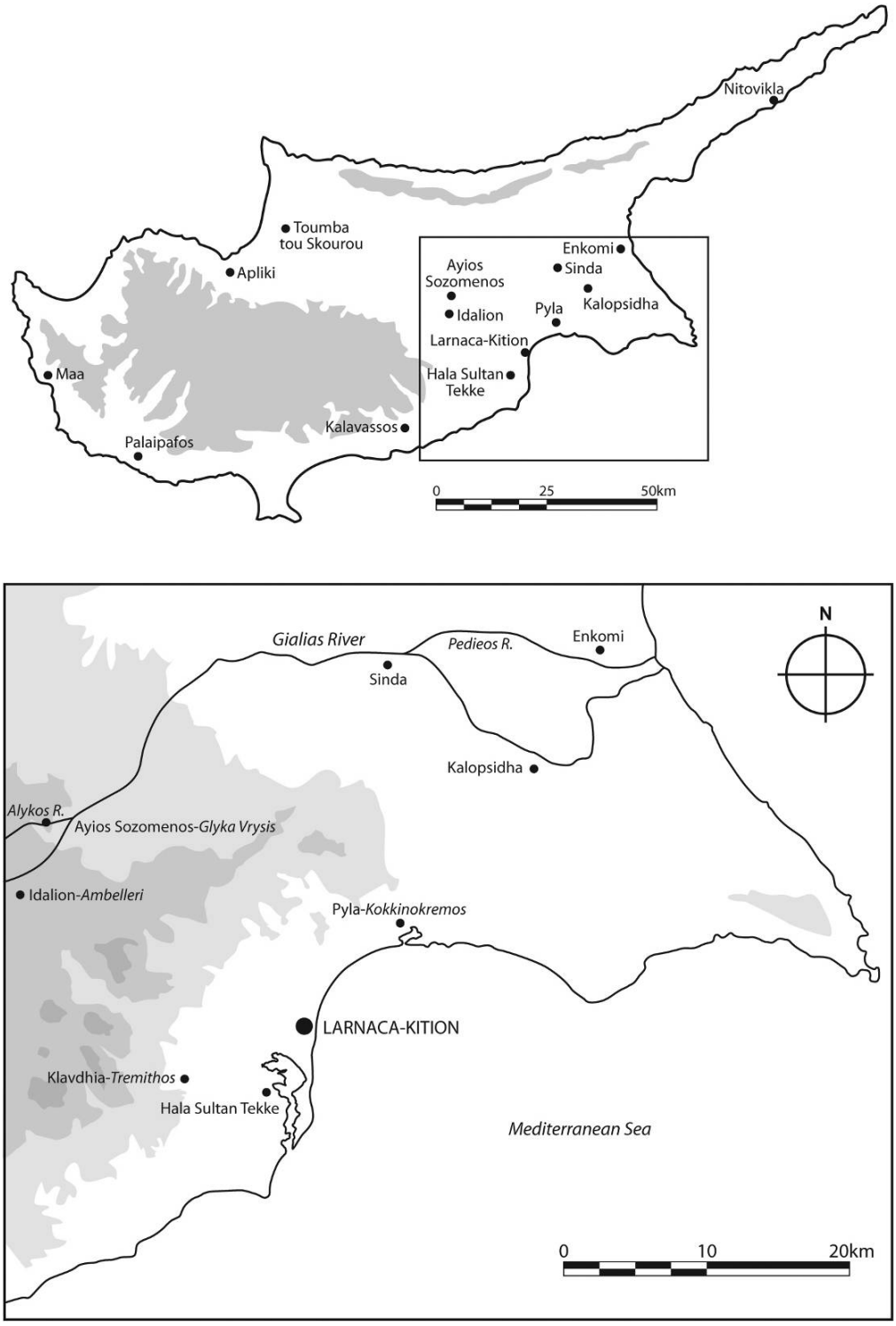
The chronological parameters of research encompass the inception of intensive exchange contacts between south-east Cyprus and the Levant at the beginning of the Late Cypriot period c.1650 BC, through until the formal imposition of Tyrian dominion at Kition in 707 BC (fig. 1.2). This terminus ad quem has been chosen in order to separate the initial pre-colonial period under investigation from the subsequent era of vassal relations. Due to interpretative focus and evidentiary restrictions, the greater extent of the present work is concerned with the Late Bronze Age (c.1600-1125 BC). All periodical classifications are given in the conventional Cypriot scheme [MCIII/LCI-CGIII/CAI]. When referring to locations outside of Cyprus absolute chronology is used for all dates.

A conscious decision has been made to use the term 'Phoenician' when describing the pan-Levantine sphere of interaction which Kition formally became a part of during the early first millennium BC. While the use of this established culture-history nomenclature can lead to preconceptions, it also serves to structure debate by highlighting the relationship between Late Bronze Age networks of exchange, and Early Iron Age routes of commerce involving Cyprus. By highlighting threads of 'continuity', as a counterpoint to the many examples of 'change' orientated treatments, it is intended to make an original contribution to the ongoing debate regarding the nature of the Bronze-to-Iron Age transition in the wider eastern and central Mediterranean.

The explicit regional and chronological focus adopted in this study inevitably curtails the overall scope of research. The sites of Enkomi-Salamis, which only receive passing mention in the following, represent a contemporary and parallel history of

settlement development. To the west of Larnaca Bay the neighbouring region of Maroni-Kalavassos-Alassa may well constitute an extension of the present landscape of study, but has been similarly omitted from detailed consideration for reasons of conciseness. Early and Middle Bronze Age settlement at Marki (Frankel and Webb 2006) likewise constitutes a prequel to developments at Ayios Sozomenos, but falls outside the thematic and chronological parameters of this thesis. While analysis of Late Bronze Age settlement patterns is not otherwise limited in its diachronic extent to a specific area, each regional study focuses upon a different phase of settlement and exchange. Discussion of mortuary sites is restricted to where it pertains directly to contemporary patterns of habitation.

Viewing the progression of Late Bronze Age settlement in south-east Cyprus through the prism of subsequent Iron Age political arrangements at Kition is only one possible perspective on the archaeological evidence under review. The following is not therefore an attempt at *the* definitive prehistory of 'Phoenician' Cyprus in terms of either geographic coverage or investigative scope. The present work has the more modest aim of producing *a* pre-colonial narrative which should be viewed as part of this broader interpretative whole.



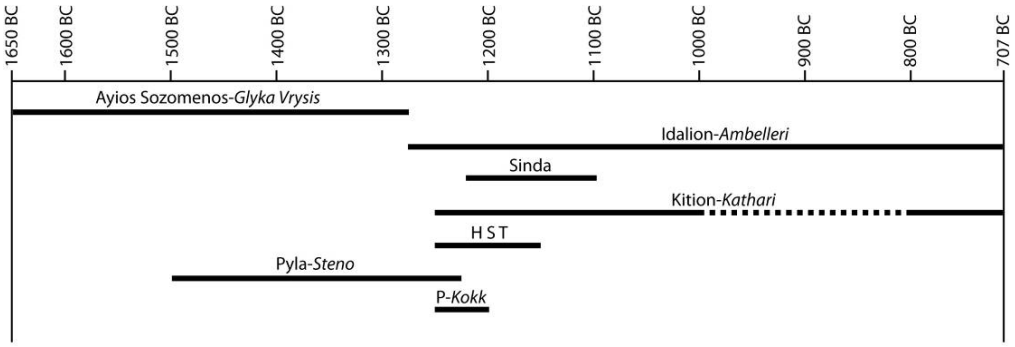
1.1 Map of Late Bronze Age settlement on Cyprus with principle sites in the south-east of the island.

1.2 Chronology and relative occupation of principle Late Bronze-to-Early Iron Age settlement sites in south-east Cyprus mentioned in the text.

*Incorporating revised scheme for CGI/II-CAI by Smith (2009a, xviii).

--- = Occupation disputed (cf. Karageorghis & Demas 1985a; Smith 2009a).

Period (LC-CG-CA)	Absolute chronology*
Middle Cypriot III	c.1725-1600 BC
Late Cypriot I	c.1600-1450 BC
Late Cypriot IIA-B	c.1450-1300 BC
Late Cypriot IIC	c.1300-1200 BC
Late Cypriot IIIA	c.1200-1125 BC
Late Cypriot IIIB	c.1125–1050 BC
Cypro-Geometric I/II	c.1050–925/900 BC
Cypro-Geometric III	c.925/900–800 BC
Cypro-Archaic I	c.800–700/650 BC



CHAPTER 1
INTRODUCTION

1.1 BRONZE-TO-IRON

The Bronze-to-Iron Age transition in the eastern Mediterranean has traditionally been portrayed as a period of cultural disjuncture, with the 'collapse' of established communities and their redistributive networks, followed by a 'dark-age' of general decline and hiatus from which new societal institutions emerge (e.g. Maspero 1896; Marinatos 1939; Schaeffer 1948, 560; Drews 1993). More recent studies concerning this widely accepted paradigm have for the most part been conducted within a proto-historic framework, where archaeological evidence for the abrupt abandonment and conflagration of settlement on Cyprus has been evaluated with reference to written accounts of widespread population upheaval from Egypt, Anatolia and the Levant associated with the predations of the Sea Peoples (e.g. Ward and Joukowsky 1992; Gitin et al 1998; Oren 2000; Bachhuber and Roberts 2009; Silberman 1998). Nowhere is this correlation supposedly more apparent on Cyprus than in the south-east of the island, with the abandonment of two major urban settlements at Pyla-*Kokkinokremos* and Hala Sultan Tekke during the late 13th-to-early 12th centuries BC.

This narrative approach to scholarship concerning the close of the Late Bronze Age has led in part to a particular focus upon the transition from LCIIC-LCIIIA [c.1200 BC], a juncture which has become synonymous with a major shift in settlement patterns throughout the eastern Mediterranean (e.g. Liverani 1987; Yon 1999b).[1] While this would appear at first glance to correlate with the abandonment of coastal centres in south-east Cyprus, it has arguably over-emphasised the importance of individual episodes of disruption associated with specific causal agents, and prevented an adequate acknowledgement of continuity in aspects of settlement and societal development.

The main archaeological reason for this investigative focus, and ensuing chronological imbalance, is urban palimpsest. This places Geometric period remains

1. The Late Bronze Age mortuary record for south-east Cyprus reflects the documentation of settlement remains with a bias towards tombs dating to LCIIC-LCIIIA. According to Keswani (2004, 98) it is only possible to discern information regarding the ritual treatment of the dead from some of the more recently excavated Late Bronze Age interments at Kition and Hala Sultan Tekke. For discussion of Geometric period mortuary practices on Cyprus see Janes (2008).

underneath occupational sequences that continue in the case of Larnaca-Kition to the present day. The ensuing lack of habitation contexts accessible for investigation has resulted in an archaeological record for Early Iron Age Cyprus that is heavily biased towards mortuary data (Iacovou 1994). While more recent studies have sought to address this issue (e.g. Karageorghis 1994a; Iacovou and Michaelides 1999), discontinuity in scholarship still influences our perceptions of the relationship, or lack thereof, between Bronze and Iron Age populations on the island (Iacovou 2005, 130). At the other end of the chronological spectrum, knowledge of settlement patterns at the beginning of the Late Bronze Age in the vicinity of major sites including Hala Sultan Tekke and Kition is similarly restricted to areas away from subsequent LCIIC constructions. This situation presents a major impediment to understanding diachronic changes in regional patterns of settlement.[2]

The negative impact of the interpretative division drawn between Bronze and Iron Age occupation, and the general lack of attention paid to the Geometric period in general, has been widely highlighted by scholars including Iacovou (1999b, 144-145) and Rupp (1997). Despite this explicit acknowledgement of short-comings in our treatment of the later prehistoric and protohistoric periods on Cyprus, academic discourse remains mired in a polarised debate between those for and against an Aegean colonisation of the island during the late second millennium BC. With particular reference to the site of Pyla-*Kokkinokremos* which is the subject of primary research detailed below, the notion of a mass immigration of Aegean refugee-colonists during the 13th-to-12th centuries BC has been a longstanding and frequently contested theme pertaining to Late Cypriot settlement (cf. Karageorghis 1998; South and Todd 1985, 47).[3]

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2. Issues of archaeological visibility and inferred cultural disjuncture find frequent parallel elsewhere in the eastern Mediterranean, and are of particular relevance to discussions concerning Canaan, where investigation of Late Bronze Age contexts at major coastal sites exemplified by Tyre is similarly curtailed by later overburden (Aubet 2001, 25). For the extent of archaeological investigation along the coastline of the Phoenician Levant see Chapter 5.3, fn.88.

3. This focal point of disagreement can be traced back to the origins of archaeological investigation in Cyprus with the pioneering work of Myres (1914), Gjerstad (1926) and Furumark (1944) who all placed a heavy emphasis upon the study and wider social significance of Mycenaean imports. As it pertains to the present study this issue arguably cannot be resolved on evidentiary grounds, as it constitutes at its most basic level a judgement of interpretative perspective, which in turn reflects broader trends in the application of anthropological theory to archaeology (cf. Anthony 1990; Chapman and Dolukhanov 1992). For historical summary of scholarship in favour of Aegean colonisation on Cyprus see Maier (1986, 314-316), Knapp (2008, 249-258) and Leriou (2002). Interpretative traditions surrounding Aegean imports to the island also reflect a wider tradition of scholarship concerning the eastern Mediterranean during the Late Bronze Age, which has historically placed an emphasis upon the

This prevailing interpretative approach has also led to the portrayal of subsequent Early Iron Age Phoenician influence on the island as an essentially linear act of demic diffusion, where indigenous Cypriot culture is largely supplanted by that of the Asiatic Levant. Beginning with Gjerstad (1948; 1979) scholars of Phoenician Cyprus have for the most part followed this model of core and periphery, starting with Kition's 'foundation' by Tyre in the 9th/8th centuries BC, and ending with the conquest and subjugation of Idalion during the 5th century BC (e.g. Dupont-Sommer 1974; Karageorghis 2005a, 103-109; cf. Hadjicosti 1997; 1999). By definition this perspective precludes the possibility that Late Cypriot communities could have played a formative role in the process of becoming 'Phoenician'.

Despite the evident and often noted similarities between Late Bronze Age patterns of 'Cypriot' exchange and Early Iron Age routes of 'Phoenician' commerce, little attempt has been made to determine the diachronic and cultural relationship between these two spheres of interaction. Speculation regarding the role of ancient merchants as the principle purveyors of social innovation has historically been a prominent theme in scholarship concerning Cyprus (e.g. Wace and Blegen 1939, 12-13; for development of historiography see Sherratt 1999, 164-169). More recent proponents of this hypothesis in both its indigenous and diffusionist forms include Webb (1999, 307-308), Sherratt (1998), Manning and DeMita (1997, 108-9) and Knapp and Cherry (1994, 142-146).

The pitfalls inherent in replacing the notion of an Aegean (be it Mycenaean or Minoan) colonisation of Cyprus with a comparable episode of Canaanite immigration and cultural subjugation have been rightly highlighted by Iacovou (2005, 131). In exploring the formative influence of 'orientalizing' exchange contacts upon predominantly indigenous communities in south-east Cyprus, it is not the intention of this thesis to advocate for such a scenario.[4] It is, arguably, only through the adoption

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paramountcy of Minoan-Mycenaean agency in relations with the east (e.g. Evans 1921, 15-16; Kantor 1947). Particular attention has been paid to the occidental characteristics of Philistine culture in this regard (e.g. Yassur-Landau 2010; Stager 1998; Mazar 1991; see also Chapter 5.1, fn.84). A summary of evidence for contacts between Cyprus and the Aegean at the beginning of the Late Bronze Age is provided by Graziadio (2005). For material evidence in favour of Geometric period links between Cyprus and the Aegean see Coldstream (1999, 111-114).

4. The term 'orientalizing' as applied in this study is not intended to invoke connotations of misrepresentation and prejudice associated with occidental views of Asiatic culture as expounded by Said (1978). Post-colonial concerns are, however, pertinent to understanding the diffusion of Canaanite social, material, and cultural traits into south-east Cyprus, and the mode of their reception on the part of indigenous Late Cypriot communities.

of a more holistic 'Cypro-centric' perspective in this regard, that we can hope to achieve an adequate acknowledgement of continuity between the region's Late Bronze and Early Iron Age inhabitants.

1.2 PHOENICIAN IDENTITY

Despite their importance in the creation of what amounts, in at least economic terms, to the first pan-Mediterranean world system, over one hundred years since the first survey of their archaeology, "*the Phoenicians remain the forgotten people of the ancient Mediterranean*" (Vella 1996, 245).[5] While seminal works including those by Neimeyer (1982) and most recently Aubet (2001) have done much to elucidate Iron Age Phoenician-Punic settlement, its Late Bronze Age and Geometric period antecedents outside of Canaan remain woefully obscure. The Cypriot component within this nascent international framework has been especially neglected.

The onus for postulating a 'pre-colonial' Phoenician presence on Cyprus, and more generally in the Mediterranean west of the Levant, comes in part from attempts to square literary tradition with what appears to be a conflicting archaeological reality (e.g. Bartoloni 1990; Moscati 1983). Ancient Greek mythology has Belos 'king of the Sidonians' founding Kition as part of his quest with the Achaean Teukos to take possession of Salamis. Potentially of more historical relevance is the legend of Elissa, who flees Tyre accompanied by members of the city's aristocracy for the relative safety of Kition, in order to escape the murderous attentions of her brother the young king Pygmalion. Before setting off to found Carthage she co-opts eighty young girls together with Juno the High Priest of Asharte, an institution perhaps to be associated with the temple complex at Kition-*Kathari*. While the accuracy of this account can be questioned, coming as it does through secondary works and multiple translations, its authentically eastern origins cannot. Several names of the protagonists, along with traditions such as sacred prostitution and the self-immolation of Elissa, are literary traditions completely foreign to classical authors, and as such are very unlikely to be the result of later literary embellishment (Aubet 2001, 217).

The only written accounts of Canaanite merchants outside their Levantine homeland during the Late Bronze Age come from the Aegean. Linear B terms for Cypriot and Syro-Phoenician are both connected with trade and artisans (Cline 1994, 128-130). Portrayal of Phoenicians (or Phoinikes) by Homer in the Odyssey and Iliad is by its nature reductive, reflecting limitations inherent in the highly subjective

5. The first scientific investigation of the Phoenicians in the Levant was undertaken by Renan (1864). For general discussion regarding the development of world systems in Bronze-to-Early Iron Age Afro-Eurasia see Frank (1993).

medium of epic poetry (Winter 1995, 253-254; Muhly 1970). Its accuracy can be further questioned on the grounds that Homer is most likely recounting a world which existed some 300 years prior (Dickinson 2006, 239-240).[6] This depiction undoubtedly therefore tells us more about the author's perception of Canaanite and Cypriot seafarers, than it does about the Phoenicians themselves. Ancient 'orientalism' on the part of Homer in his description of Greek relations with visiting Phoenician merchants has been discussed in detail by Morris (1989; 1990).

In the absence of textual evidence, imported objects have been the principal evidentiary criteria by which archaeologists have postulated relations between indigenous Late Cypriot communities and external culture groups. The most prominent tradition of interpretation regarding the presence of material imports on Cyprus is that associated with the purported Mycenaean-Minoan colonisation of the island during the mid 13th-to-early 12th centuries BC. Whereas these 'aegeanizing' narratives have been debated extensively (e.g. Edbury 2001; Iacovou 2005, 126), their 'orientalizing' equivalents have been subject to comparatively mild scrutiny.

Attempts at identifying a nascent pan-Levantine (or proto-Phoenician) identity amongst Late Cypriot populations have concentrated almost exclusively upon imports originating from Canaan and the wider Asiatic region (e.g. Knapp 2006; Negbi 1998; Cook 1988). As noted by Karageorghis (2005b, 32), however, when viewed in isolation this corpus only provides evidence for the consumption of a relatively small quantity of primarily elite goods, on what appears to have been a largely continuous basis throughout the Late Bronze Age.

The lack of a more 'Cypro-centric' perspective has also consistently underemphasised indigenous agency, despite the fact that locally produced material culture forms the overwhelming bulk of all settlement assemblages. For Late Bronze Age Cyprus this historic tendency to interpretation risks characterising the majority of the island's inhabitants as a culture group who only show innovation concurrent with a physical influx of migrants. While post-colonial theory has more recently been

6. Mention should also be made of the Thebian myth which places the foundation of the city by Cadmos, son of the Phoenician king, during the Mycenaean period. In this legendary account Cadmos was instructed by the Oracle to follow a cow provided by King Pelagon of Phocis, and to construct a town on the spot where the beast lay down to sleep. The historical veracity of this story, in light of the later development of Thebes as a major population centre during the 9th century BC, is perhaps best summed up by Graves (1955, 198) who observes that, "*a cow's strategic and commercial sensibilities are not well developed*".

deployed to acknowledge this conceptual shortcoming (e.g. Counts 2008; Given 2004; Gosden 2004), it arguably remains an implicit bias in much scholarship concerning the development of Late Cypriot society.

The notion of identity as a dynamic response to changing economic circumstances, as opposed to being a social construct based upon an underlying ethnic divide, has been examined explicitly by Sherratt and Sherratt (1998) and S. Sherratt (1991; 1992; 1998; 2003) who suggests that;

> "*pots-and indeed other aspects of material culture-may be telling us less about peoples in any genetic or linguistic sense, and more about changing economic strategies and the effects these may be having on cultural institutions and political structures.*"
> (Sherratt 1998, 294).

The adoption and reinterpretation of material and social innovations on Cyprus concurrent with this process has been charted by numerous authors using concepts such as 'hybridisation' (Knapp 2009; Knapp 2008, 57-61, 286-290; Voskos and Knapp 2008), and the development of the 'international style' in the wider eastern Mediterranean and Near East (Feldman 2006; 2002). For the Levant, a similarly functionalist approach to the relationship between material imports and social identity during the Late Bronze Age has been advocated by numerous authors including Steel (2002) and van Wijngaarden (1999).

Elsewhere in the Mediterranean the theme of colonist-native interaction in the formation of Phoenician diaspora communities has been explored through the application of anthropological theory alongside more traditional diffusionist models. The role of indigenous population components in establishing later Iron Age settlement in the west has been examined by Uriel et al (2000) for Iberia, and for Sicily and Sardinia by van Dommelen (1998; 2005; 2006) and van Dommelen and Tronchetti (2005). As noted by Hodos (2006, 232) interaction between these various groups would have required, "*shared values that make such exchanges appreciable, equitable and significant to both elites and non-elites*". The concept of 'negotiated peripherality' has similarly been employed by Kardulius (1999) to address the way in which contacts between indigenous Bronze Age Aegean communities and merchants from the east were structured.

The definition of material culture as a select amalgam of indigenous and externally derived traits, filtered by local traditions of consumption and modes of

production, presents a challenge when attempting to define what constitutes an 'orientalizing' artefact in south-east Cyprus, and by extension it's partly Levantine enfranchised consumer. By the onset of Cypro-Geometric I [c.1050 BC], the extent of convergence in patterns of consumption within the wider Levantine region means that it not possible in many instances to make a clear differentiation between ceramic imports from Canaan, and locally manufactured examples of the same class of 'orientalizing' vessel on Cyprus (Bikai 1994, 31).[7] A long term trend towards hybrid adoption and import substitution has been cited by Sherratt (2003, 45) as a possible explanation for the apparent diminution within the Cypriot archaeological record of prestige Aegean ceramics during the 12th-to-10th centuries BC.

The emergence of these hybrid ceramic forms is also inextricably linked to developments in production during LCIIC, with a shift from earlier LCI-II handmade designs, to a broader repertoire incorporating plain and painted wheelmade wares. These display a greater variety of externally derived traits, most explicitly apparent in White Painted Wheelmade III (henceforth 'WPWMIII'). While the innovation of wheelmade mass production has its origins on Cyprus during the earlier part of the Late Bronze Age, inspired in part by Levantine prototypes (Crewe 2007a), it was not until LCIIC that such wares became mass-produced on a standardised and truly industrial basis. With specific reference to exchange relations between Cyprus and the Levant, it has been proposed by Artzy (1985, 96-98) that the move towards increased mass production at this time may be connected to a high level of regional export demand for White Slip II and Base Ring II pottery.

In expanding the definition of what constitutes an 'orientalizing' artefact in Late Bronze Age Cyprus to include locally produced hybrid wares, is not intended to diminish the diagnostic value of Levantine imports as identity markers, which remain the foundation upon which studies of diffusion and assimilation must be based. Rather, the present study seeks to reconsider the social significance of this material within a broader interpretative context.

Implicit in the notion of a 'mercantile-ethnogenesis', where indigenous Late Cypriot communities became pre-adapted to incorporation into Phoenician societal structures through participation in 'orientalizing' exchange, is an acknowledgement

7. For corresponding similarities between the repertoire of Geometric period 'aegeanizing' vessels in Tyre and Cyprus see Coldstream and Bikai (1988).

that this is only one possible outcome of such a process. The corresponding emergence of 'Hellenic' identity at Salamis, again from distinctively Late Cypriot origins at Enkomi, can be viewed as a parallel and equally convoluted process of economic enfranchisement, which later came to define a more generalised sense of kinship and identity (Sherratt and Sherratt 1993, 366; Iacovou 2008b; Negbi 1992, 605-606; cf. Karageorghis 1994b, 3-4).

1.3 LANDSCAPE PERSPECTIVES

A potential resolution to the disjuncture in scholarship concerning Late Bronze and Early Iron Age south-east Cyprus lies in the application of a regional 'landscape' approach to analysis of the archaeological record. This overarching perspective has been applied in the following to both the distinct environmental contexts which influenced the physical distribution of settlement, and the differential consumption of material and social innovations on the part of local populations, that was in part determined by this geographical framework. For south-east Cyprus specifically, it is the contention of the present study that an explicit awareness is required of landscape characteristics pertinent to the development of a pan-Levantine and latterly 'Phoenician' regional identity.

The landscape of Cyprus is foremostly that of an island, separated from surrounding littoral regions of the Levant and Asia Minor by the Mediterranean Sea. Beginning with the ground-breaking work of the Cyprus Survey (Catling 1963, 144-145) archaeological reconstructions of evolving Late Cypriot settlement patterns, and their underlying societal structures, have primarily been undertaken from this singular perspective. The association of Cyprus with Alašiya has further had the effect of imposing a uniform socio-political identity upon the island as a whole (e.g. Knapp 1997; 2008, 137-144; Merrillees 1992; Muhly 1986). Various researchers including Held (1993) have cited insularity as the principle reason for the relatively slow development of social-complexity in Cyprus when compared to neighbouring regions of the Asiatic mainland. While this all-encompassing island-wide framework to analysis has undoubtedly served to structure and inform debate, it has also led to insufficient recognition of the various ecological niches that together comprise the landscape of the island (Manning and De Mita 1997, 115). These included forests, marshland, mountains, navigable waterways and coastal embayments. The relative interpretative merits and disadvantages associated with the 'island' as a unit of study are discussed by Rainbird (1999) and Cherry (2004).

In common with literature concerning 'landscape' archaeology, the term 'regionalism' has come to encompass a wide range of interpretative perspectives and analytical techniques (Wilkinson 2003, 3-7; Frankel 2009). At its most basic level it provides a geographic focus to investigation that permits detailed coverage of a specific area. This is typically defined by topographical determinants upon settlement,

and/or the distribution of material culture, chiefly in the form of ceramic wares (Manning 2001, 80). For prehistoric Cyprus the theme of 'regionalism' has for the most part been used to stress a divergence between inland areas and the coastal zone (e.g. Keswani 1993; Steel 2009). The present region of study in the south-east quarter of the island is primarily defined by the territory of Iron Age Kition and major natural features within the Late Bronze Age landscape. By examining a region of known Phoenician influence, it is intended to highlight Late Bronze Age precursors in patterns of settlement and landscape orientation.

Adopting a regional approach to analysis inevitably creates by definition an artificial boundary, exclusive of surrounding and continuing land and seascapes. By way of critique, archaeological surveys in the Mediterranean have been described in this regard as "*frogs round the pond*" (Cherry 1983). An attempt has been made to mitigate this isolationist concern by also considering south-east Cyprus within a pan-Levantine and broader Phoenician context of interaction, thereby facilitating further comparison with other interconnected Mediterranean littoral regions.

By providing a long-term structure to analysis through a common environmental context, the landscape approach adopted in this thesis incorporates the concept of longue durée. This has most famously been applied to the Mediterranean by Braudel (1949), who placed a heavy emphasis on the effects of geography upon human affairs (see also the posthumously published 1998 volume concerning earlier periods). Such an approach contrasts with traditional culture-history treatments of pre and protohistory in the eastern Mediterranean, which are punctuation by specific causal events - be they real or imagined - in the form of migrations, invasions and destructions.

The most significant development within landscapes of settlement in south-east Cyprus during the Late Bronze Age was the emergence of urbanism in the 13th century BC [LCIIC] (Crewe 2007b; Negbi 2005; Keswani 1996). During this period the region's inhabitants became concentrated within four principle urban centres at Idalion-*Ambelleri*, Pyla-*Kokkinokremos*, Hala Sultan Tekke and Kition. The most enduring of these communities was the latter, which subsequently became a major centre of Phoenician influence, and one of the most powerful city-kingdoms on the island (Smith 2009a).

The material trappings of urbanisation include an increasing use of monumental forms in architecture, functional differentiation in settlement composition, and more pronounced social inequalities visible in domestic provision and iconography (Manning 1998; South 1995; Knapp 1986a).[8] These facets of urban living are widely associated with a broader package of social innovations concurrent with the development of complex societies, including centralised bureaucracies for the collection of tribute and redistribution of wealth (Schwartz and Falconer 1994; Redman 1978; Childe 1950; Smith 2009b). Within the context of Late Bronze Age Cyprus such developments have in turn been viewed as a product of secondary state formation (e.g. South 2002; Stoddart 1998). While discussion has generally centred upon Alašiya through its proposed association with all or part of the island, uncertainties regarding the kingdom's location and internal socio-political structure severely restrict the scope of informed debate.

Understanding the social component of this urban transformation, in addition to its physical manifestations, presents a significant challenge due to the absence of primary texts from the island itself. Beyond the coalescence of pre-existing rural populations, specific diagnostic attributes for the definition of urban settlement in Late Bronze Age Cyprus have proven controversial. This dilemma is exemplified by the case of Pyla-*Kokkinokremos* where the identification of 'fortifications', and lack of a gridded town layout, has led to suggestions that the site should not be viewed as an 'urban' settlement per se, but should instead be seen as a separate category of mono-functional defensive establishment (e.g. Iacovou 2007, 12; Karageorghis 2001). In the present study it is the broader innovation of central planning, evident through the architectural layout of Late Cypriot urban communities from the latter half of the 13th century BC onwards, which is taken as reflecting significant underlying changes in social organisation.[9]

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8. A shift in burial traditions on Cyprus during LCIIIA, with the advent of single interment shaft graves, appears to be concurrent with the transition from a predominantly rural-to-urban pattern of settlement. Under such circumstances the maintenance of a family tomb with its traditions of upkeep, involving secondary treatment of the dead, would have been increasingly onerous and socially redundant in terms of lineage legitimation (Keswani 1989a, 170). The alternative possibility that the advent of single interment shaft graves on Cyprus in LCIIIA reflects Aegean immigration to the island has been considered by Iacovou (2008b, 634-635; 2005a, 130-131). Potential continuity in patterns of interment across the rural-to-urban transition within the Pyla littoral is discussed in Chapters 3.3.3 and 3.5.

9. As noted by Lund (1986, 185) the Late Bronze Age settlement at Ugarit-*Ras Shamra*, often regarded as the example par excellence of Levantine urbanism, was constructed with reference to the terrain of

In common with many other innovations in Late Bronze Age society, the catalyst for the rapid adoption of urbanism and associated societal innovations has been sought in outside population agents, including contact with the Levant through maritime exchange (e.g. Negbi 1988, 346-347; 357). 'Orientalizing' influences upon the architectural form of urbanism in Cyprus have been highlighted by numerous authors including Baurain (1984) and Wright (1992, 135). The abrupt and relatively late generational transition from predominantly rural-to-urban patterns of occupation on the island contrasts markedly with corresponding developments in Canaan, where multiple burials suggest a move towards more densely populated living arrangements at Sidon as early as the end of the Middle Bronze Age c.1550 BC (Doumet-Serhal 2004). Although a distinct agglomeration of settlement activity is apparent in south-east Cyprus at this time along the banks of the Gialias River, no one site appears to have been paramount at such an early date.

During recent years fieldwork in Cyprus, together with the wider eastern Mediterranean and Near East, has followed the interpretative trend towards a more regional focus through the application of 'landscape archaeology' perspectives and techniques (e.g. Wilkinson 2003; Athanassopoulos and Wandsnider 2004; Keller and Rupp 1993). This has manifested itself in a proliferation of multidisciplinary survey projects incorporating remote sensing and geophysical components,[10] alongside the analysis of plough-soil surface assemblages (Francovich and Patterson 1999). Such undertakings provide information on rural patterns of settlement away from urban

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the mound and not a pre-ordained rectilinear grid. For the form and function of urbanism at Ugarit see Callot and Yon (1995).

10. Remote sensing and geophysical prospecting have been frequently employed in Mediterranean archaeology as a way to provide an interpretative structure to landscapes prior to more intensive investigation by means of surface survey and targeted excavation. Both methodologies nonetheless constitute powerful analytical tools in their own rite, with the capacity to detect architectural and landscape features that are often invisible, or not at least immediately apparent to the naked eye at ground level (Pasquinucci and Trément 2000). The analysis of aerial photography has a long established role in Mediterranean and Near Eastern landscape studies dating back to the early years of the 20th century (Crawford 1954; Bradford 1957). More recently the use of satellite imagery to identify relic anthropogenic features has become increasingly commonplace in regional survey projects throughout Cyprus and the Levant (e.g. Wilkinson et al 2007). The wide variety of remote sensing data-sets now available to archaeological research present multiple opportunities, especially when used in combination with ground verification, to study the development of landscapes and their associated patterns of settlement (Wilson 2000; Wilkinson 2003, 35-37; El-Baz and Wiseman 2007). Adoption of geophysical survey methods has similarly become commonplace in the Mediterranean during recent years (Sarris and Jones 2000). As well as revealing previously unknown subsurface architecture, geophysical survey also has the capacity to detect buried landforms, providing a broader paleoenvironmental context to known settlement remains. Survey data-sets produced by landscape surveys are now commonly integrated together using Geographical Information Systems (Gillings et al 1999).

centres, in addition to contextualising the latter within a broader cultural, environmental and diachronic framework. Geomorphology has also commonly been used to examine late Holocene environmental transformations and their relationship to human occupation (Schiffer 1987, 235-262).[11] Numerous studies have demonstrated that the present geomorphology of south-east Cyprus is in several instances radically altered from that of the late second millennium BC (Morhange et al 2000; Devillers 2008; Koucky and Bullard 1974). Examples of survey projects within the present region of study specifically concerned with Late Bronze Age occupation include the Larnaca Hinterland Project (Leonard 2000a; 2004) and elements of the Swedish Cyprus Expedition to Hala Sultan Tekke (e.g. Åström 1977).

Primary fieldwork results from survey and soundings carried out at the LCIIC site of Pyla-*Kokkinokremos* form the central analytical component of this thesis. The research design employed incorporates an array of investigative techniques common to landscape archaeology. This methodological approach is intended to complement the findings of previous exploratory excavations, by providing more detailed information on the surrounding area. In more general terms by viewing *Kokkinokremos* and neighbouring settlement in south-east Cyprus from an explicitly regional landscape perspective, it is intended to highlight longue durée trends in societal development, which may be less apparent through the study of individual sites or artefacts in isolation.

11. For general principles of environmental reconstruction in the Mediterranean see Leveau et al (1999). Anthropogenic influences upon soil formation are discussed in Groenman-van Waateringe and Robinson (1988).

CHAPTER 2
ALAŠIYA AND THE FOREST

2.1 INTRODUCTION

The issue of state formation has played a prominent role in discussions concerning the evolution of settlement patterns, and their underlying societal structures, on Cyprus during the Late Bronze Age. This focus has in part been due to the association of all or part of the island with the kingdom of Alašiya, known from eastern Mediterranean court correspondence of the mid-to-late second millennium BC. Beyond attempts at the identification of a palatial capital, however, archaeological correlates for such an equation have seldom been explored in any detail (e.g. Goren et al 2003; Hadjisavvas 1996).

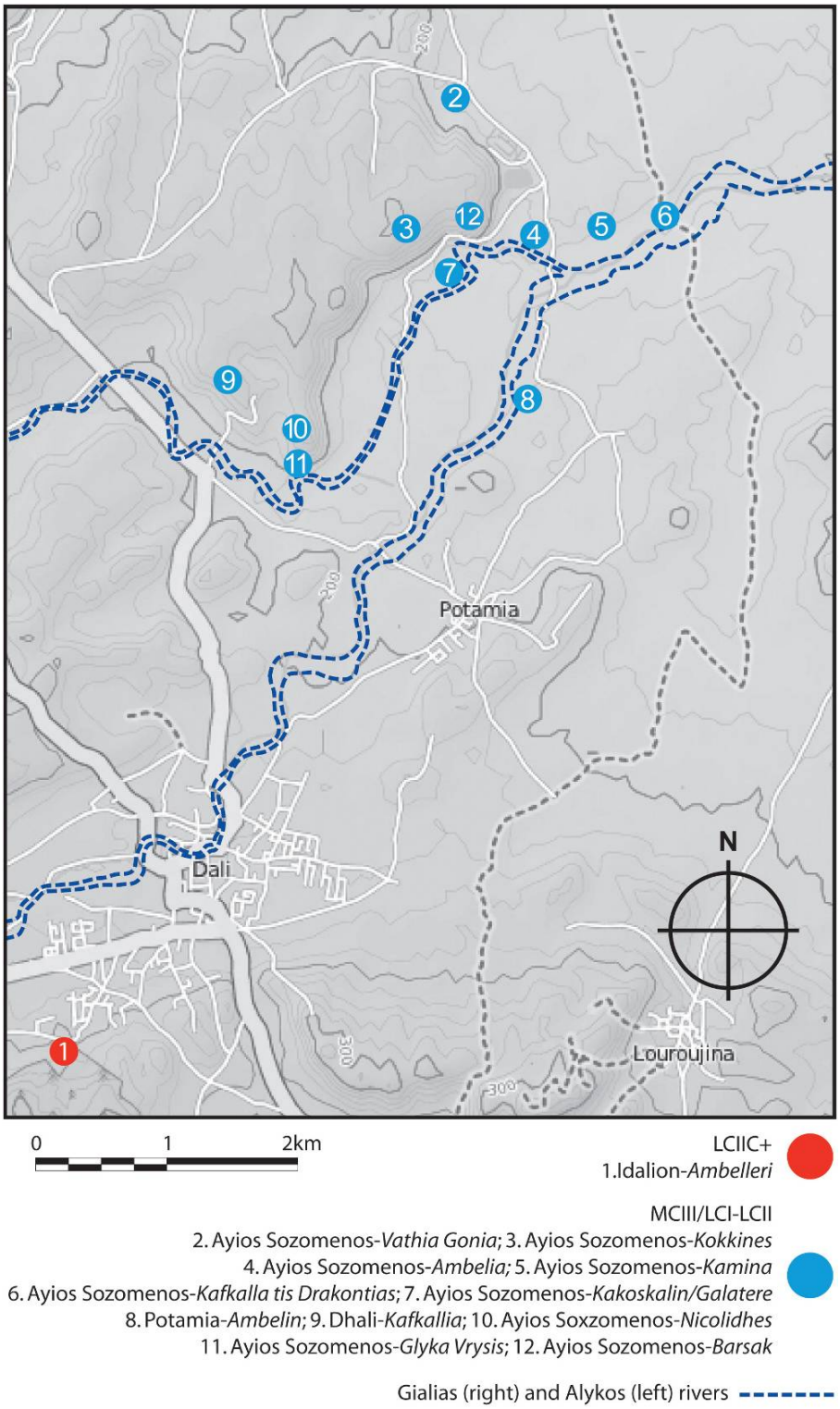
Textual references to Alašiya correspond with a formative period of settlement development on Cyprus, which sees the emergence of the first planned or 'urban' communities concentrated in the south-east quarter of the island. This era also marked the island's belated entry into eastern Mediterranean networks of mass-commodity exchange, first apparent in the archaeological record through Levantine imports and surplus storage provision at sites including Kalopsidha (Åström 1966; Crewe 2010) and Ayios Sozomenos-*Glyka Vrysis* (Gjerstad 1926; Åström 1972a, 30-32).

Correspondence involving Alašiya documented in the archives of Ugarit and Amarna betrays a predominantly 'orientalizing' sphere of interaction, detailing extensive exchange transactions and political contacts with the Levant and Nile Delta, together with Hittite Anatolia and Mesopotamia (Knapp 2008, 335). The kingdom's role as a major exporter of copper appears to have been the economic basis that underpinned this relationship, and provides the most compelling evidence for an association with Cyprus, widely known for its pioneering expertise in metallurgical industry (Pickles and Peltenburg 1998, 86, 90; Muhly 1989, 299-300). As noted by Muhly (1996, 54) no other body of archaeological evidence from anywhere in the Mediterranean or Near East comes close to the estimated four million tons of ancient copper smelting slag found on the island. The importance of Alašiya within this international sphere is attested by the status afforded its monarch, who from the 14th

century BC onwards is ranked, at least in terms of diplomatic convention, alongside other 'great' kings including Pharaoh (Liverani 2001, 137, 170, 177).

While acknowledging that the link between Cyprus and Alašiya has not been unequivocally accepted (cf. Merrillees 1972; 1987; Iacovou 2001, 89), this study does not seek to revisit the central question of identity, which has received both comprehensive and thoughtful treatment elsewhere (esp. Knapp 1996, 3-11; 2008, 298-303). The more modest aim of the present chapter is to examine the implications of such an equation as it pertains to Late Bronze Age occupation along the banks of the Gialias River in the region of Ayios Sozomenos (fig. 2.1). It is proposed in the following that this waterway functioned as a major transportation artery between Kalopsidha/Enkomi/Salamis and Ayios Sozomenos/Idalion.

A particular emphasis has been placed upon the role of woodland industry, and its influence upon state formation, in south-east Cyprus at the beginning of the Late Bronze Age [MCIII-LCI/II]. The exploitation of forestry resources, which would have been inextricably linked to the smelting of copper through the production of charcoal, has received comparatively little attention despite the attested importance of timber as a valued exchange commodity in its own right. Potential environmental and social impacts of anthropogenically induced deforestation are considered below with reference to the siltation of the Gialias-Pedieos Delta (Devillers 2008, 139-170).



2.1 Map of Late Bronze Age settlement in the region of Ayios Sozomenos (Background image OpenStreetMap.org).

2.2 WOODLAND INDUSTRY

The role of Late Bronze Age communities on Cyprus in the manufacture and export of forestry products has traditionally been overshadowed by the prevailing view that the coastal centres of Canaan were the principle purveyors of such commodities in the eastern Mediterranean.[12] This presumption is reflected in the comparatively disproportionate scholarly attention devoted to the landscape of the Lebanon (e.g. Rowton 1967; Bikai 1991; Doumet-Serhal 2001).[13] The onus for postulating Cypriot involvement in woodland industry comes partly from Strabo [XIV.6.5], who informs us that in remote antiquity prior to the 3rd century BC the island had been thickly wooded. He goes on to state that while clearance for fuel along with felling of trees for ship building had led to a degree of deforestation, its impact was considered to be minor against the overall protrusion of woodland into potential agricultural areas (for commentary see Muhly 1996, 45-46). While detailed archaeobotanical evidence is at present lacking, it would appear likely that Cyprus was more densely wooded during the Late Bronze Age than it is today (fig. 2.2).

2.2 Modern pine forest in the Troodos foothills.

12. The term 'Phoenician' may itself derive from the Old Kingdom Egyptian word 'Fenkhw', which initially referred to foreign craftsmen specializing in woodwork (Dils 1992, 170).
13. For discussion of timber sources in the ancient Mediterranean outside of the Levantine region see Meiggs (1982).

Correspondence between Alašiya and its palatial contemporaries show that the kingdom was regarded as a major supplier of forestry products. The Annals of Tuthmosis III [yrs.34/38/39] record the receipt of two wooden logs from Asiya, which should be viewed alongside multiple shipments recorded in the Amarna letters [EA40:15; 35:27-28; 36:13] (Moran 1992).[14] The export of specific types of worked timber from Alašiya to Egypt in the form of three ship's beams is known from EA40 (Knapp 1996, 22, 42, 59; Knapp 2008, 313, 324). It would appear that Egypt also on occasion imported complete ships from the island [EA 36:10, 13] (Wachsmann 1998, 313).[15] An Alašiyan joiner residing in Ugarit during the 14th century BC is included in ration list RŠ 19.16 (Virolleaud 1965, 18-21), suggesting that artisans from Alašiya may have been sought for their proficiency in the field. The vast majority of timber shipments from Alašiya were of pine or cedar, together with smaller quantities of boxwood, varieties of which are all native to Cyprus.

From Levantine pithoi carried onboard the 14th century BC Uluburun ship, which likely included ports of call along the south-east coast of Cyprus within its itinerary, we know that terebinth resin derived from the *Pistacia atlantica* tree was exchanged as a valued commodity in its own rite (Pulak 2001, 33-36; 1998, 201-202).[16] This ancillary woodland product had a wide range of applications including as a cosmetic and medicinal agent, an embalming fluid, and preservative for food and wine (Negbi and Negbi 1993, 322-324; Wachsmann 1998, 308-310). Heat treated conifer resin is also known to have been used as a protective tar on ship keels by the 5th century BC (Connan and Nissenbaum 2003).

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14. See Kitchen (2009) for use of terms Asiya/Asihaya and Asy in Egypt texts, which are all thought to be equivalent to Alašiya.

15. As noted by Marfoe (1987, 27) with reference to the timber supply of Old Kingdom Egypt, woodland industry would have been fed by the interdependence between the procurement of logs for export, and the construction of vessels needed to transport that cargo. For discussion of Canaanite and Alašiyan merchant fleets see Chapter 4.4. Textual references to Elishah and Iadnana, which are Iron Age monikers both believed to refer to Cyprus, again show a strong association with the supply of timber, wooden crafts, and ship construction (Knapp 2008, 342-343). For the technology of wood production prior to 1500 AD see McGrail (1982).

16. The itinerary of the Uluburun ship has been considered by numerous authors including Pulak (1998, 215) and Bloedow (2005). Of all the categories of cargo on board these ships the oxhide, bun and pillow-shaped copper ingots most clearly indicate a strong Cypriot connection through their manufacturing provenance (Gale and Stos-Gale 1999, 274). Cypriot involvement in the onward distribution of copper is further suggested by incised signs on the oxhide and buns ingots, which in at least five instances from Uluburun can be associated with characters of the Cypro-Minoan script (Sibella 1996, 10). A port of call along the Syrian coast has also been suggested by Cucchi (2008) based upon phenotypic similarities between a Late Bronze Age stowaway house mouse and modern rodent populations. By way of comparison see Ballard et al (2000) for two 8th century BC Phoenician wrecks that foundered in deep waters off the southern Levant.

Forestry and copper industry in Late Cypriot society would have been inextricably linked through the production of charcoal which was an essential component of the smelting process.[17] Using the calculations of Constantinou (1992, 70-71) as applied in Muhly (1996, 46) which are based upon slag accumulation in Cyprus over the past 3500 years, a mean production yield of c.57 tons of metallic copper per annum would have necessitated the corresponding production of c.17'143 tons of charcoal. This in turn would have equated to c.342'857 cubic meters of pine wood cleared from a forested area of c.43 square kilometres each year. Based upon the island's present tree cover of c.1743 square kilometres, which has a regeneration cycle of c.80-100 years, such a rate of production would have been unsustainable in annual succession for more than c.40 years. Even if we presume that woodland areas available for exploitation were double their present size during the Late Bronze Age, covering the majority of the Mesaoria in addition to the Troodos, this model of copper production would still have led to a complete depletion of forestry resources within the space of two generations. Such a rate of timber consumption would seem unrealistic over such a short duration.

In addition to uneven rates of production another factor mitigating deforestation, which undoubtedly did occur to some extent, was the type of wood used to produce charcoal. Of the 588 charcoal samples taken from Archaic-to-Hellenistic period smelting sites within the eastern Troodos mining region at Almyras (Fasnacht et al 1991, 103-105) and South Mathiatis (Fasnacht and Georgiou 2006, 207-208), only 23% derived from pine [*Pinus brutia*]. By far the largest source of wood was Olive [*Olia europaea*] which accounts for 71% of the total, suggesting it was harvested specifically for use as charcoal. This targeted and perhaps managed exploitation of forestry resources would have been infinitely more sustainable than the widespread felling of pine, and implies that the associated environmental impacts of deforestation were less acute and a far more localised affair (Horden and Purcell 2000, 186).[18]

17. According to Merrillees (1982, 373) this link may also have manifested itself naturally where pine needles covering exposed copper outcrops could, through the reducing action of resin, have produced flakes or sheets of metallic copper immediately beneath the surface of the forest floor.
18. Post Bronze Age deforestation on Cyprus is discussed by Thirgood (1981, 124-8). For environmental impacts of ancient anthropogenic deforestation in the Levant see Mikesell (1969) and Yasuda et al (2000).

The general lack of archaeological evidence for extensive landscape modification associated with settlement prior to MCIII-LCI, suggests that woodland was most probably widespread throughout south-east Cyprus at the onset of the Late Bronze Age. It has previously been suggested by Megaw (1957, 43) that the area to the south of Ayios Sozomenos would have been covered with oak forest prior to the historical era. Copper working during the Late Cypriot period appears by contrast to have been restricted to two relatively narrow zones around Sia-Mathiatis-Ayia Varvara and Troulli (for discussion of the latter see Chapter 3.5). In light of the intimate association between these two industries, it would seem reasonable to posit that collection of wood for charcoal took place as near as possible to smelting sites, which were in turn located in close proximity to the copper mines.

Although potentially undertaken on a perennial basis, the nature of the woodland environment would likely have dictated a degree of seasonality in the harvesting of forestry resources. For charcoal production the collection of dry olive branches would have been favoured in order to reduce smoke and more quickly reach the required firing temperature. Ethnographic accounts attest to the practice of leaving logs on the forest floor for an extended period of months, in order for the outer rings to be eaten away by termites leaving the stronger dense sap-infused core.[19] It can therefore be speculated that ground conditions would have played a practical role in determining the time of year when previously felled timbers were retrieved.

While it is difficult to estimate changes in the flow-rate of Gialias River based upon the regions significantly altered modern hydromorphology, the water level in wells presently in use around Dhali can drop as much as 9m below the surface during the dry summer months (Koucky and Bullard 1974, 11). In stretches of the river this potentially manifested itself in wadi-like conditions, which would have made the transportation of logs by water impractical. It is proposed that these various considerations collectively favour a spring and autumn seasons of more intensive woodland industry.

19. This practice was brought to the authors attention by Mr. Costas Kouloumis, warden of the Pyla firing ranges and a displaced Greek-Cypriot resident of Lysi village in the Mesaoria, based upon recollections of his grandfather and more recent experience restoring an 18th century AD olive mill in the eastern Troodos foothills. Seasoning of cedar logs in this manner is also recorded in the 'Report of Wen-Amon' as taking place in the mountains of Lebanon during the Early Iron Age (Simpson 1972, 151).

In addition to its industrial applications, wood was used to manufacture a host of utilitarian and decorative items for domestic consumption and export, which are rarely preserved in the archaeological record. As suggested by Thrane (1978, 45) it would seem reasonable to assume that wooden artefacts were originally present at all sites, and served a comparable range of functions as their ceramic equivalents. It has been suggested by L. Åström (Åström and Åström 1972, 557) that the more durable Late Cypriot ivory carvings can provide us with clues as to the stylistic form of contemporary wooden crafts. The wide range of objects that would have been produced in wood on Cyprus can also be inferred from contemporary Egyptian contexts where climatic factors have favoured preservation (Śliwa 1975). From the island itself, surviving artefacts include a wooden comb excavated from a 12th century BC well fill at Enkomi (Dikaios 1971a, 774; Plate '150/18'). The characteristic imprint of their clay impression demonstrates that some Late Cypriot cylinder seals were also made of wood (Smith 2002, 7-8).

The importance of the forest, and its close association with copper industry, is reflected in Late Cypriot glyptic art where trees and ingot forms are frequently found in association with woodland animals such as deer (Webb 1999, 272-283).[20] As noted by Counts (2008, 19), the enduring prominence of the 'master of the Lion' cult in its various hybrid forms within the Mesaoria region denotes authority over a wide range of divine spheres, including control of the animal kingdom and economic productivity. It can be speculated that such beliefs developed in part during phases of anthropogenic landscape transformation, including the initial industrial exploitation of woodlands at the beginning of the Late Bronze Age.

In sum it can be inferred that the intimate association between forestry and copper production through the manufacture of charcoal, in combination with the exploitation of woodlands for timber, would have provided the economic impetus behind the development of Gialias River system as a transport artery, and the associated growth of settlement along its banks. Procurement and use of forestry resources would thus have played a major part in the lives of Late Cypriot communities within south-east Cyprus. This formative relationship would have been particularly apparent along the north-eastern Troodos foothills in the vicinity of Ayios

20. Depictions of sacred trees as an expression of the Asherah cult occur widely throughout Canaan and the wider Near East (Taylor 1995). Modern ethnographic accounts of 'sacred tree' rituals, ceremonies, and customs within the Levantine region have been studied by Dafni (2009).

Sozomenos, due to this region's pioneering role in the development of woodland industry for both domestic consumption and export.

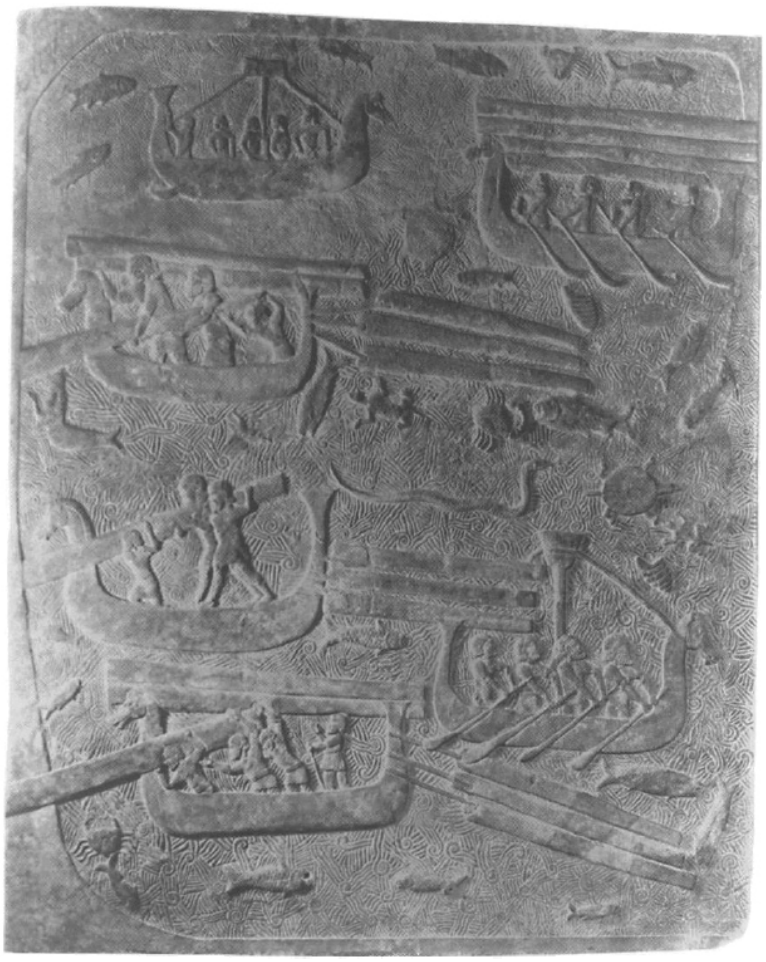
2.3 RIVERINE SETTLEMENT

By far the longest stretch of waterway on Cyprus that would potentially have been navigable during the Late Bronze Age was the Gialias River at c.50 miles.[21] Its past geomorphology has been studied by Koucky and Bullard (1974) and most comprehensively by Devillers (2008). While the present flow of the Gialias and its tributary the Alykos is little more than a perennial stream, due to modern up-stream damming and increased natural capture by the adjacent Tremithos drainage, in the middle-to-late Holocene (c.4000-2000y B.P. cal) both rivers were on average of c.6-8 metres in depth and c.30m+ in width along their length within the Ayios Sozomenos region (Devillers 2008, 75-119; Koucky and Bullard 1974, 12-24). It is proposed that the Alykos-Gialias-Pedieos river system would have been the primary transport artery connecting the cluster of inland settlement at Ayios Sozomenos-Idalion and the copper-forestry industrial zone of the eastern Troodos foothills, via the riverside town of Sinda, with the eastern coastal centres of Kalopsidha-Enkomi-Salamis.

This combined waterway would have been readily capable of accommodating the relatively slight displacement and dimensions of Bronze-to-Iron Age river craft and/or tree-trucks which were directly floated down stream. While no wooden boat remains dating from the Bronze-to-Iron Age period have yet been recovered from inland waterway sites, discussion is informed by various ancient artistic representations. Depictions of boats in the form of ceramic models provide information about the physical mechanics of vessels used around the island. In addition to the LCIIIA example from Sinda detailed below (Chapter 2.3, fig. 2.5), two LCI-II Plain White Handmade ware models are known from mortuary contexts at Maroni-*Tsaroukkas* (Merrillees 1968, 188; Plate XXXVII). It has been proposed by Wachsmann (1998, 63-66) that these latter depictions, along with another contemporary example from Kazaphani-*Ayios Andrionikos* (Göttlicher 1978, 167), show a class of 'beamy merchant ship' peculiar to Cyprus. Based upon their common

21. Based upon the estimated distance along the river between Enkomi and Ayios Sozomenos-*Glyka Vrysis*. While knowledge of river systems on Cyprus prior to the medieval period is limited, it would appear that other navigable waterways were far more limited in length. With the exception of the westwards flowing Ovghos River near Morphou-*Toumba-tou-Skourou*, these essentially constituted elongated coastal embayments as at Hala Sultan Tekke-Kition, Pyla and Maroni. For discussion of the Diarizos River at Palaipafos see Chapter 3.5. The physical characteristics of navigable inland waterways in the northern Levant are discussed by Por (2004, 7-10) and Fales-Udine (1995). See Redmount (1995) for Late Bronze Age canals in Egypt between the now defunct Pelusium branch of the Nile and Wadi Tumilat (the so-called 'Canal of the Pharoahs').

arrangement of a single steering ore resting upon a stanchion, which bears a close resemblance to Egyptian depictions of the second millennium BC (Vandier 1969, 888-892), it is possible that these models represent river-craft as opposed to seagoing vessels (Wachsmann 1998, 64).[22]



2.3 Wall relief from the palace of Sargon II at Khorsabad depicting the transport of timber along a river (Vigneau 1936, Plate 4).

It has been proposed by Albenda (1983, 15-17) that the late 8th century BC wall relief sculptures from the palace of Khorabad in Assyria depict in part a landscape on Cyprus (fig. 2.3). Since their initial publication by Botta and Flandin (1849, Plates 32-35) these scenes have more conventionally been viewed as a seascape off the coast of Lebanon, in keeping with the traditional prominence of the Phoenicians as mariners in Near Eastern literature (e.g. Wäfler 1975, 95-96; De

22. For Middle Cypriot boat models see Westerberg (1983, 9-11). Ancient river-boats in the wider near east are discussed in detail by Casson (1967).

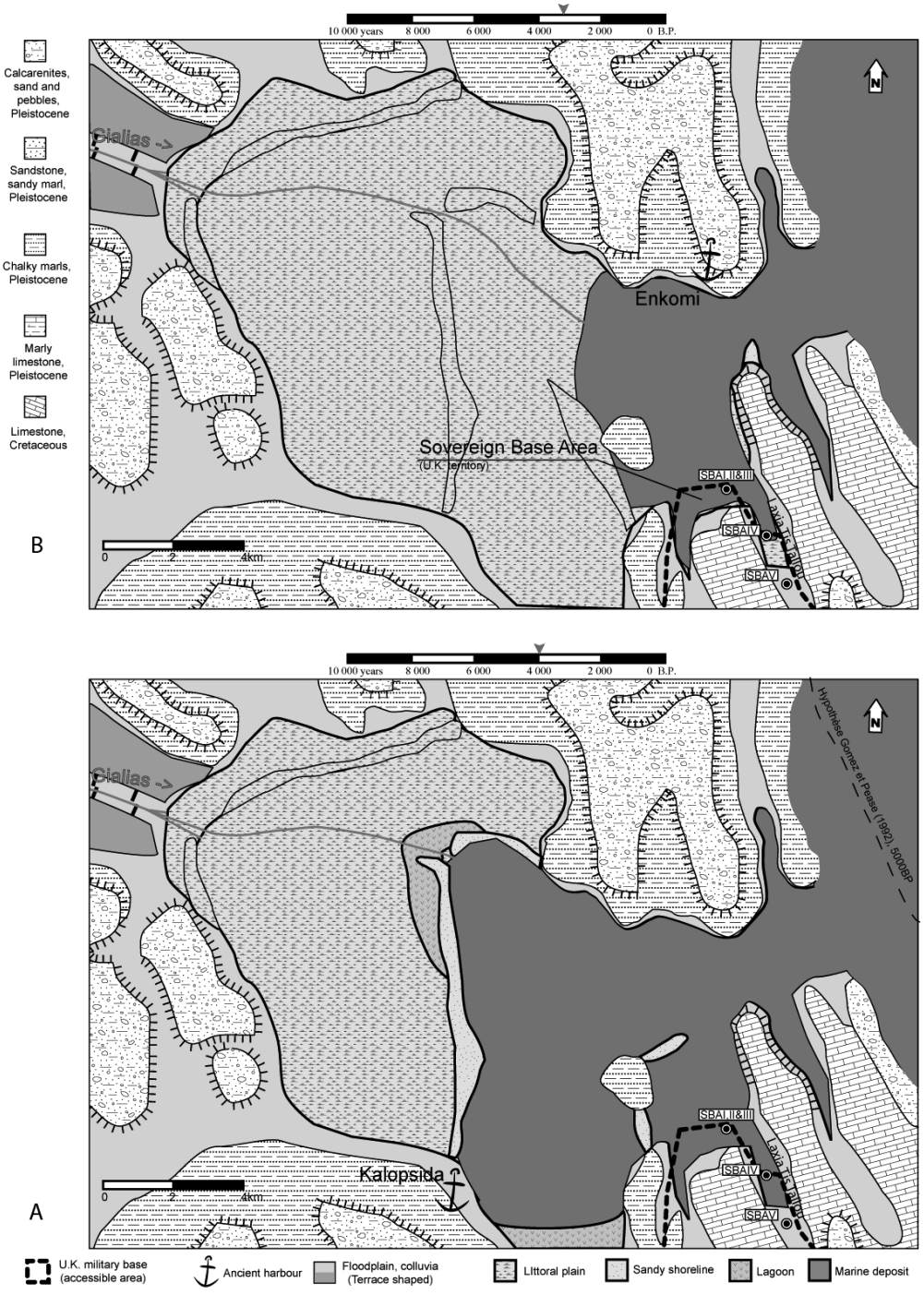
Graeve 1981, 123-28). As noted by Linder (1986, 278-279) the identification of a riverine as opposed to nautical environment in the Khorsabad scenes is, however, suggested by the arrangement of logs on a tether behind several craft which would have been impractical in the open sea due to currents. This alternative interpretation is also supported by the species of water fauna depicted which favour a fresh water environment.

At the eastern end of the Gialias-Pedieos river system port settlements at Kalopsidha, Enkomi and Salamis provided an interface between inland navigable waterways and wider maritime networks of exchange. Progressive siltation of the Gialias-Pedieos Delta, most probably in part due to erosion as a result of deforestation, may account for the decline of Kalopsidha and the concurrent rise of Enkomi during LCI-II (fig. 2.4).[23] Although Kalopsidha is presently located c.13km inland, it is positioned a mere 3.5km from the modern channel of the Gialias River, raising the possibility that the site had navigable access to the coast through the surrounding marshland as late as the mid-second millennium BC.[24]

The lack of precise information about relic river channels within the Gialias-Pedieos Delta renders an assessment of environmental influence upon evolving settlement patterns inherently speculative (Devillers 2008, 132-136). A direct maritime link for the site prior to this point is suggested by the otherwise conspicuously prominent role that Kalopsidha's residents appear to have played in international exchange during MCIII-LCI (Crewe 2010, 63). The prevalence of White Painted handmade wares at Kalopsidha is also indicative of early and directional overseas exchange contacts with Egypt in MCIII, based upon the significant quantities of this material found at Tell el Dabᶜa (Maguire 2009, 26). The advent of Plain White pithoi at Kalopsidha during this period, alongside significant numbers of Canaanite jars, likewise denotes extensive storage capacity consistent with participation in bulk commodity exchange (Crewe 2010, 67-68; Pilides 1996).

23. Increased fluvial deposition in the Polis region of western Cyprus during the Byzantine and Medieval periods, resulting from deforestation associated with charcoal production for metallurgical industry, is discussed by Deckers (2005, 171-172).

24. Another major change in the landscape of the Gialias-Pedieos Delta, broadly contemporary with the loss of Kalopsidha's access to the coast, was the disappearance of a small c.150ha island c.6km to the north-east of the site, through its gradual incorporation into the advancing Mesaoria plain, and concurrent retreat of the marine environment (Devillers 2008, 154-156). Prior to this point during the Middle Cypriot period the island would have formed a naturally isolated promontory that was cut off, at least at high tide, from the surrounding mainland.



2.4 Progression siltation of the Gialias-Pedieos Delta. a) c.5000 yrs B.P.; b) c.3500 yrs B.P. (Devillers 2008, 155).

As to whether the subsequent development of Enkomi as the east coast's principle maritime 'gateway' was undertaken by displaced residents of Kalopsidha or another indigenous group remains unclear (Åström 1966, 140). As noted by Crewe (2010, 70) at the point of Enkomi's initial foundation Kalopsidha still appears, on the basis of ceramic imports, to constitute a prosperous and outward looking community in its own rite. The final demise of Kalopsidha's export function may also be associated with a more general decline in maritime exchange within the Levantine region during LCIB associated with the expulsion of the Hyksos from Egypt (Maguire 1995, 63). The subsequent abandonment of Enkomi c.1190 BC in favour of Salamis, in response to the silting up of the former's harbour, has previously been postulated by Lagarce (1993, 91) and Iacovou (2008b, 635).[25] If Albenda's (1983) conjecture that the Khorsabad scenes depict a forestry operation on Cyprus is correct, and this is further to be associated with the landscape of the Gialias River, it would imply that a navigable channel connecting the island's interior with the coast remained open until at least the late 7th century BC, even if its course did change at the eastern end of this system.

Travelling west a concern for the control and strategic defence of territory on the banks of the Gialias River is visible in the foundation and subsequent fortification of LCIIC-IIIA settlement at Sinda (Furumark and Adelman 2003). During its latter phases of development this site appears to have constituted a bounded urban community that incorporated a preconceived defensive function into its design. In common with contemporary Pyla-*Kokkinokremos* located c.19km to the south, the Late Bronze Age settlement at Sinda has also on occasion been characterised as an intrusive Aegean redoubt (see Chapter 3.5 and Åström 2003 for discussion). On the basis of the albeit limited archaeological evidence available, the present author subscribes to the alternate view that the settlement remains at Sinda represent a typically diversified and predominantly indigenous Late Cypriot community orientated to its landscape surroundings. A model boat fragment found in an LCIIIA mortuary context (tomb I) likely reflects the site's primary function as a river port (Furumark and Adelman 2003, 119; fig. 2.5).

25. The progression of settlement at Kalopsidha-Enkomi-Salamis-Famagusta-Varosha can be viewed as a longue durée landscape phenomenon, where the region's principle 'gateway' community moves around within the local area, in response to changing environmental and socio-economic circumstances (Cadogan 2005, 315).

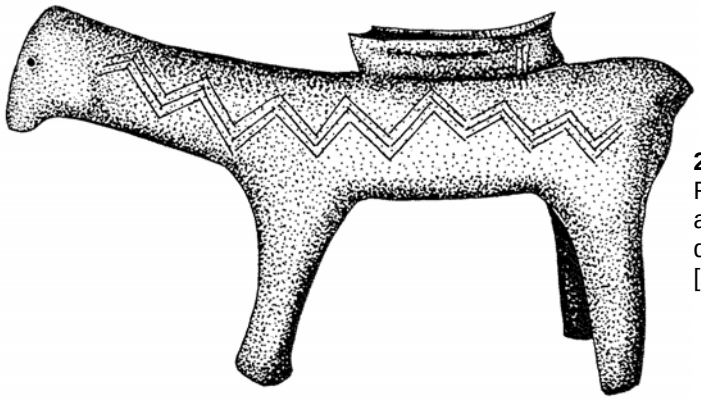
2.5 Model boat fragment from Sinda tomb I (Furumark and Adelman 2003, Plate 39:14) [scale 2:3].

In addition to its relationship with the Gialias waterway, Sinda also appears to have been a junction for several overland routes, represented by fragmentary traces of tracks directly to the east of the site visible on a 1963 aerial photograph. While these features cannot be independently dated, the strategic location of Sinda would have made it an ideal crossing point over the Gialias River by way of a weir or bridge for those travelling north on route towards Enkomi (Furumark and Adelman 2003, 66). A bridge over the Gialias River in this area for the use of muleteers is recorded on a map of 1573 (Christodolou 1959, 97). A late 8th century BC depiction of soldiers towing a boat in a fragmentary wall relief recovered from Khorsabad (Loud et al 1936, 58-60), suggests that towpaths could have existed along the river's banks where navigation was difficult due to unfavourable currents and/or winds (fig. 2.6).

2.6 a) "*Assyrian soldiers towing a boat during a campaign against Merodachbaladan*" (Loud et al 1936, fig. 72);

b) Boatman towing a sailboat upstream along the Ganges River in modern Bangladesh (photograph BBC Worldwide).

Bronze Age terracotta models of equines with panniers attest to the existence of overland caravans (Morris 1985, 204, 210-211), which would have operated in conjunction with riverine transportation (fig. 2.7). Rivers would also have influenced these overland routes as natural barriers, which could only be crossed at certain locations (Frankel 1974, 9). Traces of ancient road networks corresponding to Late Bronze Age settlement have been noted in the vicinity of Enkomi (Åström 1972a, 27), Hala Sultan Tekke (Åström et al 1976, vi), and Ayios Sozomenos (Catling 1982, 231). Taphonomic issues associated with the identification of ancient road networks in the Mesaoria region have been discussed by Bekker-Nielsen (2004, 172-193). For further discussion of ancient road networks in south-east Cyprus see Chapter 3.5.

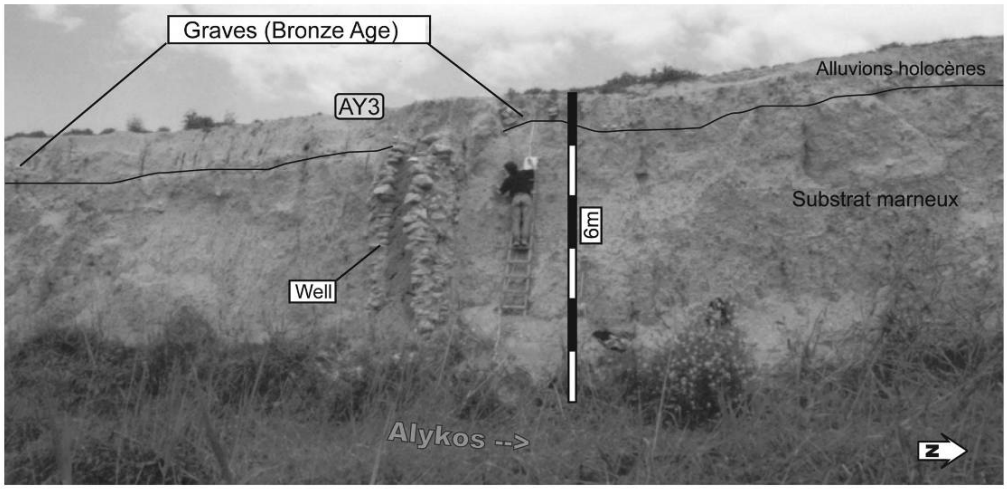


2.7 Early Bronze Age Red Polished Ware pack animal figurine from Pyla district (Morris 1985, 204) [scale 1:2].

The inland terminus of the Gialias River's navigable stretch would have been at the southern end of the Upper Gialias Valley. Archaeological surveys covering Late Bronze Age remains in this region have been conducted by Catling (1963; 1982) and Rowe (1995).[26] The geomorphology of the riverine sector of the Upper Gialias Valley, along with directly associated archaeological remains, has received study in Devillers (2008, 77-139) and Devillers et al (2004). This extended cluster of occupation in the vicinity of Ayios Sozomenos would have constituted one of the most intensive landscapes of settlement on Cyprus at the beginning of the Late Bronze Age. For the

26. As previously noted by Hadjicosti (1997, fn.8) the inconsistent use of toponyms has led to a degree of confusion regarding the identification of archaeological sites in the region of Ayios Sozomenos. In the area of *Nicolidhes*, which on the RoC Department of Lands and Surveys cadastral plans covers the southern most extent of the Ayios Sozomenos massif, the locally used toponyms of *Kafkallia* (Overbeck and Swiny 1972) and *Glyka Vrysis* (Gjerstad 1926; Åström 1972a, 30-32) have been employed to clearly differentiate these sites from the fortified enclosure located in between which is referred to as *Nicolidhes* (Fortin 1981; Rowe 1995).

purposes of discussion MCIII-LCI/II occupation within this region can be split into two clusters, located at either end of the Ayios Sozomenos escarpment's eastern flank, and further divided between adjacent upland and lowland zones.[27]



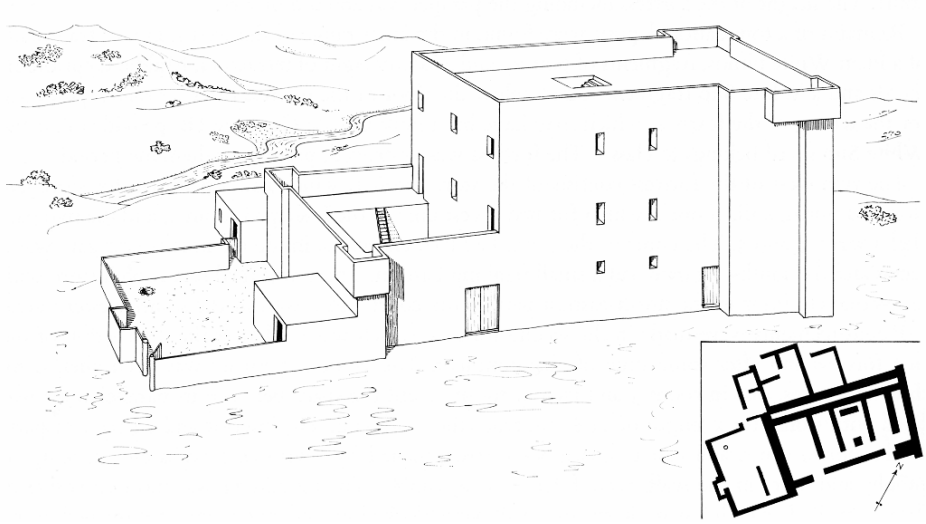
2.8 Ayios Sozomenos-*Ambellia*. Late Bronze Age graves and well visible in section facing north-east from the Alykos River bed (Devillers 2008, 110).

In the north surface material recorded by Catling (1963, MC.21+LC.37; 1982, 231-232) at *Ambellia* covers an area of approximately 3ha.[28] On the adjoining western bank of the Alykos, a well along with two partially exposed burials were documented in section by Devillers (2008, 110-111) where the alluvial terrace has cut into the Bronze Age riverside deposits (fig. 2.8). Immediately to the south at *Kakoskalin* a 7.5 x 1.5m trial sounding revealed disturbed traces of Late Cypriot occupation beneath c.4m of sediment (Devillers et al 2004). This extensive overburden, and the resulting lack of surface artefacts at this location, precludes a reliable determination of the nature and combined extent of Late Bronze remains in this area (cf. Gaber 2008, 61). While the horizontal extent of Late Cypriot settlement at *Kakoskalin* cannot at present be reliably ascertained, its antiquity can be inferred from Middle Cypriot surface material recovered from the neighbouring plot of *Galatere* (Catling 1963, MC.28)

27. This combined landscape of settlement was accompanied by a series of extramural MCIII-LCI/II cemeteries in the north at *Ambellia* (Catling 1963 MC.22+23/LC.38+39), and in the south at *Kafkallia* (Overbeck and Swiny 1972, 7-24) and *Muttaes* (Catling 1963 MC.31+LC.44). Ongoing use of the *Kafkallia* cemetery from MCIII through to LCI, despite the late MCIII abandonment of the adjacent settlement it was presumably first associated with, attests to a strong tradition of continuity in the lineage and landscape orientation of the region's inhabitants (Overbeck and Swiny 1972, 23).
28. The only excavations conducted at *Ambellia* to date are an unknown number of unpublished Late Bronze tombs opened by Onhefalsh-Richter in 1894 (Gjerstad 1926, 6).

immediately to the south. It can be speculated that the small outlying MCIII/LCI-II settlement sites characterised by pithos spreads recorded at *Vathia Gonia* (Catling 1963, MC.33+LC.48), *Kokkines* (Catling 1963, MC.29+LC.45), and to the south near *Nikolidhes* (Catling 1963, LC.43), all represent agricultural collection points. Based upon its commanding views overlooking the Gialias River to the east, it has been suggested by Fortin (1981, 39-44) that the walled enclosure at *Barsak* (Catling 1963, MC.26) served a defensive function.

At the southern end of the Ayios Sozomenos escarpment two settlement sites at *Nikolidhes* (Fortin 1981, 45-49; Rowe 1995, 31) and *Kafkallia* (Overbeck and Swiny 1972, 25-28) are located on upland areas of the plateau. Below on the western bank of the Alykos a large structure of MCIII-LCI/II date was excavated by Gjerstad (1926, 37-47) at *Glyka Vrysis* (fig. 2.9).[29] All three sites have been characterised as small bounded settlements that incorporated a defensive function into their design. This latter architectural feature has led to their collective interpretation as forts or keeps (Fortin 1983).



2.9 Ayios Sozomenos-*Glyka Vrysis* plan and reconstruction of MCIII first 'fortress' (Åström 1972a, 31 after Gjerstad 1926, 39).

29. Another 'military station' mentioned by Gjerstad (1926, 6, 37) c.3km north-east of *Glyka Vrysis* is believed to refer to fragmentary architectural remains in the area of *Ambellia*.

The lack of notable architectural features or habitation deposits within the substantial stone perimeter walls of the *Nicolidhes* structure suggest that it may have been used solely as an enclosure, perhaps for herd animals as a deterrent against raiders (Rowe 1995, 64). In contrast MCIII *Kafkallia* and MCIII-LCI/II *Glyka Vrysis* both appear to have been substantial compounds which, on the basis of their known architectural arrangements, seem to have served a variety of functions in addition to performing a defensive role. *Kafkallia* arguably bears conceptual comparison with, and appears to have pioneered many of the architectural traits of, later LCIIC 'fortified' communities at Sinda, Idalion-*Ambelleri* and Pyla-*Kokkinokremos*.

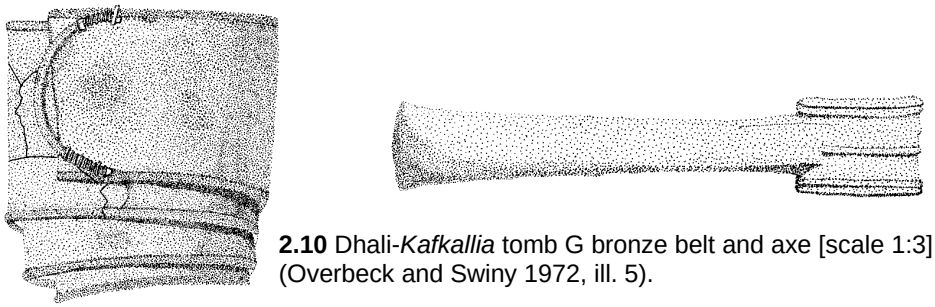
Citing the prevalence of pithos sherds at *Glyka Vrysis* as evidence for bulk commodity storage, it has conversely been argued by Rowe (1995, 70-73) that this site, along with a further three to the north represented by surface scatters at *Ambelia* (Catling 1963, LC.37), *Kamini* (Catling 1963 LC.47), and *Kafkalla tis Drakontias* (Catling 1963, LC.46), are more accurately interpreted as warehouses (or storehouses). The apparent increase in the number of these facilities by LCI-II, only *Glyka Vrysis* and *Ambelia* display firm evidence for an earlier MCIII foundation, would seem to concord well with more general evidence for an upsurge in long distance exchange throughout south-east Cyprus at this time. Warehouse facilities positioned immediately adjacent to the banks of the Alykos-Gialias Rivers strongly suggest that this combined waterway was used to transport goods down stream to the coastal centres of Kalopsidha and Enkomi.

Given the need to defend these newly centralised accumulations of valuable goods, the exclusive interpretation of sites including *Glyka Vrysis* as either defensive or warehouse facilities is arguably unnecessary. As noted by Peltenburg (2008, 145) the construction of fortifications in MCIII/LCI represents, "*the first overt signs of communal enterprise on major building projects that visibly transformed perceptions of the landscape of Bronze Age Cyprus*". In combination with the allied centres for bulk commodity storage and management that they were designed to defend, it can be further proposed that these structures constitute the first clear archaeological evidence of state formation in Late Bronze Age Cyprus (Peltenburg 1996, 30-35; Fortin 1989).

A greater knowledge of mechanisms for staple finance and surplus that underpinned the establishment of these centralised facilities would be of major utility in understanding the initial integration of south-east Cyprus into Levantine networks

of bulk commodity exchange (D'Altroy and Earle 1985; Silver 1995, 88-91). Appreciation of these nascent facets of administration has to date been largely confined to the copper industry (e.g. Muhly 1989; Knapp 1995, 150-151; Knapp 1986a, 44), which although undoubtedly of paramount importance did not constitute the economic basis for the island's relations with the outside world in their entirety. With the possible exception of fragmentary LCIA remains documented during underwater survey at Maroni-*Tsaroukkas* (Manning et al 2002), knowledge of warehouse facilities is presently limited to LCIIC, with examples including the 'Building X' storage facility at Kalavassos-*Ayios Dhimitrios* (South 1997, 152-156) and the 'West Building' at Maroni-*Vournes* (Cadogan and Domurad 1989, 79).

Limited investigation of MCIII-LCI/II settlement contexts in the vicinity of Ayios Sozomenos means that it is inherently difficult to quantify the significance of long distance exchange during this formative period based upon imports alone. The presence of numerous examples of utilitarian and prestige ceramics more commonly associated with other areas of Cyprus and the Levant, including a conspicuous abundance of Black-on-Red ware at *Kafkallia* most probably manufactured in Karpasia (Overbeck and Swiny 1972, 19-20, 23), nonetheless attests to the region's wealth and external relations. For corresponding Cypriot exports to the Levant see Maguire (2009, 43-68).



2.10 Dhali-*Kafkallia* tomb G bronze belt and axe [scale 1:3] (Overbeck and Swiny 1972, ill. 5).

In addition to its practical application in forestry, the bronze shaft-hole 'battle-axe' from *Kafkallia* tomb G [MCIII-LCI] (Overbeck and Swiny 1972, 8) betrays strong Levantine affinities, through both its design and association with a bronze belt (fig. 2.10). This pairing within mortuary assemblages, similarly documented in an MCIII tomb [BM99] at nearby Klavdhia-*Tremithos* (Malmgren 2003, 99-101), is also known

from contemporary interments at Jericho and Tell el Far'ah (Overbeck and Swiny 1972, 22). It has been suggested by Keswani (2004, 80) that the axe, which was perhaps already regarded as a symbol of authority in Bronze Age Cyprus, became further envalued through its association with foreign elites. According to Philip (1991, 81-83) the distinct typology of the *Kafkallia* axe is suggestive of a Cypriot manufacturing origin, raising the possibility of Canaanite artisans working in south-east Cyprus during the mid-second millennium BC.

By LCIIC settlement within the Gialias Valley appears to have become concentrated at Idalion-*Amberelli* (Gjerstad et al 1935; Catling 1982, 231), reflecting a wider trend towards synoecism and urbanisation in south-east Cyprus during this period. Directly preceding, and potentially concurrent occupation, in the vicinity of Ayios Sozomenos is also suggested by the presence of Myc.IIIC and Base-ring II wares at *Ambellia*. The possibility that other riverside warehouse facilities including *Glyka Vrysis* and Potamia-*Ambelin* (Catling 1963, LC.216) remained in use on into LCIIC cannot be ruled out.

For the majority of commodities the proximity of Idalion-*Amberelli* to the industrial heartland of the Troodos foothills, together with its location towards the southern maxim of the Gialias's navigable extent, combine to make the site a likely candidate for the region's main dispatching centre during this period.[30] The evidence for LCIIC industrial facilities on the periphery of the main settlement area at Idalion provides circumstantial support for this interpretation (Hadjicosti 1997, 50-52). Although Geometric period occupation recorded at *Amberelli*, immediately subsequent to the main LCIIIA phase of settlement, is at present restricted to non-architectural habitation deposits, the site's current chief excavator has suggested that, "*it is not unwarranted to assume some continuity of life at Idalion in the transitional period from the Late Bronze Age to the Early Iron Age*" (Hadjicosti 1999, 38; cf. Gjerstad et al 1935, 627).

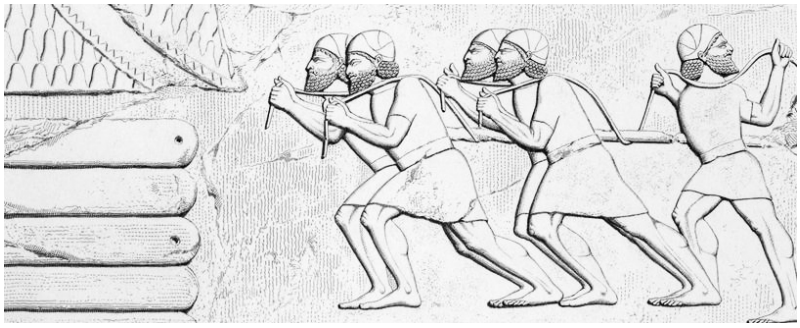
Timber was most probably transported using river-boats, and/or floated downstream from multiple points along the river depending upon shifting procurement areas. A comparable ad-hoc arrangement in which timber was floated down stream to its intended destination ('log driving') was suggested by A. Rowe (1936, 288) for the Adonis River near Byblos during the Early Bronze Age. It is also

30. A detailed depiction of Late Bronze Age (Syro-Canaanite?) seafaring merchants handling cargo in port at Thebes is known from the tomb of Kenamun (Davies and Faulkner 1947).

possible that logs would have been bundled together prior to floatation ('timber rafting') in order to make them easier to control on water. Any of the potential alternatives available would seem more practical than dragging large pine and cedar logs overland further than was absolutely necessary.

Temporary dispatching sites for logs have yet to be identified in the archaeological record, but it can be speculated that they would have been situated on low lying ground next to rivers, with very little in the way of permanent infrastructure. As proposed by Albenda (1983, 19) the 8th century BC Khorsabad depiction of longshoremen could represent just such an operation on the island, "*the timber is procured from a forest in Cyprus and hauled by manpower to a harbor site…; there, the logs are shaped into beams and planks and subsequently exported by cargo ships towards the eastern Mediterranean coast*" (fig. 2.11). It can be speculated that other expedient constructions associated with forestry included temporary booms to collect waterborne timber, and slides to transport logs down hill-slopes into adjacent river channels.

Orientation of MCIII/LCI-II settlement along the banks of the Alykos-Gialias-Pedieos Rivers supports the assertion that they collectively functioned as a major transport artery during the Late Cypriot period. In considering the significance of this role, it is notable that the navigable portion of this system would likely have constituted the most extensive inland waterway within the littoral zone of the Levantine corridor outside of Egypt. The dynamic first established at the beginning of the Late Bronze Age between inland industrial communities and coastal centres would have been crucial to the progressive incorporation of south-east Cyprus into wider eastern Mediterranean networks of 'orientalizing' exchange.



2.11 Wall relief from the palace of Sargon II at Khorsabad depicting longshoremen loading timber onto riverboats (Botta and Flandin 1849, Plate 35; for description of relevant scenes see Linder 1986, 273-274).

2.4 ALAŠIYA

If the widely held equation between Alašiya and all or part of Cyprus is accepted, then the corpus of diplomatic correspondence detailing its relations with contemporary eastern Mediterranean powers permit us to further define its socio-economic and geo-political characteristics. Textual evidence concerning Alašiya supports the identification of a coastal polity focussed upon exchange with the Levant and Nile Delta. The involvement of Alašiya in forestry and copper industry further suggests that an area within the eastern Troodos foothills should be included within its remit, due to the concentration of resources in this area, together with their proximity down-river and overland to major centres of Late Cypriot population.

When viewed in combination with archaeological data pertaining to Late Bronze Age Cyprus, we can therefore speculate that the core territory of Alašiya would have been located in the south-east quarter of the island. Such an interpretation is supported by the region's proximity to Alašiya's principle overseas exchange partners, and is potentially reflected in regional patterns of settlement which show an increasing orientation towards maritime spheres of interaction from MCIII/LCI onwards. It should be emphasised that this hypothetical polity refers to a core territory and not a fixed border. The physical extent of Alašiyan control and administration at any given point in time would have been determined by economic and strategic requirements, in addition to practical restraints upon its jurisdiction imposed by the island's natural topography.

A prime example of this phenomenon would have been the migration of temporary industrial installations around the foothills of the Troodos massif as forestry resources became depleted. While the duration of occupation is to be measured in centuries rather than years, the apparently peaceful abandonment c.1500 BC of the seasonal MCIII-LCI copper smelting site of Politiko-*Phorades* may indicate that similar considerations applied when ore bodies became impractical and/or uneconomic to mine (Knapp 2003, 575).[31] A 13th century BC Hittite text from Boghazköi entitled 'Ritual for the Erection of a House' [KBo 4.1] makes reference to Mount Taggata in Alašiya as a source of copper and bronze (Goetze 1950, 356-357).

31. The contents of Politiko-*Chomazoudhia* Tomb 3, which include a bronze shaft-hole axe and horse burials, also suggest an 'orientalizing' presence in this region during MCIII-LCI (Buchholz 1973, 304-312).

It can be speculated that this moniker refers to the heavily forested Troodos mountain range on Cyprus where Late Bronze Age mining and smelting activity was concentrated.

If the proposed identification of an Alašiyan polity is correct, it would seem highly improbable that settlements such as Ayios Sozomenos, Kalopsidha, Enkomi, Pyla-*Kokkinokremos*, Kition and Hala Sultan Tekke could have existed outside of this framework, for it to have sustained the role of principle intermediary in international exchange throughout the Late Bronze Age. It would also seem reasonable to presume that a degree of devolution would have developed over time within this overarching administration, which reflected the increasing economic prominence of urban maritime centres along the island's south-east coast away from the Gialias River drainage from LCII onwards. This devolved power structure may well be reflected in the numerous documents from the later 13th century BC addressed to the 'senior prefect' (or *rābisu*) of Alašiya, who maintained diplomatic contacts at the highest royal level on behalf of the king (Sürenhagen 2001, 254). Given this evidently pluralistic arrangement, the search for a single archaeological correlate for an Alašiyan capital may itself be misguided.[32]

While they fall outside the geographical confines of the present study, the involvement of other sites along the island's south coast including Maroni-*Tsaroukkas* in exchange transactions with the Levant suggests that this littoral region may also have formed part of a wider Alašiyan sphere of influence by LCI-II (Manning et al 2002; Manning et al 2006). The LCIIC-LCIIIA sites of Maroni-*Vournes* (Manning 1998), Alassa-*Paleotaverna* (Hadjisavvas 1996), and Kalavassos-*Ayios Dhimitrios* (Goren et al 2003, 250-2) have all previously been put forward as palatial centres for Alašiya. For speculation regarding the relationship between Late Bronze Age sites in south-central Cyprus see South (2002).

A conspicuous counterpoint to the proposed Alašiyan territory in south-east Cyprus is the concentration of settlement in the north-west of the island (Catling 1963, 140, 142). Judging by the albeit fragmentary settlement remains at Morphou-*Toumba tou Skourou*, this region was clearly one of economic and cultural prominence

32. It can be speculated that the 13th century BC Cypro-Minoan (CM3) archive found at Ugarit-Ras Shamra in the 'Maison d'Ourtenou' (Yon 1995a; Masson 1974) may have been housed in a complex which, amongst other things, functioned as something akin to an overseas embassy of the Alašiyan state.

during the Late Bronze Age, which was also extensively involved in eastern Mediterranean networks of exchange (Vermeule and Wolsky 1990). In common with those sites along the Gialias River discussed above, it was connected to a broader maritime sphere of interaction by means of an inland waterway in the form of the westwards flowing Ovghos River. Additional parallels have previously been suggested by Peltenburg (1996, 33) who speculates that *Toumba tou Skourou* may have controlled the fortifications at Karpasha-*Styllomenos* and Asomatos-*Potemata* in order to defend its maritime border to the north.

The relatively large number of Middle-to-Late Bronze Age sites recorded around Morphou Bay and the Kormakiti peninsular is in part due to the greater extent of fieldwork undertaken in this region as part of the Cyprus Survey (Cadogan 2004; Catling 1963, 130-131). This cluster nonetheless constitutes a major concentration of settlement contemporary with and outside the hypothetical boundaries of Alašiya as proposed above. If this latter supposition regarding a Levantine orientated polity is correct, then this would imply that contemporary occupation in the vicinity of Morphou represents a parallel socio-political development, largely independent of this 'orientalizing' geo-political context. The distinct configuration of urban settlement at *Toumba-tou-Skourou* which is spread across several neighbouring mounds, an arrangement unique in Cyprus, has been noted by Vermeule and Wolsky (1990, 14-15; see also Keswani 1996, 221).

Two distinct ceramic manufacturing traditions emerged in the east and west of the island during the transitional MCIII-LCI period (Steel 2010, 108). Detailed comparative studies concerning respective patterns of off-island exchange for the Late Bronze Age are, however, at present lacking. The relative proportional significance of Minoan imports at *Toumba tou Skourou*, when compared to coastal sites in the south-east, could potentially indicate divergent spheres of economic engagement (Vermuele and Wolsky 1990, 381-384).

It has previously been suggested by Masson (1964, 3-8) that Alašiya refers to the eastern half of the island, whilst the name Kupros derived from the Linear B adjective [Ku-pi-ri-jo] for Cypriot refers to the west. For the possibility of an east-west conflict in LCI see also Merrillees (1971, 74-75) and Åström (1972b, 50-52, 55). Even if settlement around Morphou did not constitute an independent socio-political entity, it would seem reasonable to assume that a subdivision of identity did exist in some

form between its residents and those of the south-east, created by the physical separation of the island's landscape. Direct east-west communication overland may also have been hindered by dense woodlands stretching across the central Mesaoria plain (Muhly 1996, 45-46).

The existence of other polities or organised social groups on Cyprus in the late 13th century BC, outwith the jurisdiction of the Alašiyan court, would help to explain the otherwise perplexing correspondence regarding seaborne attacks against its longstanding ally Ugarit originating from near or within the kingdom's borders (Singer 1999, 721-722). An admission to the loss of territory on the part of the king of Alašiya in his correspondence with Pharoah [EA 38] also implies that areas of the island fell, at least temporarily, outside of Alašiyan control (Peltenburg forthcoming 2012).

Elsewhere on Cyprus, material indications for a similar level of socio-economic development during the Late Bronze Age are either absent or not at present fully recognised. In the south-west at Palaipafos evidence for intensive occupation remains virtually non-existent prior to LCIIC despite over a century of archaeological investigation (Iacovou 2007, 5).[33] Even by the late 13th century BC when urban settlement is widespread elsewhere on the island, the small coastal settlement at Maa-*Paleokastro* still appears to constitute something of an isolated outpost.[34]

As noted by Peltenburg (2008, 151) the only other MCIII/LCI site on the island that possesses a comparably large quantity of Red-on-Black ware to Dhali-*Kafkallia* is the fortress of Nitrovikla (Gjerstad et al 1934; Hult 1992) located in the north-east Karpass peninsular.[35] Based upon this conspicuously limited distribution,

33. Ongoing excavations at Palaipafos-*Hadji Abdullah* [dir. Dr. M. Iacovou] will undoubtedly contribute much new information in this regard. Indirect evidence for synoecism within the Diarizos valley during the Late Bronze Age comes from the site of Prastion-*Mesorotsos* c.15km up river from Kouklia, which appears to have been abandoned prior to LCI (A. McCarthy pers. comm. 2010).

34. It has been proposed in several studies that the LCIIC-LCIIIA site of Maa-*Paleokastro* (Dikaios 1971b; Karageorghis and Demas 1988) represents an outpost, which developed independently of indigenous Late Cypriot settlement. Opinions vary regarding the identity of those behind its construction, with Aegean-Philistine agency proposed by numerous authors (Karageorghis 1998; 2001; Landau 2003; Barako 2000). In terms of the present study, which supports the existence of a major land based polity in south-east Cyprus extensively engaged in maritime exchange, arguably the most likely candidate behind the foundation of Maa-*Paleokastro* is Alašiya. Given the evidently significant material investment in its construction, it is proposed that Maa is most feasibly interpreted as landward establishment facing the sea, as opposed to the landfall of a seafaring immigrant population. For re-evaluation of the now traditional association between Maa-*Paleokastro* and Pyla-*Kokkinokremos* see Chapter 3.5, fn.63.

35. Sjöqvist writing in Gjerstad et al (1934) originally dated the Nitrovikla fortress to MCIII-LCI. A lower date of LCIB was suggested by Hult (1992, 73), although this has been critiqued by Merrillees

which may suggest a link between its builders and the manufacture of this ware, it can be speculated that Nitovikla represents a territorial border, in much the same way as has been proposed for MCIII-LCI fortifications at Ayios Sozomenos (Gjerstad 1926, 37; Fortin 1983). A further group of five fortified LCI structures within the localities of Eylenja and Yeri at the western end of the Pedieos River may constitute another local frontier (Peltenburg 1996, 31-33; Fortin 1989).

(1994) who advocates a widely accepted date of LCIA. For further discussion of these dates see Peltenburg (2008, 152).

2.5 SUMMARY

Our present knowledge of settlement along the Gialias River at the beginning of the Late Bronze Age cannot as yet provide a definitive assessment of primacy, as regards inland or coastal agency in the exploitation and transportation of copper-forestry resources. Absence of material indicators for state-like characteristics at either Kalopsidha or Enkomi before LCIIB renders conclusions regarding the pre-eminence of these communities inherently speculative (Crewe 2007b, 8; Manning and De Mita 1997, 110). The corresponding lack of a clear regional centre in the vicinity of Ayios Sozomenos prior to the foundation of Idalion-*Amberelli* in LCIIC, likewise makes any inference of socio-political control emanating from within the island's interior equally unreliable.

This admittedly pessimistic assessment rests upon the scarcity of information concerning MCIII/LCI-II occupation at Kalopsidha, which despite ceramic evidence indicating its role as a major export centre, remains virtually unknown in terms of architectural composition. Any presumption of coastal agency must also be tempered with the understanding that, to the best of our archaeologically derived knowledge, the first occurrence of monumental architecture within south-east Cyprus in the form of fortifications is restricted to the western terminus of the Alykos-Gialias waterway.

The cluster of MCIII/LCI-II settlement at Ayios Sozomenos would have been founded and sustained, at least in part, because of its immediate proximity to natural resources of the eastern Troodos foothills. Woodland industry, in concert with the exploitation of copper, played a central role in determining this pattern of occupation. An 'integrated Mediterranean forest' environment, which likely prevailed over much of the island's interior, would have provided the ecological infrastructure necessary to facilitate the participation of Late Cypriot communities in wider 'orientalizing' networks of Levantine exchange (Horden and Purcell 2000, 182-185). The advent of associated facilities for bulk commodity storage and management during MCIII-LCI/II marks a fundamental shift in the basis of the island's economy, and arguably supports the identification of south-east Cyprus with Alašiya. It is therefore proposed that settlement development in this region prior to LCIIC is most effectively characterised in terms of industrialisation rather than urbanisation, and represents the beginning of an on-going process of secondary state formation.

While the current body of evidence pertaining to settlement patterns cannot in isolation prove the existence of a nascent maritime polity during MCIII/LCI, successor regional power structures at Enkomi-Salamis most probably had their origins in export functions first established at Kalopsidha and Ayios Sozomenos. In more general terms it can be inferred that inland and coastal settlement would have developed in tandem, as conjoined nodes within an evolving socio-economic system, framed and profoundly influenced by the landscape of the Alykos-Gialias-Pedieos Rivers. A strong tradition of landscape continuity can thus be identified throughout the Late Bronze Age in regional patterns of settlement and exchange. The devolution of power throughout LCI-II, away from the older inland Gialias sites to multiple coastal 'gateway' communities, provides the basis for the next major phase of settlement in south-east Cyprus, with the rise of urban maritime centres in Larnaca Bay during the latter half the 13th century BC.

CHAPTER 3
KOKKINOKREMOS AND THE MARITIME LANDSCAPE OF PYLA

3.1 INTRODUCTION

The Late Bronze Age LCIIC site of *Kokkinokremos* is situated on a high plateau overlooking the narrow coastal plain of the Pyla littoral. This rises sharply from the surrounding lowlands to a height of 63 metres above sea level, and comprises a central expanse which splits into two lesser promontories towards the south. In the north *Kokkinokremos* is connected to *Mavrospilios* and the wider Pyla massif by a narrow ridge, forming a prominent landscape marker when approaching from both land and sea. The imposing topography of the plateau would have afforded its residents commanding views over Larnaca Bay, and has given rise to the site's characterization as a 'naturally defended' settlement (Dikaios 1971b, 896).

Kokkinokremos was not alone in the region during the LC II period, with contemporary and/or directly preceding remains identified at the nearby localities of *Verghi*, *Stavros*, *Steno* and *Koukoufouthkia* (fig. 3.1). The cluster of settlement at Pyla marks the effective eastern boundary of Late Bronze Age occupation in Larnaca Bay. Along the coast *Kokkinokremos* is located c.5.6 nautical miles north-east from Kition, and c.24 kilometres overland to the south-west of Enkomi. By sea *Kokkinokremos* is c.120 nautical miles from Tyre.[36]

The LCIIC settlement at *Kokkinokremos* would have been defined by its position directly above and adjacent to the now infilled but once substantial harbour below (Caraher et al 2005, 246-248; Noller and Zomeni 2006).[37] The extent of this natural embayment was such that it would have rivalled the Larnaca Salt Lake, and its associated port at Hala Sultan Tekke, as a point of safe anchorage and exchange for

36. The speed of Late Bronze Age ships making the crossing from the Levant to Cyprus would have depended to a great extent on the class of vessel, prevailing winds, and sail configuration used (Wachsmann 1998, 254). During sea trials the Kyrenia II replica, based upon a 4th century BC merchant ship wreck, averaged a little less than three knots/nautical miles per hour. This would suggest an average sailing time of c.38 hrs or 1½ days (Katzev 1990).

37. The interpretation of this low lying coastal marshland as a relic closed harbour was first suggested in Megaw (1953, 134-135).

ships moving along the south-east coast of the island. The site's location would have also given it control of strategic overland routes to and from the Mesaoria plain.[38]

Kokkinokremos and its immediate environs are presently located within the boundaries of the Pyla Ranges military facility. This contemporary land-use has undoubtedly benefited the landscape, sparing it the intensive pressures of touristic development and urban sprawl that have largely obscured the coastline towards Larnaca. While this has been to the advantage of preservation, making the site evidentially central to archaeological research, the practical implications of this arrangement are such that access to the survey area was limited to hours when the British Army rifle range was not in operation.

The primary objectives for the present study of *Kokkinokremos* and its immediate hinterland were to contextualise the results of previous missions within a broader landscape context, and to compliment their findings by providing a more detailed overview of the Late Bronze Age settlement's intramural composition or 'town-planning' (Karageorghis and Demas 1984, 2). In doing so it is intended to facilitate a greater appreciation of the site's role and function within evolving patterns of settlement in south-east Cyprus during the Late Bronze Age.

Fieldwork for the present study of architecture and landscape features was directed by the author and conducted as a discreet component of the Pyla Koutsopetria Archaeological Project (henceforth 'PKAP'), a diachronic survey of the Pyla coastal region centred upon the Late Roman site of Pyla-*Koutsopetria*. Its results are complemented by those of the PKAP surface collection from the plateau and surrounding areas which are briefly discussed by way of reference in Chapter 3.4.[39]

Prior to the present study numerous investigations have been conducted on *Kokkinokremos* over the past half century, beginning with the trial excavations in Areas I and II on the eastern side of the plateau directed by Porphyrios Dikaios in 1952 (Dikaios 1971b). These were followed by a more extensive campaign of excavation during 1981-82 directed by Vassos Karageorghis and Martha Demas, which further

38. Pyla (Πύλα) is Greek for gate.
39. The following brief summary of the *Kokkinokremos* surface collection results in Chapter 3.4 is included by kind permission of the PKAP project directors William Caraher - R. Scott Moore - David Pettegrew and PKAP Bronze Age ceramicist Mara Horowitz. All artefact numbers cited are those recorded in the PKAP survey and soundings documentation.

revealed a series of casemate structures in Area II and Trial A (Plan I).[40] Both missions regarded the settlement as a short lived intrusive redoubt to be associated with the earliest phase of Aegean colonisation on the island (Dikaios 1971b, 912; Karageorghis and Demas 1984, 72-73).

The addition of five soundings undertaken in 2008-09 as part of the present study, with a combined surface area of 44 sq. m, brings the total number of excavation areas on *Kokkinokremos* to eight, covering approximately 2% (or c.1180 sq. m) of the plateau's surface. These targeted exposures were designed to clarify architectural observations made during the course of the wider survey, and provide detailed information regarding occupation in the western part of the plateau for comparison with those remains documented on its eastern side.

A substantial rectilinear structure of Late Cypriot date was also excavated on the plain immediately below *Kokkinokremos* at *Steno* by Dikaios in 1956, details of which are presented below for the first time in Chapter 3.3.3 (for preliminary report see Megaw 1956, 25). Surface finds from *Kokkinokremos* have been published in Megaw (1954, 173), Catling and Karageorghis (1960, 115-117, 120, 124-125, 127), Åström (1966, 200, 202-204) and Karageorghis (1976, 76-78). Additional excavations have more recently been conducted by Karageorghis and Kanta during 2010-11 adjacent to Area II and Trial A. The findings of a 1976 survey of the 'fortification' wall by Fortin (1981, 308-322) are discussed below with reference to the new survey and sounding results pertaining to this feature in Chapter 3.3.1.

40. All excavation area designations are those used in Dikaios (1971b) and Karageorghis and Demas (1984). All sounding and artefact designations are those used in the PKAP project documentation.

3.1 Map of Late Bronze Age settlement in the region of Pyla (Background image OpenStreetMap.org).

3.2 TECHNIQUES OF ARCHAEOLOGICAL SURVEY

An integrated survey methodology was employed with the four principle categorises of investigative technique summarised below. ArcGIS software in combination with GPS [Garmin Geko 201/Trimble GeoXM/Trimble R8] was used to map in all survey transects, excavation areas, and surface features into a revised site plan. Ground visibility at the time of survey in 2007 was generally good with a predominantly light cover of wild flowers and grass on the plateau's surface, and a sparse covering of phrygana bushes with much exposed bedrock on the adjacent slopes. In a minority of areas where vegetation was denser, this was cut back using a mechanical strimmer in order to facilitate surface collection and ground penetration by the geophysical probes.

3.2.1 PEDESTRIAN SURVEY

The pedestrian survey of architecture and landscape features at *Kokkinokremos* was undertaken over a three-week period in May-June 2007, and was carried out in tandem with the PKAP chronotype sampling of the site's surface assemblage (see fig. 3.12). The survey incorporated two distinct methodological components, consisting of 58 intensive inspection units across the extent of the plateau's surface and upper slopes that also formed the artefact collection grid, and 2 extensive inspection units along the generally steeper lower slopes which were designed to include features which did not fall within the former zone of collection.[41]

Placement of intensive survey units on *Kokkinokremos* differed from those in the wider PKAP survey area on the surrounding coastal plain and upland massif, in that their boundaries where aligned with the changing orientation and gradient of the site, in order to take into account routes of drainage and the concurrent alluvial attrition of artefacts. The size of intensive units was restricted to between 1000 and 2000 sq.m for the purposes of surface collection, to allow for valid comparison with the standard 1600 sq.m used elsewhere.

41. The fenced-off area on the eastern side of the plateau containing the main Area II excavations was exempted from features recording and surface collection, as it was felt that no meaningful additional information could be gained beyond that already published. Area I and Trial A were included in the survey area as extensive erosion has rendered them largely indistinguishable from their surroundings at ground level.

Intensive grid units on the plateau surface and upper slopes were surveyed by 3-4 people, walking from east to west spaced at 10m intervals. For the extensive lower ridge units, two to five field walkers were spaced at 10-20m intervals depending upon the contours of the slope. Where archaeological and/or landscape features were noted these were re-surveyed by the author for the purposes of the present study to ensure consistency of recording and interpretation. A dedicated pedestrian survey was also made in 2007 of segments of settlement boundary (or 'fortification' wall) visible in section around the plateau's perimeter.

3.2.2 REMOTE SENSING

A variety of aerial and satellite imagery was employed in the present survey of *Kokkinokremos* and the surrounding Pyla littoral region, incorporating both contemporary and archival data. The main series used were the vertical aerial photographs produced by the British Directorate of Overseas Survey [1963] and Republic of Cyprus Department of Land and Surveys [1993], together with a new set of oblique photographs taken for the project on June 11th 2007 by 84 Sqn RAF Akrotiri.

This flight produced a total of 108 images which constitute the basis for the majority of remote sensing observations reported in this study. At the time of recording the cessation of agriculture on *Kokkinokremos* the previous year had significantly improved the visibility of soil marks, when compared with 'Quickbird' satellite views of the plateau taken while it was still under plough prior to summer 2006. Rainfall in the weeks preceding photography aided in the identification of a buried shallow bedrock terrace running across the centre of the site, by giving a clear indication of differential moisture retention along its length where there was an abrupt change in soil depth.

Comparison between the 2007 images of *Kokkinokremos* and a further series of oblique photographs taken for the Karageorghis and Demas excavations in 1982, also contributed to an assessment of site erosion as a result of ploughing in the intervening 25 years, which is particularly evident in the appreciable increase of field-clearance mounds along the plateau's southern edge. A review of archival imagery enabled the relocation of Dikaios' now completely eroded 1952 'Area 1' trench on *Kokkinokremos*, for which no accurate site plan was previously available, by orthorectifying a 1963

vertical aerial photograph on which its outline was visible into the project GIS using verifiable ground features.

3.2.3 GEOPHYSICAL PROSPECTING

During 2007-'08 a geophysical survey was conducted on *Kokkinokremos* using electrical resistance mapping and tomography.[42] This work served to complement the pedestrian and remote sensing components of study, in addition to revealing previously unknown subsurface architecture and landscape features. Observations made in this regard also formed the basis for several of the targeted soundings subsequently undertaken in 2008-'09, which were intended to ground-truth interpretation of the geophysical results. At the time of the main survey season during a three week period in May 2007, recent rains had resulted in near optimum soil moisture conditions for resistivity.

The sampling strategy for geophysical coverage was determined by research questions raised during the course of both present and previous studies of the survey region, together with micro-topographical constraints and time-access restrictions imposed by the immediate proximity of the Pyla firing ranges. The principle aim of research was to complement the results of past missions by providing a broader overview of the Late Bronze Age settlement's intramural composition. Due to the large area under investigation (approximately 6ha), it was unfortunately not possible to survey the plateau's surface in its entirety by means of electrical resistance mapping. While the use of ground penetrating radar would have been preferable in that it could have covered a greater expanse in the limited time available, the very shallow underlying bedrock across the majority of the site mitigated against its application. The presence of metallic debris in the form of spent ammunition likewise precluded the use of magnetometry as an alternative. The adaptability of the resistivity meter to both horizontal mapping and tomographic profiling also proved to be advantageous in light of the limited resources available.

Six survey transects (henceforth 'GT') were accordingly used to sample 11'200 sq.m (or approximately 20%) of the plateau's surface. These were all located in areas which had not previously been investigated in detail, and were designed to give a

42. For technical description of these methodologies see Clark (1996, 44-46) and Gaffney and Gater (2003, 55-76).

representative sample of the remaining subsurface architecture and landscape features. The geophysical results also served to highlight several zones of preservation in otherwise denuded portions of the site. All electrical resistance mapping was surveyed in 20 sq.m grids, using a TR/CIA 1A resistance meter operating in a standard twin-probe configuration, with readings taken on each traverse at 1m intervals.[43] A series of tomography measurements were also taken across the buried shallow bedrock terrace in order to provide additional information concerning the dimensions of this feature.[44] These readings were again made using the TR/CIA 1A resistance meter, operating with a 20 probe array spaced at 1m regular intervals in an extended Wenner configuration, giving a depth profile (or 'pseudo-section') of 16m in length.[45] The accuracy of these results was subsequently examined through excavation of sounding EU3.

3.2.4 TRIAL SOUNDINGS

In order to clarify observations made during the course of the pedestrian, remote sensing, and geophysical components of study, five targeted soundings were excavated over two seasons on *Kokkinokremos* during June 2008-'09. These collectively represent the final component of the integrated survey methodology described above. All soundings were located on the western side of the plateau where excavation has not previously been undertaken. The exposure of secure occupational deposits in three of these provides detailed new information pertaining to the architectural character and intramural composition of the LCIIC settlement. Soundings were backfilled at the end of their respective season of excavation, with all associated artefacts retained for future reference in the Larnaca District Archaeological Museum.

43. The raw resistivity mapping data as presented has been despiked and interpolated using 'Snuffler' and 'Surfer' software packages to reduce background noise. Plots and Ω range for all *Kokkinokremos* resistivity transects are given on Plan I.
44. For comparison between the two resistivity techniques employed during the course of the present study for determining the depth of subsurface deposits see Aspinall and Crummett (1997).
45. Tomography data from *Kokkinokremos* was processed in 'Res2Dinv' software package using a robust inversion algorithm in accordance with the sharply defined boundaries of the shallow terrace feature.

3.3 ARCHITECTURE AND LANDSCAPE FEATURES

3.3.1 THE 'FORTIFICATION' WALL

The LCIIC settlement at *Kokkinokremos* was encompassed, at least in part, by a boundary wall that followed the natural perimeter of the plateau's surface. The interpretation of this architectural arrangement as a 'fortification' has been central to the previous characterisation of the site's inhabitants as a community intrusive to their surroundings (e.g. Karageorghis 1998, 129-130; Karageorghis 2001, 1-3). The longest section excavated to date is the 43m long span that runs along the eastern side of Area II (Dikaios 1971b, 901; Karageorghis and Demas 1984, 23). More fragmentary traces were also documented in Trial A (Karageorghis and Demas 1984, 19-20). At both these locations the wall formed an integral part of the abutting casemate structures. A key aim of the present study was to acquire additional information concerning this defining feature of the Late Bronze Age settlement, in areas of the site where it had not previously been investigated in detail.

A dedicated pedestrian survey was accordingly made of settlement boundary (or 'fortification') wall segments visible in section around the edge of the plateau (Plan I). Where not obscured by debris, all examples recorded sat directly on top of the bedrock, which had in places been levelled for this purpose. These segments all employed the same method of construction as that known from previous excavations, typically consisting of two parallel and abutting horizontal rows of medium-to-large sized undressed boulders sourced from the local argillaceous limestone, with an intermediate fill of smaller stones and soil.

Results of the 2007 pedestrian survey of the *Kokkinokremos* settlement boundary wall were compared with Michel Fortin's unpublished 1976 study of this feature (Fortin 1981, 312; 315-318). While the location of wall segments mapped by these respective investigations was generally in concordance, numerous significant differences were also apparent. This is particularly evident in the north-east of the site where Fortin recorded several stretches of well preserved wall which are now no longer visible (fig. 3.2a-c; Plan I, feat. 6-7-8). A comparison of oblique aerial photographs of the plateau taken in 1982 and 2007 conversely show an appreciable build-up of rubble along its south-central edge.

3.2 Northern sections of settlement boundary (or 'fortification') wall on *Kokkinokremos* photographed in 1976 but no longer visible in 2007. a) Wall segment facing north-west [Plan I, feat. 6]; b) Wall segment facing south-west [Plan I, feat. 7]; c) Wall segment facing west [Plan I, feat. 8]. Photographs courtesy of Michel Fortin [all scales 50cm].

It is hypothesised that these discrepancies are the result of ploughing during the intervening years which has differentially led to the erosion of in situ architecture in some areas, and the obscuring of features in others due to the accumulation of linear field clearance mounds along the plateau edges, which are themselves comprised of disturbed Late Bronze Age masonry components derived from the site's interior. Both site formation processes highlight the interpretative pitfalls inherent in attempting to map the extent of the settlement boundary (or 'fortification') wall based upon surface inspection alone.

In order to investigate the conspicuous absence of any sections of 'fortification' wall adjacent to the bottle neck entrance where *Kokkinokremos* joins with the wider Pyla massif, identified by Karageorghis and Demas as the most feasible location for a 'gate' (Karageorghis and Demas 1984, 24), a 3x3m sounding [EU7] was excavated on the edge of a prominent bedrock outcrop just south of the plateau edge. Despite the presence of very large boulders on the surface, which would presumably not have moved very far from their original point of deposition, no evidence of in situ architecture was found.

While extensive erosion indicated by the widespread protrusion of bedrock along the north-west edge of the plateau could be responsible for this apparent

absence, it seems more likely that no substantial masonry structures were ever present at this location. In other areas of the site where there is a greater volume of soil, segments of perimeter wall frequently act as a retaining barrier for the present field surface, suggesting a taphonomic relationship between this architectural arrangement and the preservation of intramural deposits.

On the south-east promontory of *Kokkinokremos*, where it extends to its southern most extent overlooking the site of the relic harbour, two consecutive and parallel stretches of wall running approximately 5m apart were recorded along the western slope. The outer row appears to form an extension of the now heavily eroded casemate structure documented by Karageorghis and Demas (1984, 19-20) in Trial A. A further continuation of this building into the interior of the plateau is visible in the adjacent geophysical transect [GT4].

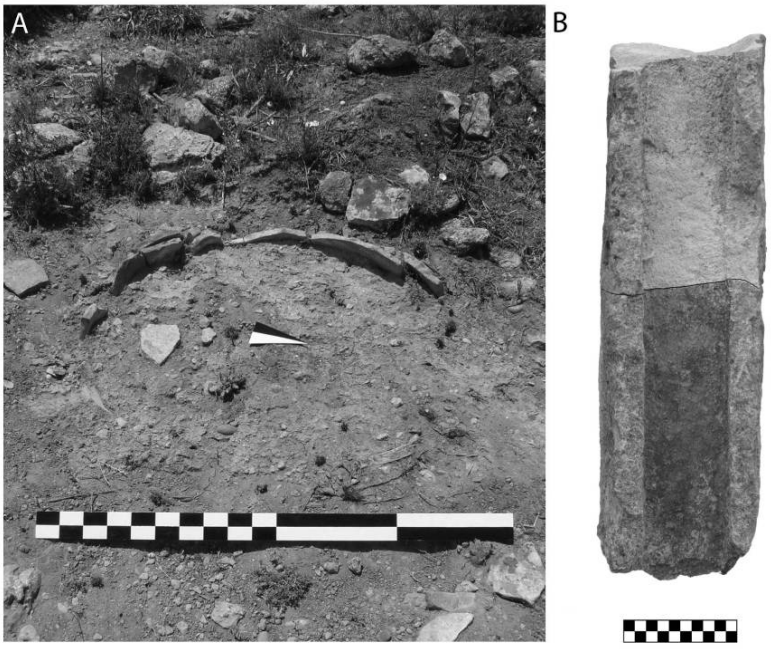
3.3 View from south-east promontory of *Kokkinokremos* looking south-west towards Larnaca Port.

Approximately 30m to the south, extensive erosion along the western flank of the south-east promontory has partially exposed the outline of a rectilinear rock-cut pit of indeterminate function. This feature is aligned on the same east-west axis as the above architecture suggesting a contemporary date (Plan I, feat. 3).[46] At the southern most tip of the south-east promontory, subterranean indications of a once substantial

46. The rock-cut pit is located at UTM: 36 S 0565359 mE, 3872053 mN.

structure visible in the geophysical results [GT5], appear to correspond with the now eroded architectural remains previously noted in this area by Karageorghis and Demas (1984, 24). These were tentatively interpreted as a tower based upon the commanding views from this location overlooking the coast between Cape Pyla and Cape Kiti (fig. 3.3).

On the opposite eastern side of the south-east promontory, numerous contiguous fragments of settlement boundary wall were again visible in section running along the plateau edge. Abutting the exterior face of one of these segments was the in situ lower half of a large Late Cypriot pithos (fig. 3.4a; Plan I, feat. 4).[47] When viewed in combination with the numerous examples of stone channelling collected during survey [nos 1336gb, 1305gb] (fig. 3.4b), it is proposed that this combined assemblage constitutes evidence for the planned provision of water management first proposed by Dikaios (1971b, 903).



3.4 a) In situ Cypriot pithos abutting exterior of 'fortification' wall segment on south-east promontory of *Kokkinokremos*. Scale 1m (Plan I, feat. 4); b) Stone channelling recovered during *Kokkinokremos* surface survey. Scale 10cm [no. 1305gb].

47. The pithos is located at UTM: 36 S 0565389 mE, 3872070 mN.

The location of at least one component of this system outside the settlement boundary (or 'fortification') wall also raises questions regarding the defensive characterization of this feature. Although *Kokkinokremos* is difficult (although not impossible) to ascend on foot by way of its eastern flank, this would not seem an adequate explanation for the seemingly irrational lack of secure access to water, which would have rendered its residents extremely vulnerable in times of siege, due to the absence of any wells or natural springs on the plateau (Karageorghis and Demas 1984, 5; Kypris 1984, 95). The storage of other commodities such as food-stuffs at such an ill-conceived location would seem equally unlikely.

On the south-west promontory of *Kokkinokremos* two atypical sections of settlement boundary wall encountered during pedestrian survey were investigated further using targeted soundings. The most substantial example of wall visible in section anywhere around the plateau's perimeter is on the south-west flank of *Kokkinokremos* (Karageorghis and Demas 1984, 23). Comparatively large stones and evident care in construction give a noticeably more faced quality to the masonry at this location. In order to clarify the nature of these remains a 7x1m sounding [EU10], protruding inwards from the exposed segment of settlement boundary wall, was positioned at the very top of the slope leading down the plateau's western flank to the relic harbour shoreline below (fig. 3.5; Plan II; dashed segment Plan I).

Excavation revealed three walls of a building which, as far as could be ascertained, appears to be similar in its design and dimensions to the casemate structures previously documented on the eastern side of *Kokkinokremos* in Area II. In common with architecture known from elsewhere on the site, the three interior walls encountered in EU10 were of rough-stone construction anchored in bedrock foundation cuts which supported a mudbrick superstructure.

On the inside of the building two distinct plaster floor surfaces were recorded, providing the first definitive evidence for consecutive phases of occupation at the site. It is possible that the plaster floor applied directly to the bedrock was replaced not long after its construction by the thicker mud-plaster render which followed it, due to the evidently greater success of the latter endeavour in producing a level occupational surface. The absence of discernible alterations to the surrounding structure itself, combined with the lack of any typological difference between artefacts found in association with these layers, suggest that both (sub) phases were relatively short in

duration. A more convincing indicator of significant longevity in occupation is the re-use of a door socle as masonry on the interior face of the exterior western wall, which suggests the possibility of an as yet unidentified preceding architectural phase at the site (fig. 3.6). At the north-east end of the building interior, a small shallow pit of indeterminate function was cut directly into the bedrock, with fragmentary traces of the earlier plaster floor again visible around its aperture. In the interior of the structure the occasional presence of lime plaster fragments within the eroded mudbrick detritus suggest that the surrounding walls were originally rendered.[48]

3.5 *Kokkinokremos* sounding EU10 facing north-east.

Outside and to the east of the building excavated in EU10 was an articulated pot-spread of large Late Cypriot pithoi body sherds. Shell faunal remains found immediately above the pot-spread likely represent its original contents [no. 6306.7].[49] The pithos fragments themselves sat on top of a largely sterile c.6cm thick layer of sandy-clay soil, which was again probably applied to the underlying bedrock

48. Comparable traces of wall render were documented in Area I by Dikaios (1971b, 901).
49. According to D. Reese (pers. comm. 2010) this group consists of 4 *Discus*; fossil scallop fragments (13 pieces); fossil vermetids (2 pieces); fossil echinoid test (2 pieces); fossil bryozoan fragments (3 solitary pieces).

conglomerate to form a level occupational surface. This render also appears to have been used to cover a shallow underlying cut in the bedrock c.50-75cm to the east from the eastern wall of the building. While the original purpose of this redundant feature cannot be reliably ascertained from such a limited exposure, it most probably represents part of a drainage channel of the type previously documented in Area II Complex A. Its position beneath the earthen occupational surface supports the interpretation of two consecutive phases of LCIIC occupation in this area of the site.

3.6 Plaster floor applied to bedrock at western end of EU10 showing recycled door socle on interior face of western boundary wall [scale 20cm].

The generally superior quality of the built remains uncovered in EU10 on the western flank of *Kokkinokremos* suggests their relative importance, when compared with other segments of perimeter architecture known from both survey and excavation elsewhere on the plateau. While there is no direct evidence for a barbican-style entrance in this area, the proximity and orientation of this structure towards the harbour would have made it an ideal point for those arriving or departing the settlement by ship (see Chapter 3.3.3 for discussion of corresponding route down to the shoreline).

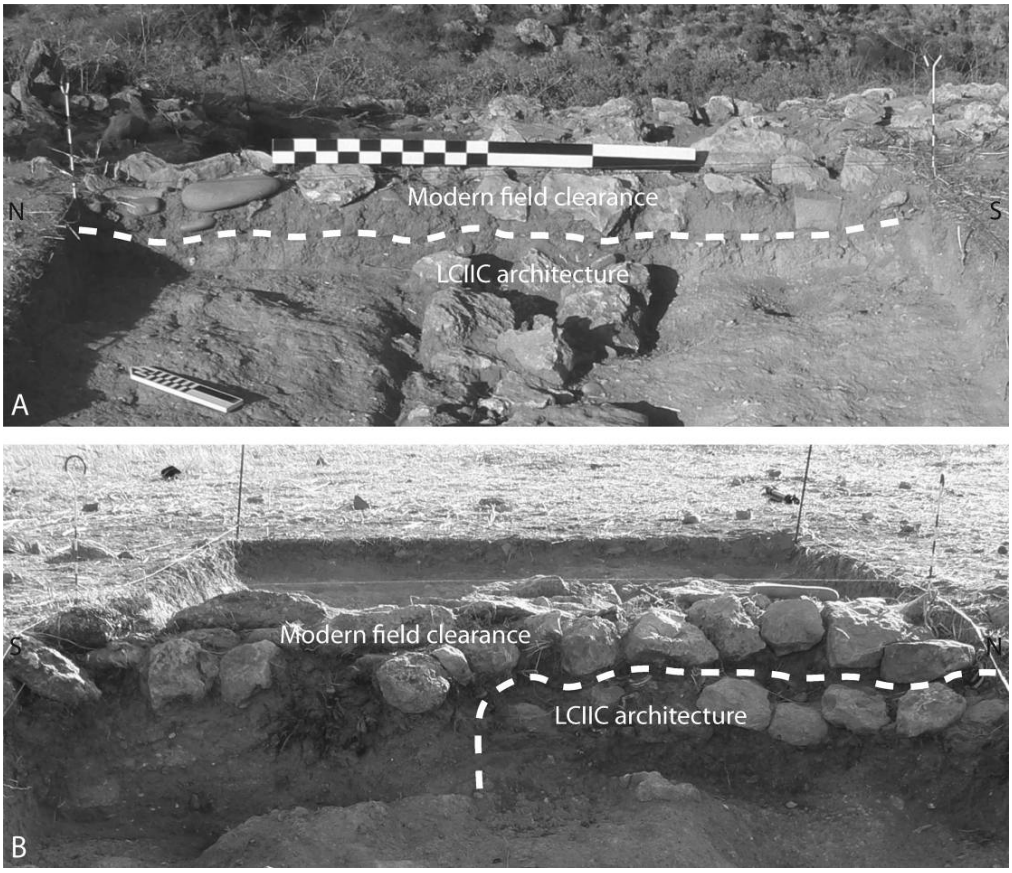
On the eastern side of the south-west promontory of *Kokkinokremos*, pedestrian survey identified an apparent break in the orbit of the settlement boundary wall, in the form of a return heading west into the subsurface interior of the plateau. This was subsequently investigated by means of a 2x6m sounding [EU11] (fig. 3.7; Plan III). Excavation revealed part of a casemate perimeter structure, this time of

relatively slight construction, represented by rough stone footings and associated mudbrick material from its collapsed superstructure.[50] Occasional degraded lime plaster fragments within this matrix again suggest that the interior walls of the structure were rendered. In common with architecture known from elsewhere on the site both walls were partially mounted in foundation cuts.

3.7 *Kokkinokremos* sounding EU11 facing north-east.

50. The state of preservation in both EU10 and EU11 was variable due to the effects of modern agriculture, as well as looting discernable by the presence of numerous small shallow pits. Away from the plough-zone the masonry component of walls, as distinct from their now eroded mudbrick upper portions, retained in places what appears to be their full height of 4-5 courses.

In between the two exposed L-shaped sections of wall, the building partially uncovered in EU11 incorporated an entrance providing access from the adjacent slope, the narrow dimensions of which (equivalent to a single door's width) do not favour its interpretation as a gate. This feature arguably represents a departure from the continuous 'fortified' casemate construction proposed by Karageorghis and Demas (1984, 24, 32). On the exterior side of the entrance a small copper fragment [no. 6405-1001.1] was found in association with a patch of ashy soil. Other artefacts recovered from EU11 consisted overwhelmingly of ceramics, including a heavily abraded White Painted Handmade/White Shaved(?) ware juglet with handle [no. 6403-1001.1] found halfway down the slope outside of the building, and the rim of a large Cypriot pithos imbedded in the western section of the sounding.



3.8 N-S baulk across centre of EU11 during excavation showing spatial relationship between segment of LCIIC boundary wall and overlying accumulation of modern field clearance along plateau edge. a) Facing north-east; b) Facing south-west. Scale 1m.

When viewed in light of the aforementioned issue of taphonomic visibility associated with the accumulation of stone debris, the new evidence from EU11 indicates that substantial breaks between segments of settlement boundary wall visible around the plateau's perimeter represent actual deviations in architectural form, rather than solely being the result of erosion post abandonment (Plan I). The potentially misleading relationship between surface deposits and subsurface architecture is clearly visible in section along the plateau edge in EU11 where the modern field clearance line followed the orientation, and occupied roughly the same horizontal dimensions, as the underlying LCIIC architecture (fig. 3.8; Plan IIIb). That the abrupt terminus and return in the 'fortification' wall in the west of EU11 only became apparent once the above *doppelgänger* was removed, serves to illustrate the pitfalls inherent in attempting to map this feature based upon surface inspection alone.

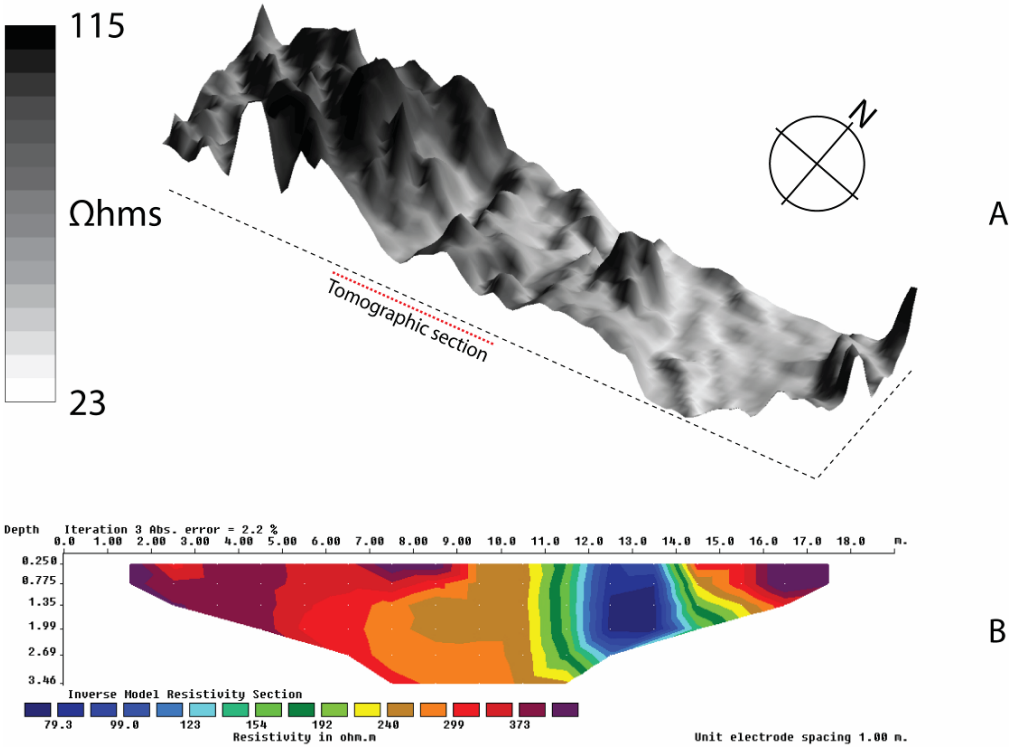
In light of these new findings it is proposed that the *Kokkinokremos* settlement boundary (or 'fortification') wall should be viewed as a series of separate and on occasion discontinuous complexes, which shared a common orientation along the plateau edge. This revised interpretation, when viewed in combination with the site's imposing natural topography, certainly does not preclude a defensive characterisation for the combined whole. It does imply, however, that other considerations were paramount in determining the settlement's town-planning.

The excavation of EU11 also provided tantalising clues as to the circumstances surrounding the abandonment of *Kokkinokremos* during the late 13th century BC. Numerous burnt mud-brick fragments, derived from the collapsed superstructure and directly overlying occupational deposits, indicate that conflagration played a role in the destruction of buildings in at least this area of the site. Such a scenario would fit well with the apparently abrupt evacuation of the settlement by its Late Cypriot residents, indicated by the hoarding of valuable metals in Areas I and II (Karageorghis and Demas 1984, 60-65, 74).

3.9 *Kokkinokremos* from the air in June 2007 with line of shallow bedrock terrace visible as right-angled soil mark across centre of plateau.

3.3.2 INTRAMURAL DIVERSITY

In the centre of the *Kokkinokremos* plateau a previously unknown landscape feature was discovered in the form of a shallow bedrock terrace, running across the site at a right angle from its south-central to north-east edge. Although now obscured by soil overburden, which has largely levelled the present ground surface, the line of this feature is easily visible on the new low level oblique aerial photographs taken by the RAF in June 2007 (fig. 3.9). The cessation of ploughing on the plateau in 2006 which had previously masked such soil marks, together with rain in the weeks prior to photography, combined to emphasize the clarity of this feature through differential moisture retention along its length, corresponding to its upper and lower levels and associated drop-off in soil depth. Once identified its course was discernable as a visible change in vegetation on the ground.



3.10 a) 3D projection of *Kokkinokremos* geophysical mapping transect GT3 [length 40m/width 20m]; b) W-E tomographic section across *Kokkinokremos* shallow bedrock terrace feature [length 16m].

The terrace was also indicated by a sharp divergence in electrical resistance mapping readings from east to west [GT3], which were subsequently profiled in section using tomography (fig. 3.10). Where the terrace showed signs of architectural modification in the geophysical results at its base, a 5 x 1m sounding [EU3] was excavated to clarify this observation (fig. 3.11; Plan IV). This targeted exposure revealed the line of the terrace together with an adjacent section of wall c.2m to the east. The sounding was then extended by 2 sq.m on its south-east side in order to better understand the nature of this structure.

3.11 *Kokkinokremos* sounding EU3 facing west.

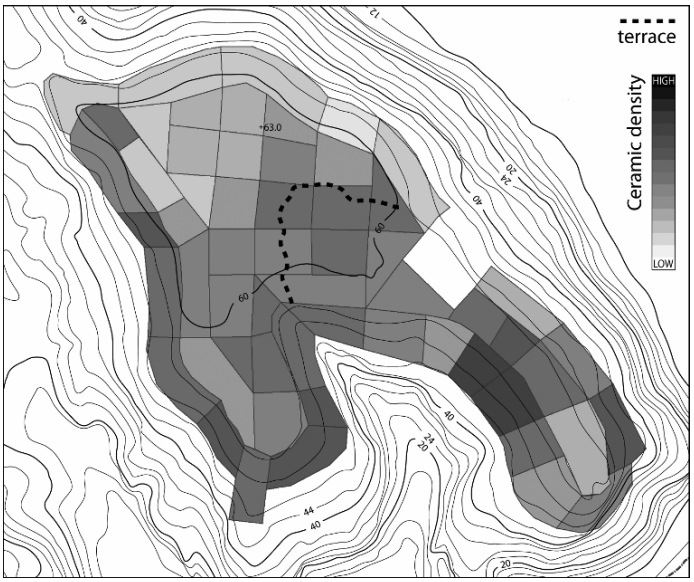
In the west of the sounding, on the upper level of the terrace, the bedrock averaged only c.25cm below ground level. The actual depth of the terrace was shallower than had been suggested by the electrical projection undertaken immediately to the north of the sounding prior to its excavation, with an average height of c.40cm from top to bottom (Plan IVb). The ditch between the upper level of the terrace and the wall was infilled with brown soil (7.5 YR 5.4), within which a small number of heavily degraded lime plaster fragments were found. These inclusions were restricted to the western side of the northeast-southeast wall, and were most numerous nearest to its face. It is therefore possible that they represent the heavily degraded remains of a render applied to the exterior of the building.

The wall itself conformed to the same design as all other examples of Late Cypriot architecture known from the site, consisting of two parallel courses of large unfaced boulders infilled with small irregular limestone fragments and diabase pebbles. The exposed section of wall rested upon a layer of earth which separated it from the bedrock base of the ditch (Plan IVc). While the rationale for this construction technique is not immediately apparent, comparable arrangements are known from elsewhere on the site where packing was used to compensate in areas where the bedrock dipped down below the usual basal height of wall foundations (e.g. Dikaios 1971b, 897; Karageorghis and Demas 1984, 10).

On the eastern side of the wall a masonry scatter covering the remainder of the sounding is interpreted as tumble derived from its now destroyed upper courses. Below this layer numerous artefacts including several small articulated pot-spreads were recorded at approximately the same level, sitting directly on top of a largely sterile and homogenous stratum of brownish yellow soil (10YR 6/6) which separated them from the bedrock (Plan IVd). Based upon this stratigraphic relationship, and the corresponding absence of the soil layer on the western exterior side of the wall, it is believed that it formed a packed earth floor inside the building. The presence of tumble solely within the interior of the building could also suggest that the process of collapse was a longer term affair, caused by a gradual loss of structural integrity in its upper portions. While it is not possible to ascertain the function of the building in EU3 from such a limited exposure, the presence within this small area of a lead bead [no. 6011.12] and an alabaster vase [no. 6011-1001.1] alongside more utilitarian

Cypriot wares, would seem to indicate a relatively prestige pattern of consumption when compared to the overall site assemblage (see Chapter 3.4).

Although of slight vertical dimensions, it can be speculated that the line of the shallow bedrock terrace marked a divide between an upper north-west area of the plateau where the natural bedrock formed the principal occupational surface, and a lower south-east area where a greater volume of soil was present.[51] This interpretation is supported by the results of the gridded surface collection, which demonstrate a concordance between the line of this feature and a change in the density distribution of artefacts (fig. 3.12). While the extent of this division may have become exaggerated by extensive erosion across the north of *Kokkinokremos* (Dikaios 1971b, 896), the combined results do suggest that the shallow terrace marked an intramural boundary at the time of the Late Cypriot occupation. The appreciably lower, but still significant quantity of artefacts within the northern confines of the site, may mean that large portions of the plateau's surface area comprised lower investment structures and/or outdoor activity areas which have not been preserved. The relatively high artefact densities across the southern half of *Kokkinokremos* likely reflect an area of more intensive urban occupation orientated towards the harbour below.



3.12 Distribution and density of *Kokkinokremos* survey units relative to shallow bedrock terrace (artefact plot courtesy of W. Caraher pers. comm 2009).

51. Based upon the essentially uniform appearance of the shallow terrace at ground level along its length, it is believed that the excavated portion is generally representative of its overall form and dimensions. Attempts at measuring the depth of the subterranean terrace using electrical tomography along its east-west span adjacent to Area I proved unsuccessful, due to the very shallow bedrock on its upper level which interfered with the effective functioning of the resistivity equipment.

When considering the implications of this apparent trend in settlement layout, it should be noted that at least some high investment structures are present on the upper side of the terrace in the interior of the plateau, as evidenced by the Area I remains excavated by Dikaios in 1952. This building, together with the architectural remains partially uncovered in sounding EU3, also serve to demonstrate the existence of high investment masonry structures away from the plateau's edge, in addition to the better known casemate perimeter architecture discussed above. On the south-west promontory of *Kokkinokremos*, a 3x3m sounding [EU4] excavated in the interior of the plateau between the casemate structures documented in EU10 and EU11 showed no signs of Late Cypriot settlement, conversely demonstrating the existence of open spaces within the more intensively occupied southern zone.

The evident prominence of exposed bedrock across large areas of the site at the time of occupation, suggests that the present somewhat meagre over burden of soil is almost entirely the result of post-abandonment accumulation, including decomposition of mud-brick architectural components. Such a landscape of settlement undoubtedly presented very different challenges to the Late Bronze Age inhabitants of *Kokkinokremos* than the present environment suggests, necessitating the extensive augmentation of bedrock evident beneath much of the exposed architecture. The present over-burden of soil which masks the terrace feature also serves to obscure an underlying rise of c.1.5m across the plateau surface from north-to-south. This consideration of intervisibility within the settlement area would potentially have been exaggerated by the presence of two-storey structures, such as that proposed by Dikaios (1971b, 904, Plate 296/6) for Complex A in Area II. A large masonry scatter on the slope associated with and immediately to the south of EU11 may also represent the remains of such a building.[52]

In estimating the overall extent of Late Bronze Age settlement at *Kokkinokremos*, the area of the plateau where one can reasonably expect habitation based upon topographical constraints covers approximately 6-8 ha. While there are traces of habitation in the form of fragmentary architecture on the south-west slopes outside the bounded surface area, the nature and significance of these remains are

52. In parts of Complexes B and C in Area II a secondary architectural sub-phase was identified by Karageorghis and Demas (1984, 15), based upon the apparent use of rubble as buttressing against the perimeter wall. It can be hypothesized that these loose stone accumulations may alternatively represent the fallen remains of a taller superstructure and/or collapsed upper storey.

difficult to assess due to heavy erosion (see Chapter 3.3.3). Based upon the clear concentration of occupation within the southern half of the plateau, it is proposed that the main LCIIC settlement at *Kokkinokremos* covered a smaller area of approximately 4-5 ha. This urban core would have been surrounded by a secondary zone of less intensive occupation to the north, together with immediately surrounding areas of the coastal plain below. This was in turn encompassed by a more dispersed hinterland of rural settlement and associated internments across the wider Pyla littoral.

3.3.3 EXTRAMURAL OCCUPATION

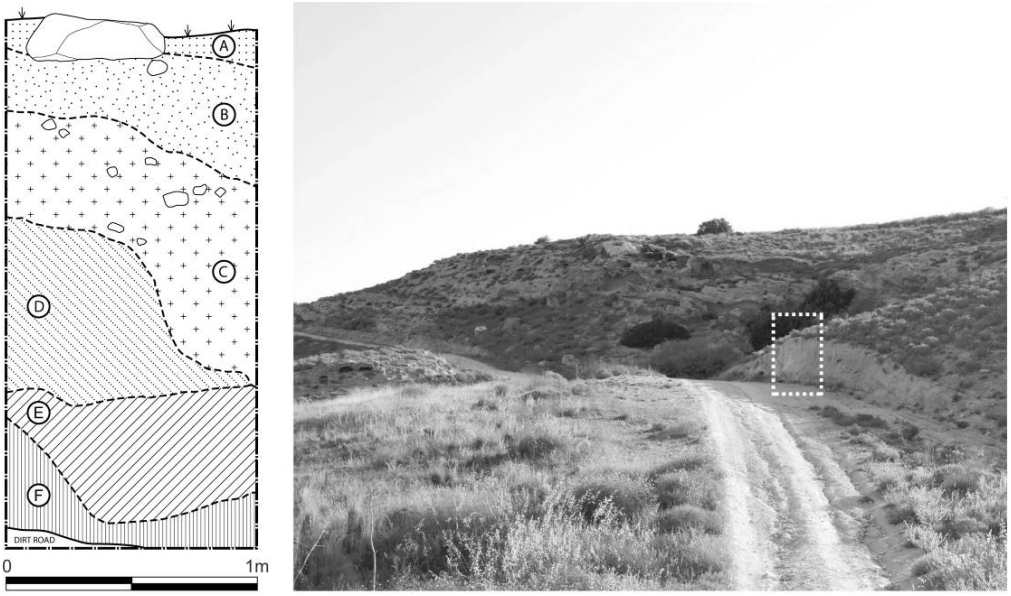
The maritime orientation of Late Bronze Age *Kokkinokremos* is confirmed by the micro-topography of its immediate surroundings. Field walking during survey has demonstrated that by far the most expedient approach to the surface of the plateau from the relic harbour shoreline below is by way of its south-west flank. The use of this gentle incline as a pathway in antiquity is indicated by the presence of rock-cut architecture along its route, together with a short undated fragment of exposed wall which, as far as can be ascertained from surface inspection alone, appears to be of Late Cypriot construction (fig. 3.13; Plan I, feat. 1-2). Due to the absence of diagnostic attributes or accompanying artefacts the function and date of the rock-cut feature remains similarly obscure, although adjacent cuts in the escarpment may suggest that it was associated with now eroded post-prehistoric tombs.[53]

3.13 a) Rock-cut architecture on south-west flank of *Kokkinokremos* facing east [scale 1m] (Plan I, feat. 1); b) Exposed segment of wall on south-west flank of *Kokkinokremos* slope facing west [scale 20cm] (Plan I, feat. 2).

This supposition regarding access to the Late Bronze Age settlement is further supported by the patterning of erosion visible in section where the modern dirt road cuts into the plateau on its north-west side (fig. 3.14; Plan I). Several consecutive phases of colluvial calcarenite-marl slump have formed at this location from the continuing erosion of fissures in the escarpment, resulting in a softening of its aspect in the north where it would have been noticeably more abrupt and therefore less well

53. The rock-cut architecture is located at UTM: 36 S 0565006 mE, 3872091 mN. The wall fragment is located c.35m to the east at UTM: 36 S 0565050 mE, 3872061 mN.

suited to providing access to and from the harbour at the time of the Late Cypriot occupation. Although the lack of artefactual inclusions in the exposed section makes it impossible to date these episodic deposits with any precision, the loose composition and absence of calcium carbonate flecks in the upper strata (*A-C*) does attest to its relative infancy when compared with the stable terrace soils from the lower layers (*D-F*).



3.14 Geological section at northwest base of *Kokkinokremos* facing north-east. Marl sediments (strata *A-C*) forming colluvial cover of stable terrace soil deposits (strata *D-F*). *A* = Pinkish Grey exposed top-soil. Abundant small angular limestone fragments and occasional diabase pebbles (7.5YR 6/2); *B* = Light brown marl with occasional medium angular limestone fragments (7.5YR 6/3); *C* = Brown marl-calcarenite composite with few stones (5YR 6/4); *D* = Pale pinkish grey silty clay marl. Dense fabric with few cracks and occasional calcium carbonate concretions (7.5YR 7/2); *E* = Pink compacted coarse clay marl (5YR 7/3); *F* = Pink very firm marl-calcarenite matrix with abundant calcium carbonate fissures and occasional Pleistocene microfossil inclusions (5YR 8/3).

The more recent addition of check-dams along the *Mavrospilios-Kokkinokremos* gully floor further suggests a dynamic erosional environment, in which anthropogenic alteration of the natural geomorphology has resulted in extensive alluvial soil retention at the base of the *Kokkinokremos* escarpment (fig. 3.15). This dual process of aggradation has significantly altered the appearance of the Late Bronze Age site within its landscape setting post-abandonment, and potentially obscures traces of Late Cypriot occupation beneath subsequent sedimentary deposits. While the narrow neck of land at the northern end of *Kokkinokremos* would undoubtedly have connected the

plateau's inhabitants with the potentially rich agricultural hinterland of the wider Pyla massif, this is most plausibly interpreted as a backdoor to the settlement, as opposed to the principle gateway for those arriving or departing by sea (cf. Karageorghis and Demas 1984, 24).

Numerous examples of argillaceous limestone quarry cuts were documented along the west face of the *Mavrospilios-Kokkinokremos* gulley ridge and on the south-east slopes of *Kokkinokremos*.[54] The close proximity of these outcrops makes them a likely source of masonry for the Late Bronze Age settlement at the time of its construction. While the cutting of the *Mavrospilios* quarry back walls at abrupt right angles is suggestive of ashlar block production, subsequent episodes of procurement associated with the Late Roman settlement at *Koutsopetria* means that this cannot be taken as reliable evidence for the manufacture of prestige architectural components during the Late Bronze Age.[55]

3.15 *Mavrospilios-Kokkinokremos* gully facing north-west. Geo-section [fig. 3.14] top right.

54. Quarry cuts documented during the course of extensive pedestrian survey were located on the south face of *Kokkinokremos* at UTM: 36 S 0565268 mE, 3871953 mN, and along the western side of the *Mavrospilios-Kokkinokremos* gulley ridge at UTM: 36 S 0564970 mE, 3871854 mN.

55. While there is no clear evidence for dressed ashlar masonry at *Kokkinokremos* (although see Karageorghis and Demas 1984, 6), the absence of this feature commonly associated with 'urban' Late Bronze Age settlement on Cyprus can potentially be explained by robbing concurrent with the construction of the adjacent Late Roman settlement at *Koutsopetria*. The ruins of *Kokkinokremos* would have been easily visible at this time providing a convenient source of ready made building materials.

On the coastal plain directly below and to the east of *Kokkinokremos* at *Steno*, a substantial Late Cypriot structure was excavated in 1956 by Dikaios during rescue operations concurrent with construction of the Dhekelia Garrison military facility. Neither this architecture nor the four adjacent tombs have been published in detail.[56] Approximate dimensions have accordingly been estimated from surviving photographs of the building under excavation (fig. 3.16/Plan I, feat. 5).[57]

As exposed the *Steno* remains consist of a complete north-south profile of c.9m in length along its western side. At either end of this wall partially exposed returns indicate the interior of the building. The corresponding east-west dimensions of the structure are not known due to its incomplete excavation at the time of photography. The masonry appears to be of comparable rough-stone construction to that employed on the plateau above averaging c.50cm in width.

No dividing walls are evident in the photograph of the excavated portion of the *Steno* structure, which would suggest an interior space of relatively large dimensions when compared to the internal layout of LCII architecture on the plateau above. It would therefore seem reasonable to conclude, on the basis of evidence available, that this building was one of relative prominence within its contemporary landscape setting, even though a lack of information concerning its internal arrangement and contents precludes a reliable determination of function. It is not known whether the remains at *Steno* represent an isolated structure or part of a larger complex.[58]

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56. See Megaw (1956, 25) for preliminary excavation report. Despite numerous attempts it has not been possible to trace written records of these excavations in the archives of the Cyprus Museum-Nicosia (M. Hadjicosti pers. comm. 2007). Objects recovered from the tombs were looted from the Larnaca Fort Museum between the years 1963-1974 whilst it was occupied by the Turkish Army (Karageorghis and Demas 1984, 5). The most complete inventory and description of the *Steno* tomb assemblages are the multiple entries contained within SCE IV:1C-D (Åström 1972a; Åström and Åström 1972). A flat-head figurine from *Steno* tomb 1.21 has been discussed in detail by Karageorghis (1991, 13). A common style cylinder seal impression showing helmeted figures in procession holding swords(?) from *Steno* tomb 3.53 'lower layer' together with a Base-Ring I jug from *Steno* tomb 2.2 have been published in Karageorghis (1963a, 530-534). A further two unpublished tombs and associated traces of occupation were excavated at the same time c.1.3km to the south at *Koukoufouthkia* a short distance from the shore of a small cove in the coastline of Larnaca Bay (see Megaw 1956, 25 for preliminary report). The most complete inventory and description of the *Koukoufouthkia* tomb assemblages are the multiple entries contained within SCE IV:1C-D (Åström 1972a; Åström and Åström 1972). From tomb 1 an elaborately decorated Myc.IIIA amphoroid crater vase has ben discussed in detail by Karageorghis (1963b, 1). A further two Myc.IIIA:2 three-handled jars are published in this volume from *Koukoufouthkia* tomb 2.20 and 2.22 (Karageorghis 1963b, 45).

57. Photogrammetric projection based upon known scaling distance [c.25cm] between bulldozer tracks.

58. Immediately subsequent to its excavation the site of *Steno* was extensively landscaped and presently lies beneath the main Pyla firing range, making further investigation extremely unlikely for the

3.16 Pyla-*Steno* architecture under excavation in 1956 facing south-east, "*structures west of L.C. cemetery*" (Photograph courtesy of Dept. of Antiquities, Cyprus) [scale approximate].

No independent dating evidence is recorded for the *Steno* architecture, which appears to have been assigned to LCIIA-B on the basis of its assumed association with four nearby tombs (Plan I).[59] P. Åström's (1972a; Åström and Åström 1972) analysis of their ceramic contents indicates that at least one of these longstanding multiple internments [tomb 3] remained in use concurrent with occupation of the

foreseeable future. A reconnaissance survey in May 2009 of the narrow strip of open ground between the rifle lane and the ridge immediately to the north of *Steno* revealed no traces of LC occupation.

59. Based upon the known orientation of the *Steno* cemetery to the nearby architecture described above, which is recorded on the original Cyprus Museum photo-card, the location of these rock-cut tombs has been approximated relative to the maximum potential boundaries of the harbour silt deposits (Plan I). The location of the *Steno* site as shown is that given in Catling (1963, LC.224). Siltation of the Pyla harbour embayment on its western side could also have potentially obscured other traces of LC occupation beneath several metres of alluvium along its shoreline between *Steno* and *Koukoufouthkia*. Based upon the significant number of LCI-II interments in the immediate locality, it can be speculated that contemporary settlement on the coastal plain may originally have been quite extensive.

LCIIC plateau settlement above (fig. 3.17). The LCI-II chronology of the remains at *Steno*, combined with their proximity to the relic harbour, means they are of central importance to understanding the relationship between the urban inhabitants of *Kokkinokremos* and preceding rural communities in wider the Pyla littoral.

Pyla-*Steno*	**Period**	**Absolute chronology**
Tomb 1	LCIB-IIB	c.1525/1500-c.1375/1360 BC
Tomb 2	$LCIIA_2$-IIB+	c.1390/1375-1320+ BC
Tomb 3	LCIB-IIA_2, IIC, IIIA?	c.1525/1500-1390/1375, 1320-1190+? BC
Tomb 4	LCIB-IIB	c.1525/1500-c.1375/1360 BC
Pyla-*Koukoufouthkia*		
Tomb 1	$LCIIA_2$	c.1390-1375/1360 BC
Tomb 2	$LCIIA_2$-IIB+	c.1390-1320+ BC

3.17 Chronology of *Steno* and *Koukoufouthkia* tomb assemblages (Åström and Åström 1972, 828).

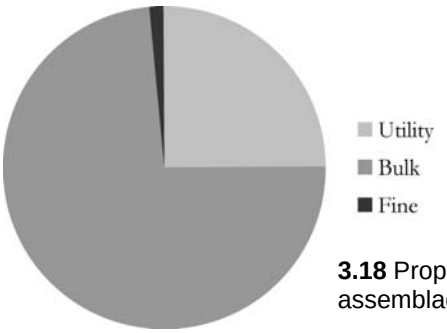
3.4 SURFACE COLLECTION AND MATERIAL CULTURE

In 2007 a systematic sample was made of the *Kokkinokremos* surface assemblage as part of the wider PKAP survey of the Pyla littoral region (see Caraher et al 2005 for collection chronotype methodology and fig. 3.12 for artefact collection grid). All ceramics were identified by Mara Horowitz [Bronze Age] and R. Scott Moore [Archaic-Roman-Medieval]. The opinions expressed in the following, together with any interpretative errors, are solely the responsibility of the present author.

Late Cypriot wares dominate the *Kokkinokremos* surface assemblage constituting 77% of the total. Artefacts dating to after the principle Late Bronze Age phase of inquiry accounted for 7%, and predominantly consisted of Roman material contemporary with the nearby settlement at *Koutsopetria*, suggesting that subsequent occupation on the plateau was of a more peripheral nature. The remaining 16% of the assemblage comprised objects other than ceramic and portable stone vessels that were insufficiently diagnostic to allow for an accurate periodic categorisation. These included ground stone, lithics and heavily abraded ceramics from the plough zone. Based upon the premise that all architectural remains encountered during excavations on the plateau can be assigned to LCIIC, a contemporary Late Bronze Age date can reliably be inferred for the majority of these artefacts. No material was positively identified within the surface collection earlier than Late Cypriot. For discussion of the small but nonetheless significant quantity of Middle Bronze Age pottery recovered from *Kokkinokremos* during the course of the present soundings and previous excavations see Chapter 3.5.

The results of the PKAP surface collection support the existing terminus ad quem of c.1200 BC for abandonment, placing the occupation of Late Bronze Age *Kokkinokremos* within the mid-to-latter half of the 13th century BC alone, directly subsequent to and potentially concurrent with nearby LCI-II settlement at *Steno* and *Koukoufouthkia*. The lack of evidence for diachronic changes in intramural layout at *Kokkinokremos* also supports the identification of a relatively short-lived settlement with a single main architectural phase. This conclusion must, however, be tempered with the new evidence for multiple floors and re-use of architectural components in EU10 (Chapter 3.3.1).

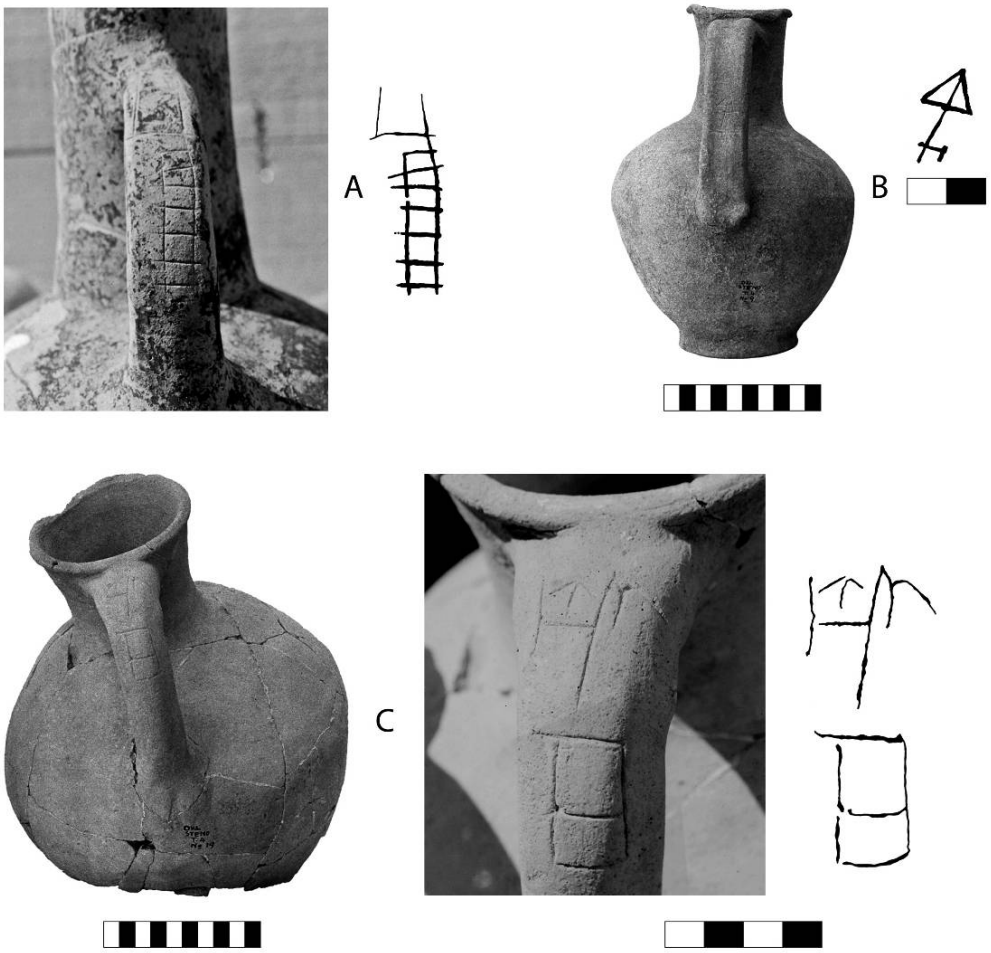
The overwhelming majority of the Late Cypriot surface assemblage comprised indigenous ceramic wares designed for frequent use and replacement in domestic [utility] and industrial [bulk] contexts. Imported prestige [fine] vessels do not provide evidence for extensive contacts with the Levant, Nile Delta or Aegean, with commodities such as Egyptian alabaster and Mycenaean fine-wares respectively forming under 1% of the total assemblage (fig. 3.18). In terms of identifying characteristics within the bulk component of the sample specifically diagnostic of 'orientalizing' exchange, 9% of the total comprised Egyptian White Slip storage vessel fragments, suggesting directional and preferential commodities trade with the Nile Delta and Levant (for Canaanite redistribution of Egyptian produce see Chapter 4.4).



Gross Ware Category	Quantity	%
LC utility wares	480	24.88%
LC bulk wares	1421	73.67%
LC fine wares	28	1.45%

3.18 Proportional composition of *Kokkinokremos* surface assemblage by gross ware category (utility/bulk/fine).

The indigenous Late Cypriot wares from the *Kokkinokremos* surface collection also provide circumstantial evidence for export industry when assessed in terms of their functional characteristics. By far the largest artefact category is Cypriot pithoi which constitute over half the total sample population at 64%. The size of these vessels ranges from small household containers to mega-pithos. These latter artefacts would have constituted part of the permanent infrastructure of the built environment, and collectively show a significant capacity for the storage of surplus, in addition to provision for water management. A comparable preponderance of pithoi has been recorded at other Late Cypriot sites including Arediou-*Vouppes* (Steel and McCartney 2008, 15), Analiondas-*Palioklichia* (Webb and Frankel 1994, 16) and Kalavassos-*Ayios Dhimitrios* (Keswani 1989b). The lack of pithos fragments, or indeed any significant quantity of LC sherdage either down on the harbour shoreline below *Kokkinokremos* or on the upland Pyla massif, could indicate that goods for export were stored within the confines of the plateau settlement for reasons of security.



3.19 Pyla-*Steno* incised potmarks. a) Detail of incised "*ladder pattern*" pot-mark on neck-to-shoulder handle of Black Slip IV ware globular jug [tomb 2, 61] (Åström 1972a, 78-79) [scale approximately 1:2]; b) Plain White Hand-made ware jug, almost biconical with handle from just below rim to shoulder, short narrow concave neck and ring base. Detail of incised pot-mark on handle from *SCE* IV:1C fig. 45.7 [tomb 4, 9] (Åström 1972a, 229, 231, 251); c) Plain White Hand-made ware piriform jug with handle from just below rim to shoulder, narrow concave neck and flat base. Detail of incised two sign inscription on handle [tomb 4, 19] (Åström 1972a, 229, 231). Photographs courtesy of Dept. of Antiquities, Cyprus.

From the immediate surrounding area, contents of the *Steno* tombs reflect relatively wealthy interments with a wide variety of prestige valuables including, "*bronze bowls and knives, cylinder seals and ivory plaques*", in addition to locally produced and imported ceramics (Megaw 1956, 25). The above illustration presents a previously unpublished potmark from *Steno* tomb 2 for which a complete profile illustration is not available (fig. 3.19a). The two incised potmarks from tomb four (fig. 3.19b-c) have

previously been only partially published without illustration of the contextualising vessel, and in the case of the two-sign inscription incompletely rendered based up the photographs presented above (cf. Åström 1972a, 251 fig. 45.11). Description of all vessels is that given by Åström (1972a) in his *SCE* IV:1C discussion of Late Cypriot pottery wares. For previously published items from the *Steno* and *Koukoufouthkia* tomb assemblages see Chapter 3.3.3, fn.56.

3.5 DISCUSSION

To fully appreciate the origins and nature of the LCIIC [c.1250-1200 BC] community at *Kokkinokremos*, it is necessary to view the site within both its maritime landscape context, and as part of a wider evolving settlement hierarchy in Larnaca Bay. The fragmentary nature of evidence pertaining to earlier Bronze Age LCI-II settlement in the Pyla littoral, however, hampers the development of models which can fully chart the progression from these dispersed rural communities through to the foundation of a regional urban centre at *Kokkinokremos*.

The remains documented in the immediate vicinity of the Pyla harbour at *Steno* and *Koukoufouthkia* are not an isolated occurrence in the Late Cypriot landscape, and form part of a wider network of dispersed rural occupation which also includes *Verghi* (Dikaios 1971c) and *Stavros* (Ohnefalsch-Richter 1899). An additional two LCI-II tombs have also been discovered nearby and to the east of Pyla at Dhekelia-*Moutti tou Dhragou* (Karageorghis 1977, 725) and Dhekelia-*Louma* (Karageorghis 1982a, 690-691). Further to the north-east a wealthy tomb dated to MCIII-LCI was excavated at Xylotymbou-*Katapetra* (Hadjisavvas 2000, 666-669). A brief synopsis of early LC settlement in the Pyla region has previously been given by Masson (1966, 1-31).

At *Koukoufouthkia* the final use of tomb 2 has been dated by P. Åström (Åström and Åström 1972, 828) to within the LCIIC period. The presence of Anatolian Grey Polished and Base-ring II wares within the mortuary assemblage from *Verghi* means that the later deposits and associated architectural remains could also potentially date to the early part of LCIIC, and quite possibly later as this material is also known from *Kokkinokremos* (Dikaios 1971b, 918; Karageorghis and Demas 1984, 66-67). Based upon the admittedly small corpus of six 'Levanto-Helladischen' vessels that Ohnefalsch-Richter sent to Leipzig, it has been estimated that the mortuary assemblage from *Stavros* ranges in date from c.1400 to c.1200 BC (Hoffmann 1964, 391). While the continued use of these wares is not in itself proof of site contemporaneity, it is a convincing indicator against a significant chronological disjuncture between the older lowland rural communities and the later urban plateau settlement.[60] The prolonged lifespan of such imported ceramics, and concurrent issues

60. Based on an average foot speed of 4 kilometres per hour, which equates to a modest pace over predominantly level terrain, walking times from *Kokkinokremos* would have been c.50 minutes to both *Verghi* [c.3.5 km] and *Stavros* [c.3.2 km]. In May 2009 no sherdage was found at the stated location of

associated with their dating, is aptly demonstrated by the repaired Myc.IIIB chariot crater from *Kokkinokremos* Area II (Karageorghis 1982b).

Evidence for Middle Cypriot occupation has been recorded at *Verghi* with White Painted and Black Slip wares (Catling 1963, MC.148), and at *Stavros* with Red Polished and White Painted wares (Catling 1963, MC.149). Nine sherds of Middle Cypriot I ceramics [c.1900-1800 BC] in the form of White Painted Handmade and Red Polished wares have also been recovered from *Kokkinokremos* as part of the present study [nos 6004.3, 6004.4, 6006.3, 6103.1, 6103.2, 6308.1, 6310.2]. To this can be added a further two MCIII-LCI sherds of White Painted and Red-on-Black wares found during the main excavations in Area II (Karageorghis and Demas 1984, 'Group H' Plate XXIV). The presence of all this material from *Kokkinokremos* inside secure LCIIC architectural contexts is most plausibly explained as mud-brick inclusions from an unknown source nearby (M. Horowitz pers. comm 2009).

No prehistoric sherdage was detected in any of the PKAP survey units on either the coastal plain or upland Pyla massif.[61] The former is covered by a high density scatter of ceramic material derived from the Late Roman site of *Koutsopetria* which may have obscured earlier traces of occupation in this area. Evidence for Bronze Age settlement in the Pyla district predating the LC period is otherwise restricted to a single Early Cypriot site west of Pyla village at *Koroukospilios* (Catling 1963, EC.139), together with nearby EC cemeteries at *Kafkalokremnos* (Catling 1963, EC.138), and *Plati* (Catling 1963, EC.140).

Whilst all of the tombs on the coastal plain in the immediate vicinity of the Pyla harbour were already established c.250-150 years prior to the foundation of the LCIIC settlement at *Kokkinokremos* c.1250 BC, at least one at *Steno* [tomb 3] was still in use concurrent with its occupation. The c.1200 BC terminus date for this tomb also corresponds well with the abandonment of other sites in the wider Pyla littoral. This overall pattern would seem to suggest a remarkable degree of continuity in mortuary practice during the Late Cypriot period, despite the undoubted social upheaval that would have accompanied the rapid shift from a predominantly rural-to-urban pattern of settlement. Continuing use of one or more of the relatively large multiple

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Verghi which is now adjacent to an area of residential development. Bronze Age ceramic material was still present in the field surrounding the necropolis mound at *Stavros*.

61. Evidence for Late Bronze Age occupation on the western side of the upland Pyla massif previously documented by Catling (1963, LC.224A) at the junction between *Mavrospilios* and *Kazama* proved upon inspection to be no longer apparent.

interments on the coastal plain at *Steno* into the latter half of the 13th century BC, would also go someway to explaining the otherwise conspicuous absence of intramural burials on the plateau itself.

The retention of ancestral burial grounds by this dynamic and evolving social hierarchy arguably speaks of a strong local tradition of ownership over the landscape. It is possible that the arrangement of tombs to the east of the harbour may reflect the 'social distance' between the numerous LCI-II communities of the Pyla littoral, who could have continued to differentiate themselves along lines of lineage even after the bulk of the region's population had been settled together for a generation or more at *Kokkinokremos* (Keswani 2004, 154-155). The continued use of *Steno* as a cemetery into LCIIC also raises the possibility that the associated architecture, while potentially earlier in construction, could have formed part of a lower-town to the plateau settlement above. This combined area of 6-7ha, surrounded by a dispersed hinterland of associated internments, would have been one of the more extensive clusters of Late Cypriot occupation in the south-east of the island.

Earlier settlement in the wider Pyla littoral also foreshadows the later community at *Kokkinokremos* in terms of landscape orientation, evident through the presence of architecture in the immediate vicinity of the harbour at *Steno*, and through an awareness of the strategic importance in controlling access to the Mesaoria plain through the pass directly to the north of *Stavros* (Colonna-Ceccaldi 1882, 20; Masson 1966, 1). This route would have potentially provided access to the copper resources of Troulli a mere 10km away from the coast (fig. 3.20).[62] While there is no firm archaeological evidence for copper mining in this area during the Late Cypriot period (Catling 1964, 21-22), this may be in part attributed to the obliteration of earlier workings by later Roman mining activity (Stos-Gale and Gale 1994, 92).

Although copper was probably the chief commodity by which the residents of Pyla and other Late Cypriot maritime communities became enfranchised within

62. The fertile plain either side of the river channel in between *Stavros* and *Steno* would also have formed an extensive agricultural hinterland for the Late Bronze Age inhabitants of *Kokkinokremos*, who according to Karageorghis and Demas (1984, 24) would have numbered c.800-1200 individuals. Based upon a mixed diet of wheat-lentils, and using calculations for the subsistence requirements of the modern village of Cümcüme in the Urfa region of south-eastern Anatolia (Wilkinson 1990, 57-60), a total crop area of c.480-720ha [or c.0.6ha per person] would have been required in the absence of imports to fulfil the substance requirements of such a resident population per annum. Broadly comparable site catchment ratios have been proposed for the Neolithic site of Kalavassos-*Tenta* by Wagstaff (2005, 374); and for Bronze Age communities on the island of Melos by Wagstaff, Augustson and Gamble (1982, 174-175).

eastern Mediterranean networks of exchange, it is the ceramic evidence that provides us with information concerning the directional nature of these contacts. The presence of significant quantities of prestige Aegean and western Asiatic imports within the *Steno* and *Koukoufouthkia* mortuary assemblages can be viewed as both the cause and effect of a desire, on the part of local elites, to be involved in a broader eastern Mediterranean sphere of socio-economic interaction (Keswani 1996, 219).

3.20 Pyla-*Stavros*. a) Looking north towards the Pyla pass with necropolis in foreground;

b) View from summit of *Stavros* necropolis looking south-east towards north-west flank of *Kokkinokremos* with the Mediterranean beyond.

The preponderance of pithoi at *Kokkinokremos*, which accounts for 64% of the total surface collection, is potentially indicative of greater participation in long distance exchange, through a corresponding increase in storage capacity for export surplus. That it became imperative to adopt a more defensive posture, and engage in such a substantial undertaking as the construction of the hilltop settlement, reflects the importance of secure maritime connections as much as it illuminates any real or perceived threat (South 1984, 17). Fortifying the established community at *Steno* would also have been ineffective in case the high ground overlooking the site at *Kokkinokremos* fell into the hands of would-be attackers.

In discounting the possibility that the local inhabitants of *Steno* et al abandoned their homes on the coastal plain and moved to the plateau in response to

danger, it has been noted by Karageorghis and Demas (1984, 29-30) that nowhere else on the island do we observe such a response at this time. In light of new evidence confirming the existence of a substantial harbour directly below *Kokkinokremos* this conclusion must now be revisited (Noller and Zomeni 2006). The situation at Pyla bears close comparison with contemporary patterns of settlement at Palaipafos, where the first monumental shrine at the site of the Sanctuary of Aphrodite was erected c.1200 BC. Preceding LCI-II occupation in the near vicinity is indicated by domestic debris in wells at *Asproyi*, *Evreti* (Maier and von Wartburg 1985, 145-147) and *Teratsoudhia* (Karageorghis 1990, 71-73). Recent studies of fluvial deposits near the mouth of the Diarizos River indicate that, prior to a major inundation of silt deposits during the Medieval period, this inlet would most likely have been navigable from the sea to near the base of the Kouklia escarpment (Deckers 2005, 161-163; Iacovou 2008a, 271). The presence of significant numbers of Late Bronze Age type anchors off-shore at Kouklia-*Achni* further suggests significant maritime traffic at this location in antiquity (Howitt-Marshall forthcoming 2012). Both *Kokkinokremos* and Palaipafos thus represent planned LCIIC foundations, situated on prominent coastal heights overlooking natural harbours, in the immediate vicinity of pre-existing and potentially concurrent LCI-II occupation.

In the absence of definitive evidence for a disjuncture in regional settlement lineage, together with the predominantly indigenous traditions of ceramic consumption at *Kokkinokremos*, the present study supports the identification of local agency behind the foundation of the plateau settlement c.1250 BC. This purposeful statement of civic ownership, by an established community familiar in its surroundings, is most clearly manifest in the series of casemate buildings along the eastern and western lobes of the plateau. These would have formed an imposing façade, although not an uninterrupted 'fortification', facing the sea. This effect would have been amplified during the hours of darkness by the use of torches and lamps (Karageorghis 1999, 512-513).

Such an interpretation certainly does not preclude the possibility of a smaller number of skilled migrants from Canaan, the Aegean and elsewhere who would not seem out of place in what was evidently a prosperous and outward looking maritime community. The presence of these individuals would seem necessary to account for some of the more conspicuous culturally indicative artefacts found at the site,

including the stone trough stand with horns of consecration carved in relief (Karageorghis 1976, 76-78). The foundation of *Kokkinokremos* on the Levantine coast of Cyprus appears to represent the emergence of a true mariculture in the Pyla littoral, which would by definition have been cosmopolitan in tone (Sherratt 1998, 307).

Although the defensive advantage afforded by the plateau's imposing natural topography undoubtedly influenced the choice of settlement location at *Kokkinokremos*, it is important to note that its boundary walls were relatively insubstantial when compared to other contemporary defensive structures known from sites including Enkomi, Kition-*Kathari* and Maa-*Paleokastro* (Vermeule 1985, 359; Wright 1992, 243).[63] The new evidence of breaks and return deviations in the course of the *Kokkinokremos* perimeter wall detailed above further suggests that a number of different architectural arrangements existed in unison, reflecting the site's varied terrain, zones of occupational function, and relationship with its immediate hinterland. This plurality in intramural composition would seem to speak more of a diversified Late Cypriot community rather than a mono-functional facility such as a military garrison (cf. Muhly 1984, 51). The 'urban' credentials of the LCIIC settlement at *Kokkinokremos* are nonetheless apparent through evidence for planning, visible in the integrated provision for water management and standardised orientation of casemate perimeter architecture. Arguably, the only significant difference in the development of Late Bronze Age settlement at Pyla, when compared with other contemporary communities along the south and east coasts of the island, was the landscape setting in which these formative changes took place.

Comparisons can be made between *Kokkinokremos* and the LCIIC-LCIIIA site of Idalion-*Ambelleri*, where a relatively modest core settlement situated on the summit of the West Acropolis was encompassed by a boundary (or 'rampart') wall that ran both parallel with and away from the steeply sloping sides of the hill. In common with *Kokkinokremos* the main urban centre appears to have been surrounded by a more dispersed cluster of undefended and longer established rural occupation (Hadjicosti

63. For an architectural analysis of Late Bronze Age fortifications in Cyprus see Fortin (1981). The now traditional equation between Pyla-*Kokkinokremos* and Maa-*Paleokastro* can also be questioned in more general terms when viewed from a landscape perspective. While both sites are located on the south coast of Cyprus they were influenced by very different regional settlement dynamics; the sparsely populated rural and relatively remote west of the island versus the urban centres of Larnaca Bay with their international connections to the Levant. For an alternative comparison between Maa-*Paleokastro* and the Libyan coastal site of Marsa Matruh see Chapter 5.3, fn.96.

1997, 50-52; Gjerstad et al 1935, 516-517, 626). This diachronic progression is visible elsewhere along the south and east coasts of the island, where urban LCIIC settlement is directly preceded by more dispersed LCI-I occupation in the immediate vicinity of Kalavassos-*Ayios Dhimitrios* (Pearlman 1985, 164-179), and Maroni-*Vournes/Tsaroukkas* (Manning 1998, 42-43).

Parallels are also evident with LCIIC-LCIIIA Sinda, which is situated on a low rise above the surrounding terrain, and again displays evidence for preceding LCI-II occupation prior to the construction of a partially fortified urban settlement (Furumark and Adelman 2003). In common with *Kokkinokremos* this site was most probably founded with the defence of territory and strategic communications in mind, with the chief concern being control of the Pedieos River c.1.5 km to the north. It is quite conceivable that overland routes could have linked Sinda with the harbour at Pyla, coming down from the coastal plain via the pass at *Stavros*.

Regardless of the reasons underlying its initial foundation, once established *Kokkinokremos* would have become an influential regional player in its own right, competing with neighbouring Hala Sultan Tekke and Kition as a centre for local and international exchange. This three-way relationship was in all likelihood the principle dynamic effecting the wider development of settlement patterns in Larnaca Bay during the LCIIC period. It has previously been suggested that *Kokkinokremos* may have been intentionally founded by mercantile interests to 'outflank' established centres and their tributary regimes (Sherratt 1998, 300-301). Although competition between these maritime communities does provide a possible local explanation for the sudden abandonment and demise of Late Bronze Age settlement at Pyla, we presently lack sufficient information concerning pre-LCIIC occupation from any of the three main clusters of settlement in Larnaca Bay to draw reliable conclusions regarding chronological precedence. The possibility that the relationship between *Kokkinokremos*, *Kition* and *Hala Sultan Tekke* was in some way regulated by an overarching authority (*Alašiya*?) cannot be ruled out. While the establishment of *Kokkinokremos* would have undoubtedly made settlement at Pyla more visible within eastern Mediterranean networks of maritime exchange, this increased prominence would have been matched and quite possibly surpassed by corresponding developments at Kition and Hala Sultan Tekke during the latter half of the 13th century BC (Stanley-Price 1979, 80-81).

As a short-lived settlement it has previously been argued that *Kokkinokremos* should be excluded from discussions regarding the development of urban centres in Late Bronze Age Cyprus (Iacovou 2007, 12). The sudden abandonment of the plateau c.1200 BC should not though dominate our perceptions of the site, which appears in all other respects to have been a typical Late Cypriot community.[64] If the identification of *Steno* as a lower town to *Kokkinokremos* is accepted, then this means that some form of continuity in societal lineage within the Pyla littoral can be traced back over several hundred years. The pivotal role of *Kokkinokremos* at the apex of this longue durée process of synoecism therefore suggests the site is essential to understanding the evolution of Late Bronze Age settlement patterns in south-east Cyprus, and latent emergence of urbanism on the island during LCIIC.

64. The abandonment of *Kokkinokremos* at the close of the 13th century BC marked the end of continuous settlement in the Pyla littoral throughout the Late Cypriot period. The only evidence for subsequent local occupation is a single Cypro-Geometric I-II tomb from Ormidhia-*Lourin* (Karageorghis 1975, 816-817), along with further unprovenanced Geometric finds recovered from the general vicinity of Ormidea by Cessnola during the 19th century AD (see Hadjicosti 2001, 53-69). A 7th century BC Phoenician monument to Bes-Reshef in the Louvre [inv. no. AM1196+AO4411] is also recorded as coming from Pyla 'Paleokastro', which most probably refers to a location within the PKAP survey area. It was to be over 700 years before the establishment of another significant settlement overlooking the shores of the Pyla harbour at *Vigla* during the 4th century BC.

CHAPTER 4
KITION AND THE LEVANT

4.1 INTRODUCTION

The landscape of western Larnaca Bay is dominated by the Salt Lakes which would have formed the largest navigable embayment in Late Bronze Age Cyprus. On the southern shore of the main Aliki basin was the LCIIC-IIIA settlement at Dromolaxia-*Vyzakia*, more commonly known as Hala Sultan Tekke. A short distance to the north was Kition, already a significant community in possession of its own coastal anchorage by the mid 13th century BC, and later capital of the region's Iron Age Phoenician kingdom (fig. 4.1).

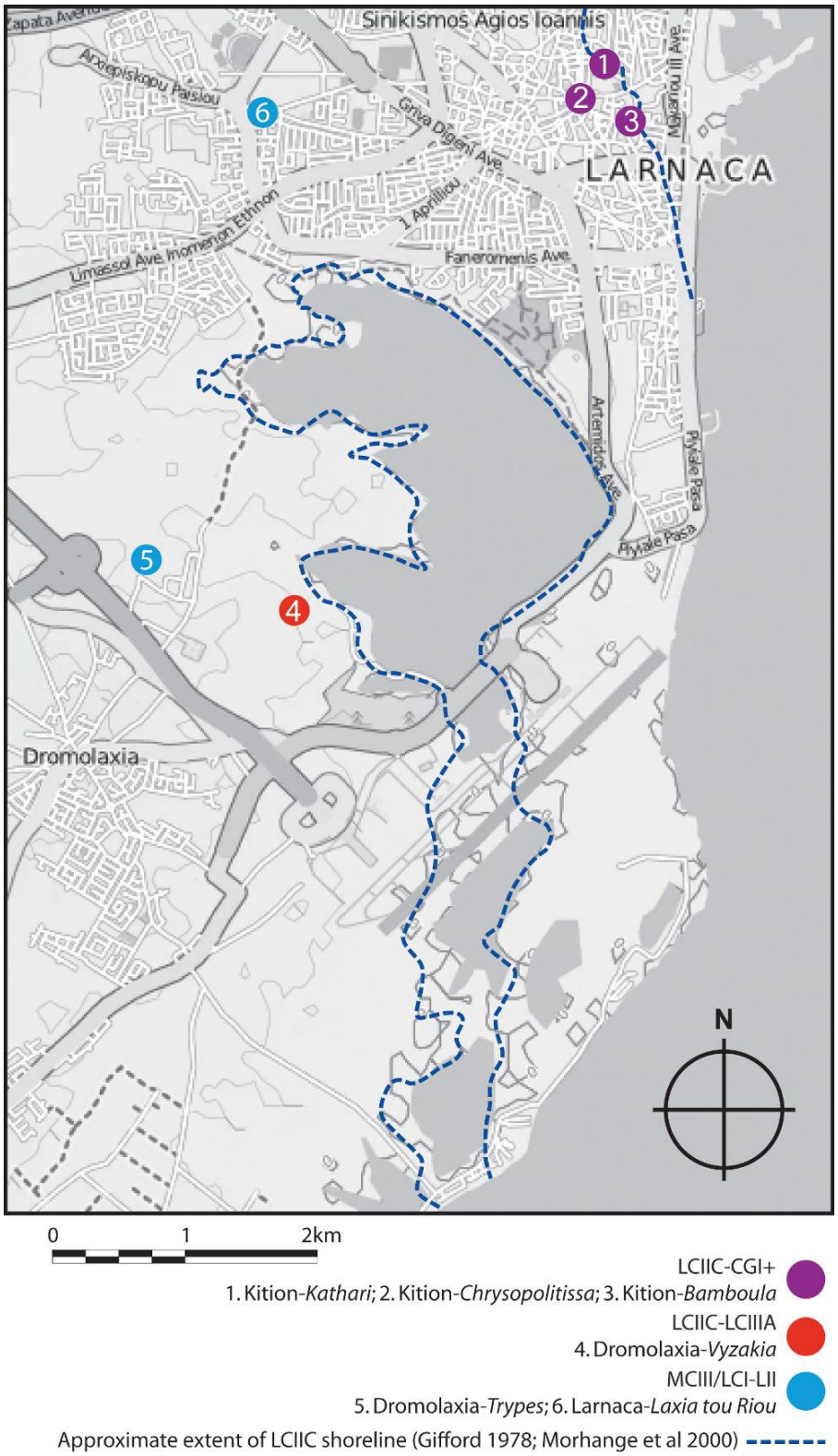
Despite their proximity and evident similarities as prosperous and outward looking maritime communities, these sites have traditionally been interpreted as representing two distinct societal entities, as opposed to a single evolving zone of settlement. This prevailing view has led to divergent assumptions being made regarding the respective roles of Hala Sultan Tekke and Kition within eastern Mediterranean networks of socio-economic and cultural interaction (cf. Karageorghis and Demas 1985a, 263-280; Åström 1986b).

The present chapter re-examines this prevailing interpretation by comparing the diachronic development of both sites from their rural origins to consolidation as urban centres during LCIIC-IIIA. Concentration of regional settlement at Kition by the beginning of the Early Iron Age, following the abandonment of Hala Sultan Tekke concurrent with the loss of its harbour c.1175 BC, is viewed as the end result of a longue durée process of synoecism in western Larnaca Bay.

Outside the landscape confines of south-east Cyprus, the seascape of the wider Levantine corridor would also have been a major determinant upon evolving patterns of maritime settlement and exchange. At Hala Sultan Tekke and Kition imports and derived forms attest to 'orientalizing' contacts with Canaan and the Nile Delta. This evolving dynamic would have been structured by specific institutional agents, which played an active role in the selective adoption of social and material innovations on the part of indigenous Late Cypriot communities. Comparable arrangements in the Levant suggest that merchant firms were potentially of major significance in this regard as the principal mediators of international commerce.

Subsequent occupation at Kition during the Early Iron Age is considered below with reference to the above landscape and seascape contexts. Geometric period settlement remains have been documented by Swedish, French and Cypriot missions in the locality of *Bamboula* (Gjerstad et al 1937, 1-75; Yon and Caubet 1985; Georgiou 2003), and most extensively by Karageorghis and Demas (1985a; 1985b) at the northern site of *Kathari*. A comprehensive summary of all other known archaeological remains at Kition is given by Nicolaou (1976).

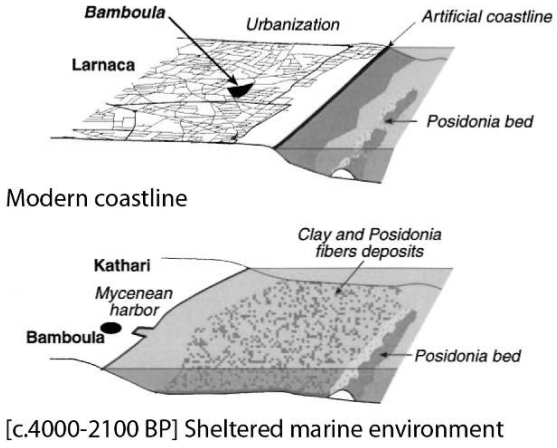
Whereas the excavations at *Bamboula* have consistently revealed, in albeit fragmentary terms, stratigraphic evidence in favour of uninterrupted occupation throughout the Cypro-Geometric era, the absence of Type II wheelmade ceramics at *Kathari* conversely led that site's chief excavator to posit a hiatus in occupation from c.1000 BC onwards. Under this scheme Kition was to remain abandoned until c.850/800 BC when it was 'colonised' by Canaanite settlers from the Levant (Karageorghis and Demas 1985a, 279). This question of continuity, or otherwise, in the lineage of occupation at *Kathari* is of central importance for determining the origins of 'Phoenician' polity at Kition founded in 707 BC. A dominant trend of continuity in settlement and societal development within the environs of the Salt Lakes is proposed for the entirety of the pre-colonial period under review.



4.1 Map of Late Bronze Age settlement in the region of Larnaca-Kition (Background image OpenStreetMap.org).

4.2 ECOLOGICAL NICHE

The littoral region of central Larnaca Bay is geologically characterised by low lying Holocene sediments. To the south of modern Larnaca and north of Cape Kiti, this terrain is punctuated by shallow depressions in the underlying Pleistocene sandstone, which form the present day Salt Lake basin (Gifford 1978). Prior to siltation of the main surface channel connecting Hala Sultan Tekke with the open sea, most probably during the first half of the 12th century BC, this system of natural embayments would have formed the largest sheltered harbour in Late Bronze Age Cyprus. Immediately to the north and adjacent to the site of ancient Kition, it has been proposed by Morhange et al (2000, 221, 227) that a sheltered marine environment would have existed throughout the Late Bronze Age and beyond [c.4000-2100 BP], with its shoreline approximately 500m to the west of the modern beach front at *Bamboula* (fig. 4.2).[65]

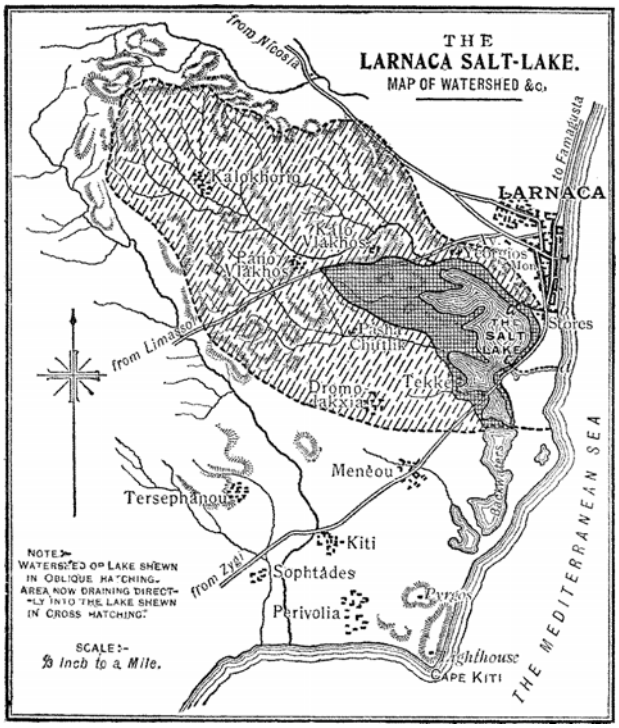


4.2 Bronze Age reconstruction and modern characteristics of Larnaca Bay coastline adjacent to Kition-*Bamboula* (Morhange et al 2000, 227).

This landscape provided an ideal context for the development of urban settlement from LCIIC onwards, with four known areas of intensive occupation at Kition-*Kathari*, Kition-*Chrysopolitissa*, Kition-*Bamboula* and Dromolaxia-*Vyzakia*. These four main sites were in turn accompanied by a more dispersed hinterland of rural occupation. A four-tier division of settlement, based upon ecological context as a determinant of subsistence niche, has previously been advocated for western Larnaca Bay by Leonard (2000a, 133-135). Understanding the exact relationship between Late

65. For an alternative reconstruction of the Bronze Age coastline at Kition prior to additional coring by the Cyprus Geological Survey in 1996-1997 see Gifford (1985).

Cypriot communities and their surrounding environment is, however, problematic due to ancient and modern landscape modification. This is mainly due to ongoing urbanisation, which has obscured the complex paleoenvironmental evolution of the Larnaca coastline, and destroyed much of the associated archaeological record.



4.3 Map of Larnaca Salt Lake watershed (Bellamy 1900, 748).

For Hala Sultan Tekke, an accurate determination of the harbour's expanse during the Late Bronze Age is problematic due to siltation of the channel connecting it with the open sea, together with modification of the natural floodplain in the form of artificial channels, which divert the vast majority of fresh water run-off from the Kalokhorio foothills away from the Salt Lake basin (Bellamy 1900, 746-747). These diverting channels are believed to be associated with major hydrological works undertaken in the mid 18th century AD by the Ottoman governor Bekir Paşa, in order to provide fresh drinking water to Larnaca (Yıldız 2009).[66] While the present surface area of the three adjoining lakes of *Aliki*, *Orphani* and *Soros* covers approximately 650ha, in antiquity this system of sheltered embayments would accordingly have occupied a larger area of the unmodified watershed (fig. 4.3).

66. The remains of this hydrological system are most clearly visible to the west of Larnaca at the Kameras aqueduct built in 1747.

The principal implication of this change to the region's hydromorphology is that the LCI-II rural settlement at Dromolaxia-*Trypes*, which preceded LCIIC-IIIA Hala Sultan Tekke, may have also had immediate access to the *Aliki* shoreline. This could suggest that siltation of the Salt Lake basin on its western side began prior to, and had a causal relationship with, the subsequent concentration of population at *Vyzakia*. It can be speculated that progressive degradation of the harbour environment is associated with more widespread erosion as a result of deforestation during this period, visible elsewhere in the south-east of the island at the mouth of the Gialias-Pedieos Delta (see Chapter 2.3). Extensive lithosol deposits overlying Late Bronze Age strata have also been documented along the Tremithos River drainage to the south-west of the Salt Lakes (Gifford 1978, 149).

The exact area of communication between the Salt Lakes and the open sea has also proven difficult to determine with certainty. Based upon its immediate proximity to the modern shoreline, the Swedish expedition to Hala Sultan Tekke proposed that this was to be found at the southern most extent of Lake *Soros* c.2 nautical miles north from Cape Kiti. Late Cypriot artefacts consistent with such an interpretation have been recovered from the sea-bed through underwater survey in this area. Borings undertaken in 1971 along the ridge at the presumed mouth of the harbour system proved to be inconclusive (Engvig and Åström 1975; McCaslin 1978). Given the dynamic late Holocene geomorphology of the Salt Lake environment, the possibility of a more direct route between the open sea and the northern *Aliki* basin closer to the main LCIIC-LCIIIA settlement at *Vyzakia* cannot be ruled out.

The natural environment of western Larnaca Bay would have provided its Late Cypriot inhabitants with the physical infrastructure that enabled their integration into eastern Mediterranean networks of long distance overseas exchange. This ecological niche was thus an important factor in the transition from predominantly rural-to-urban modes of settlement in the environs of the Salt Lakes. For Hala Sultan Tekke the demise of its harbour was also most probably the underlying cause of that settlement's decline and abandonment. The predominantly maritime orientation to regional Late Bronze Age occupation was, however, to continue on into the Early Iron Age and beyond with the development of port facilities at Kition-*Kathari* and Kition-*Bamboula*.

4.3 HALA SULTAN TEKKE AND KITION

The development of Hala Sultan Tekke and Kition from their rural origins to rise as urban centres has traditionally been evaluated separately on a site-by-site basis. The alternative premise that the two should be viewed together as part of an evolving landscape of settlement received some early acknowledgement, but not widespread attention, with both Myres (1946, 72) and Furumark (1950, 267-268) regarding the Late Bronze Age remains on the southern shore of the Salt Lake at Hala Sultan Tekke as the forerunner of the Iron Age capital at Kition. The historical roots of this perspective date back to the first half of the 20th century AD when the Late Bronze Age remains at Kition were poorly understood and received scant acknowledgement. Prior to 1959 and the excavation of stratified LCIIC-IIIA material at *Chrysopolitissa*, the predominant characterisation of Kition had been solely that of an Early Iron Age Phoenician foundation (Karageorghis and Demas 1985a, 2). With the discovery of directly underlying Late Cypriot deposits, the necessity in seeking antecedents from the wider region disappeared. At Hala Sultan Tekke renewed and intensive excavations by the Swedish mission, beginning in 1971 under the direction of the late Paul Åström, also served to establish the independent character of that settlement. While both sites have separately delivered a wealth of information concerning Late Bronze Age occupation in western Larnaca Bay, the mutual influence of these two prosperous maritime communities upon one another has seldom been explored in detail.

The apparent illogical proximity of Hala Sultan Tekke and Kition would presumably have placed their residents in overlapping resource catchment areas (Negbi 2005, 7; Stech 1982, 113). When considering the nature of relations between these communities two principal alternatives present themselves. Either they were independent peer-polities operating in competition with one another, or they represent two allied components of a wider system, with a distinction in terms of function and relative status (Keswani 1996, 228-229). While neither alternative is mutually exclusive, as both may have been true at different stages, the answer to this question is of paramount importance for understanding pre-colonial settlement patterns in Larnaca Bay, and the societal structures which these represent.

In order to examine the premise that Hala Sultan Tekke and Kition are most accurately viewed as a single conjoined entity, it is first necessary to review the

respective development of both sites in isolation. Preceding LCI-II occupation in the vicinity of Hala Sultan Tekke has been documented at Dromolaxia-*Trypes* (Åström 1977). Knowledge of this settlement is limited to a brief rescue excavation conducted in 1976 that recorded the presence of two wells, together with an assortment of artefacts consistent with an agricultural interpretation including a quern and complete in situ pithoi. Based upon the scarcity of Mycenaean sherds and absence of White Painted Wheelmade wares, an LCIIA-B date for the abandonment of this site has been suggested (Åström 1977, 112). This conclusion is supported by the contents of adjacent tombs which included a LMIIIB piriform jar (Admiraal 1982).

Taken together with those tombs previously excavated nearby in the late 19th century AD at *Kremnos*, *Angathia* and *Vounaropoulos*, which all display evidence for early 'orientalizing' contacts in the form of faience and ivory imports (Witzel 1979), the collective abandonment of these sites prior to LCIIC appears to constitute a broader phenomenon of synœcism centred upon Hala Sultan Tekke. Their typological dating is, however, insufficiently precise to rule out the possibility of a degree of initial overlap between the LCI-II and LCIIC phases of occupation. Late Cypriot settlement further to the west at Klavdhia-*Tremithos*,[67] and Arpera-*Agios Andronikos*,[68] may also conform to this wider pattern of distribution.

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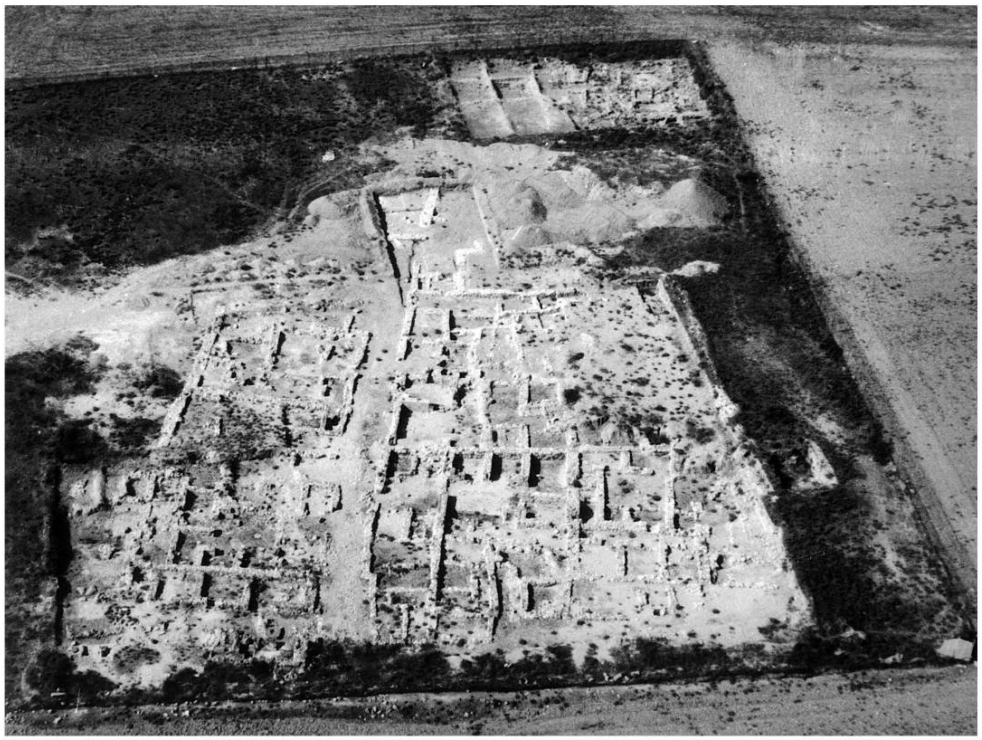
67. The most comprehensively studied settlement site in the hinterlands of Larnaca Bay is Klavdhia-*Tremithos*, located approximately mid-way between the ore bodies at Sia-Mathiatis-Ayia Varvara and Hala Sultan Tekke-Kition. Initial excavation of tombs dating to the Middle and Late Cypriot periods at the site was undertaken on behalf of the British Museum under the direction of F.B. Welch in 1899. In 1952 Catling recorded tombs and the exposed foundations of a building which he dated to the Late Cypriot period (Catling 1963, LC.122+123). A smaller quantity of Middle Cypriot material was also documented (Catling 1963, MC.89+90). More recently, research at Klavdhia-*Tremithos* has been comprehensively reviewed by Malmgren (2003), who provides a detailed description of previously unpublished ceramic material from the tomb assemblages held in the British Museum and Cyprus Museum collections. A surface collection of the settlement was again carried out in 1997 as part of the Larnaca Hinterland Project, which yielded a stone mortar and small quantity of White Slip II pottery (Leonard 2000a; 2004). An extended zone of agricultural activity associated with the site has also been postulated by Baudou and Engelmark (1983, 7), based upon the small quantities of Late Cypriot pottery recorded in soundings dug along the valley floor to the north of the site.

68. The site of Arpera-*Agios Andronikos* is located on a small area of raised ground overlooking and to the west of the Tremithos River. Stone tools and pithos fragments were recorded on the surface by Catling (1963, LC.12+13) indicating an agricultural community. An adjacent cemetery which appears to date back further in use to the Middle Cypriot was excavated in the early 20th century AD by Markidis (1914; 1915). Nearby Middle and Early Cypriot interments have also been recorded at Arpera-*Mosphilos* (Merrillees 1974), and Arpera-*Tersephanou* (Flourentzos 2001), demonstrating the longevity of occupation in this area. In 1997 and 1998 the main Cypriot Arpera-*Agios Andronikos* settlement was investigated as part of the Larnaca Hinterland Project (Leonard 2000a; 2004). In addition to recording a broad assortment of LC utilitarian wares (esp. pithos frags) and ground stone tools, this survey also discovered substantial quantities of copper slag associated with Late Cypriot architecture uncovered in a trial sounding.

In the hinterland of Kition at Aradhippou-*Kophinarga* (Catling 1963, LC.9+10; Pottier 1907, 232-235), Kivisil-*Gyppos* (Catling 1963; LC.120+121), and Larnaca-*Laxia tou Riou* (Catling 1963; LC.157+158; Myres 1897, 147-152) survey and soundings have revealed rural LCI-II sites of indeterminate size with contemporary extramural cemeteries. All three settlement sites were characterized by an agricultural assemblage of pithos fragments and ground stone tools. At Livadhia-*Shemishin* and Kalokhorio-*Perivolia* isolated tombs with no known accompanying habitation have also been recorded (Karageorghis 1980, 766). With the exception of the latter, all these LCI-II cemetery sites are foreshadowed by MCIII internments in the near vicinity.[69] An MCIII-LCI tomb from Livadhia-*Kokotes* has been published by Åström (1974).

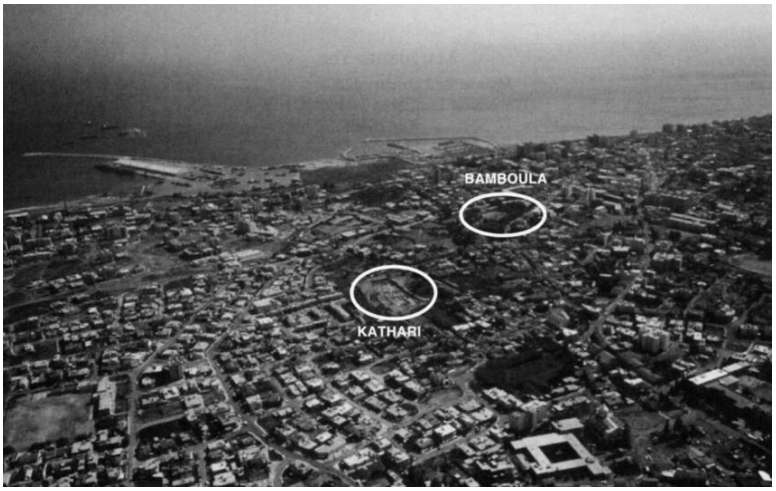


4.4 Aerial photograph of LCIIIA settlement at Dromolaxia-*Vyzakia* [Hala Sultan Tekke] (Photograph Swedish Cyprus Expedition).

At Hala Sultan Tekke there is evidence of limited occupation at *Vyzakia* as far back as the MCIII-LCI transition (Åström 2001, 65). The vast majority of the architecture identified at this site dates to its final major phase of occupation during

69. Keswani (2004, 131) notes that the lesser wealth of mortuary assemblages at *Perivolia* and *Laxia tou Riou* could indicate that these communities occupied a lower position within the hierarchy of local settlement.

LCIIIA (c.1190-1175 BC). Chief excavator Paul Åström (1986a, 8) described this as an openly bounded settlement laid out on a roughly rectilinear grid plan, with several adjoining complexes opening onto a central thoroughfare (fig. 4.4). These structures incorporated ashlar masonry and orthostats, features often considered hallmarks of urban development throughout the eastern Mediterranean (for discussion of terms and derivation see Negbi 2005, 7-8 fn.6). Based upon the presence of crushed murex shell heaps in the courtyard of Building A, this area has been interpreted as a production venue for purple cloth manufacture, an industry later to be associated with mainland Phoenicia (Åström 1986a, 11).



4.5 Aerial photograph of Larnaca-Kition showing locations of *Kathari* and *Bamboula* [*Chrysopolitissa* immediately to bottom right] (Yon 1997, 10).

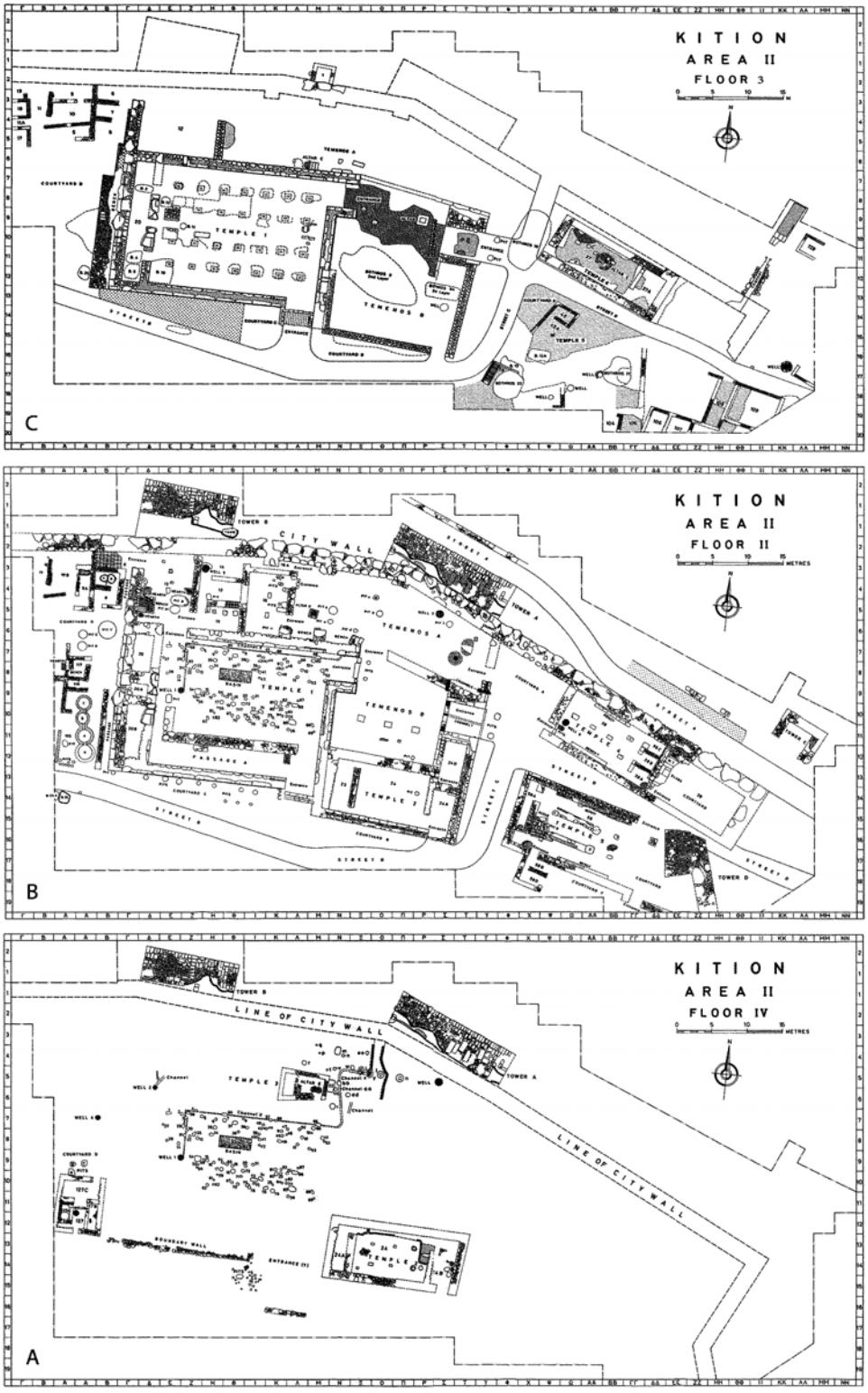
Understanding the diachronic development of Hala Sultan Tekke is severely hampered by the excavation of significant architectural remains dating to only the final LCIIIA phase of the site's occupation. Due to its very limited exposure we consequently know very little about the LCIIC town beyond its existence and the typically Late Cypriot character of its construction. While a total site size of 24ha has been suggested for the LCIIIA settlement by its excavator (Åström 1996, 10), the absence of a clearly defined intramural boundary renders such an estimate inherently speculative. This relatively large area most probably includes extra-mural burials and off-site production facilities, and is therefore perhaps more feasibly viewed as the outer reaches of an extended zone of occupation, which surrounded a smaller urban core.

To the north of the Salt Lake at Kition architectural remains dating to LCIIC-CGI have been uncovered at the localities of *Chrysopolitissa* and *Kathari*. More limited

evidence of Late Cypriot-to-Early Geometric occupation was also recorded at *Bamboula* by Yon and Caubet (1985) (fig. 4.5). In contrast to Hala Sultan Tekke the remains at Kition provide extensive evidence for the diachronic progression of urban settlement over the course of several hundred years. The excavations at *Kathari* represent the largest single uncovering of the Late Bronze Age city, and chart its development from the beginning of LCIIC onwards (fig. 4.6).

Assessing how representative these excavations are of the wider settlement, and what proportion of its total area they represent, is hindered by the inaccessibility of the vast majority of ancient Kition beneath the modern city of Larnaca. Based upon the known enclosure of the later Archaic city wall, which in the comparatively small area of *Kathari* overlies the course of preceding Late Bronze and Early Iron Age constructions, it has been proposed that LCIIIA Kition covered an area as large as 70 ha (Swiny 1981, 78; Merrillees 1992, 328; Knapp 1994, 417; 2008, 140). While this interpretation of Kition as a 'mega-site' has received surprising widespread acceptance, there is no primary evidence to support the assertion that the city had expanded to such an extent during LCIIC-LCIIIA (for detailed critique see Iacovou 2007, 12-13). If true it is worth noting that Late Bronze Age Kition would have covered an area roughly equivalent to contemporary Enkomi, Ugarit and the island city of Tyre combined. A more cautious read of the archaeological evidence suggests that a smaller area, within the boundaries of the later Iron Age settlement, supported a pre-existing Late Cypriot urban community within the northern localities of *Chrysopolitissa, Kathari* and *Bamboula.*

The occupational sequence of Kition has been subject to numerous attempts at revision. With the exception of a single LCIIB tomb (Karageorghis and Demas 1985a, 264) the earliest remains at *Kathari* date from LCIIC. These consist of a substantial mud brick wall with rubble foundations, which enclosed the main complex of stone and mud brick buildings. Two stone bastions along the wall's outer-face most probably doubled as mooring stages. Monumental ashlar structures arranged on an overlapping orientation replaced the earlier stone and mud brick complex c.1200 BC. This second architectural phase was in-turn subject to conflagration shortly after c.1190 BC, before again being immediately rebuilt to the same plan. For summary of architectural developments at *Kathari* see Wright (1992, 111-114).



4.6 Diachronic development of Kition-*Kathari*. a) Floor IV [LCIIC: c.1300-1190 BC]; b) Floor II [LCIIIB: c.1125/1100-1050 BC]; c) Floor 3 [CGIII-CA: c.850-707 BC]. Dates follow revised scheme proposed by Smith (2009a). Plans by Karageorghis et al (1985c; 2005a).

The combined second LCIIIA phase at Kition was associated with a major increase in Myc.IIIC:1b pottery (Karageorghis and Demas 1985a, 265). Myc.IIIC:1b skyphos forms within Kition level IV, dated by its excavators to LCIIC, have led Kling (1989, 75-77) to suggest that these deposits should also be re-dated to LCIIIA. For subsequent analysis and rebuttal of Kling's arguments see Sherratt (1991, 190). As acknowledged by Karageorghis (Karageorghis and Demas 1985a, 275-276), who does not draw a direct equation between the rebuilding of *Kathari* and the arrival of an intrusive population element, the interpretation of this juncture as a significant turning point in the lineage of settlement development at Kition is problematic when viewed within the wider regional context of Larnaca Bay. A potential link can be made with both the extensive renovations at Hala Sultan Tekke and the abandonment of Pyla-*Kokkinokremos* during the mid-to-late second millennium BC (for discussion of the relationship between these three centres see Chapters 3.5 and 4.5). This seemingly contradictory state of affairs raises questions regarding characterisation of the archaeological evidence under review and its chronological interpretation.

In Cyprus the transition from LCIIC to LCIIIA [c.1200 BC] has traditionally rested upon the identification of a major stratigraphic break in settlement occupation, which is immediately followed by the introduction of Myc.IIIC:1b 'aegeanizing' pottery (e.g. Dikaios 1971a, 252, 911; cf. Kling 1987). The apparent timing of this 'event' has meant that it has further come to be associated with the violent unrest and population movements postulated throughout the eastern Mediterranean for the close of the Late Bronze Age. In the last twenty years, however, this correlation has become increasingly untenable on Cyprus, with the excavation of major urban sites including Alassa-*Pano Mandilarisas* where no 'destruction' horizon is present (Hadjisavvas 1991). The use of Myc.IIIC:1b pottery as a precise indicator of absolute chronology has therefore been brought into question. To quote Sherratt (1991, 191);

> "*I have become increasingly doubtful about both the practicability and advisability of any attempt to draw a neat line between Late Cypriot IIC and Late Cypriot IIIA either on ceramic grounds or on a break in general cultural continuity; and I believe that we may have to reconcile ourselves to seeing ceramic development on the one hand, and the chequered fortunes of individual sites on the other, as two quite separate continua whose relationship to one another is no more than incidental.*"

For the purposes of the present study, adopting this doctrine means that we are not able to collectively explain punctuated developments in settlement at different coastal

sites in south-east Cyprus, which may well have occurred a generation or more apart, through the prism of a single unitary phenomenon. As noted by Kling (1991, 183) the classification of Myc.IIIB:1c as White Painted Wheelmade III [WPWM III] has the advantage of, "*removing rigid chronological and cultural or historical distinctions … and reflects our current understanding of the cultural and historical developments that took place in this period*".

Despite these interpretative limitations, longue durée trends in landscape orientation are still very much apparent in the decline of Hala Sultan Tekke, and the subsequent growth of Kition from the second quarter of the 12th century BC onwards as the last remaining coastal centre in Larnaca Bay (Åström 1992, 28; Nicolaou 1976, 307). This rapid synoecism is all the more remarkable in light of the fact that Kition, Hala Sultan Tekke and Pyla-*Kokkinokremos* had only emerged as urban communities less than one hundred years before. When viewed from the south-east of the island, the LCIIC period can thus justifiably be regarded as the pinnacle of urbanism in Late Bronze Age Cyprus (Negbi 2005; 1986).

Probably the single most important factor in determining this regional settlement trajectory was the abandonment of Hala Sultan Tekke c.1175 BC. The most likely cause was the silting up of the town's harbour which would have deprived this outward looking coastal community of its most important natural resource. Faced with major changes to their environment Bronze Age communities would have been powerless, aside from their ability to relocate. It was not until the 9th century BC that the Phoenicians began to undertake dredging operations as part of harbour construction and maintenance (Raban 1995; 2000).[70] Choking of the sea-channel and concurrent formation of the Salt Lakes may have also had a detrimental effect on the fresh water aquifer in the immediate vicinity of Hala Sultan Tekke, rendering the site less attractive to its undoubtedly sizable resident population. Ceramic debris deposited in the wells at *Vyzakia* indicate the majority fell out of use in LCIIIA at the time of the settlements abandonment, with more limited ephemeral usage continuing on into LCIIIB (Åström 1998).

While conflagration may have also played a role in the exact timing of the settlement's abandonment in mid LCIIIA (Åström 1983, 144), faced with the impending loss of their economic infrastructure this outward looking maritime

70. For speculation regarding the Late Bronze Age origins of Phoenician cothon harbours see Brewer (2009).

community would inevitably have been forced to adapt in other ways. The most plausible scenario is that they relocated. The immediate proximity and familiarity of Kition would suggest that this was most likely to surroundings nearby. While highly visible from an archaeological standpoint, the significance of this self-conscious act of synœcism may well have been less apparent to those involved, for whom it represented an economically driven necessity, and a relatively favourable option when faced with the alternative of moving further afield.[71]

The continuity or otherwise of occupation between the CGI-to-III periods at *Kathari* is key to determining whether the foundation of 'Phoenician' Kition is primarily the result of a longue durée and largely indigenous process of state formation beginning in MCIII-LCI, or a more immediate act of colonialism on the part of the Tyrian state. According to Karageorghis and Demas (1985a, 279) the CGI occupation at *Kathari* was short, continuing on from LCIIIB for not more than 50 years until the settlement's abandonment c.1000 BC. It was then to remain uninhabited for 150-200 years until mid-CGIII and the 'arrival' of the Phoenicians, "*(who) cleared the offerings from the floors of the temples and put them in pits (bothroi), or threw them in wells in order to use the temples*" (Karageorghis and Demas 1985a, 279). Under this scheme the excavator thus posits a clear chronological separation, and by extension a major cultural disjuncture, between the Late Bronze Age inhabitants of Kition and their Early Iron Age successors. For the occupational sequence of *Kathari* relative to other sites in south-east Cyprus see fig. 1.2.

This interpretation of the archaeological record has been critiqued on both typological and stratigraphic grounds. At its most basic level the case of Kition-*Kathari* highlights the general lack of comparanda for Early Geometric wares on Cyprus, a shortcoming which is especially pertinent to material arriving from the Levant. While stratified Geometric deposits are known from coastal sites other than Tyre, most

71. A comparable, although more protracted, movement of population between multiple sites, based upon the changing requirements and natural provisions of anchorage and security, is visible in the extended maritime landscape of Tyre (Marriner et al 2008, 1305-1307). Chief amongst these developments was the colonisation of the island itself from the neighbouring settlement of Tell Mashuk (ancient *Ushu*?), firstly in the Early Bronze Age and then again at the end of the 15th century BC (Bikai 1978, 72). The notion of an evolving zone of settlement moving around the Larnaca Salt Lakes also bears conceptual comparison with Tell el Dabᶜa. This sprawling settlement of c.250ha in extent was surrounded by lakes and inlets flowing off the Pelusium branch of the Nile. The site has been identified with ancient *Avaris*, which served as the main administrative capital of the Hyksos during the earliest part of the Late Bronze Age c.1650-1530 BC (Bietak 1975). Tell el Dabᶜa functioned as a major mercantile hub during this period with close connections to Cyprus (see also Chapter 4.4, fn.81).

notably Sarepta, this combined corpus can not as yet provide terminus ante quem dates for the full array of mainland imports to the island.[72] This lack of chronological bench-marks is compounded by the arbitrary division of the Cypro-Geometric period into three artificial 100 year time spans. As noted by Iacovou (2004, 64) the only absolute dates pertaining to Late Bronze and Early Iron Age Cyprus which can be regarded as truly reliable, i.e. independent of relative ceramic typology, are those pertaining to LCIIC [c.1340-1315 BC to c.1200 BC +20/-10] based upon radiocarbon determination (Manning et al 2001).

Using comparisons with material from Tyre, a small array of imported pottery at *Kathari* has been highlighted by Bikai (1981, 34) which could potentially date to early in the 9th century BC during the supposed hiatus in occupation. In an attempt to explain the presence of some Aegean Geometric imports, it has similarly been suggested by Coldstream (1986, 329) that there could have been a preceding open-air sanctuary at *Kathari* prior to the construction of the main temple complex. Based upon a revision of Gjerstad's (1948) ceramic typology pertaining to CGII [Type II], it was later suggested by Coldstream (1999, 114-115) that the duration of this period itself should be curtailed at its lower end by some 50 years to c.900 BC, thereby implying a shorter phase of abandonment. It has more recently been proposed by Smith (2009a, 231-233) that Gjerstad's Type II pottery group cannot be reliably defined in chronological terms at all, and should instead be viewed as contemporary with CGI [c.1050-925/900 BC], meaning no clear break in occupation between CGI-to-III at Kition.

In light of these uncertainties regarding the chronological definition of Geometric period settlement, a shorter period of hiatus and/or continuity in occupation at *Kathari* cannot be ruled out. The absence of a clear debris level separating CGI and CGIII deposits likewise precludes a certain identification of hiatus on purely stratigraphic grounds. It can be speculated that the demise in CGI of copper working facilities at *Kathari*, first established in LCIIC (Stech, Maddin and

72. Excavations at Sarepta revealed a continuous sequence of occupation from the 13th-to-6th centuries BC, with no evidence for intervening disruption and/or hiatus (Pritchard 1978). Within the main Area II excavations a variety of manufacturing facilities were documented including kilns and olive presses, collectively demonstrating a strong industrial component to the settlement (Khalifeh 1988). As noted by Koehl (1985, 144) the preponderance of 'stirrup' storage jars suggest a major storage and redistribution function for the site. During the Late Bronze Age [stratum 'H' c.1425/1400-1320/1290 BC] ceramics manufactured in Cyprus constitute the largest single category of import at Sarepta (Anderson 1988, 18).

Muhly 1985), may be indicative of a change in use rather than partial abandonment (cf. Karageorghis and Demas 1985a, 279). As subsequently noted by Karageorghis and Kassianidou (1999, 179), "*the amount of slag found in Kition does not support the idea of an active smelting workshop*", meaning this development should accordingly not be evaluated from a purely industrial perspective, but may conversely represent a change in ritual activity, which need not necessarily have served an economically rationale function.[73]

Modifications to the *Kathari* complex in CGIII arguably convey a clear reverence for the sanctity of the temple compound, and by extension suggest a familiarity with its time-honoured traditions. Based upon the conservative retention of Late Bronze Age architectural components, a preceding religious function has been proposed by Karageorghis and Demas (1985a; 1985b).[74] Anchors of Late Cypriot type at Kition-*Kathari* incorporated into the structure of the main building, presumably as dedicatory offerings, offer supporting evidence for this interpretation (Frost 1985). The addition of seven columns of cedar to the CGIII temple (Wright 1992, 113), also potentially recalls the close association between copper and woodland industry first established during the Late Bronze Age (Chapter 2.2). While architectural innovations of Canaanite derivation are apparent with the addition of bothroi or 'favissae' for the deposition of votive material (e.g. Karageorghis 2005a, 94-98; Smith 2009a, 200-208), these changes must be tempered with the fact that, "*the arrival of the Phoenicians at Kition was certainly not manifested in a sudden increase in imported Phoenician material*" (Yon 1999a, 21).[75] In more general terms what is perhaps most striking about Geometric *Kathari* are the similarities between its buildings and their Late Cypriot predecessors. The

73. Beginning with Catling (1971, 29) numerous scholars have explored the link between religious practice and copper working on Cyprus (e.g. Peltenburg 2007; Knapp 1986b; Dalley 1987). It has been suggested by Smith (2009a, 249) that copper in the hands of the temple authorities may have only come into wider circulation during times of economic crisis, through the collection of scrap in order to facilitate continued production of necessities including agricultural tools and weapons. A division of metallurgy along the lines of social role, i.e. ritual versus utilitarian, has been proposed for copper and iron production in prehistoric Eurasia by Budd and Taylor (1995).

74 . A comparable continuity in architectural form at the Syrian coastal site of Tell Sūkās documented by Lund (1986, 40-42) may similarly constitute evidence for sanctity of place in relation to a proposed venue for ancestral veneration (Brown 2009). Such behaviour does not, however, necessarily denote a true continuity in cultural lineage and/or religious practice. The expropriation of sacred space is also known to have been frequently used as a tool of legitimation by invading groups in the ancient Mediterranean and Near East. The modern conversion of Greek orthodox chapels in northern Cyprus into mosques denotes an acknowledgement of sacred space, which also has socio-cultural as well as religious connotations.

75. Bikai (2003, 209) has similarly observed that, during the later Cypro-Archaic period, imports from Canaan only account for approximately one third of the total ceramic assemblage at Kition-*Kathari*.

implications of this longevity of place are eloquently summarised by Wright (1992, 113-114), "*the unhesitating maintenance of the Syrian temple forms through the first millennium when the Greek language was current in the island demonstrates clearly the reality of Cyprus' proximity to the shores of Asia and its distance from Greece*".

The likely continuity of the *Kathari* temple precinct from LCIIC onwards is in contrast to the adjacent perimeter fortifications which were not renewed post c.1100 BC, suggesting that by this stage the prevailing threat to the city's inhabitants was no longer deemed to be relevant. The possibility raised by Karageorghis and Demas (1985a, 279) that the site was abandoned due to siltation of the adjacent marine gulf, and thus did not need defending, has been refuted by Morhange et al (2000, 221-227) who have demonstrated that the port would have remained open to the sea until c.2100 BP [c.150 BC] when the environment shifted to a semi-closed lagoon. Elsewhere at Kition fragmentary traces of 10th century BC settlement were found in the form of ramparts adjacent to the port at *Bamboula* (Yon and Caubet 1985). Corroboratory evidence for continuous occupation throughout CGI-III also comes from tombs (Karageorghis 1974; Nicolaou 1976, 158-216; Yon 1999a, 22, 32).

Written sources hint at the emergence of a nascent Phoenician presence at Kition during the Cypro-Geometic period. The possibility of a formal relationship between Kition and Tyre is alluded to in the account of Josephus, which recalls that Hiram I of Tyre suppressed a rebellion amongst the *'Itakaioi* who are believed to be one and the same as the indigenous inhabitants of Kition (Katzenstein 1973, 84-85). It has been suggested by Negbi (1992, 606) that this implies a Canaanite outpost, presumably in the form of warehouse facilities for exchange, had already been founded at Kition by Hiram's father Abibaal as early as the 10th century BC. Based upon Assyrian sources Na'aman (1998) has similarly proposed that a tributary relationship existed between Tyre and large parts of Cyprus throughout the 8th century BC. While the provenance of his claims are uncertain, the Roman historian Trogus Pompeius reports that a Tyrian colony was already well established in the 9th century BC when Elissa alighted at Kition on her way to found Carthage (for commentary see Yon 1997, 11).

From the 11th century BC 'Report of Wen-Amon', we can infer from the protagonist's response to the mob that greeted his arrival in Alašiya that an understanding of international languages, in his case Egyptian, was to be expected at

this time (Wilson 1950, 29).[76] It can be speculated that mercantile contacts with Cyprus prior to the formal imposition of Tyrian authority at Kition in 707 BC would have resulted in Canaanite-Phoenician language and script being similarly understood in at least the south-east of the island from the 13th century BC onwards. Multilingualism amongst seafaring merchants operating in the eastern Mediterranean is likely also reflected in the widespread use of Akkadian and later Aramaic as a *lingua franca* for international exchange (Wansbrough 1996).

Old Testament usage of Kittim, alongside Elishah, to denote the island of Cyprus as a whole [Num 24:24; Isa 23:1; Ezek 27:6], potentially reflects the city's importance as the principal 'gateway' to the island's resources from the east (Reyes 1994, 18-21). The obvious toponymic relationship between Iron Age Elishah and Bronze Age Alašiya also raises the intriguing possibility of an earlier link between Kition and the elusive Bronze Age kingdom. In favour of such an equation is the prominent position of Hala Sultan Tekke and Kition at the centre of the most densely occupied stretch of shoreline along the Levantine coast of Cyprus. As discussed above in Chapter 2.4 use of the term Alašiya in eastern Mediterranean court correspondence suggests a geo-political entity in familiar proximity to its correspondents.

The above review of Late Cypriot occupation in western Larnaca Bay supports the assertion that Hala Sultan Tekke and Kition are most accurately viewed as conjoined nodes within a broader landscape of settlement. This close interrelationship would have been most pronounced at the time of Hala Sultan Tekke's decline and abandonment during the mid 12th century BC, a process that would have bolstered Kition's population, and confirmed its position as the principal port of call on the island's south-east coast. While of undoubted importance in its own rite, this juncture also formed the final phase in a longer term process of synoecism, first discernable through the foundation of urban centres in LCIIC and concurrent consolidation of rural satellite communities. An unbroken lineage in settlement and societal development is accordingly proposed for maritime communities in western Larnaca Bay throughout the Late Bronze Age.

76. It is far from certain that the 'Report of Wen-Amon' represents an actual historical account (Helck 1986). As noted by Knapp (2008, 317), however, even if it is most plausibly read as a fiction the narrative still constitutes a valuable source of information, being set within a real historical context. For translation and commentary see also Breasted (1905).

The combined archaeological and textual corpus pertaining to Kition favours a furthur unbroken continuation in settlement throughout the Geometric period. While the stratigraphic record demonstrates that occupation of the *Kathari* site was interrupted on numerous occasions by conflagration and flooding, revised typological arguments concerning CGII suggest that there is no firm material evidence in favour of ensuing hiatus. The continuity in form and probable function at *Kathari* between CGI-III indicates that the site was most probably re-inhabited by its established residents immediately following these disruptions. Based upon the evolving patterns of settlement reviewed above, it would thus seem reasonable to state that the late 8th century BC Phoenician 'colony' of Kition was a true descendant of its Late Bronze Age predecessor, even if the details of this lineage remain unclear.

4.4 'ORIENTALIZING' ARTEFACTS AND MERCHANT FIRMS

Material evidence for an 'orientalizing' influence upon patterns of settlement and consumption in south-east Cyprus during the Late Bronze Age mirrors the dynamic nature of contact itself, by not remaining static throughout the period under review. It is accordingly not possible to produce an absolute quantitative measure of pre-colonial Levantine influence through the study of mainland imports alone. By point of fact Bikai (1981, 29) has drawn attention to the surprising lack of imported pottery within 9th century BC strata at Kition, following renewal of the temple complex at *Kathari*, a juncture conventionally taken as marking the beginnings of a permanent Phoenician presence on the island. It is therefore necessary to look at other less direct indicators of exchange in the form of derived stylistic traits and manufacturing techniques, alongside preferential patterns of consumption, in order to fully appreciate the origins of Late Bronze Age maritime settlement in western Larnaca Bay.

In LCIIC-LCIIIA both principle urban communities in the vicinity of the Larnaca Salt Lakes maintained widespread exchange contacts throughout the eastern Mediterranean and beyond. During this period Åström (1986a, 8) characterised Hala Sultan Tekke as;

> "*an international harbour …(with) Mycenaean jars and krators from mainland Greece, early vases and stirrup jars of oatmeal fabric from Crete, Grey ware from Troy, Canaanite jars from Cicilia, Syria and Palestine, elephant tusks and faience from the Near East and Egypt, and lapis lazuli from Badakstan in the north-east of Afghanistan.*"

Prestige items especially diagnostic of close links with the Asiatic mainland include an LCIIIA silver bowl inscribed with Ugaritic (Åström and Masson 1982). Evidence for Canaanite exchange contacts at Kition, exemplified by a faience polychrome rhyton (Peltenburg 1974), is no less impressive at this time and includes a wide range of high status imports from the Levant (fig. 4.7).

4.7 Unfurled view of faience polychrome rhyton from Kition-*Kathari* (Peltenburg 1974, Plate C) [scale 1:3].

Despite the pre-eminence traditionally given in scholarship to fine-wares and other elite goods, by the late second millennium BC exchange in such items represented a relatively small component of the overall Late Bronze Age economy (Sherratt and Sherratt 1991). For industrial commodities which formed the majority of imports and exports, however, the ceramic vessels in which they travelled constitute the only record of their transaction.[77] This situation applies particularly to the Late Bronze Age trade in copper, which despite its evident importance has left very little in the way of direct evidence for export.

Unlike contemporary fine-wares, those vessels intended for bulk commodity transhipment would not, in the vast majority of instances, have constituted primary goods in themselves. They would accordingly have been subject to very different patterns of use, and by extension archaeological deposition, following a comparatively short working life. As a gauge of 'orientalizing' interaction, bulk commodity wares therefore arguably have the potential to be more representative of volume in

77. Interesting exceptions, and example of ancient recycling, are Late Bronze Age millstones found in south-east Cyprus made of vesicular basalt. This material initially found its way to the island from the Syro-Palestinian coast as ships ballast (Williams-Thorpe et al 1991).

transactional relationships. Although presently understudied such material also shows a degree of regional variation in manufacturing origin, which may in future be able to provide directional information regarding patterns of island-wide and overseas exchange (Xenophontos et al 2000; Keswani 2009).

The number of Canaanite jars recorded at Hala Sultan Tekke is greater than at any other site in Cyprus (Åström 1991, 67). Their contents would have been diverse including resin (Serpico 2003) and wine (Leonard 2000b). The 'Canaanite' moniker is in itself potentially somewhat misleading, as comprehensive provenance studies to determine place of manufacture have yet to be undertaken on wares excavated from sites in south-east Cyprus (see Fischer 1991a; 1991b for preliminary micro colour analysis of material from Hala Sultan Tekke).[78] Significant progress has recently been made in determining the point of origin for Canaanite jars excavated at Memphis and Amarna (Smith et al 2004). This work suggests that some vessels [fabric group 6] were manufactured along the south coast of Cyprus, in addition to the majority sourced from multiple locations within the northern and southern Levant. Although the present lack of detailed petrographic data means that this class of ware cannot be used as an absolute diagnostic signature of 'orientalizing' transactions involving Cyprus when found in a Cypriot context, these vessels undoubtedly constituted one of the primary mediums by which such exchange took place. As noted by Karageorghis and Demas (1985a, 279) the frequency of Canaanite jars in CGI contexts at Kition-*Kathari* attests to continuing exchange contacts with the Levant across the Bronze-to-Iron Age transition. For general discussion of the form and function of Canaanite jars see Grace (1956) and Raban (1980).

Another category of ware that performed a comparable utilitarian function is 'Cypriot' pithoi. The various storage vessels that fall within this ceramic group formed an important part of the physical infrastructure associated with the production and storage of surplus commodities, as well as being a major class of portable transhipment container in their own rite. Pithos vessels from Kition are unique in presenting an uninterrupted typological sequence from the end of LCIIC through to CGI. A misfired rim fragment, together with a number of a fabrics particular to Kition, is suggestive of local production in part to service the requirements of export

78. Results of petrographic and chemical analyses on Canaanite jars from Maa-*Paleokastro* are discussed in Jones and Vaughan (1988).

industry (Pilides 2000, 31-32). Larger examples of Cypriot pithoi were also employed onboard ships as permanent storage devices (Pilides 2000, 48-50). This practice is best demonstrated by pithos KW251 from Uluburun which contained ceramic goods including White Slip II and Base-ring II bowls (Bass 1986, 274). For the significance of pithoi as a reflection of socio-economic function at the LCIIC site of Pyla-*Kokkinokremos* see Chapter 3.5.

The influence of Canaanite prototypes is also apparent in the stylistic and morphological evolution of Cypriot 'hybrid' wares. These aesthetic and functional adoptions can be seen alongside more dominant Aegean forms, and local Cypriot manufacturing traditions, in the development of WPWM III pottery. By LCIIIA such items account for approximately a quarter of the total ceramic assemblage at Kition (Kling 1985, 356-357). As noted above in Chapter 4.3 with relation to the renovation of the temple compound at Kition-*Kathari*, the appearance of WPWM III classified as Myc.IIIC:1b has previously been associated with the arrival of Aegean colonists in Cyprus during the late 13th century BC. The limited array of Aegean forms represented within the WPWM III repertoire does however seem to suggest something other than the wholesale transference of a regional Aegean ceramic corpus, as one would expect if it were the product of an immigrant community (Catling 1986, 595).[79] In support of this position Sherratt (1991, 194-195) has proposed that;

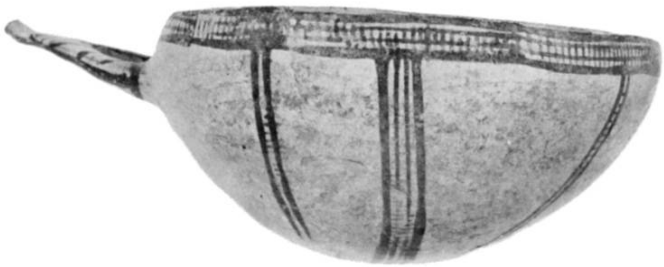
> "*the eclectic nature of the Aegean element in WPWM III … suggest that these influences may owe less to the imposition of the ethno-ceramic traditions of any coherent groups of Aegean immigrants than to Cyprus's participation in a new pattern of maritime trade*".

An economic 'Cypriot' as opposed to ethnic 'Aegean' interpretation for WPWM III is supported by its noted association in Levantine contexts with clearly Cypriot imports in the form of White Slip Ware (Artzy 2001, 107-108).[80] Within this

79. The range of 'aegeanizing' material culture present on Cyprus during the Late Bronze Age, in the form of both imports and hybrid adoptions incorporated into WPWM III, is not comprehensive but rather represents a more limited array of stylistic and morphological traits. The geographical distribution of these exchange contacts has been charted by Sherratt (1991, 194) who identifies good indications for contact with Crete and the south-east fringes of the Aegean, but much more limited evidence for contacts with Achaea. Apparent similarities between the modern Greek-Cypriot dialect and that of ancient Achaea have been cited by numerous authors as supporting evidence in favour of Aegean colonisation on Cyprus (e.g. Karageorghis 2002; Iacovou 1999a, 1-2; cf. Panayotou-Triantaphyllopoulou 2006).

80. WPWM III imports at Ras Shamra dating from the 14th-to-12th centuries BC have been the subject of dedicated treatment by Yon et al (2000). Although a Cypriot manufacturing origin can be

broader repertoire White Slip II shallow bowls seem to have been a particularly prominent export during LCIIC-LCIIIA (fig. 4.8). The general degradation in production for both these wares by the end of the Late Bronze Age is most probably associated with increasing market demand, which provided an impetus towards quantity rather than quality (Yon 2001, 123). It may therefore be more accurate to consider all these mass-produced vessels as collectively part of a Late Cypriot export package. The archaeological significance of White Slip wares as an indicator of Cyprus's export role within the eastern Mediterranean has been discussed in detail by Eriksson (2007).



4.8 White Slip II shallow bowl from Hala Sultan Tekke (Åström et al 1976, 52) [scale 1:2].

The Early Iron Age successor of WPWM III was Proto-White Painted pottery. According to Knapp (2008, 286) this hybrid ware represents, "*a truly Cypriot creation, produced in a cohesive, standardised style that represents a striking amalgamation of local Cypriot, Aegean and Levantine pottery traditions*". At Kition Proto-White Painted ware first appears at the *Kathari* site in the latter part of LCIIIA (Karageorghis and Demas 1985a, 266). By the end of LCIIIB with which it is primarily associated, this ware was in turn replaced by the White Painted pottery of the Geometric period (Iacovou 1991, 203).

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inferred for the majority of this combined corpus, a lack of provenance studies renders any assessment of directional agency inherently speculative. It has been suggested by Sherratt and Crouwel (1987, 344) that a pre-existing role on the part of Cypriot merchants as vendors of Mycenaean pottery to the Levant, could have been a motivating factor behind the initial development of hybrid White Painted Wheelmade forms incorporating 'aegeanizing' traits. Based upon the results of the 1975-1976 excavation campaigns at Ugarit, the wider social significance of these imports has been considered by Monchambert (1983, 26) who notes that they constitute only c.1% of the site's total settlement assemblage. At the Ugaritic 'summer palace' of Ras Ibn Hani locally made Myc.IIIC:1b/WPWM III wares appear immediately subsequent to the destruction of the Late Bronze Age compound. The presence of this material, together with an associated phase of squatter occupation, has variously been interpreted as evidence for an 'aegeanizing' presence in the form of Mycenaean and/or Sea People colonists (e.g. Schaeffer 1939, 72-78; Lagarce and Lagarce 1988), versus reoccupation of the Syrian littoral by the displaced residents of Ugarit (e.g. Caubet 1992; Yannai 1983, 52-55).

In addition to their physical proximity to Levantine markets, the primacy of merchant-sailors from the south-east coast of Cyprus in the distribution of hybrid wares is suggested by preliminary lead isotope analyses undertaken by Renson et al (2007) on White Slip and WPWM pottery from Hala Sultan Tekke. These results indicate that clay was sourced from the near vicinity, implying that the site was one of a number of manufacturing hubs for both domestic consumption and export.

Stylistic and morphological developments within the pre-colonial Cypriot ceramic repertoire should be viewed in combination with a more generalised shift throughout the earlier part of the Late Bronze Age [c.1650-1320 BC] to wheelmade mass production (Crewe 2007a). In addition to WPWM III and its successors, this transition is also clearly visible in the manufacture of Plain White ware vessels (Keswani 1991). It has been proposed by Sherratt (1998, 298) that this change in the mode of production reflects the move from a predominantly rural-to-urban manufacturing base, concurrent with the rise of coastal centres including Hala Sultan Tekke and Kition, and the corresponding escalation in off-island contacts.

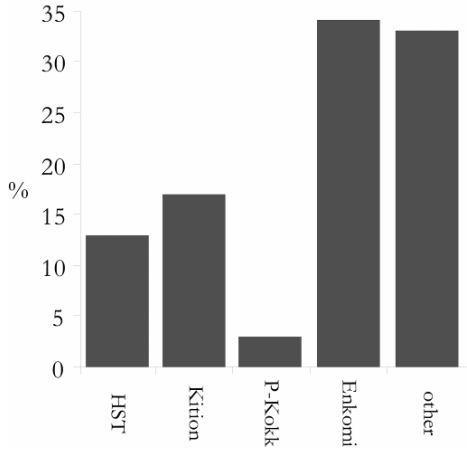
In addition to evidence for exchange with the Canaanite Levant, the presence of imported Egyptian material (or 'Aegyptiaca') in Late Bronze-to-Early Iron Age Cyprus also illustrates the involvement of the island's population in a broader 'orientalizing' sphere of interaction (Clerc et al 1976; Åström 1984; Jacobsson 1994). At Hala Sultan Tekke and Kition it can be speculated that this contact took the form of both direct relations between Cyprus and Egypt, and importation to the island by way of Canaanite merchants in their established role as agents of Levantine commerce. From LCIIIA Hala Sultan Tekke a particularly notable example of a prestige Egyptian import is an antique faience sceptre-head (Åström 1979), decorated with a cartouche of the Pharaoh Horemheb [1333-1306 /1322-1295 BC] (fig. 4.9).

4.9 Sceptre-head in Egyptian blue with cartouche of Horemheb from Hala Sultan Tekke (Åström 1979, 47) [height 3.7cm].

Quantifying the significance of these direct and in-direct contacts on Cyprus is, however, inherently problematic due to the uneven retrieval of Aegyptiaca from settlement and mortuary contexts.[81] Bias towards the recording of prestige items similarly precludes an accurate assessment of volume. The evidence for bulk commodities arriving in Cyprus from Egypt is slight, with very few examples of LCII-III period storage vessels. One exception has been Eriksson's (1995) retrospective identification of Egyptian amphorae at Hala Sultan Tekke and Pyla-*Kokkinokremos*, which had previously been classified as Canaanite jars. While the number of vessels concerned is small, these examples highlight the potentially widespread misidentification of Egyptian White Slip wares in Cyprus. This concern has previously been noted by Peltenburg (1986, 165) who predicted that analysis of 'Canaanite' jars in LCIIC-IIIB contexts will eventually reveal more Egyptian amphorae (see also examples from Pyla-*Kokkinokremos* discussed in Chapter 3.4).

The regional distribution of Late Bronze Age Aegyptiaca on Cyprus has been analysed by Jacobsson (1994). This study demonstrated that the second and third largest concentrations of prestige imports manufactured in Egypt have been found at Kition and Hala Sultan Tekke respectively, suggesting their residents were amongst the prime consumers of such material on the island (fig. 4.10). While there were undoubtedly frequent and sustained contacts between Enkomi and Egypt, their relative importance is very likely exaggerated by the greater extent of excavation at this site, when compared to other Late Cypriot urban centres.

81. The largest concentration of Late Bronze Age Cypriot exports found anywhere in the eastern Mediterranean is from the settlement of Tell el Dabᶜa-ᶜEzbet Helmi, located on the now defunct Pelusium branch of the Nile (Maguire 1995; 2009a). Unlike exchange relations elsewhere within the Levantine region, which show a sharp escalation in transactions from the 13th century BC onwards, in the Nile Delta Cypriot imports appear to have peaked earlier during the first quarter of the Late Bronze Age (Merrillees 1968, 190; Hein 2009). This diachronic and geographical focus can at least in part be attributed to the unique political context within which exchange relations took place, due to the site's role as capital of the Asiatic Hyksos dynasty (ancient Avaris) from c.1650 to c.1530 BC (Bietak 1997; Karageorghis 1995a). It can be speculated that a familiarity and concurrent demand for Cypriot goods on the part of host communities may also be related to the Canaanite origins of the Hyksos themselves (Bietek, Forstner-Müller and Mlinar 2001; O'Connor 1997). Within the repertoire of MCIII-LCI/II ceramic exports from Cyprus to Egypt, the predominance of Base-ring closed vessels is suggestive of a specific transactional relationship (Merrillees 1968, 147-168; 175-186). It has been proposed by Hulin (2009) that this distinct pattern of consumption, which contrasts sharply with the broader array of Cypriot vessels exported to the Levant, reflects the relatively formalised and restricted use of imports as a form of social expression in Egypt. Based upon their physical resemblance to an inverted poppy head, numerous scholars have suggested that Base-ring jugs contained opium (e.g. Merrillees 1979; Knapp 1991, 25-26; cf. Muhly 1996, 50-52).



4.10 Geographical distribution of Late Cypriot Aegyptiaca (after Jacobsson 1994, 100-101 Chart 14-15).*

*Four additional items of Aegyptiaca derived from the 2007-2009 survey and soundings at Pyla-*Kokkinokremos* (see Chapter 3) have been included in this revised total.

Site	HST	Kition	P-Kokk	Enkomi	other	total*
%	13%	17%	3%	34%	33%	100%
Nº of objects	41	57	9	112	110	329

Direct imports of primarily elite goods from Canaan and the Nile Delta remain the core evidentiary criterion by which to gauge 'orientalizing' influence in south-east Cyprus during the Late Bronze Age. The derivative influence of Canaanite forms is also appreciable in the evolving repertoire of Cypriot hybrid wares. Arguably, it is the move towards mass production of surplus for export, as represented by bulk commodity wares, which is potentially most significant in elucidating patterns of off-island exchange. While the present lack of more detailed information concerning manufacturing provenance precludes a quantitative assessment of directional influence and volume, the prevalence of this material at Hala Sultan Tekke and Kition suggests that both centres were extensively involved in industrial level transactions with surrounding regions of the eastern Mediterranean. The complex nature of these 'orientalizing' relationships is aptly demonstrated by examples of imitation Base-ring juglets manufactured from glass and alabaster in Egypt (Karageorghis and Merrillees 2007). As first noted by Dikaios and du Plat Taylor (1936, 113), a small number of these vessels made their way in turn to Cyprus (fig. 4.11).

Understanding the institutional mechanisms for international exchange during the Late Bronze Age in the eastern Mediterranean is central to determining the wider social significance of mercantile contacts for Late Cypriot communities. In Cyprus the lack of primary texts, or clear material evidence for how such transactions were organised, presents a major impediment to scholarship in this regard. Elsewhere

within the Levantine region the main instigator, regulator and recipient of international gift-exchange was the palace. As proposed above in Chapter 2.4 a plausible correlation can be made between south-east Cyprus and Alašiya. This identification remains, however, a matter of informed conjecture. Speculation regarding arrangements for long-distance 'orientalizing' exchange involving south-east Cyprus must accordingly make reference to the archives of overseas trading partners.

4.11 Glass imitation of Base-ring I juglet (Karageorghis and Merrillees 2007, 148) [scale 1:2].

The most comprehensively studied example of a palatial bureaucracy extensively involved in equivalency gift-exchange is Ugarit. Textual evidence from Ras Shamra indicates that long-distance exchange was undertaken by powerful mercantile elites on an essentially patriarchal basis, operating in circles very close to the palace or directly under the control of the royal household (McGeough 2007, 329-331; Schloen 2001, 83-84). These formal economic partnerships or syndicates were known as hubŭr (Heltzer 1978; Katzenstein 1983).

The best known example of a private merchant-sailor involved in such transactions is Sinaranu of Ugarit, who is described in correspondence [PRU III, 101-108] as a wealthy individual of high status who held special privileges with the royal authorities. These included exemption from taxation for long distance exchange ventures to Crete (Linder 1981, 34; Heltzer 1989). The influential role of the merchant class at Ugarit has been discussed in detail by Astour (1972). Archives in Ugarit also

make reference to numerous Alašiyan persons including one account [KTU 4.352:1-2] of an individual named Abiramu who, based upon his receipt of 660 jars of oil, presumably dealt in the redistribution of this commodity (Virolleaud 1965, 117-118).

The interpretative significance behind the lack of corresponding administrative records on Cyprus during the Late Bronze Age is unclear. While the relatively small corpus of Cypro-Minoan documents has not yet been deciphered, their composition suggests that they are not the scribal lists of a complex state bureaucracy (Iacovou 2008b, 632).[82] The generally isolated context of deposition for Cypro-Minoan inscriptions found on the island further indicates that they should not be regarded as equivalent to the archives of royal courts and their associates found at sites across much of Syro-Mesopotamia. Based upon an analysis of glyptic use during LCIIC-LCIIIA, it has similarly been proposed by Smith (1994, 314-315) that complex systems of transactional control did not exist to any great extent amongst Late Cypriot communities at this time.

It is also possible that the absence of detailed records on Cyprus reflects the physical medium employed for writing, and the divergent roles of those documenting exchange transactions. Potential insight into both considerations is to be gleaned from the example of a wooden diptych [KW 737] found aboard the 13th century BC Uluburun shipwreck (Warnock and Pendleton 1991). The proposed use of such expedient recording mediums on Cyprus during the Late Bronze Age potentially informs us as to the mercantile character of contacts with Canaan which first led to their adoption. From Ugarit the practice of keeping administrative accounts on mediums other than clay tablets is attested to by the official title 'Chief Scribe on Wood' [GAL.DUB.SAR.GIŠ] (Singer 2006, 244). Potmarks incised onto predominantly utilitarian handheld Late Cypriot vessels may also constitute evidence for control over the content and transhipment of those commodities contained within (for examples from Pyla-*Steno* see Chapter 3.4 fig. 3.19). The initial appearance and widespread application of potmarks from LCIIB-to-LCIIIA corresponds well with other indicators for a general upsurge in long distance exchange during this period.[83]

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82. For current state of research regarding the decipherment of Cypro-Minoan scripts see Olivier (2007).

83. Although the repertoire of potmark signs has generally been associated with the Cypro-Minoan script, which has in turn most commonly been compared to Linear B, the possibility that these signs could be more closely related to Sabean has previously been suggested by Ward (1910, 353) with reference to a cylinder seal inscription from Hala Sultan Tekke. A Sabean or other southern-linear

The central role of coastal urban centres on Cyprus in decentralised trade, as distinct from palatial controlled equivalency transactions, has been stressed as a defining characteristic of the island's participation in eastern Mediterranean networks of exchange by numerous authors including Sherratt (1998, 297, 302; 2003, 48-51), Artzy (1998; 1997) and Liverani (2003). It has been further proposed by Sherratt (1998, 294) that the development of a mercantile class represented a direct challenge to the royal monopoly on trade, "*which carried within it the seeds of the subversion of the palace based command economies which had initiated such trade in the first place*". A growing concern on the part of palatial authorities regarding independent traders may well be reflected in the tight restrictions imposed by the Hittites over merchants operating out of the Cicilian port of Ura (Cline 1991, 6). Sherratt (1999; 1982) has proposed that WPWM III pottery should be viewed as diagnostic of sub-elite consumption propagated by merchants operating from Cypriot ports.

This view of private commerce as undermining the palatial monopoly on eastern Mediterranean trade has been critiqued by Routledge and McGeough (2009), who question the extent of any division between these parallel spheres of economic interaction. While the exact details may be apocryphal, the 11th century BC account of Wen-Amon suggests that, in addition to private merchants, the king of Byblos was personally in possession of 70 vessels that were employed in trade with Egypt. It would appear that although a distinction was drawn between the royal household and private owners, in practice large scale commercial ventures were not undertaken without a degree of involvement by state authorities in the form of subsidy and/or sanction (Sherratt and Sherratt 1991, 372-373). As noted by Aubet (2001, 115) in relation to later Iron Age Phoenician trading ventures to the western Mediterranean, profits or losses associated with such endeavour could be so high that it was often necessary to pool resources under state management. The existence of an Alašiyan fleet is alluded to in numerous documents [EA 36:12; RŠ 20.18] (Sasson 1966, 132-133). An Alašiyan ship's inventory including 15 talents of copper and other finished bronze goods is known from Ugaritic text KTU 4.390:1-13 (Virolleaud 1965, 74). As

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variant influence upon the Cypriot potmark syllabi could by extension indicate Asiatic or Egyptian involvement in mechanisms of transhipment and exchange on Cyprus during the Late Bronze Age. For chronological issues associated with the concurrent adoption of an earlier date for the use of Sabean in the Egyptian territories of North Africa and the Levant see Bernal (1990, 61-65).

was the case at Ugarit it can be speculated that a semi-autonomous Alašiyan merchant navy existed alongside a directly controlled 'royal' fleet (Linder 1981, 34).

It may well be the case that the seemingly divergent political arrangements on Cyprus, relative to those elsewhere in the contemporary eastern Mediterranean, were not in reality as conspicuous as they now appear to be on the basis of archaeological evidence. As noted by Schloen (2001, 84), "*we may be tempted to view certain kings (in Ugarit, for example) themselves as mercantile oligarchs, who invested heavily in trading ventures that were conducted by their designated trading agents ... (Akk. tamkārū)*". Merchants also appear to have been elected to the ruling council of Ebla during the mid-second millennium BC (Silver 1995, 74). For the influential role of merchants at Nuzi during the Late Bronze Age see Zaccagnini (1977). Knapp and Cherry (1994, 146) have proposed that different types of commodity may have moved through parallel systems of exchange, which collectively incorporated both 'freelance' and 'gift-exchange' transactions. Although of relatively minor economic significance, it would seem entirely plausible that merchant-sailors employed on 'royal' missions could have run a sideline in bricolage for their own personal gain.

The overtly mercantile attitude of the Alašiyan court in its relations with gift-exchange correspondents suggests that, in the case of Cyprus, the division between private and state spheres of exchange may have been even less well defined (Avruch 2000, 159). A specific example of this behaviour, which again highlights the importance of forestry within the Late Cypriot economy, is the correspondence contained within EA35 where the king of Alašiya petitions Pharaoh for payment on behalf of a third party creditor (Liverani 2001, 148). From this text it can be inferred that Alašiya on occasions functioned as something akin to a guild, representing mercantile interests within the tightly structured diplomatic framework of eastern Mediterranean palatial exchange.

This approach to international relations could well be directly related to the formative origins of the Alašiyan state itself, which may have developed in part through contact with Canaanite merchant firms. It has previously been proposed by Manning and DeMita (1997, 108-109) that entrepreneurial foreign merchants or 'aggrandisers' were the principal agency behind the adoption of material and social innovations in Late Bronze Age Cyprus. Based upon the preceding adoption of urbanism and its administrative accruements in the northern Levant, it can be inferred

that this relationship was at its inception most probably controlled by Canaanite agents. According to Webb (1999, 307);

> "*...communities were propelled into statehood through contact with existing states outside the island. The principal catalyst was undoubtedly long-distance trade, with trade defined as risk-taking, profit-motivated entrepreneurial behaviour on the part of emerging Cypriot elites*".

Archaeological and textual evidence for export industry does, however, suggest that Late Cypriot communities quickly became proactive instigators of exchange transactions in their own rite.

The best known regional parallel for such an organisational arrangement is the early second millennium Assyrian enclave at the site Kültepe in Cappadocia, otherwise known as the kārum of Kaneš (Veenhof 1982; Larsen 1977). Over a period of two centuries a merchant population from Assur grew into a genuine colony outside of the pre-Hittite city with the addition of families, independent traders, and employees. At Kaneš the principal motivation behind the initially transitory and later permanent Assyrian presence was the rich copper resources of the region, which were acquired by private merchants who in turn paid taxes to their home city of Assur. By stimulating the indigenous production of copper ore in this way the Assyrians were able to gain access to a valuable raw commodity. For the local Anatolian dynast this relationship provided a guaranteed and additional source of income. While the precise nature of the merchant's relationship with the rulers of Assur is not known, it would appear that they operated on a largely autonomous basis (Renger 1984, 38).

It was not until the late 8th century BC with the expansion of Neo-Assyrian hegemony over Levantine trading networks that the Phoenician mercantile presence at Kition took on an overtly political function (see Chapter 5.3). Even under this markedly more punitive regime of economic subordination, it would appear that the coastal trading cities of Phoenicia (esp. Tyre) still retained a significant degree of freedom in their commercial affairs (Frankenstein 1979, 269). Exchange contacts first established between Canaanite merchants and Late Cypriot elites at the beginning of the Late Bronze Age, based upon copper and timber acquisition, thus appear to have established the fundamental dynamics of a relationship which reached its full fruition over half a millennium later. It may even be that by this stage the largely indigenous maritime population of western Larnaca Bay felt a genuine sense of kinship with their

Phoenician 'colonizers', with who they would have been in frequent and continuous contact over preceding centuries.

It is proposed that the merchant firm is the most important institution for understanding the evolving relationship with Canaan, and the broader origins of secondary state formation in south-east Cyprus during the Late Bronze Age. The formative influence of such agents can arguably be inferred from archaeological evidence, which shows 'orientalizing' trends in material consumption and wider social development. Chief amongst these innovations appears to have been the stimulus towards industrial bulk commodity production, in response to newly emergent export markets, and the concurrent adoption of urbanism. It is proposed that this interaction led to a process of 'mercantile-ethnogenesis' in south-east Cyprus, where the region's predominantly indigenous population would have assimilated many pan-Levantine characteristics, while still retaining a distinct cultural persona of its own.

The limited evidence for centralised administrative control does not support the identification of a bureaucratic framework in south-east Cyprus on a par with the palatial economies of the northern Levant exemplified by Ugarit. Application of codified potmarks and not infrequent use of cylinder seals as accounting and control devices does, however, attest to a lesser degree of regulation over storage and transhipment. As noted by Webb (2002, 128), it is difficult to imagine the volume of goods travelling through the major urban centres of the south-east coast not necessitating some form of port authority, purely on grounds of logistical practicality. It would therefore seem likely that a more devolved but nonetheless effective network of common administrative control was present at Hala Sultan Tekke, Kition and neighbouring sites during the Late Cypriot period. In the absence of any other known candidate it can be further speculated that this role was fulfilled by Alašiya. Due to the absence of primary data from Cyprus it should, however, be empathized that the role of merchant firms in exchange, together with their relationship to the wider echelons of state, remains a matter of informed speculation.

4.5 SUMMARY

An effective comparison of Hala Sultan Tekke and Kition on their respective paths towards urbanisation is hampered by inconsistencies in the type of archaeological data accrued for each site. At *Kathari* we have good diachronic knowledge of a relatively small percentage of the overall habitation area, which is limited to ritual context without adequate comparanda. The situation at *Vyzakia* is in diametric opposition, with a lack of information concerning the settlement's development, but a good overall impression of the LCIIIA town. Uncertainties regarding the region's late Holocene geomorphology, and the general paucity of information pertaining to the earliest phase of Late Cypriot occupation, also hinder attempts at comprehensive interpretation.

The apparent contraction in the number of settlement sites during the 13th century BC within western Larnaca Bay nonetheless appears to constitute a comparable phenomena of synoecism to that visible elsewhere in south-east Cyprus within the Upper Gialias Valley and Pyla littoral (Chapters 2 and 3). The exclusive focus of maritime settlement at Kition from the mid 12th century BC onwards can be viewed as the end result of a longue durée regional trend towards socio-economic consolidation. The generational shift to a planned urban environment at Hala Sultan Tekke during the late 13th-to-early 12th centuries BC likely represents part of this same process, and appears to reflect an increasing familiarity with the coastal centres of Canaan.

Important differences between Hala Sultan Tekke and Kition are also apparent, with the absence of a planned building grid at Kition in comparison with the uniform layout of LCIIIA Hala Sultan Tekke being perhaps most conspicuous. The existence at least in part of a boundary 'fortification' wall encompassing the Late Bronze Age settlement at Kition, but not at Hala Sultan Tekke, could also be significant in determining the relationship of both communities to their surroundings. Given the relatively small overall exposure at either site, it is pertinent to note that both these observations could well be indicative of archaeological retrieval, rather than actual trends in architectural development.

In more general terms it would appear that the residents of Hala Sultan Tekke and Kition participated in broadly similar networks of 'orientalizing' exchange, with no obvious disparity in the consumptive habits, and by extension collective origin of

their inhabitants. The above review of Late Bronze-to-Early Iron Age occupation at Hala Sultan Tekke and Kition offers collective support to the proposition that these two urban centres should not be viewed in isolation, but must rather be seen as conjoined nodes within a continuous landscape of settlement.

A lack of detailed information regarding arrangements for long-distance exchange during the Late Bronze Age, dictates that the possible role of merchant firms in secondary state formation on Cyprus remains confined to the realms of informed speculation. If these partnerships were a catalyst for the mass production of export surplus, this presupposes that facilities for the management and defence of bulk commodities were not fully developed prior to this point. While undoubtedly a profound influence upon the evolution of settlement in Larnaca Bay, it should also be noted that the adoption of 'orientalizing' material and social traits would have been negotiated at a local level, producing a distinct regional hybrid within a broader Levantine context.

These tentative conclusions regarding the diffusion of 'orientalizing' influence in turn present numerous potentialities regarding the nature of Alašiya, in the event that this refers to a Bronze Age polity in the south-east of Cyprus (for rationale behind this identification see Chapter 2.4). Textual references to Alašiya from the beginning of the Late Bronze Age [MCIII/LCI], when intensive contacts with the Levant are first archaeologically apparent, imply that the initial point of contact between Canaanite merchant-firms and the island's resident population would have been through this palatial authority. In LCIIC the established role of Alašiya within international networks of gift exchange would also have served to legitimate the newly emergent maritime centres of western Larnaca Bay within the highly structured command economy framework of the eastern Mediterranean.

Avoiding potential conflict between this incumbent facilitator and newly empowered local hierarchies would presumably only have been possible if merchant firms had engaged in exchange relations (or hubŭr) on a multi-focal basis, favouring a devolved model for Alašiyan bureaucracy. Had the situation been reversed, with the state authorities of Alašiya based at a single site functioning as the sole intermediaries for international exchange, then this presumably would not have resulted in the multiplicity of prosperous, and seemingly semi-autonomous centres, which developed along the island's south-east littoral during the second half of the 13th century BC.

This devolved power structure is potentially reflected in evidence for metallurgical production, which is split between numerous sites across Larnaca Bay. In addition to Trouilli and Kition (see Chapters 3.5 and 4.3 respectively), two limestone casting moulds have been found at Klavdia-*Tremithos* (Malmgren 2003, 107-108), together with numerous pieces of copper slag (Åström 1972a, 30, fn.4). Surface survey at nearby Arpera-*Agios Andronikos* also recorded substantial quantities of copper slag, including one fragment with a piece of terracotta adhering to it. The complexities of this devolved system of procurement, processing, and redistribution are hinted at by the results of lead isotope analysis on slag samples from Arpera, which do not match any known profile from the island (Leonard 2000a, 135). Arrangements for metallurgical production in Late Bronze Age Cyprus are in contrast to those on Minoan Crete, where smiths appear to have been concentrated at a small number of production and distribution centres (Kardulias 1999, 193). The organisation of copper industry in Late Bronze Age Cyprus has been considered in detail by Muhly (1989). For general discussion regarding the circulation of metals in the eastern Mediterranean during the 13th-to-12th centuries BC see Sherratt (2000).

The apparently illogical proximity of Hala Sultan Tekke and Kition, together with the location of Pyla-*Kokkinokremos* only 5.6 nautical miles north-east along the coast, further suggests that Alašiya in some way regulated the relationship between major urban sites in Larnaca Bay. Alašiya's prominence within international correspondence during the 12th century BC attests to its continuing relevance, even if the real economic and political power in south-east Cyprus was dispersed within a more devolved regional framework. The subsequent disappearance of Alašiya post c.1200 BC, despite archaeological indicators of continuity across the Bronze-to-Iron Age divide, implies that the kingdom's function was intimately associated with the eastern Mediterranean palatial economy, and thus became redundant following its collapse.

CHAPTER 5
CONCLUSIONS

5.1 GENERAL SUMMARY AND CONCLUSIONS

In south-east Cyprus a dominant trend of continuity is apparent in evolving patterns of settlement and societal development across the Bronze-to-Iron Age transition, presenting a clear link between Late Cypriot maritime communities and their Phoenician successors. At its most basic level this relationship took the form of continuity in landscape orientation, most clearly visible through the consistent focus to settlement from LCI-II onwards within the environs of Hala Sultan Tekke-Kition and along the banks of the Gialias River. Although there seems to have been no significant Geometric period occupation at Pyla, continuity in settlement centred upon the harbour below *Kokkinokremos* similarly prevailed prior to LCIIIA. These longue durée trends appear to have been intimately associated with proximity to natural resources and associated routes of waterborne distribution.

The relationship between landscapes and their inhabitants appears to have been central in determining the developmental trajectory of both through the exploitation of natural resources. This complex dynamic took both active and passive forms, and is exemplified by the use of inland navigable waterways for the transportation of timber, which was itself felled from surrounding woodlands. While less certain, environmental degradation as siltation resulting from deforestation, may also have played a role in the abandonment and relocation of sites around the Larnaca Salt Lakes and Gialias-Pedieos Delta.

Undoubtedly the most significant change in settlement throughout south-east Cyprus during the Late Bronze Age was the transition from predominantly rural-to-urban modes of living. Evidence of central planning has been taken as the unifying characteristic of the built environment in all three principle region's of study, which distinguishes these central place communities from their more dispersed forebears. Widespread adoption of the physical and social accruements of urbanism was rapid, taking place over what was close to a generational basis between LCIIC-LCIIIA. In south-east Cyprus this largely indigenous process appears to have been a local re-

interpretation of Canaanite prototypes, which would have become increasingly familiar through intensive exchange relations with the Levant.[84]

In LCIIC-IIIA the three intervisible urban coastal centres of Hala Sultan Tekke, Kition and Pyla-*Kokkinokremos* would have formed the most intensively inhabited littoral region on Cyprus. This density of occupation, combined with its clear maritime focus, reflects a pattern of settlement which owes as much to the seascape of the Levantine corridor as it does to the landscape of the island. The relationship between these three urban communities would likely have constituted the region's principle socio-political dynamic at this time, and by extension allows us to infer the existence of an overarching regulatory authority. A Levantine focus to maritime settlement, proximity to copper and forestry resources, and 'orientalizing' bias in overseas exchange transactions, all combine to provide a plausible basis for the identification of an Alašiyan polity in south-east Cyprus.

While there is evidence for abrupt abandonment c.1200 BC at Pyla-*Kokkinokremos*, and perhaps also Hala Sultan Tekke, a dominant trend of continuity in the lineage of settlement and societal development throughout the Late Cypriot period is nonetheless apparent through progressive episodes of synoecism, which appear to form part of a long term regional trend towards socio-economic consolidation. The most archaeologically explicit example of continuity in occupation across the Bronze-to-Iron Age transition is the conservative retention of architectural form at Kition-*Kathari* from the late 13th century BC onwards, which likely denotes a corresponding continuation in ritual function.

The growth of urban centres may have resulted in a corresponding depopulation of the surrounding countryside. This change in population distribution potentially contributed to a regional climate of insecurity during LCIIC, reflected in the strategic relocation of established communities at Pyla and Ayios Sozomenos/Idalion to nearby naturally defended heights. Erection of fortifications

84. The directly subsequent and correspondingly rapid adoption of urbanism in Philistia (Portugali and Gophna 1993; de Miroschedji 1989) may in turn potentially reflect the wider social influence of exchange contacts with south-east Cyprus. While many examples of ceramic imports and hybrid adoptions in the southern Levant clearly incorporate stylistic and morphological traits of Aegean derivation (Dothan 1982; Mazar 1985), the select range of forms bear closer comparison with the repertoire of WPWM III items manufactured on Cyprus (Sherratt 1998, 302-304). Based upon this association it has been proposed by Killebrew (2003) that formation of Philistine 'pentapolis' communities should be associated with the influence of Cypriot merchant-settlers (cf. Barako 2000, 526). A summary of ceramic evidence for Cypro-Palestinian exchange during the Late Bronze Age is given by Gittlen (1981).

around the pre-existing settlement at Sinda could also be indicative of a comparable shift in perceptions regarding the rural hinterland.[85]

The floruit of urbanism in south-east Cyprus took place during the mid 13th-to-early 12th centuries BC. This process appears, however, in all instances to have its roots in the preceding establishment of facilities for bulk commodity storage and management at the beginning of the Late Bronze Age. Archaeological and textual evidence combine to suggest that industrial exports of copper and forestry products from Cyprus to Canaan and the Nile Delta were of primary significance in this regard. Due to differential preservation of consumables and their containers within the archaeological record, the intensity and directional nature of these transactions have though largely to be gauged through return prestige imports arriving on the island, and associated hybrid adoptions in indigenous material culture.

In addition to serving a local redistributive and allied defensive function, warehouses would have provided the infrastructure necessary for industrial overseas exports. It has been proposed by Renfrew (1977, 66) that the location of such facilities may also reflect the presence of local elites. The earliest known MCIII/LCI examples of these structures identified in south-east Cyprus are to be found in the vicinity of Ayios Sozomenos at sites including *Glyka Vrysis*. It has similarly been proposed that the later LCI-II 'fortress' building at Enkomi (Peltenburg 1996, 29), Kalavassos-*Ayios Dhimitrios* 'Building X' (South 2002, 62), and the 'Ashlar Building' at Maroni-*Vournes* (Cadogan 1988, 230-231) all functioned as redistributive centres annexed to elite residences. It can be speculated that the large LCI-II rectilinear structure at Pyla-*Steno*, which directly preceded and was potentially concurrent with occupation at *Kokkinokremos*, also performed a comparable storage and redistribution role.[86] For general discussion of warehouses (or storehouses) as a category of structure see Wright (1992, 317-324).

It is a contention of the present thesis that warehouses should be viewed as the principle category of structure associated with the emergence of LCI-II 'gateway'

85. A comparable scenario during the closing decades of the 12th century BC has been suggested for the kingdom of Ugarit by Yon (1992, 114), who proposes that an increasing onerous taxation burden levelled by the palatial authorities led to lessening control over rural areas (cf. Routledge and McGeough 2009).

86. The frequent application of incised potmarks to locally produced White Slip pottery in associated tombs at *Steno* can be viewed as supporting evidence in favour of an administrative function (see Chapter 3.3.3 fig. 3.19).

communities in south-east Cyprus (Keswani 1993; Hirth 1978). By extension, this implies that the initial establishment of these facilities was intimately associated with the instigation of 'orientalizing' exchange relations between south-east Cyprus, Canaan and the Nile Delta. These mercantile contacts in turn appear to have been the catalyst for a wider process of secondary state formation. The fundamental dynamics of contact established at the beginning of the Late Bronze Age, can thus be held ultimately responsible for the progressive incorporation of south-east Cyprus into broader Levantine spheres of interaction, culminating in the formal Tyrian annexation of Kition in 707 BC.

Initial primacy of settlement around Ayios Sozomenos potentially reflects that region's pioneering role in the development of pan-Levantine 'orientalizing' relations. The Alykos-Gialias-Pedieos river system, which combined to form what was likely the longest inland navigable waterway in the eastern Mediterranean outside of Egypt, would have connected the copper-forestry rich communities of the interior with ports for onward transhipment and export at Kalopsidha-Enkomi. The nature of early population agglomeration around Ayios Sozomenos remains poorly understood, and does not as yet provide definitive evidence for central planning, cited as one of the principle characteristics of urbanism in the present study. Resource rich catchment areas converging on the Upper Gialias Valley suggest, however, that it could initially have developed as a self-organizing landscape of industrial specialists, drawn together through local economic impetus to form a regional manufacturing and distribution hub (McIntosh 2005; Keswani 1996, 213-217).

Subsequent developments during LCI-II indicate that this phased evolution of 'urbanizing' communities may have taken place over a shorter duration in other regions of south-east Cyprus including Pyla and western Larnaca Bay. A heterarchical origin to changes in settlement at the beginning of the Late Bronze Age would be in keeping with preceding societal structures on Cyprus which had traditionally been egalitarian in tone (Peltenburg 1996, 19). This scenario provides a potential explanation for the otherwise seemingly irrational, or at least conspicuously enthusiastic migration of established inland rural communities to the coast, in response to what would initially have been sporadic trading opportunities with visiting seafaring merchants.

It can be speculated that the first mention of Alašiya in Akkadian texts of the 18th century BC (Knapp 1996, 17-20, 30) broadly correlates with a transition to more hierarchical communities, in which individuals and groups first successfully established intensive exchange relations with visiting Canaanite merchant-explorers.[87] If the present conjecture regarding the association of Alašiya with south-east Cyprus is correct, the textual corpus reflects the archaeological record in suggesting that Alašiya was not a major participant within international networks of exchange before the 14th century BC (Cochavi-Rainey 2003). Establishment of warehouse facilities at multiple locations across this territory, along with a concurrent escalation in industrial bulk commodity transactions, would thus appear to broadly correspond with the rise of Alašiyan political influence. This decentralised basis to economic and political power may well constitute the differentiating factor which resulted in the relative continuity and good fortunes of settlement on the island post 1200 BC, when compared with other regions of the eastern Mediterranean. As discussed in Stein et al (2005), realignment of indigenous power structures has often been associated with asymmetrical colonial encounters.

It is proposed that the merchant firm was the principle social agent responsible for the instigation and maintenance of exchange relations between south-east Cyprus and littoral communities of the wider Levantine region. Although a distinction would undoubtedly have existed between state and private interests, these two modes of transaction would, by practical necessity, have overlapped in execution. At their inception it can be inferred that such contacts were most plausibly conducted through the medium of pre-existing merchant firms (or hubŭr) based in Canaan. The subsequent prevalence of Cypriot goods in wider circulation by the 13th century BC, together with Alašiya's attested role as a major purveyor of copper and forestry products, does however suggest that Cypriot mercantile interests soon came to play a major role within international commerce in their own rite.

For coastal communities in south-east Cyprus, the demographic result of their integration into broader Levantine spheres of interaction was likely a predominantly indigenous population, combined with a smaller number of mainly Canaanite migrants. In advocating for a nascent pan-Levantine (or proto-Phoenician) identity

87. Spigelman (forthcoming 2012) speculates that these initial encounters could be reflected in archaeological evidence for 'cargo-cult' feasting practices at Late Cypriot sites including Maroni.

based upon economic enfranchisement, and measured in terms of differential consumption, it is not intended to suggest that ethnicity was not a factor in determining individual and collective identities in Cyprus during the Late Bronze Age. The investigative approach adopted in the present study merely acknowledges that it is arguably not possible to reliably ascertain such information based upon the archaeological evidence currently available. It may therefore be more profitable to look for degrees of assimilation into macro-regional systems of exchange and governance, rather than a straight forward division between 'locals' and 'colonists'. This complex plurality is potentially reflected in the development of hybrid ceramic forms exemplified by WPWM III from LCIIC onwards. By way of justification, it should also be noted that all coastal urban dwellers would for the most part have shared a common physical and social forum on a daily basis.

The maritime landscape of Pyla, centred upon LCIIC *Kokkinokremos*, can be viewed as a microcosm for socio-economic factors incumbent upon evolving patterns of settlement and exchange in south-east Cyprus during the Late Bronze Age. It is proposed that the sudden abandonment of the plateau settlement c.1200 BC has previously overshadowed other characteristics of the site, which in all remaining respects bears close comparison with neighbouring urban centres. Wider conformity to regional trends in development is clearly apparent at Pyla in the consistent geographical orientation of immediately preceding LCI-II occupation at *Steno* et al, along with an increasing focus upon bulk commodity export. This is reflected in 'orientalizing' patterns of consumption amongst the predominantly indigenous inhabitants of *Kokkinokremos*, who appear to have been every bit as international in role and outlook as their Canaanite contemporaries.

The initial expansion of Levantine influence into south-east Cyprus during the Late Bronze Age appears to have been a decidedly indigenous affair, more accurately viewed as a process of enfranchisement into wider networks of socio-political interaction, rather than a colonisation of the local population. This progressive 'mercantile-ethnogenesis' of the region's maritime communities, in response to changing economic opportunities, displays a formative 'orientalizing' bias towards exchange with Canaan and the Nile Delta. Despite limitations in our understanding of Geometric period settlement and exchange, a dominant trend of continuity in patterns of occupation and consumption would seem to be apparent across the Bronze-to-Iron

Age transition. It is therefore the chief conjecture of this thesis that the origins of Iron Age 'Phoenician' polity at Kition should be sought in south-east Cyprus as well as Tyre, with an emphasis placed upon the primacy of Late Cypriot elements within this evolving dynamic.

5.2 PRIORITIES FOR FUTURE RESEARCH

In considering the limitations of this thesis, numerous fields of enquiry are readily apparent in which additional data, analysis, and interpretation are required. While on the chronological margins of the present study, the most obvious of these is the general scarcity of information pertaining to Geometric period occupation in Cyprus. As discussed above the principal reason for this situation at Kition is urban palimpsest, which has rendered the vast majority of the Early Iron Age city inaccessible beneath modern Larnaca. The principle implication is that our knowledge of off-island exchange, and corresponding political developments, is severely limited during the period directly leading up to the formal consolidation of Tyrian authority in the 8th century BC. A general lack of archaeological investigation, due to continuous and intensive occupation of the Lebanese coastline from antiquity down to the present day, similarly curtails understanding of key Phoenician centres including Tyre during their initial era of westwards expansion.[88]

Proposed amendments to Gjerstad's (1926) ceramic typology for CGII [Type II] by Smith (2009a, 230-233), raise the prospect of removing the chronological disjuncture between Phoenician Kition and its Late Cypriot predecessor. While the implications of this revision can initially be explored through existing site assemblages, full confirmation will require the excavation of additional Geometric period settlement contexts on the island. Late Bronze-to-Early Iron Age material derived

88. The practical impact of urban palimpsest is exemplified by the island site of Tyre, where excavation of pre-Roman settlement deposits is restricted to a single 5x5m sounding (Bikai 1978). While material evidence is accordingly limited, this offers support to literary assertions that Tyre came to occupy a position of economic and military prominence amongst the Phoenician cities of the Levant during the reign of Hiram I [969-936 BC]. Bikai (1992, 132-133) has highlighted the increase in Cypriot imports at Tyre during the 11th century BC as evidence for preceding developments in Geometric period exchange. The prominence of Cypriot items amongst 13th-12th century BC imports in Canaan in general, similarly alludes to the earlier significance and pre-existing dynamic of exchange contacts between this region and Cyprus (Bergoffen 1989). Although the 1998-2007 British Museum excavations at Sidon have not yet been published in detail, preliminary reports indicate that the site is of key evidentiary significance in understanding the development of settlement in the central Levant both prior and subsequent to the Late Bronze Age. For preliminary reports of the British Museum excavations at Sidon see multiple contributions by Doumet-Serhal et al (1998-2009) in *Archaeology and History in Lebanon*. Within the littoral region of Canaan the 'College' site excavations at Sidon are unique in presenting a stratified sequence of settlement deposits beginning in the third millennium through to the 6th century BC. Eight Early Bronze Age occupational levels are followed by a period of hiatus represented by sandy deposits, upon which eight Middle Bronze, two Late Bronze and two Iron Age occupational levels follow in succession. This settlement sequence attests to the presence of monumental architecture at Sidon from the Middle Bronze Age onwards. Early and Middle Bronze Age exchange contacts between Sidon and other regions of the eastern Mediterranean including Cyprus have received preliminary treatment in Doumet-Serhal (2006).

from stratified habitation deposits at Idalion [dir. M. Hadjicosti] may well present important opportunities in this regard.[89] The impact of this revision has also yet to be fully explored for Cypriot exports to the Levant, with excavation of Cypriot manufactured Black-on-Red (or 'Cypro-Phoenician') pottery from settlement contexts in Canaan potentially being of future significance (Schreiber 2003a; 2003b; Iacovou 2004).[90]

Although knowledge of Late Bronze Age settlement in south-east Cyprus is in general much better, evidentiary limitations incumbent upon the present study also highlight the need for more information concerning its initial phases prior to the foundation of planned urban communities. At present knowledge of MCIII-LCI/IIA-B occupation in the vicinity of Ayios Sozomenos, Pyla, and the Larnaca Salt Lakes is largely extrapolated from isolated architectural features and contemporary burial sites. These cannot in themselves provide a truly representative impression of how the built environment was organised, and by extension what societal structures this represents.

In light of the new fieldwork results from *Kokkinokremos* which have empathised the indigenous origins of that community, this limitation is particularly detrimental to achieving a longer term understanding of evolving patterns of maritime settlement and exchange in the Pyla littoral. Of the four known LCI-II settlement sites within this region, only one at *Stavros* remains potentially accessible for archaeological research. While re-excavation of architecture at *Steno* first uncovered by Dikaios in 1956 would be highly desirable for the purposes of independent dating and comprehensive documentation, this remains impractical for the foreseeable future due to its location beneath the main Pyla firing range.

At *Kokkinokremos* itself several previously unknown architectural features were identified during the course of the present study on the western flank of the site, which collectively challenge its prevailing intrusive characterisation as an Aegean redoubt. These observations would be best clarified through exploratory excavations in this area to complement the soundings and survey work already carried out. Such an undertaking would have the potential to explore the nature of architectural remains now known to exist outside the plateau's perimeter walls, an issue which has

89. This material is presently being studied by P. Gaber and S. Janes (pers. comm. 2010).
90. For petrographic evidence in favour of an exclusively Cypriot manufacturing origin for Black-on-Red ware see Brodie and Steel (1996).

important implications for understanding the relationship between the residents of *Kokkinokremos* and their hinterland.

Elsewhere in south-east Cyprus further investigation of MCIII-LCI/II occupation at Ayios Sozomenos is necessary to fully comprehend the diachronic evolution of settlement in this area. In particular it would be desirable to undertake a more intensive investigation in the immediate vicinity of Gjerstad's 1924 excavations, in order to determine whether the building uncovered is an isolated structure, or as suggested by Rowe (1995, 70) one which forms part of a larger complex. This research question could be addressed in part through geophysical survey and accompanying trial soundings. Investigation of warehouse and allied port facilities on the banks of the Gialias-Alykos-Pedieos river system would provide much needed insight into the mechanisms of stable finance, and wider secondary state formation, which accompanied the island's initial integration into 'orientalizing' Levantine networks of bulk commodity exchange.

At the eastern end of this waterway a greater knowledge of the relic delta formed by the confluence of the Gialias and Pedieos Rivers would aid in the reconstruction of Middle-to-Late Cypriot settlement patterns in the vicinity of Kalopsidha-Enkomi. This now entirely silted-in paleoenvironment could theoretically be investigated through remote sensing analysis including radar satellite imagery (e.g. Wilkinson and Hritz 2006; Dore et al 2010).

In more general terms future survey and excavation within south-east Cyprus will increasingly encompass areas at risk of imminent destruction as a result of residential and touristic development. Ongoing construction work in Larnaca city centre presents particular challenges in this regard. Political developments on the island may also dictate that sites around Pyla village, which have hitherto been protected from the full effect of such threats, may also become increasingly vulnerable in the next few years.

As well as a need for more primary data concerning the development of Late Bronze Age settlement patterns in south-east Cyprus, significant analytical barriers remain to understanding contemporary patterns of island-wide and overseas exchange. While important progress has been made in understanding the manufacturing origin of numerous ceramic types, bulk commodity wares remain in general understudied when compared to their fine-ware counterparts. This concern

applies particularly to questions of provenance regarding variability within site assemblages. A more widespread application of archaeometric techniques to these wares, found in both Cypriot and overseas contexts, would allow for micro-regional perspectives on patterns of exchange which are at present lacking. The retrospective identification of Egyptian White Slip storage vessels previously classified as Canaanite jars at *Kokkinokremos* by Eriksson (1995), an observation now corroborated by the results of the 2007 PKAP surface collection, suggests that a more in-depth study of this artefact group in particular is required. A fuller knowledge of clay sources for fine-ware goods, chiefly White Slip II ware bowls in Cyprus and to a lesser extent Canaan, would also aid in the reconstruction of what appear to have been multi-focal modes of production. Pottery provenance studies in Cyprus up until 1993 are listed by Knapp and Cherry (1994, 13-14). For subsequent studies prior to 2007 see Renson et al (2007, 55).

Several issues associated with the proposed identification of Alašiya in south-east Cyprus also remain to be clarified. Chief amongst these is the need to account for the strong independent identity of Kition within the regional epigraphic corpus during subsequent periods, which would at first glance seem at odds with its proposed preceding role as a major urban constituent of Alašiya. Plurality of language traditions held by various population elements at different times could potentially help to clarify the diverse nomenclature associated with ancient Larnaca, including 'Itakaioi with its pre-colonial inhabitants, Kartihadast in the 7th century BC list of Esarhadon, and the distinct independent identity of Kittim within biblical sources. Use of all these various monikers would also likely have varied depending on their intended audience (Gjerstad 1979, 233-234; 238; Yon 2004, 19-22).

Incorporation of settlement at the eastern end of the Gialias River within the remit of a hypothetical Alašiyan polity in south-east Cyprus, also requires further clarification with regard to the potential inclusion of Enkomi, due to the staunchly occidental outlook of its Iron Age successor at Salamis located c.2 miles away. This apparently contradictory state of affairs has previously been highlighted from a different perspective by Iacovou (2008b, 635-636);

> "*The reasons that prompted the transfer of harbour facilities from Enkomi to Salamis are clear, but the abandonment of an urban metropolis are not … Decisive episodes of political conflict that ended with the successful claim of Salaminian*

authority by a Greek dynasty known as the Teukridai remain concealed in the final strata of Enkomi and the foundation of Salamis".

While the possibility that a minority of Aegean immigrants and their descendents at Enkomi are to be implicated in a political coup d'état should not be ruled out, it is far from certain that the Teukridai dynasty were as (proto-) Hellenic in affiliation at their inception as they later claim to be in Archaic texts. These sources would have stressed this distinction as a means of legitimation, at time of conflict between occidental Greece and oriental Persia (Yon and Sznycer 1992; Chavane and Yon 1978). It is also pertinent to recall that regardless of whether mid 13th-to-12th century BC settlers arriving from the Aegean were directly responsible for the subsequent emergence of a staunchly Hellenic identity at Salamis or not, they would certainly have been unaware of this at the time. Endowing such groups and individuals with a manifest destiny inevitably distorts our perception of the role that they would have played in wider Late Cypriot society (Sherratt 1994, 62; 1992).[91]

91 . For the coastal site of Al Mina in northern Syria, scholarship regarding the interpretation of Proto-Geometric imports dating to the 9th century BC has in many ways paralleled that concerning the earlier presence of Myc.IIIC:1b/WPWM III wares in Late Bronze Age Cyprus and the Levant. During the 1930s Sir Leonard Woolley explored the Orontes valley with the intention to elucidate, "*connexions, if such existed between the early civilizations of the Aegean, in particular that of Minoan Crete, and the more ancient cultural centres of hither Asia*" (Woolley 1938, 1). At Al Mina he viewed the presence of Greek Geometric pottery as evidence for the existence of a Greek trading colony. More recent scholarship has generally favoured Phoenician agency in the acquisition of imports from the west through trade (e.g. Luke 2003; Coldstream and Bikai 1988). The circular nature of debate regarding the origins of Al Mina's Greek-pottery-using inhabitants has been explicitly acknowledged by both Waldbaum (1997) and Neimeyer (2004). A potential resolution to this interpretative quandary has been succinctly expressed by Boardman (1990, 176) who notes, "*the culture and even 'nationality' of the native inhabitants of Al Mina in the eighth century are of less importance than the nature of the goods which, through its geographical position, it attracted and which it transmitted to the west*".

5.3 PHOENICIAN CYPRUS

Imposition of Tyrian sovereignty over Kition backed by the Assyrians in 707 BC marks a shift in the underlying dynamic of relations with mainland Phoenicia, which henceforth took on a more overtly political dimension. This event was commemorated by the erection of a life-sized stele in the vicinity of *Bamboula* depicting Sargon II (Radner 2010; Yon 1995b; Malbran-Labat 1995) (fig. 5.1). Perhaps the most significant aspect of this change was the stimulus that the harsh realities of Assyrian tribute would have played in motivating the Tyrian authorities to expand into overseas markets. In addition to a potential escalation in direct contacts with south-east Cyprus, this also appears to have taken the form of a renewed interest in trade west of the Levantine corridor. With reference to their underlying financial imperative, these voyages have been characterised by Frankenstein (1979) as a function of Neo-Assyrian imperialism.

5.1 Victory stele depicting Sargon II erected in 707 BC at Kition-*Bamboula* (Photograph Vorderasiatisches Museum Berlin) [height 2.09m].

The specific involvement of mercantile groups and individuals from Cyprus in these long distance ventures is suggested by the apparent directional relationship between Early Iron Age routes of 'Phoenician' commerce and Late Bronze Age networks of 'Cypriot' exchange. This correlation appears to be most pronounced with regard to contacts between Cyprus and the islands of the central Mediterranean. Much

of the evidence for 13th-to-12th century BC exchange comes in the form of White Shaved and White Slip ware imports, in addition to locally manufactured imitations of Base-ring juglets and bowls (fig. 5.2). These artefacts have been recovered from the south and east coasts of Sicily at Thapsos, Sytacuse and Cannatello (Alberti 2005), and correspond geographically to the later 9th-to-7th BC century zone of intensive Phoenician colonial activity centred upon Motya. By way of contrast, evidence found west of Cyprus for pre-colonial era relations with Canaan is extremely limited (e.g. Whittaker 1992; Tusa 1973).

A direct parallel between the coastal site of Thapsos on Sicily and Pyla-*Kokkinokremos* has been suggested by Karageorghis (1995b, 96), based upon similarities in topography and architectural format, together with the presence of Mycenaean pottery alongside Cypriot imports and derived forms. In more general terms Holloway (1981, 87) suggests that the arrival of merchant-settlers from Cyprus to Thapsos was the catalyst required to, "*transform a Sicilian village into an emporium with some urban configuration*".

5.2 Local 13th century BC imitation of a White Slip II bowl from Thapsos (Karageorghis 1995b, 94) [scale 1:2].

The circulation of metals in the central Mediterranean also provides a convincing Late Bronze Age precursor for subsequent Phoenician trading activities which can be directly associated with Cypriot agency. Complete examples or fragments of copper oxhide ingots have been found at 26 sites in Sardinia, the latest examples of which have been dated on contextual grounds to the 11th century BC

(Lo Schiavo 1998, 110).[92] Lead isotope analysis suggests that these all derive from the northern Troodos Apliki/Skouriotissa/Mavrovouni ore region of Cyprus (Kassianidou 2001; Gale and Stos-Gale 1999, 271-275; Kling and Muhly 2007; du Plat Taylor 1952). A Cypriot manufacturing origin is further supported for at least two of the Sardinian ingots by incised symbols which match characters of the Cypro-Minoan script (Vagnetti and Lo Schiavo 1989, 224). While the seemingly illogical export of copper to Sardinia, which has abundant natural resources of its own, could reflect Cypriot expertise in refinement, the possibility that imported copper ingots held a value-added social prestige for Nurghic communities beyond their pure recyclable worth cannot be discounted.[93] The social value of 'orientalizing' goods is discussed by Knapp (2006, 57-59) with reference to Late Bronze Age Canaanite and Egypt imports in Cyprus. Continuing trade between Cyprus and Sardinia in finished bronze goods between the 11th-to-9th centuries BC is indicated by local imitations of Cypriot 'Lotus' bowls (Matthäus 2001, 163-164).

In addition to imports and derivative forms, an eight line Semitic inscription from Sardinia known as the 'Nora stone' allows us to infer a transitory Levantine presence in this region during the 9th century BC (Albright 1941). This artefact, found during the 19th century AD and without secure context, has been dated using similarities with Cypro-Phoenician characters to between c.830-730 BC. A specifically Cypriot involvement in this early foray to the west is further suggested by the naming of the god Pumay in the text, a deity normally associated with Cyprus and in particular Kition (Delcor 1968, 350). If dated correctly, this inscription provides apparent corroboration to classical accounts [Diodorus 5:35, 5; Thucyd 6:2, 6], which place the initial arrival of Phoenicians into the central Mediterranean during the 8th century BC (Aubet 2001, 202).[94]

In the far west of the Mediterranean, where Iron Age Phoenician trading routes extended beyond the limits of Late Cypriot maritime exchange, seasonal

92. The implied continuity in production of domestically redundant copper ingot forms beyond the 12th century BC for export may suggest an earlier date for their initial transaction.

93 . A potential ethnographic parallel can be found in the 18th-to-19th century AD use of 'coppers' in the Pacific Northwest (esp. amongst the Kwakwaka'wakw), which formed an essential component of the indigenous potlatch economy. In addition to their raw exchange value, these beaten sheets of copper were regarded as important symbols of wealth with their own social identities, which in turn reflected upon the relative status and power of their owners (Jopling 1989).

94. Another partial and un-deciphered Semitic inscription from Sardinia known as the 'Nora fragment' has been dated on the basis of paleographic criteria to the 11th century BC (Cross 1987). For critique of this interpretation and general discussion see Negbi (1992, 610).

'factory' facilities such as the 6th century BC island site of Mogador off the Atlantic coast of North Africa exhibit strong conceptual similarities with earlier way-stations of the eastern Mediterranean (Jodin 1966; López Pardo 1992).[95] At the 14th-to-13th century BC island settlement of Marsa Matruh in Libya (White 2002; Bates 1927), which is generally considered to be the archetype for such sites (e.g. Manning and Hulin 2005, 273, 278), ceramics manufactured on Cyprus account for c.80% of the total assemblage, leading the chief excavator to posit a close association with Cypriot mercantile agency (White 1986, 83).[96] Based upon this relationship, it is tentatively proposed that later Phoenician facilities for trade constitute an extension of pre-existing infrastructure networks, first established by mariners sailing from Cyprus during the Late Bronze Age.

Civic as opposed to ethnic allegiance appears to have been the main criteria of identity for urban populations in the Levantine region throughout the period under review. Based upon the prominent role of Cypriot protagonists in the tale of Elissa's flight to Carthage, however, it can be speculated that this story reflects a real underlying partnership, in which migrants from south-east Cyprus were united with their Canaanite contemporaries in Phoenician colonial endeavour (Kourou 2002; Boardman 2006, 198-199). The sizable Cypriot contingent purportedly gathered along the way, including the highest religious officiary of Kition, potentially reflects the island's importance in the westward expansion of 'Phoenician' influence from its

95. The possibility of Cypriot contacts with the far west of the Mediterranean during the Late Bronze Age has been explored by Almagro-Gorbea and Fontes (1997). The onus for postulating a precursor to later 8th-7th century BC Phoenician presence in Iberia comes in part through attempts to seek archaeological corroboration for the classical foundation date of Cadiz [1103 BC]. Material evidence for pre-colonial contact between the eastern Mediterranean and this region in the form of imports recovered from secure stratigraphical contexts is extremely limited, consisting of a handful of Mycenaean-type sherds. While the presence of this material in Iberia could in theory be indicative of Cypriot agency, through the role of the island's merchants in the distribution of WPWM III wares, such isolated finds are perhaps more plausibly explained as a result of indirect exchange within a broader redistributive network, which extended in terms of direct contacts with Cyprus during the Late Bronze Age only as far as the central Mediterranean.

96. More limited quantities of Aegean and Levantine wares, alongside locally sourced Libyan goods, suggest that Marsha Matruh could also have served a more general function as a re-supply station for overseas merchants. This would have involved visiting crews exchanging imported objects for essential supplies and exotic trinkets including ostrich eggs for onward sale (Conwell 1987). On Cyprus itself the LCIIC-LCIIIA settlement at Maa-*Paleokastro* may, in terms of function if not scale, have served a comparable function to Marsha Matruh. Both sites are located well away from obvious settlement clusters and are situated in naturally isolated locations. The possibility of a journey from Marsa Matruh to the west coast of Cyprus is regarded as feasible by Wachsmann (1998, 299; see also Murray 1995). In addition to providing supplies for visiting merchants, the existence of such a facility at Maa-*Paleokastro* would have provided the local authorities with a degree of control over vessels arriving and departing the south-west coast of the island. For the possibility of Alašiyan agency behind the construction and operation of Maa-*Paleokastro* see Chapter 2.4, fn.34.

outset. The on occasions fractious nature of the relationship between south-east Cyprus and Canaan is by way of contrast alluded to by accounts of periodic rebellions during the late 8th-to-early 7th centuries BC, which resulted in Kition temporarily regaining her independence following victory over King Luli of the Sidonians [a.k.a. Tyrian *Elulaios*] (Yon 1997, 12; Nicolaou 1976, 314).

On Cyprus itself the clearest archaeological evidence outside of Larnaca Bay for Phoenician settlement during the Iron Age comes from Idalion (Hadjicosti 1997, 57-59). Both prior and subsequent to its annexation by Kition during the late 4th-to-early 5th centuries BC, this community functioned as a major hub for metallurgical and woodland industry (Koucky and Steinberg 1989, 275). Although archaeological evidence is at present limited to ceramic deposits independent of contextualising architecture, these findings present in favour of continuity in settlement and societal lineage at Idalion from LCIIC onwards (Hadjicosti 1999, 36). While the mode of Kition's encroachment into the formally independent city-kingdom of Idalion's territory is unclear, it would seem reasonable to conclude that this was undertaken with the acquisition of specific resources in mind (Sznycer 2005). Within the interpretative framework of the present thesis, this act can be viewed as an extension of a longer term process of socio-economic rationalization, first visible in south-east Cyprus through the synoecism of regional settlement from the 13th century BC onwards.

Elsewhere on the island archaeological evidence supporting the identification of Early Iron Age Phoenician settlement is slight, and likely reflects areas of more peripheral engagement. Generally isolated examples of Levantine imports and derived features have been noted at numerous Geometric sites including Palaepaphos-*Skales* (Bikai 1983; 1987) and Amathus (Gjerstad 1948, 239; 1979, 232). Written sources also attest to Kition's role as a mediator between the Assyrians, Tyre, and other city-kingdoms on the island, which would have given the city's institutions a pivotal if albeit indirect role within this sphere of political interaction (Smith 2008).

The hybrid adoption of 'orientalizing' traits, alongside indigenous traditions of consumption, continued to be a defining feature of individual and collective social identity amongst maritime populations in south-east Cyprus on into the Iron Age. The predominantly indigenous origins of both occidental and oriental populations are reflected in the apparently indistinguishable nature of their material culture

assemblages, with the common retention of many established aesthetic preferences and manufacturing traditions (Yon 1999a, 21). This plurality of material expression, and by extension social identity, is aptly demonstrated by a Geometric period fragment of White Painted II ware bowl found at Salamis, bearing the earliest known Phoenician language inscription on the island – or put more succinctly a 'Cypriot' ware, with a 'Phoenician' ethnic marker, deposited at a 'Hellenic' site (Sznycer 1980).

Alongside Greek and local traditions of interment and iconography, the Cypro-Archaic II-to-Hellenistic period necropolis at Kition-*Ayios Georghis* incorporates numerous examples of Phoenician derived mortuary traits (Hadjisavvas 1986). This diversity of expression, which is often present within family groups, reflects the staunchly cosmopolitan persona of the city during this period. Multilingualism is also known to have been common in later first millennium BC Cyprus, when it was not unusual for Phoenician persons of rank to assume a Greek name when living in a Greek milieu (Gjerstad 1946, 23). The amalgam character of Archaic period religious beliefs has been explored by Counts (2008), and is aptly demonstrated by the example of a 7th century BC statue of Bes-Reshef from Pyla (fig. 5.3).[97] The varied make-up of the island's population in the 6th century BC was noted by Herodotus [VII:90] who recounts, "*the Cypriotes consisted of Greeks (from Salamis, Athens, Arcadia and Kythnos), Phoenicians and Ethiopians ... so the Cypriots themselves say*".[98] Ethnic identities and their reflection in the archaeological record of Archaic Cyprus are discussed by Iacovou (2006) and Reyes (1994, 11-21).

The Cypro-Phoenician dynasty finally came to an end in 312 BC with the death of King Pumiathon at the hands of Ptolemy I. Iron Age historical accounts

97. While no archaeological evidence has been found to support a patron deity 'copper-cult' in Cyprus beyond the Early Iron Age, later written accounts suggest a possible continuation of this practice on into the Hellenistic period. Dio Chrys/Favorinus, most probably by way of the Greek historian Philostephanus, describes a large scale statue of the goddess Demonassa standing on an ingot, prominently displayed in an unknown Cypriot city. Similarities between this account, and others detailing aspects of the Astarte cult, make Kition a prime candidate for the location of this public sculpture (Robertson 1978). Shrines dedicated to the worship of Hylates [Apollo], a deity associated with the woodland environment, similarly attest to the continuing socio-economic and cultural importance of the forest during the Roman period (Raptou 1996, 254).

98. For commentary see Gjerstad (1979, 245). Ethiopians may have been present on Cyprus in a military and/or administrative capacity during the 6th century BC, concurrent with the Egyptian occupation of the island under Amasis II (Åström and Åström 1972, 467). This link with sub-Saharan North Africa forms part of a longer, albeit enigmatic, tradition of contact dating back to the Late Bronze Age, exemplified by the bronze-weight head of an African male [K-AD 454] from LCIIC Kalavassos-*Ayios Dhimitrios* (South 1989, 26). For a possible link between Late Bronze Age Cyprus and the Egyptian territories of North Africa, evident through the influence of Sabean script upon the repertoire of Cypriot potmark signs, see Chapter 4.4, fn.83.

prior to this juncture known from the extensive corpus of inscriptions pertaining to Kition have received comprehensive treatment by Yon (2004; see also Iacovou 2002). Viewing all these developments as part of a continuum, beginning with the inception of industrial bulk commodity exchange during MCIII/LCI-II, serves to acknowledge the formative role of indigenous maritime communities in south-east Cyprus within the evolving dynamic of pan-Levantine relations. It is proposed that this approach constitutes *a* pre-colonial narrative for Phoenician Cyprus, and represents a specifically Cypriot contribution to a wider Levantine sphere of interaction in socio-economic, demographic and cultural terms.

In seeking the formative origins of Phoenician identity on Cyprus outside of the Levant, this study questions the prevailing paradigm that this is primarily the result of Tyrian expansionism, and the ensuing subjugation of an indigenous population. From this post-colonial perspective the formal imposition of Phoenician authority at Kition represents only one latter element within a longue durée process of acculturation which went both ways. In conclusion, it is proposed that it is not sufficient to ask when and why the 'Phoenicians' first arrived in south-east Cyprus, since they were at least in part already there.

5.3 "*A sculptor with a Phoenician name has carved a votive pillar from Cypriote limestone, on which he invokes a Canaanite deity [Reshef] with the image of an Egyptian god [Bes]*" (Counts 2008, 5; Photograph Musée de Louvre) [height 68cm].

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Key to Map

All features recorded during present survey unless otherwise credited

Excavation and sounding areas
AREA I (Dikaios 1952)
AREA II (Dikaios 1952 / Karageorghis & Demas 1981-2)
TRIAL A (Karageorghis & Demas 1981-2)
EU3-4-7-10-11

Perimeter walls
dashes indicate those areas planned

In-situ features
1: rock-cut (Late Roman?) mortuary feature
2: extramural wall
3: rock-cut pit
4: in situ pithos
5: Pyla-Steno settlement architecture excavated 1956 (Dikaios) and no longer visible
6-8: sections of perimeter wall recorded 1976 (Fortin) and no longer visible

Geophysical transects
all resistivity results displayed as linear greyscale plot of despiked data at 1m probe spacing

HIGH / LOW

GT1	56.80	85.80 ohms
GT2	52.50	122.90 ohms
GT3	23.00	113.20 ohms
GT4	93.10	166.00 ohms
GT5	32.20	101.60 ohms
GT6	29.30	139.70 ohms

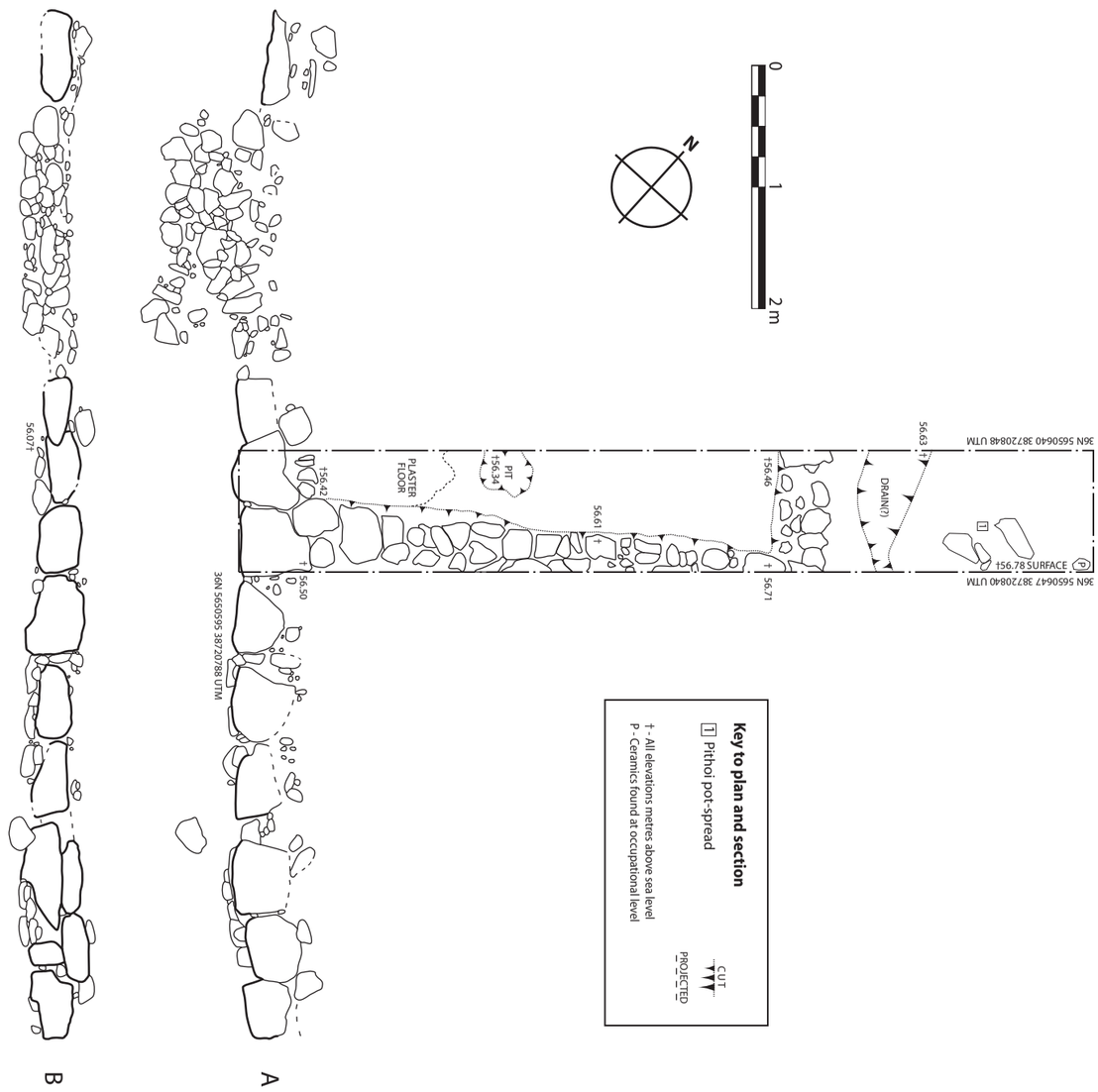
Tomographic section
Bedrock terrace
Geological section
Maximum potential shoreline of LC harbour
based upon boundary of marine silt deposits (Noller & Zomeni 2004-6)

0 100 200 m

N

PLAN I. PYLA-*KOKKINOKREMOS* ARCHAEOLOGICAL FEATURES

Scale 1:3000



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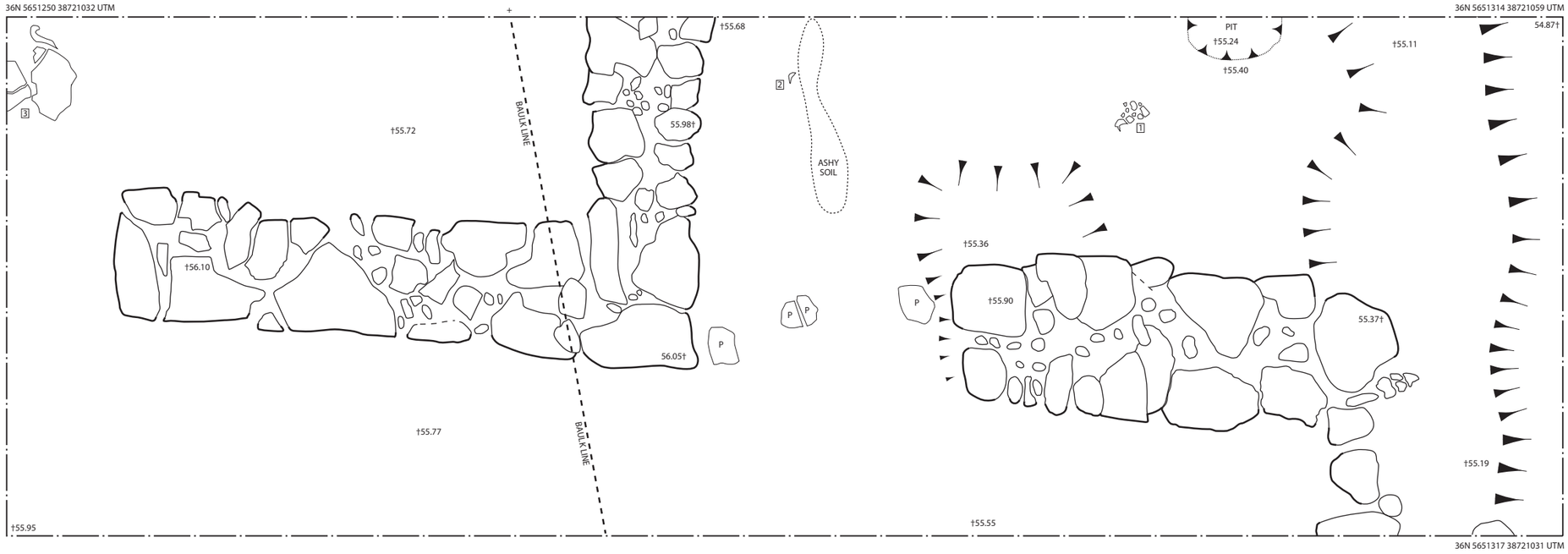
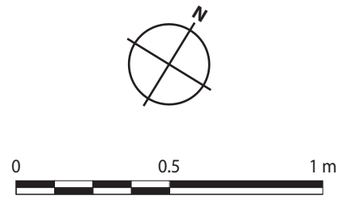
A: Top plan with adjoining settlement boundary wall
B: Exterior profile of settlement boundary wall

PLAN II. PYLA-*KOKKINOKREMOS* SOUNDING EU10
Scale 1:50

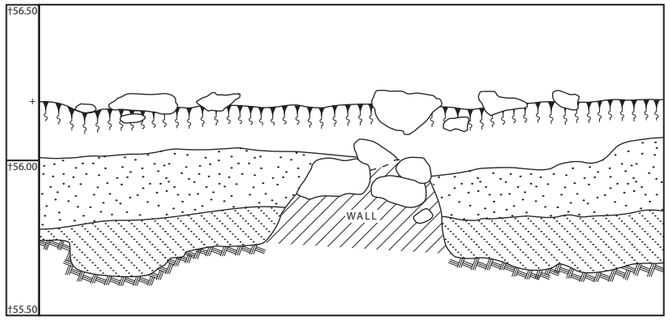
A



A: Top plan
B: N-S baulk facing north-east
C: North section



B



Key to plan and sections

1 Juglet with handle [no. 6403-1001.1]*

2 Copper fragment [no. 6405-1001.1]*

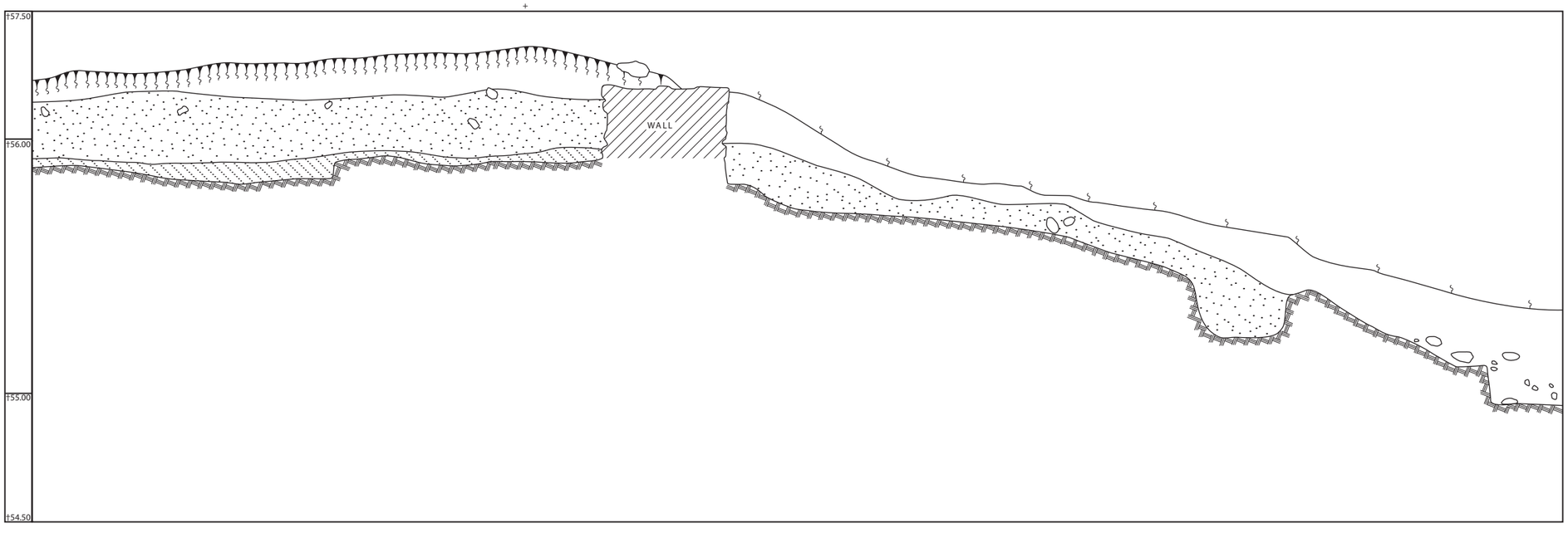
3 Pithos fragments protruding from western section*

† - All elevations metres above sea level
P - Ceramics at occupational level
* - Numbered artefacts found at occupational level

SLOPE
CULTIVATED SOIL
BEDROCK
UNCULTIVATED SOIL
PROJECTED
BROWN SOIL
BROWNISH YELLOW SOIL WITH MUDBRICK INCLUSIONS

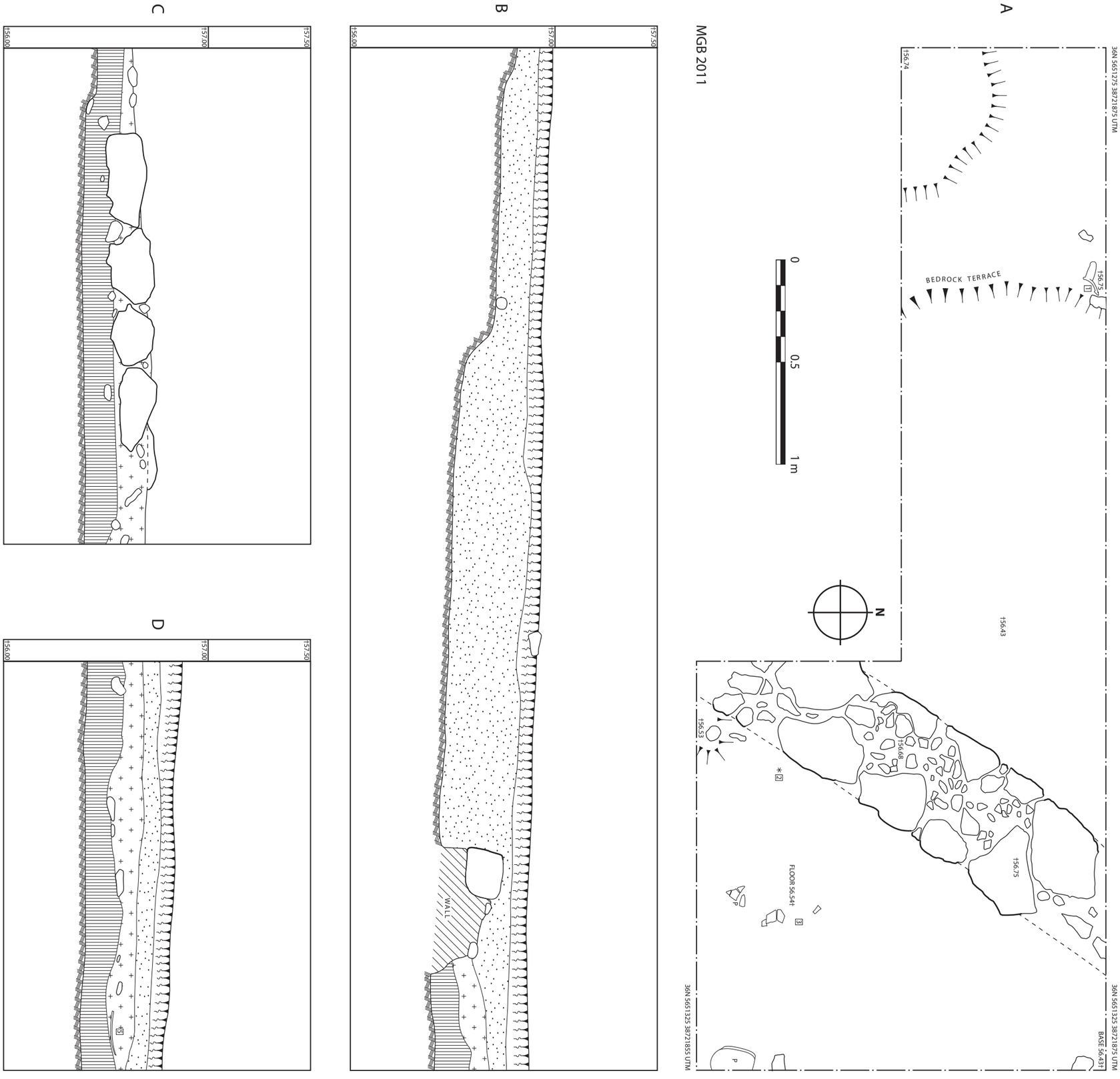
MGB 2011

C



PLAN III. PYLA-*KOKKINOKREMOS* SOUNDING EU11

Scale 1:20



Key to plan and sections

1 Jug handle with rim

2 Lead bead [no. 6011.12]*

3 Alabaster vase fragments [no. 6011-1001.1]*

† - All elevations metres above sea level
P - Ceramics at occupational level
* - Numbered artefacts found at occupational level

SLOPE

PROJECTED

CULTIVATED SOIL

BROWN SOIL

BEDROCK

BROWNISH YELLOW SOIL

STRONG BROWN SOIL WITH ADMIXTURE OF FRAGMENTARY LIMESTONE

PLAN IV. PYLA-*KOKKINOKREMOS* SOUNDING EU3

Scale 1:20

A: Top plan
B: North section
C: Eastern face of NE-SE wall
D: East section