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The First “Minoans” of Kythera Revisited: Technology, Demography, and Landscape in the Prepalatial Aegean

CYPRIAN BROODBANK AND EVANGELIA KIRIATZI

Abstract

This article explores human mobility and cultural transmission among small-scale societies in prehistory through the analysis of technological, demographic, and landscape data from the Aegean island of Kythera during the Prepalatial period (mainly the Early Bronze Age of the third millennium B.C.E.). Since excavations at the coastal site of Kastri on Kythera were conducted in the 1960s, the island has played a major role in interpretations of Minoanization in the Aegean due to the intensity of Cretan influence on local culture and the precocious date at which this begins. These factors have prompted Kastri's identification as a Cretan colony. This paper reexamines the dynamics of early Kythera, drawing on a reanalysis of material from Kastri (with a focus on potting traditions) coupled with new evidence from an intensive surface survey. The results uphold the case for population movement from Crete but embed this within a longer history of regional interaction. Equally, however, they demonstrate the substantial nature of preexisting communities, some of which probably continued alongside Cretan elements until the threshold of the second millennium B.C.E. Only at the start of the Palatial age in the Aegean did the former tradition vanish and Kythera become, in essence,

a part of Crete. Explanations for early Cretan interest in Kythera should avoid the anachronism of applying Palatial-period models to the smaller-scale societies and distinct interaction networks of the Prepalatial Aegean. More generally, this article advocates the potential for archaeological investigation of migrational processes in and beyond the Aegean.

INTRODUCTION

The impact of Crete on southern Aegean communities during the age of the Minoan palace-states has long been acknowledged, even if the meanings of “Minoanization” continue to be controversial.¹ In one, so far unique, case, however, the first manifestation of such a phenomenon dates significantly earlier, to the mid third millennium B.C.E., the Prepalatial Early Bronze (EB) II period. This case is the island of Kythera, as attested since the early 1960s by Coldstream and Huxley's excavations at the coastal settlement of Kastri (fig. 1).² Here, the impact of Cretan ways of doing things on material culture and practices is striking

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tized archive of the 1960s Kastri excavations. Earlier versions of this paper have benefited from comments by audiences at the Institute of Archaeology (University College London), the British School at Athens, the universities of Oxford and Southampton, the Athens Hellenic Society for Archaeometry, the New York Aegean Seminar, and the 2005 U.K. Archaeological Science conference in Bradford. The final version has been improved by comments and criticisms from Andrew Bevan, Nicolas Coldstream, Jack Davis, Peter Day, James Conolly, George Huxley, Nicoletta Momigliano, Jeremy Rutter, Lindsay Spencer, Todd Whitelaw, David Wilson, three anonymous referees, and the Editor-in-Chief of the *AJA*. Many thanks to Andrew Bevan, James Conolly, Varina Delrieu, and Rania Exarhou for the illustrations, and Areti Pentedeka for microscope photography.

¹For recent discussion of the meanings of and approaches to Minoanization, see Broodbank 2004; Knappett and Nikolakopoulou 2005; Davis and Groggianni (forthcoming); Kiriati (forthcoming [a]). For some of the classic debates, see Schofield 1983; Hägg and Marinatos 1984; Wiener 1990. On the problematic term “Minoan,” see Hamilakis 2002; Karadimas and Momigliano 2004; Hamilakis and Momigliano 2006.

²Coldstream and Huxley 1972a. Melas (1985, 172–74) suggests that a similarly early date might in future be revealed on Karpachos, an island whose configuration and location relative to Crete is analogous to that of Kythera.



Fig. 1. Kythera and the southern Aegean, showing the principal places noted in the text (except for the Kythera Island Project [KIP] survey sites). The borders of KIP's intensive field survey are indicated by a solid black line (drawing by V. Delrieu).

for its early date and because it was unusually intense and enduring, from the first Early Minoan (EM) II type pottery in the peninsular Akroterion area (fig. 2 shows the topography of Kastri and the local toponyms used to designate specific areas within and surrounding it) through to the end of the Second Palace (i.e., Neopalatial) period.³ These two factors led the excavators to identify the Akroterion as the earliest instance of a "Minoan colony." The additional discovery on the Kastraki ridge (ca. 180 m inland from the Akroterion) of what was identified as antecedent Early Helladic (EH) pottery suggested that the Cretans had displaced a local group. The likelihood of temporal overlap between the two bodies of material and their users was fairly firmly rejected.⁴

It is worth rehearsing in brief the evidence on which Coldstream and Huxley's interpretation of the change from EH to EM culture was grounded in order to clarify the limits of legitimate inference from the data then available. The earliest pottery was found in the fill of a pit cut into Kastraki (termed deposit α), although they published sporadic sherds of possibly the same date from the Akroterion.⁵ The pit was reported to be internally unstratified but with contamination in its upper levels, and its construction date could not be determined, save that it was cut by a Late Roman building. Its pottery was dated typologically by parallels with Greek mainland material and assigned to EH I and EH II with possible Neolithic elements.⁶ In contrast, the earliest concentrations of Minoanizing

³ In this article, a generic Early/Middle Bronze Age sequence is adopted for basic chronological divisions, with Early/Middle Minoan or Helladic used only if a specifically Cretan or mainland provenance or association is intended.

⁴ Coldstream 1972b, 272–77; Coldstream and Huxley 1984, 107. Coldstream (1973) provides a more in-depth consider-

ation of the processes deemed to have been at work.

⁵ Two from the Akroterion area and one from Tomb J (ω 1–3) (Coldstream 1972a, 177; 1972b, 272).

⁶ Coldstream 1972a, 77–83, 177; 1972b, 272–74; Huxley and Coldstream 1972, 68–9.

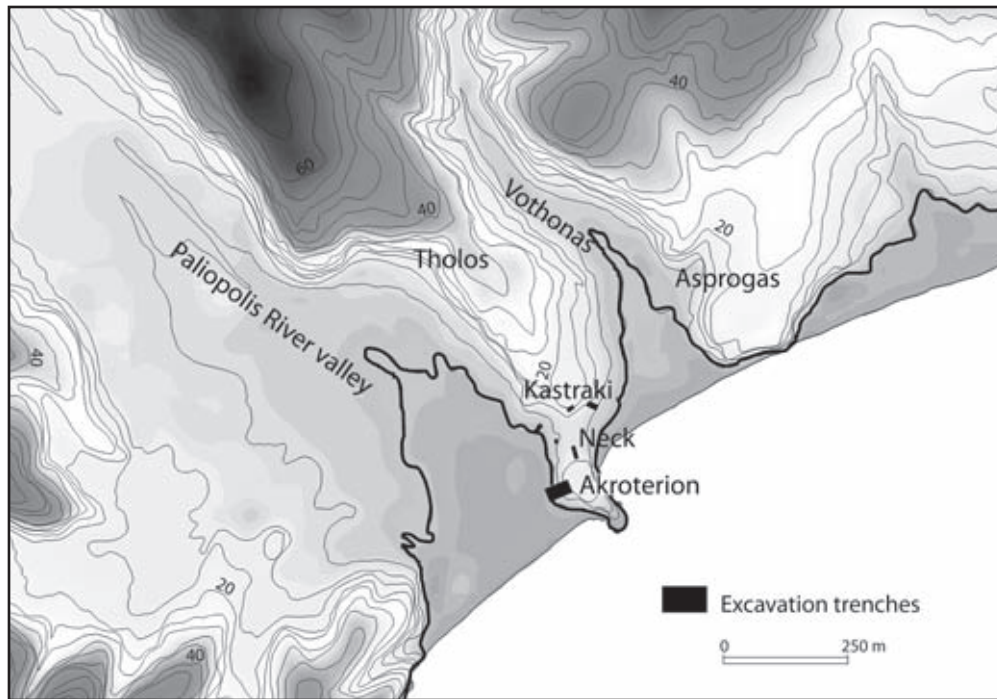


Fig. 2. The topography of Katri and its environs, showing the local names for distinct parts of the site. The 4 m contour (thick, black line) can be used to provide one approximate, and probably minimal, estimate of the intrusion of the coastline in antiquity (drawing by J. Conolly and E. Kiriati).

material (deposits β and γ) on the Akroterion came from small exposures in trenches that reached bed-rock. These were dated by reference to the Prepalatial Cretan sequence as this was then known.⁷ Thus, deposit β was dated to EM II, EM III, and Middle Minoan (MM) IA, and the great majority of deposit γ more narrowly to MM IA. The critical point to note is that although the pottery of deposit α and that of deposits β and γ exhibit different cultural affiliations, they have no stratigraphic relationship to one another and are separated by the lower-lying Neck area (see fig. 2), where the trial trenches revealed no trace of material before the Second Palace period. In light of these observations, it is important to distinguish between the excavators' explanation for the marked differences in the pottery of these early deposits (which the analysis presented herein will sustain and amplify) and their reconstruction of a narrative that envisaged the ousting of one group by the other in EB II, effectively without overlap (which will be challenged). In

the absence of a stratigraphic relationship, and given that neither the latest EH nor the earliest EM material could be securely dated more finely than to an indeterminate point within EB II, the excavators' case for rapid population displacement rested solely upon the apparent lack of interchange of pottery types between deposits α and β .

In effect, the case has rested there, with the excavators' conclusions embedded fairly uncritically in subsequent work, though the prevalence of Cretan practices on Kythera during the Palatial period has been further underscored by the recent discovery at Agios Georgios of a peak sanctuary overlooking Katri.⁸ Branigan's identification of Katri as a potential Cretan "settlement colony" reflects an assessment that has become standard in the literature, and one that shows little awareness of the long time span involved and the need to interrogate each subphase within this.⁹ Equally, too little attention has been given to the proof (clearly reported by the excavators) that "indig-

⁷ Coldstream 1972a, 83–94, 178–79; 1972b, 275–78; Hope Simpson and Lazenby 1972, 55–6.

⁸ Sakellarakis 1996; Banou 2000, 2003; Tournavitu 2000

(for specialist studies).

⁹ Branigan 1981, 32.

enous"¹⁰ people already inhabited the area of Kastri during the Early Bronze Age and possibly somewhat earlier,¹¹ thereby falling into a common trope of colonial discourse by which the preexisting inhabitants are assumed to have vanished into the night of history when faced with newcomers, especially those such as "Minoans" or later Greeks, considered to be bearers of a civilizing process. Rutter and Zerner alone have noted that, in terms of ancient motivation, certain problems attend the hypothesis of a Prepalatial movement of Cretan people to Kythera.¹² As will be argued, their suggestion that the first Cretan-type material is a residue of seasonal fishing expeditions is unlikely, but their argument possesses the cardinal virtue of stressing the need to address these problems explicitly if a migrational explanation is to be sustained in a Prepalatial context.

The aim of this article is to reexamine developments on Kythera up to the start of the second millennium B.C.E., with specific regard to the evidence for cultural and population change. While in certain respects upholding the excavators' conclusions, it reconfigures these in crucial areas and presents new data that transform the context within which this early instance of Minoanization needs to be understood. More specifically, it draws upon (1) recent theoretical perspectives on migration and material culture transmission that are relevant to Prepalatial Aegean societies, (2) newly available comparanda from beyond the island, (3) petrological and technological analysis of the early Kastri pottery combined with investigation of pottery resources on the island and experimental fabric replication, and (4) the results of an intensive surface survey of central-eastern Kythera, including Kastri itself. The third and fourth elements constitute part of the research of the Kythera Island Project (KIP), an interdisciplinary program whose aim is to investigate

long-term insular dynamics on Kythera,¹³ and in the context of which the patterns discussed here will be set in a longer timescale and comparative perspective. By combining approaches that operate at a range of scales—in spatial terms from intrasite to regional levels, and in analytical terms from microscopic details to landscape patterning—this article also advocates a holistic approach to Minoanization. Although it must be stressed that Prepalatial Kythera cannot be taken as a typical theater for the exploration of Minoanizing phenomena, similar investigative strategies could be applied with good effect to the abundant later data sets available elsewhere in the Aegean.

MOBILITY AND MATERIAL CULTURE: SOME PERSPECTIVES FOR THE PREPALATIAL AEGEAN

Interpretations of the second-millennium B.C.E. data relating to Minoanization have been fraught with uncertainty since the 1980s, when archaeologists started to acknowledge the extent of the emulative strategies practiced among southern Aegean communities and the consequent difficulty in differentiating between Cretan colonists and local consumers who "became Minoan" in aspects of their lifestyle. These issues have tended to become inextricably tangled with suppositions about the nature of power on Palatial Crete and its off-island projection (the "Minoan thalassocracy" debate).¹⁴ Further uncertainty has been introduced by a realization that the recognition of ethnic groups in prehistory is a difficult task.¹⁵ These and other impediments diminish, however, when we move back into the third millennium B.C.E., to a smaller-scale world that was profoundly different from the later one of palace-centered states and peripheral communities, and one in which ethnicity (as opposed to other forms of identity) may not have been a prominent issue.¹⁶ In these circumstances, a degree of deci-

¹⁰The term "indigenous" is used henceforth to refer to the inhabitants of Kythera and their material culture before the appearance of the first Minoanizing pottery, as well as those who, after its appearance, continued to maintain antecedent traditions in pottery use and settlement. This has the virtue of avoiding the term "Early Helladic," which, as we shall see, is unhelpful both as a description of the first island populations and as an overall label for their pottery and its affiliations. Like all such short-hands, this term has its own problems in the sense that all islanders originally hailed from elsewhere (indeed there was surely a flux of people coming and going from earliest settlement onward) and insofar as the makers and users of Minoanizing pottery became equally local to Kythera in the course of time (as we shall argue).

¹¹Branigan (1981, 32) and Schofield (1983, 296) state that the Cretan settlement was founded on "virgin soil."

¹²Rutter and Zerner 1984. Note that the idea that fishing expeditions might have been a prelude to island colonization

was prevalent at this time (e.g., Bintliff 1977, 117–22).

¹³For an overview of KIP and list of publications, consult the project Web site at <http://www.ucl.ac.uk/kip>. See also Broodbank (1999a) for a preliminary report on the first (1998) season. For short annual summaries, see Blackman 1999, 20–1; 2000, 22–4; 2001, 20–1; 2002, 16–17; Whitley 2003, 16; 2004, 14–15; 2005, 14. See Broodbank (2004, 73–81) for an overview of the dynamics of Minoanization on Kythera that, for the third millennium B.C.E., draws heavily on the analyses reported in more detail here, and Kiriati (2003) for the basic methodology of the ceramic analysis. Broodbank et al. (2005) provide a parallel concentrating on the Third Palace period, or "Mycenaean" Kythera.

¹⁴Supra n. 1.

¹⁵Hall 1997, 2002; Jones 1997; Gosden 2004, 65–72.

¹⁶MacEachern (1998) and Shennan (1989, 14–17) cast doubt on the existence of ethnic groups in the smaller-scale non-state societies of prehistory.

sive interpretative progress becomes possible on early Kythera that all too often eludes us over much of the Aegean in subsequent periods.

One advantage is that prior to the end of the third millennium B.C.E. (and the advent of big, fast sailing ships), the Aegean remained a fairly large place. Movement was characterized by a dense local “Brownian motion” articulated by low-bulk canoe-borne networks, with some prestige-oriented voyaging and interregional raw-material circulation.¹⁷ In this context, longer-range transfers of coherent cultural packages should stand out starkly against the background of a graded continuum of local variation. Another crucial difference is that in the Prepalatial Aegean, there is nothing to suggest that emulating Cretan practices would carry the advantages that it acquired after the rise of the palaces. On the contrary, few EM exports are known from the remainder of the Aegean compared with the wide circulation of Cycladic objects.¹⁸ Moreover, even Cretan objects that did get abroad were seldom imitated or seemingly exceptionally prized.¹⁹ Again, this differs from the extensive imitation of Cycladic, mainland, and (by late EB II) western Anatolian forms such as folded-arm figurines, daggers, sauceboats, frying pans, and Kastri Group/Lefkandi I type drinking vessels—an imitative process in which Cretans were indeed participants, at least in EM I–IIA. This situation began to change at the start of the second millennium B.C.E. (the very end of the Prepalatial period), with claims of the emulation of Cretan forms or practices at a few eastern and southern Peloponnesian communities, as well as continuing production on Kythera,²⁰ but the overall implication is that analysis of Prepalatial Minoanization on Kythera can dispense with concerns

about the purely local emulation of Cretan ways of doing things as a major explanatory option. The reasons why a Prepalatial assemblage outside Crete might look thoroughly Cretan becomes, therefore, much more focused on the possibility that such an assemblage does indeed reflect population movement.

Population movement is, furthermore, returning to favor as a framework within which to explain abrupt, substantial culture change in small-scale societies.²¹ Anthony, Burmeister, and others have affirmed that migration does take place in such societies and that it reflects structured, clearly motivated processes with a range of “push” and “pull” factors in the home region and destination. Movement is often reciprocal, with continuing information flow between home and daughter communities, and, indeed, migration usually develops out of a prior contact phase. Moreover, migration is a social process rather than the result of purely demographic changes, such as increasing population density, both in the sense that it often operates at a kin-group level and in the manner in which it impacts public and private ways of doing things. Shennan, in particular, has brought migration back as an explanation for cultural change in prehistoric Europe, where, he argues, biologically related regional populations were less stable and static than has been recently assumed.²²

As all commentators agree, the challenge is to develop a new generation of techniques with which to identify such movement archaeologically and to distinguish contexts where it constitutes the most plausible solution from others where it does not. Physical anthropology offers one means of doing so, through reconstruction of population biology and stable iso-

¹⁷ See Broodbank (2000, 91–106, 175–210, 249–62, 276–319) for recent discussion. The metaphor of Brownian motion for such multidirectional local activity is suggested by Horden and Purcell 2000, 142, 150. Mountjoy and Ponting (2000, 179) cite reports that in recent times it took 20 hours (two days) to row in a small boat from Kythera via Antikythera to Crete under favorable conditions, a time probably slightly less than that for normal laden Early Bronze Age canoes and rather more than that for faster Early Bronze Age many-paddled longboats; a sailing ship could make the crossing in considerably less time, and the modern ferry takes a mere four hours. Before the invention of steam, the northward journey against prevailing winds might have taken far longer.

¹⁸ Warren 1984a. There is one possible imported Cretan pot in Kastri deposit α (α 28) (Coldstream 1972a, 79; 1972b, 273) and several definite examples in deposit β (β 1–3) (Coldstream 1972a, 83–4; 1972b, 275). Wilson et al. (forthcoming) cite new finds of Cretan material at EB II Akrotiri on Thera. Crouwel et al. (2004, 13–15) also consider a serpentinite small bowl (“miniature goblet”) found at Geraki in an EH II context to be a possible Cretan import. For a review of early Cretan im-

ports on mainland sites, and vice versa, see Rutter and Zerner 1984, 76, appx. 1A–B. For a recent summary of the extent of Cycladic exports, see Broodbank 2000, 299–319.

¹⁹ A possible rare example is a marble spool pyxis from Apollonata on Naxos, on the lid of which is incised the outline of a recumbent dog that clearly copies relief carving of the same form on chlorite pyxides found in east Crete. But see Getz-Gentle (1996, 196) for a discussion in which Cycladic manufacture of the Cretan finds is not ruled out. Warren (1984a) discusses potential ceramic imitations.

²⁰ Rutter and Zerner 1984; Zerner 1986, 66–8; 1993, 45–7; Rutter 1993a, 125–26; Whitbread et al. 2002, 124; Kilikoglou et al. 2003, 134–135; Kiriati (forthcoming [a]).

²¹ Anthony 1990, 1997; Burmeister 2000. For a critique of Anthony (1990), see Chapman and Dolukhanov 1992 (with a response by Anthony 1992); see also Cameron 1995, 2000; Chapman and Hamerow 1997. In a different framework, the case for mobility of people as a fundamental element of Mediterranean life is made by Horden and Purcell 2000, 377–88.

²² Shennan 2000.

tope analysis,²³ but is obviously dependent on skeletal data (which are lacking from early Kythera). In the absence of such data, and as an independent test even if they are available, the alternative approach is to access the issue via material culture. For instance, it might be argued that, at a basic level, the broader the range of the changes or distinctions that can be identified in an assemblage, the stronger the case for population movement. Three good examples from in and around the roughly contemporary prehistoric eastern Mediterranean illustrate this broad-spectrum approach: the identification of an enclave of Uruk traders at Hacinebi in late fourth-millennium B.C.E. Anatolia;²⁴ the upholding of migration as an explanation of changes during the Chalcolithic to Early Bronze Age transition on Cyprus (ca. 2500–2000 B.C.E.);²⁵ and in the Aegean, the deployment of multiple strands of evidence, including details of tomb type, burial rites, pottery style and technology, metal-working practices, and obsidian knapping, to converge on the likelihood that the dead in the Agia Photia cemetery in east Crete (dated to the EB I–II transition) represent intrusive people (or their descendants) from the Cyclades.²⁶ The enumeration of cultural elements is, in many cases, not enough in itself, especially if the list is less than comprehensive, and it would be naive to expect this checklist approach to generate regular unambiguous answers.²⁷ Equally, it can be proposed that even if only a narrower set of features is available for analysis, no less compelling results can be obtained if this material is interrogated in detail and with sufficient sensitivity to its conditions of manufacture and use.

The social embeddedness of technology and the factors that shape the production of material culture have been the focus of recent scholarship.²⁸ It is now widely agreed that production in small-scale societies (though by no means only them) is dominated by learned traditions embracing a whole suite of knowledge, beliefs, and concepts of which a producer may be barely conscious and which shape “emic” perceptions of right and wrong in the evaluation of alternative and sometimes (from an ostensibly rationalizing perspective) superior techniques. It is striking that this

position has been reached from diverse starting points, both by those who envisage technology as a material manifestation of *habitus* (borrowing from Bourdieu’s theory of practice)²⁹ and by neo-Darwinian archaeologists who seek to explain change in material culture over time as an evolutionary process of descent with modification under various forms of selection.³⁰

Such traditions are best explored in archaeological terms through analysis of the technological choices made during the various stages of production. For example, in the case of pottery (a medium highly amenable to such approaches due to the survival of abundant residues of production decisions in the finished product), these include raw-material selection and processing, forming techniques, surface treatment, and firing conditions, as well as factors purely related to the appearance of the vessels (e.g., shape and decorative motifs). On the basis of extensive ethnographic work by Gosselain and others, it has become obvious that although potters (some more than others) do experiment and adjust their choices to new conditions, the concepts and ideas that are most socially embedded seldom change (or at least do so much less easily).³¹ The observable aspects of a finished product may be readily copied by manufacturers trained in other traditions if the incentive to emulate is sufficient (e.g., in order to create objects invested with prestige), and this need not affect the whole manufacturing process. The distribution of such features is considered “the material manifestation of mostly incidental relations,” reflecting more “superficial, situational and temporary facets of identity.”³² However, technological choices resulting from immersion in a specific learning environment are not so readily altered. Most notable are those that involve lengthy training, are embedded in a society’s knowledge of its social and natural landscape, or result from motor habits and superficially trivial production details that offer no advantage but make up a given tradition and differentiate it from others.³³ Gosselain, in particular, uses ethnographic data from sub-Saharan Africa to demonstrate that it is rare to see change in those aspects of technical behavior that are largely invisible on the finished product and

²³ For the Aegean, see Nafplioti 2007. Otherwise, little such work has to date been conducted in the Aegean, but see Renfrew (1996) for an optimistic view of the future potential of DNA analysis. For Europe in general, see, e.g., Bentley et al. 2003; Pinhasi and Pluciennik 2004.

²⁴ Stein 2002.

²⁵ Frankel 2000. The multiscalar approach adopted in this analysis is very much the strategy also urged by the present authors.

²⁶ Day et al. 1998; Betancourt 2003; Davaras and Betancourt 2004.

²⁷ Cf. Broodbank 2004, 55–7.

²⁸ E.g., Lemonnier 1993; van der Leeuw 1993; Stark 1998; Shortland 2000; Shennan 2002, 66–99; Knappett 2005.

²⁹ Bourdieu 1977; Dietler and Herbich 1998.

³⁰ Neiman 1995; Collard and Shennan 2000; Shennan and Wilkinson 2001; Shennan 2002.

³¹ Gosselain 1992, 1998, 2000; see also Lemonnier 1993; Dietler and Herbich 1998; Day 2004.

³² Gosselain 2000, 191, 200.

³³ Gosselain 1992, 1998, 2000.

are known mainly to its manufacturers. When such change is attested, it reflects close interaction with fellow potters, or potters who have relocated their homes or clay sources.³⁴

As Gosselain explains, much technological knowledge in small-scale societies is transmitted vertically within the group from one generation to the next, often through parent–child learning, thereby reproducing similar social roles and identities in the same social context.³⁵ The alternative is horizontal transmission to people in different social environments, which often contributes to the emergence of new roles or identities. In the former case, no crossing of borders is required, whereas in the latter, mobility of either the apprentice or the master is a prerequisite. Since language is a major medium, although not the only one,³⁶ for the transmission of technological traditions, horizontal learning is typically easier between social groups speaking the same language, and more difficult in the opposite case. For these reasons, a certain technological tradition will often relate to specific social or cultural identities.

The virtue of such insights for the archaeological exploration of human mobility is obvious. When such elements change markedly, the case for identifying incoming producers is at least as strong as rival explanations; as Shennan argues, this implies the reinstitution of migration as a significant feature in prehistory.³⁷ Indeed, it is striking that Burmeister and Frankel envisage migration in terms of a transportation of the migrants' *habitus*.³⁸ Rockman, too, makes the excellent point that even if people moving into a new area bring few artifacts from home, they carry with them previously constructed beliefs, concepts, and knowledge of landscape, materials, and techniques. Consequently, they approach and negotiate the new natural (and social) landscapes in which they settle in ways that often reproduce elements of their previous traditions.³⁹

To summarize, the analysis of material culture can provide evidence of past population movement once

we realize how to look for it. Some research in this vein already exists for the Prepalatial Aegean: Carter's identification of different traditions in the striking of obsidian blades from their cores, Nakou's distinction between alternative ways of copying in Early Bronze Age daggers, Papadatos' exploration of the manufacture and modification of marble figurines found at Archanes, and some of the aforementioned analyses of the Agia Photia burial goods.⁴⁰ In the present context, it must be admitted that these examples sound a note of caution as well as of optimism. All but the last relate to the potential mobility of craftspeople, not of entire social groups. Moreover, by EB II, there is evidence in the southern Aegean for a degree of specialization in pottery production beyond generalized household-level production⁴¹ sufficient to prohibit the automatic assumption that potters on the move were necessarily embedded in larger migratory groups. To discern the latter, we will also have to turn to consumption practices and remind ourselves of the narrower range of options for the emulation of Cretan-style objects and practices beyond Crete in the Prepalatial age. How, then, can such ideas be applied to explore the case for Prepalatial population movement from Crete to Kythera?

KASTRI: REASSESSING THE POTTERY EVIDENCE

The case for population change at Prepalatial Kastri is based almost completely on the pottery.⁴² Our reassessment of this evidence draws upon the admirable and promptly prepared publication by Coldstream⁴³ supported by the original pottery-processing notebooks,⁴⁴ as well as recent reexamination of the retained sherds. It also benefits from advances in knowledge of the Early Bronze Age in the neighboring areas of the southern Peloponnese and Crete, which have implications for chronology and cultural affiliation. Just over 1,000 pieces of pottery from deposits α (ca. 230), β (ca. 570), and γ (ca. 220) were retained from the Kastri excavations; mostly, these are diagnostic feature sherds

³⁴ Gosselain 2000, 192.

³⁵ Gosselain 1998; see also Shennan and Steele 1999.

³⁶ E.g., Stout 2002.

³⁷ Shennan 2000, 2001.

³⁸ Burmeister 2000; Frankel 2000.

³⁹ Rockman 2003. For discussion of mobility among modern traditional potters in Crete due to marriage, see Day 2004.

⁴⁰ Nakou 1995, 13–14; Carter 1999; Papadatos 2003; supra n. 27 for Agia Photia. Kiriati's (2000) study of pottery in Late Bronze Age central Macedonian communities advocates a similar approach and argues that the social roles and identities of the producers of Mycenaean-style wheel-made vessels were distinct from those of people making local handmade

pottery. She considers the reproduction of the former's technology (including the introduction of the potter's wheel) in terms of interregional mobility of craftspeople.

⁴¹ For Crete, see Day et al. 1997. For the southern mainland, see Rutter 1993b.

⁴² See Huxley (1972, 205–19) for the few other small finds from the first three deposits. Their limited number, as well as the lack of zooarchaeological and archaeobotanical data, effectively precludes the analysis of other, nonceramic, categories of material, as has proven rewarding in the case of Early Bronze Age Cyprus (supra n. 25).

⁴³ Coldstream 1972a, 1972b.

⁴⁴ Now also in digitized form in the archive of the British School at Athens.

and decorated body sherds, often those referred to in the publication.⁴⁵ The gap is partly filled by the notebooks, which provide brief assessments of the overall pottery from each excavation unit prior to selection or attribution to deposits. These indicate that in most cases, the retained pottery is fairly representative of the original variety and frequency of types. Reexamination of the retained sherds aims to shed light on technology and provenance through an integrated combination of macroscopic study and scientific analysis of representative samples. Approximately 100 samples were selected to represent the observed variability in fabric, surface treatment, decoration, and vessel form within each of the three early deposits. The samples were first subjected to petrographic analysis with thin-sections (fig. 3) in combination with refiring tests; a program of chemical analysis was undertaken at a later stage.⁴⁶

Deposit α

As discussed above, the pottery assigned to this deposit came from one pit dug in the Kastraki area (see figs. 2, 4). It was classified by Coldstream into three groups: (1) slipped and burnished; (2) coarse and gritty, usually micaceous; and (3) fine ware with urfiris (i.e., a dark lustrous slip) or polished surface. These were dated to EH I, EH I–II, and EH II, respectively, on the basis of parallels from the then-known sites mainly in Attica, Boeotia, and the northeast Peloponnese. Groups 1 and 2, associated with medium-coarse to coarse pottery, were considered to represent local production echoing strong stylistic affiliations with the Peloponnese and central mainland, with the exception of a possible import from Crete (α 28) and another from the northeast Aegean (α 58). All the fine urfiris vessels were regarded as probable imports from areas to the north of Kythera (α 82–97).⁴⁷

The recent restudy of the deposit α pottery revealed a more varied picture in terms of both technology and

stylistic affiliations. The slipped and burnished pottery includes at least two technologically distinct groups. The first relates to vessels of medium-coarse brown fabric with a light gray core and fine, dense white inclusions (well-sorted, sand-sized limestone grains), categorized as “Brown Fabric with Fine Carbonate Inclusions” (see fig. 3a). It has highly burnished brown surfaces often decorated with neatly incised chevrons and zigzags filled with white paste.⁴⁸ This distinctive pottery has so far not been found at any of KIP’s survey sites and is assumed to have been imported to the island, although its source and date remain unknown. The second slipped and burnished group is less homogeneous in terms of technology and provenance⁴⁹ and is categorized as “Chert fabric” in KIP’s terminology. The vessel surface is typically smoothed, usually burnished, and sometimes slipped (with a crackly appearance), showing a wide color variation from black to gray to reddish brown. The fabric is medium-coarse with sparse, whitish chert grains and soft black to reddish brown inclusions that in thin-section are revealed to be grog (crushed pottery added by the potter) (see fig. 3b). Thin-section analysis also revealed variation in the clay base mineralogy, possibly indicating multiple sources related to sedimentary or metamorphic environments. At least some of these vessels could be local to the island but not necessarily to Kastri, while the possibility of off-island imports cannot be excluded. Pottery in a similar fabric, often with plastic intersecting cords, concave bases, or thick, flat ones with mat impressions, has been recovered from KIP’s survey sites on Kythera. This material finds parallels, both in surface treatments and vessel forms, in pottery of Final Neolithic (FN) date (plain dark smoothed or burnished sherds) and EH I (red-slipped and burnished sherds) from numerous caves and open sites in the Peloponnese.⁵⁰ Moreover, there seem to be some (limited) similarities in pottery surface treatments and

⁴⁵ Coldstream 1972a, 77–94.

⁴⁶ This research is one part of a broader restudy and analysis of all the pottery from the 1960s excavation, including that of post-prehistoric periods, combined with field prospection for local raw materials as well as replication experiments. See Kiriatzi (2003) for further details. Concerning deposits α – γ , this article summarizes such morphological, technological, and compositional results as are relevant to the wider topic. Full detailed publication of the primary data will follow elsewhere (Kiriatzi et al. [forthcoming]).

⁴⁷ Coldstream 1972a, 77–83; 1972b, 272–74.

⁴⁸ Catalogued pieces in Coldstream 1972a, 77–8 (α 1–3, 5, 8–13, 15, 19–22), 177 (ω 1–2), fig. 35, pls. 16, 51.

⁴⁹ Catalogued pieces in Coldstream 1972a, 77–81 (α 6, 7, 14, 16–18, 24–6, 28, 31, 59), fig. 35, pl. 16.

⁵⁰ Phelps 2004, 118–20, 126; Laconia surveys: Cavanagh 1996, 1–3; Banou 1999. Kouphovouno: Renard 1989; Cava-

nagh et al. 2004, 91–2. Alepochori-A Kouveleiki Cave: Koumouzei 1995. Alepotrypa Cave: Papathanasopoulos 1997; Phelps 2004, 10, 12–13, 103–23. Agios Demetrios Cave: Zachos 1987. Asea: Forsén 1996a. Limnes Cave: Katsarou and Sampson 1989; Sampson 1997. Franchthi Cave: Vitelli 1999. Berbati-Limnes survey: Johnson 1996, 40, 47, 52–4. Southern Argolid survey: Pullen 1995, 7–19. Halieis: Pullen 2000. Makrovouni: Douzougli 1987. Euripidis Cave: Mari 2001. Moreover, burnished, and often slipped, pottery in a fabric similar to the Chert fabric exists among surface pottery in the sherd collection of the British School at Athens from the southern Laconian sites of Alepotrypa, Kepoula-Kotronas, Plytra-Goulas, Xeronisi, and possibly Agios Strategos 2. We are grateful to Mari for confirming dates for the retained pottery from Kastri deposit α and suspected Neolithic sherds from the KIP survey.

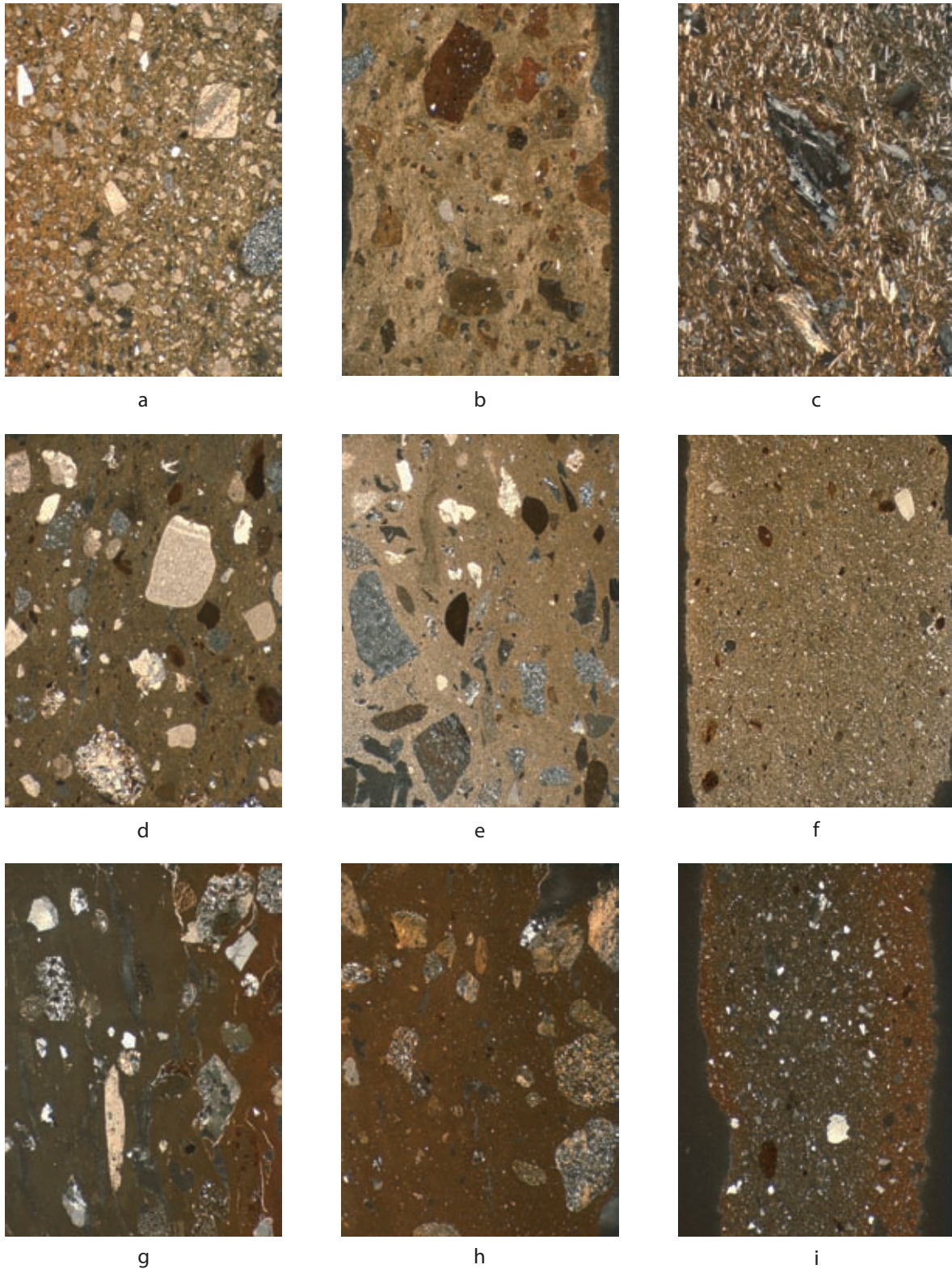


Fig. 3. Photomicrographs of the main ceramic fabrics of Kastro deposits α , β , and γ (in all cases, XP, vertical dimension 5.9 mm): *a*, deposit α , Brown Fabric with Fine Carbonate Inclusions (KS 98/02); *b*, deposit α , Chert fabric (KS 98/38); *c*, deposit α , Orange Micaceous fabric (KS 98/06); *d*, *e*, deposit β , local Sand-tempered fabric (KS 98/86, KS 98/72); *f*, deposit β , local Fine Orange-buff fabric (KS 98/46); *g*, deposit β , sand-tempered fabric, central Crete import (KS 98/88); *h*, deposit β , sand-tempered fabric, Mesara import (KS 98/87); *i*, deposit β , semi-fine red metamorphic fabric, west Crete import (KS 98/45) (A. Pentedeka).

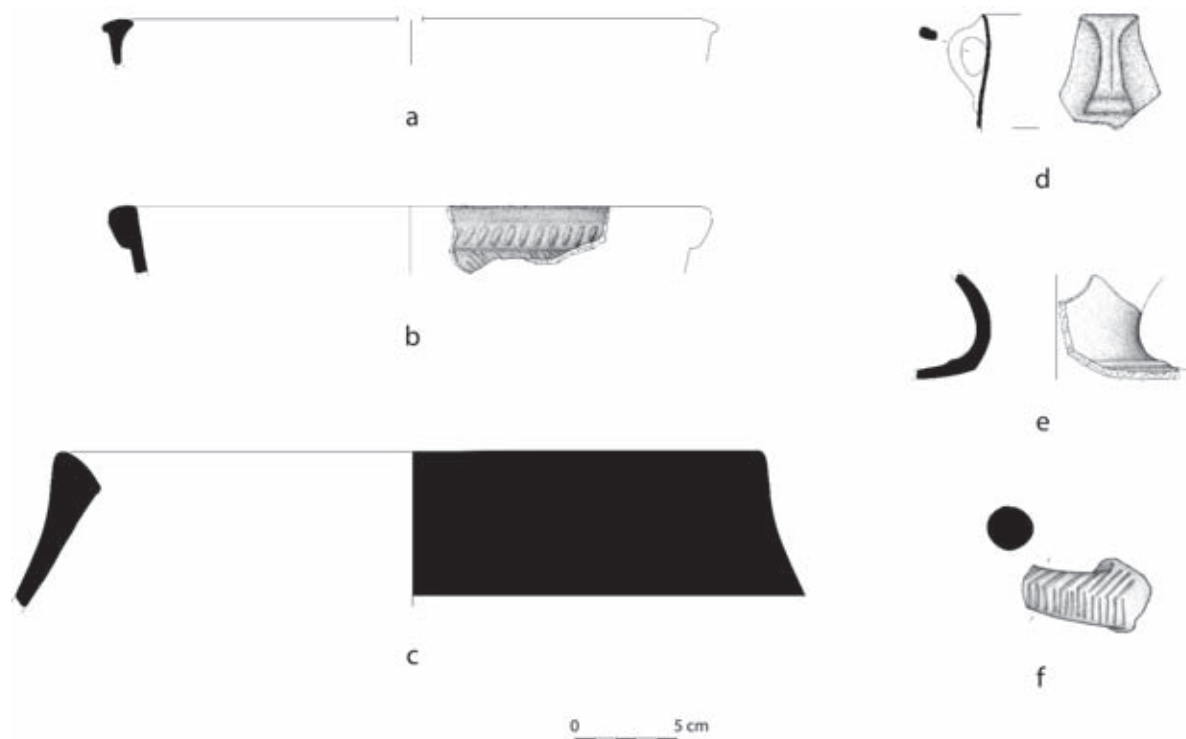


Fig. 4. Deposit α pottery from Kastri: *a*, large T-rim bowl, Orange Micaceous fabric; *b*, basin/deep bowl, Orange Micaceous fabric; *c*, pithos/jar, Orange Micaceous fabric; *d*, sauceboat, imported fine buff fabric (α 94); *e*, jar with flaring neck, Orange Micaceous fabric; *f*, horizontal slashed handle from jar (α 56), Orange Micaceous fabric (drawing by R. Exarhou).

forms with Cretan FN and EM I sites.⁵¹ This association is further documented through comparative petrographic data. Recent analytical work has revealed that grog-tempering was a widespread practice in the southern Greek mainland and adjacent islands during the later Neolithic, a phase of intense mobility and colonization of new landscapes.⁵² It is interesting that this practice was also common in sites throughout Crete at the end of the Neolithic and during EM I.⁵³

The dominant coarse pottery group in deposit α , published as “coarse and gritty, usually micaceous” and consisting of a wide range of large and small open and closed shapes, some with scored or roughly wiped surfaces, was indeed found to constitute a coherent technological category, henceforth termed “Orange

Micaceous” (see fig. 4a–c, e, f). Petrographic analysis indicated that the raw materials used, as well as their sources, were distinct from those of the previous group (see fig. 3c), consistently reflecting an association with metamorphic rocks and compatible with the granitic orthogneisses exposed in northern Kythera.⁵⁴ Consequently, although this pottery is of Kytheran origin, it is not actually local to Kastri, and therefore its appearance at the latter location (and on many KIP survey sites) marks the inception of a new system of pottery supply, through whatever mechanisms, from the north of the island in contrast to the probably less concentrated earlier production of pottery in the Chert fabric.

The last group, namely the fine pottery, consists largely of sauceboats (see fig. 4d).⁵⁵ Variation in fab-

⁵¹ These mainly concern pots at Kastri with a dark-colored, burnished surface and small pierced handles/lugs (e.g., Coldstream 1972a, 24–6, 28–30, pl. 16), which find obvious parallels mainly in western Crete, in the pottery of Nerokourou (Vagnetti et al. 1989) and Lera Cave (Guest-Papamanoli and Lambraki 1976, figs. 2, 5), as well as with the FN–EM I pottery from the Vrokastro survey (Hayden 2003, figs. 9, 19 n. 22; 2005, 1–2). Certain similarities can also be discerned with the so-called hearth ware identified by Moody et al. (2003, 60–2) and dated to FN–EM I.

⁵² See Kiriati (forthcoming [b]) for further discussion and

references.

⁵³ Chandler 2001, 388–89, table 1; Day et al. 2005, 180, 183.

⁵⁴ For more discussion of the fabric and the geology of the island, see Kiriati 2003, 126–27, pl. 26. Current work, in collaboration with Ruth Siddall, has associated this fabric specifically with the granitic orthogneiss outcrops that were recently discovered around the village of Potamos, in northern Kythera, within the Phyllite-Quartzite unit (Xypolias et al. 2006).

⁵⁵ Coldstream 1972a, 82–3.

ric, surface treatment, and firing may indicate vessels from a number of sources, at least some possibly local to Kythera. In the latter case, petrographic and chemical analyses demonstrated that the raw materials used were from different sources than those of the coarse Orange Micaceous pottery and were most compatible with the argillaceous sediments of Neogene date in the central or southern part of the island.⁵⁶ It was mainly for these last two groups that Coldstream found stylistic affiliations with the EH material of the mainland.⁵⁷ Recent publications further affirm this impression,⁵⁸ and research in neighboring Laconia in particular has strengthened links in this direction.⁵⁹ Typical stylistic features include jars with thickened rims and plastic decoration, ring or pedestal bases, portable hearths with impressed *kerbschnitt* (dogs-tooth) designs of intersecting triangles, sauceboats, and saucers (these in both the fine Neogene clay and the Orange Micaceous fabric), as well as local "slashed" jar handles (see fig. 4f) of what is normally considered a Cycladic type (other examples are indeed imports).⁶⁰ Nonetheless, striking new evidence also reveals parallels in western Crete. All the above features are equally present at Nopigeia, currently the most fully described contemporary western Cretan assemblage,⁶¹ and similarities with the Kastri deposit α pottery can also be found at other western Cretan sites such as the Platyvola and Lera caves, Debla, and Chania, as well as Knossos in the center of the island.⁶²

Both the Orange Micaceous and fine pottery from deposit α date predominantly or entirely to EB II, though the former includes features that could in theory start a little earlier on the basis of comparison

with the pottery from the site by Lake Vouliagmeni that is attributed to an advanced stage of EH I or a transitional EH I–II phase⁶³ (and pottery with scored/wiped surfaces in Crete is dated mainly to EM I⁶⁴). Continuity into an advanced stage of EB II is suggested by the presence of high-spouted sauceboats and inturned-rim saucers, as well as yellow-mottled sauceboats with handles imitating metal forms and high pedestal bases.⁶⁵ The relevant assemblage at Nopigeia has been dated to EM IIA⁶⁶ on the basis of Knossian parallels, but a detailed chronological comparison of the Nopigeia and Kastri assemblages will not be possible until the full publication of the former.

In addition to the groups above, there are a number of securely identified nonlocal pieces, mainly of EB II date. Among these are definite imports from western Crete, including fine urfurnis sauceboats (e.g., α 85, α 92)⁶⁷ and some possible imports from the mainland or the Cyclades.

To summarize, the ceramic material from deposit α covers a long chronological range from at least the FN through EB I to advanced EB II. It includes vessels associated with distinct technological traditions, both local and imported, each reflecting different technological choices, circulation patterns, and consumption practices.

Deposit β

This pottery comes from a fill with no securely related architectural features in Akroterion trench VIII, lying immediately above the bedrock and underlying a Second Palace period house (see figs. 2, 5).⁶⁸ It makes a more coherent assemblage than de-

⁵⁶ Kiriati et al. (forthcoming).

⁵⁷ Coldstream 1972a, 79–83; 1972b, 273–74.

⁵⁸ Fossey 1969; Pullen 1995, 19–42; Forsén 1996b; Wilson 1999; Wiencke 2000; Forsén and Forsén 2003.

⁵⁹ Renard 1989; Cavanagh 1996; Cavanagh and Crouwel 1996; Cavanagh et al. 1996, 2004; Banou 1999.

⁶⁰ Coldstream 1972a, 79–83, fig. 35, pls. 16, 17. Slashed handles are present at, e.g., Pavlopetri (Harding et al. 1969, 133, where a further Messinian example is noted) and on Laconia survey sites (Cavanagh et al. 1996, fig. 11.6, no. 5). The one from Kastri shown in fig. 4f represents a local version of this type of handle with two rows of slashes: one vertical on the handle periphery, the other diagonal on its upper surface.

⁶¹ Andreadaki-Vlaziaki 1994–1996; Karantzali 1996, 89–91.

⁶² Debla: pots with scored or wiped surfaces (Warren and Tzedakis 1974, pls. 52d, 53a–d). Platyvola Cave: pots with scored or wiped surfaces, portable hearth, sauceboats (Tzedakis 1967, 505; 1968, 415, pl. 376γ; Karantzali 1996, 85, fig. 88). Lera Cave: pots with scored or wiped surfaces, incised decoration, and sauceboats (Guest-Papamanoli and Lambarki 1976, 198–200, 202–25, pls. 7, 8); Chania: pots with scored or wiped surfaces and sauceboats (Tzedakis 1965, 568, pl. 711γ–8). Knossos: pots with scored or wiped surfaces (Wilson and Day 2000, 39–48, pls. 8–11) and sauceboats, although of a

different type in EM IIA (Warren 1972, figs. 7, 8; Wilson 1985, 358–59).

⁶³ Fossey 1969, 60–5 (phase Y).

⁶⁴ Tzedakis 1968, 415; Warren and Tzedakis 1974, 323, 338; Haggis 1996, 669, 670 n. 71; Wilson and Day 2000, 39–48.

⁶⁵ Coldstream 1972a, 82–3 (α 65, α 72, α 76, α 87, α 89, α 90, α 93 and α 94), fig. 35, pl. 17. Cf. Wiencke (2000, 587, 589) for parallels in Lerna IIIC.

⁶⁶ Karantzali 1996, 89–91.

⁶⁷ Coldstream 1972a, 82, pl. 17. An overall comparison has been undertaken between the thin-sections of samples from deposits α and β and those from a number of sites in western Crete, selected and studied by Nodarou, Day, and their colleagues, to all of whom we are most grateful for the opportunity to collaborate (Nodarou 2003; Nodarou et al. 2003). The likelihood that sauceboats made in western Crete were imported to Kythera (i.e., back toward a part of the Aegean from which the form is commonly thought to derive) deserves to be underlined as an example of the complexity of regional production and exchange in the EB II Aegean and, more specifically, of the futility of using this shape on Kythera as an Early Helladic marker.

⁶⁸ Hope Simpson and Lazenby 1972, 56.

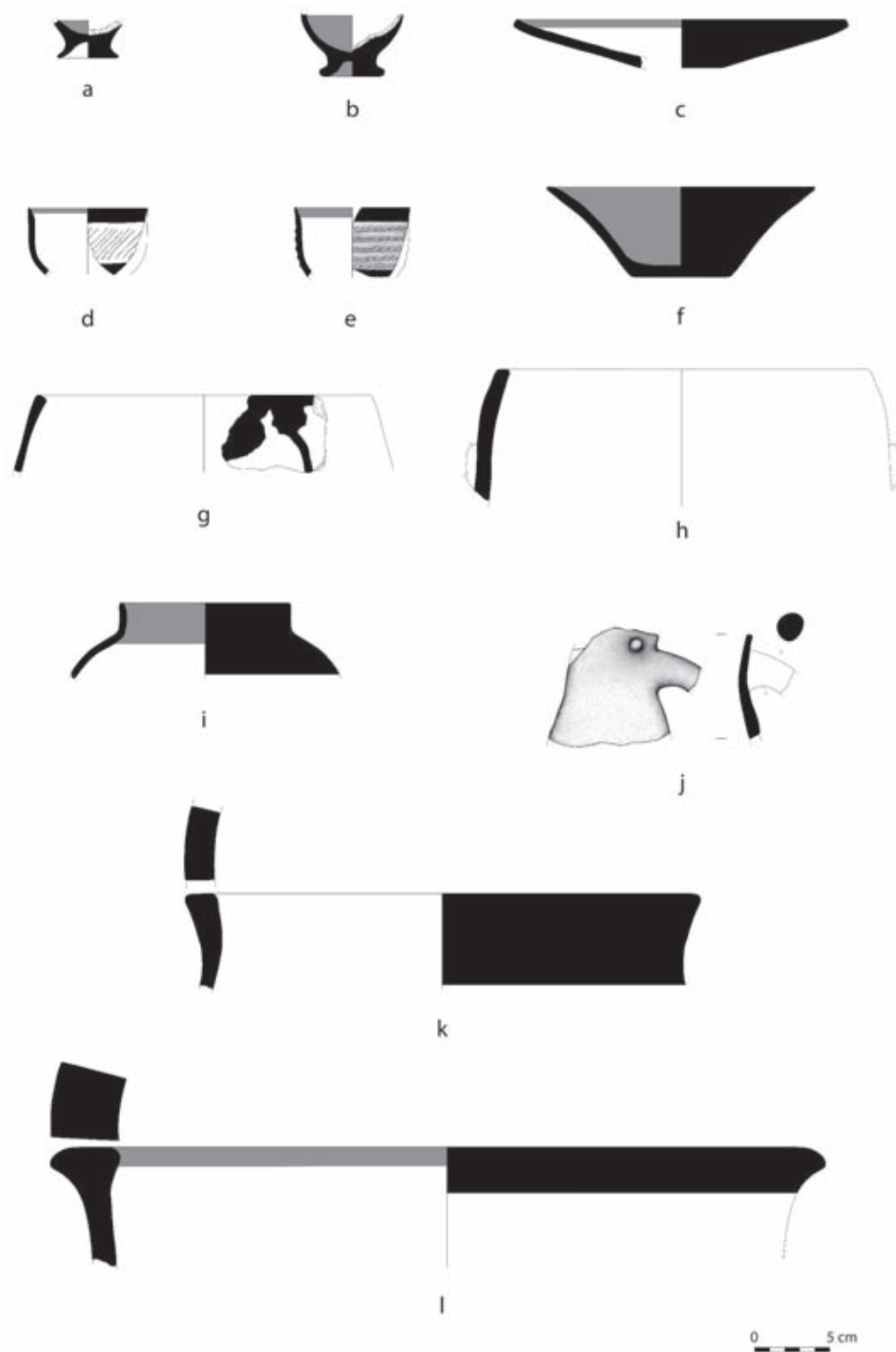


Fig. 5. Deposit β pottery from Kastri: *a*, footed goblet (β 63), combined local Sand-tempered and Fine Orange-buff fabrics; *b*, footed goblet (β 24), local Fine Orange-buff fabric; *c*, straight-walled bowl (β 28), local Fine Orange-buff fabric; *d*, footless goblet (β 9), local Fine Orange-buff fabric; *e*, footless goblet (β 15), semi-fine red metamorphic fabric, west Cretan import; *f*, bowl with concave walls (β 37), local Fine Orange-buff fabric; *g*, jar, local Sand-tempered fabric; *h*, jar, local Calcite-tempered fabric; *i*, necked jar (β 50), local Fine Orange-buff fabric; *j*, jug (β 95), local Sand-tempered fabric; *k*, pithos/large jar, local Sand-tempered fabric; *l*, large basin, (β 115), local Calcite-tempered fabric (drawing by R. Exarhou).

posit α . Coldstream classified it into three groups: (1) painted decoration, unburnished; (2) painted, usually burnished, pale red clay with white grits occasionally some mica; and (3) oatmeal coarse ware. But, in fact, the whole of this assemblage reflects one technological tradition. It corresponds to vessels markedly different in terms of manufacturing technology and appearance from those of deposit α . It also covers a shorter chronological range, being dated by Coldstream to EM II–MM IA, with “a heavy preponderance of EM II–III types,” on the basis of parallels with Knossian domestic pottery and finds in western Crete.⁶⁹ Thirty-five years later, Knossos remains the principal site with published stratified contemporary assemblages, but in the interim, the dating of Knossian EM II has been refined,⁷⁰ and the dating of the later Prepalatial phases subjected to reassessments.⁷¹ On the basis of these revisions, it seems that the earliest pottery of deposit β dates mainly to EM IIB, with a few potentially EM IIA pieces.⁷² The EM IIB pottery at Kastri⁷³ includes high-footed rounded goblets, usually plain or with red paint/slip (see fig. 5b);⁷⁴ shallow bowls, often with small lugs on the rim, usually red slipped and burnished and more rarely with linear red-painted decoration (see fig. 5c);⁷⁵ and jugs and long-spouted teapots,⁷⁶ mostly in Fine Orange-buff fabric and occasionally with slipped or mottled surface treatment that echoes the blotchy dark and light appearance of “Vasiliki style” decoration.⁷⁷ Among this pottery are a few features reminiscent of the Kastri Group/Lefkandi I, notably the few shallow bowls with slightly incurving rim⁷⁸ and a jug with a narrow cutaway neck;⁷⁹ neither

of these features are present at Knossos.⁸⁰ The rest of the fine pottery seems to include types that can be dated to EM III and MM IA,⁸¹ such as the characteristic footless rounded goblets that are red slipped and burnished with a reserved band of diagonal rows of impressed dots or wavy barbotine decoration (see fig. 5d, e);⁸² polychrome decoration is absent. The dating of the coarse pottery to one of the above periods is more difficult (see fig. 5g–l). Nevertheless, it seems that there are types potentially belonging to EM IIB and EM III–MM IA. Apart from the parallels with Knossos, the deposit β pottery has many stylistic affiliations with sites in western Crete, especially the unstratified pottery from Psathi, Platyvola and Perivolia caves, and Chania.⁸³

As indicated above, this new repertoire of vessels corresponds with a fresh technological tradition quite distinct from that of deposit α .⁸⁴ The dominant coarse and medium-coarse fabric⁸⁵ is a fine, calcareous orange-buff clay tempered with sand grains and fired at low temperatures (<750–800°C) (see fig. 3d, e). Replication experiments with raw materials show that this Sand-tempered fabric was made with materials available in the vicinity of Kastri.⁸⁶ But this reflects much more than local expediency, for the practice of sand-tempering itself is common in central Crete since the beginning of EM II (or even late EM I).⁸⁷ Moody refers to quartz sand as a common element in many western Cretan fabrics, especially in the Chania plain, throughout the Bronze Age;⁸⁸ more recently, Nodarou and Day have identified the use of sand-tempering in western Crete during EM II.⁸⁹ Most of the Fine Orange-

⁶⁹ Coldstream 1972a, 83–91, 178–79; 1972b, 275–77.

⁷⁰ Wilson 1985, 1994; Wilson and Day 1994, 1999; Momigliano and Wilson 1996.

⁷¹ Andreou 1978; Momigliano 1991, 2000; Cadogan et al. 1993; Momigliano and Wilson 1996.

⁷² Coldstream (1972a, 83–4) suggests a possible EM IIA date for β 1–3. We thank Wilson and Day for confirming this possibility and suggesting the same for β 5, β 6, β 56, and β 101 (Coldstream 1972a, 84, 88, 91, pls. 18–20), the last two probably being fragments of a single dark coarse burnished ware lid with grooved decoration and cylindrical handle (cf. Wilson 1985, 352–53).

⁷³ For close affiliations of this pottery with Knossos, see Momigliano and Wilson 1996; Wilson and Day 1999.

⁷⁴ For illustrated pieces, see Coldstream 1972a, 85, 88 (β 23, 24, 61), fig. 36, pls. 18, 19.

⁷⁵ For illustrated pieces, see Coldstream 1972a, 85–6 (β 25–36), fig. 36, pl. 18.

⁷⁶ For an illustrated piece, see Coldstream 1972a, 87 (β 52), pl. 19.

⁷⁷ For illustrated pieces, see Coldstream 1972a, 85–6 (β 16–18, 21, 31), fig. 36, pl. 18.

⁷⁸ Coldstream 1972a, fig. 36 (β 25).

⁷⁹ Coldstream 1972a, pl. 20 (β 92).

⁸⁰ We are grateful to Wilson for this observation.

⁸¹ On the basis of Andreou 1978; Momigliano 1991; Momigliano and Wilson 1996.

⁸² Coldstream 1972a, pl. 18 (β 7–12, 13–15).

⁸³ Tzedakis 1965, 568–69, pls. 712, 713; 1967, 505, pl. 3788; 1968, 415; 1969, 428 and 434, pls. 435d, 442a; Mytilinaïou 1997–1998. In the cases of Platyvola Cave and Chania, associations can only be made with the occasional illustrated sherds, since the bulk of the pottery remains unpublished.

⁸⁴ Exceptions are a small number of sherds reminiscent of deposit α pottery, such as a slipped and burnished body sherd in Chert fabric and a few in coarse Orange Micaceous fabric, among which there is a slashed handle (Coldstream 1972a, 88, 90 [β 100], pl. 20). Intriguingly, the pottery-processing notebooks refer to a considerable quantity of micaceous pottery in one of the deposit β excavation units.

⁸⁵ Coldstream 1972a, 88.

⁸⁶ Kiriati 2003, 127; Kiriati et al. (forthcoming).

⁸⁷ Wilson and Day 1994, 76–7, 83–4; Day et al. 1997, 281; 1999, 1030–32; Whitelaw et al. 1997, 268 n. 21.

⁸⁸ Moody 1987, 178, table 5.3.

⁸⁹ P. Day and E. Nodarou, pers. comm. 2005.

buff pottery (see fig. 3f) has sporadic inclusions similar to those in the local Sand-tempered fabric. Moreover, in a few cases (mainly footed goblets [see fig. 5a] and vessels with barbotine decoration), this fine fabric is combined with Sand-tempered in the same pot. There seems little doubt that the former is the untempered version of the latter, and that the majority of the fine pottery is also of local production, reflecting use of Neogene clays from the vicinity of the site. Chemical analysis further confirms the compositional association of the two.⁹⁰ It is worth emphasizing that the practice of using differentially tempered, or indeed untempered, clay paste for particular parts of a vessel is also a common feature of the pottery manufactured in sand-tempered and perhaps other fabrics in Crete.⁹¹

Although the majority of the pottery in deposit β is associated with the two main fabrics already described, a number of sherds do not match, closely or at all, with either. Most appear to be Cretan imports. Particularly obvious are two groups of closed vessels, possibly jugs, in well-known central Cretan fabrics. Petrographic analysis of one sample from each group reveals, in the first case,⁹² a sand-tempered fabric with polycrystalline quartz, sandstone, and altered basic igneous rocks from central Crete (see fig. 3g),⁹³ and in the second,⁹⁴ a sand-tempered fabric with grains of metamorphic rocks, mainly amphibolite and biotite schist, from the Messara/Asterousia area (see fig. 3h).⁹⁵ Imports exist among the fine pottery, too; in contrast to the goblets with impressed dots (see fig. 5d) in the local Fine Orange-buff fabric (see fig. 3f), there is a group of goblets, red slipped and burnished with a reserved band of wavy barbotine decoration (see fig. 5e),⁹⁶ in a fine reddish orange fabric (see fig. 3i).⁹⁷ Petrographic analysis of the latter indicates that the raw materials of this fabric relate to the high-pressure metamorphic rocks of the Phyllite-Quartzite unit, a geological formation exposed in parts of Crete, including the area around Chania.⁹⁸ Finally, and most intriguingly, none of the possible EM IIA pots found in deposit β is made in the locally produced fabrics; instead, it seems they were all

imported from Crete, both from the central (β 5, 6) and the western (β 1, 3)⁹⁹ parts of the island.

Deposit γ

As in deposit β , this pottery from Akroterion trench XII comes from a fill above the bedrock (see figs. 2, 6).¹⁰⁰ There is a narrower range of vessel forms and decoration types covering a shorter chronological span than the previous deposit. It lacks the EM II and EM III features of deposit β while including features not present in the latter. Although this difference could relate to the functional character of the pottery, it seems that it is also of a chronological nature and hints at a slightly later date. Coldstream dated this deposit to MM IA, with some possible First Palace period (i.e., Protopalatial) elements, based on parallels with Knossos and the Gournes cemetery, implying some overlap with the later material of deposit β . The absence of polychrome pottery is again noteworthy, although fine painted pottery of any description is scarce.¹⁰¹

The major fabric of deposit γ is generally very similar to that of deposit β , and demonstrates continued use of the local Sand-tempered fabric. There are, however, some interesting differences. In deposit γ , a medium-coarse variety of the Sand-tempered fabric is preferentially used for vessels of medium size (jugs or bowls) rather than the coarser one used in the previous deposit. Moreover, the body is typically harder and of a lighter buff throughout, in contrast to the softer, more friable, and usually gray-cored sherds of deposit β , a result of higher firing temperatures (usually above 800–850°C). Furthermore, the frequency of white (carbonate) inclusions in the fabric of deposit γ is noticeably lower, even to the naked eye, than that of deposit β . Monochrome-slipped pottery is more common than in deposit β , and occasionally, white paint is used on a dark background.¹⁰² In contrast to the red-burnished slips of deposit β , slips are more often fired dark brown or black, with a lustrous or crackly appearance. Although still using the same kind of temper (sand grains), the perceptible avoidance of

⁹⁰ Kiriati et al. (forthcoming).

⁹¹ Supra n. 87. Published evidence relates mainly to the sand-tempered fabrics from south-central Crete.

⁹² Coldstream 1972a, pl. 18 (β 5).

⁹³ Wilson and Day 1994, 64–5 (Group 13), 67–8 (Group 18). For a similar fabric, see ω 94, a Late Minoan I stirrup jar imported to Kastri from Crete (Broodbank et al. 2005, 81, pl. 12D).

⁹⁴ Coldstream 1972a, pl. 18 (β 6).

⁹⁵ Wilson and Day 1994, 63 (Group 10); Shaw et al. 2001, 116 (Group 2A). For a similar fabric, see ρ 48, a Late Minoan III stirrup jar imported to Kastri from Crete (Broodbank et al. 2005, 81, pl. 12C).

⁹⁶ Coldstream 1972a, pl. 18 (β 13–15).

⁹⁷ Coldstream 1972a, pl. 18 (β 7–12). See also Mytilinaïou (1997–1998, 218–19) for similar ones from Psathi.

⁹⁸ P. Day and E. Nodarou, pers. comm. 2005. This fabric is very similar to ρ 43, a Late Minoan III stirrup jar imported to Kastri and associated with an origin in western Crete (Broodbank et al. 2005, 81).

⁹⁹ The latter based on comparisons with fabrics at Psathi and Chania (P. Day and E. Nodarou, pers. comm. 2005).

¹⁰⁰ Hope Simpson and Lazenby 1972, 55.

¹⁰¹ Coldstream 1972a, 91–4, fig. 37, pl. 21; 1972b, 277–78.

¹⁰² Coldstream 1972a, 92, fig. 21 (γ 7, 9, 12).

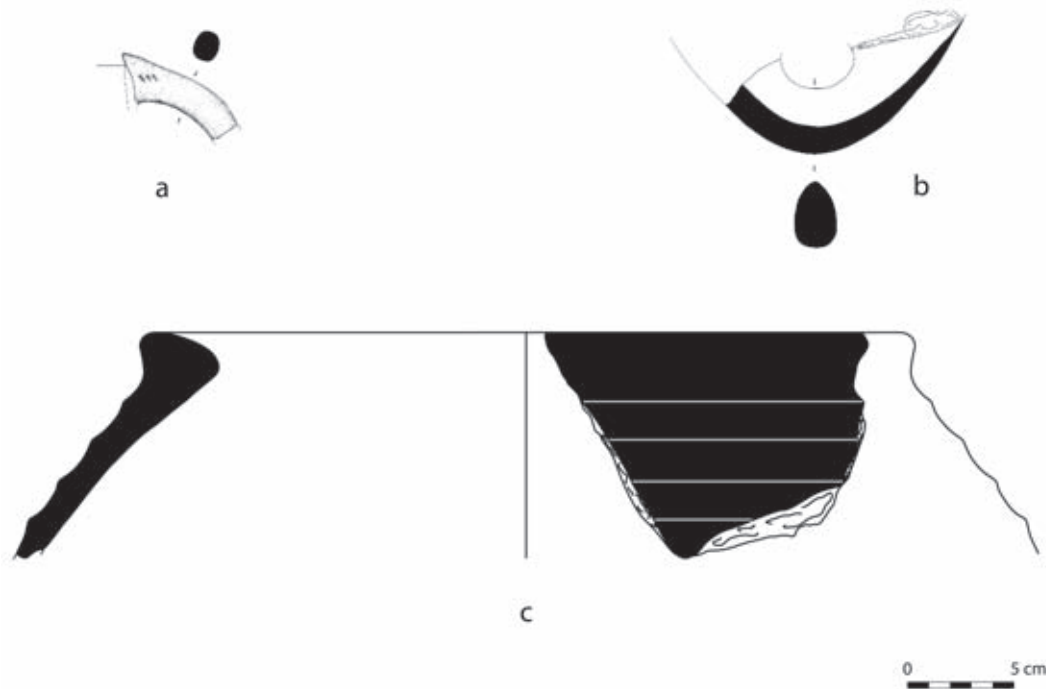


Fig. 6. Deposit γ pottery from Kastri: *a*, jug handle, crested, with potter's marks (γ 37), local Sand-tempered fabric; *b*, horizontal crescent-shaped handle, pushed through the wall, from jar (γ 27), local Sand-tempered fabric; *c*, ribbed jar (site 004), local Sand-tempered fabric (drawing by R. Exarhou).

carbonate material indicates a slightly differentiated choice of raw materials within the same geological environment. This is consistent with the new higher firing practices, as the carbonate-rich fabrics of deposit β would not have survived firing temperatures above 800–850°C.¹⁰³ There is also evidence for the occasional use of a turning device in the finishing of vessels (mainly apparent on rims of jars such as γ 33),¹⁰⁴ and of pre-firing marks probably made by the potters. There are two instances of such “potter's marks,” in each case three parallel pre-firing incisions: one on a jug handle (γ 37; see fig. 6a), the other on a jar handle.¹⁰⁵ New types of handles appear for jars¹⁰⁶ and jugs,¹⁰⁷ now pushed through the vessel wall, with a protrusion showing in the interior (see fig. 6b). The combination of the coarser Sand-tempered fabric and the fine fabric in the same pot becomes more common, mainly in jars or jugs with applied ribs (see fig. 6c), spouted jars, and footed goblets.

Vessels similar to those of deposit γ have been found in abundance at Psathi on Crete.¹⁰⁸ Similar types are also seen in mainland sites, where they mark the earliest appearance of the Lustrous Decorated Minoanizing pottery, which seems to be contemporary with deposit γ .¹⁰⁹ Apart from one sherd published as a Matt-painted import of Middle Helladic date,¹¹⁰ there is no typical contemporary mainland pottery found in deposit γ .

Interpretation

The pottery from deposits β and γ reflects a single technological tradition produced on Kythera but alien to previous production on the island and extremely closely related to Cretan practices. This tradition was introduced to Kastri, by an advanced stage of EB II, as a set of concepts concerning raw materials and technological choices that is already attested, in central Crete at least (where the published evidence is strongest),

¹⁰³ Rice 1987, 97–8.

¹⁰⁴ Coldstream 1972a, pl. 21 (γ 33).

¹⁰⁵ Coldstream 1972a, pl. 21 (γ 37). For similar examples of pre-firing marks on Lustrous Decorated vessels, which are commonly thought to have been produced at Agios Stephanos or Kastri on Kythera, see Zerner 1986, 66–8; 1988, figs. 24.12, 31.27, 29, 30, 34.41, 36.51–53 (marked pieces); 1993,

46; Lindblom 2001, fig. 20.

¹⁰⁶ Coldstream 1972a, pl. 21 (γ 25–28).

¹⁰⁷ Coldstream 1972a, pl. 21 (γ 35–37).

¹⁰⁸ Mytilinaïou 1997–1998, 222 (potter's marks), 224 (ribbed jars), fig. 12, pl. 6 (α – δ) (handles).

¹⁰⁹ Zerner 1993, 45–7, 49–50.

¹¹⁰ Coldstream 1972a, 94 (γ 39).

since EM I–EM IIA.¹¹¹ As established earlier, the local creation of new shapes and decorative styles might be merely a result of visual copying of finished objects and therefore simply interaction between communities, but ideas about appropriate materials in the landscape, and the web of technological choices surrounding the making of a pot, are not so simple to transfer. The horizontal transmission of such a tight combination of concepts and practices between Crete and Kythera, probably across some kind of language or dialect frontier,¹¹² makes sense only as the result of one or more transfers of people, perhaps with local production beginning after a brief initial reliance on vessels brought with the newcomers (one possible explanation, if they are correctly identified, of the otherwise curious presence of a few EM IIA imported pieces among the mass of EM IIB local material in deposit β).

That this transfer consisted not only of potters but also of a group of consumers is indicated by the simultaneous introduction of a repertoire of vessels completely new to Kastri that formed part of a continuing tradition, in terms of consumption practice, on Crete.¹¹³ Later EB II in the Aegean sees a general trend toward new sets of vessels for serving food and drink (shallow bowls/plates, cups/goblets, and jugs/pouring vessels). In the east and central Aegean, this is manifest in the Kastri Group/Lefkandi I shapes.¹¹⁴ An analogous phenomenon, if realized in a culturally specific manner, is also attested on Crete, at least in places such as Knossos.¹¹⁵ Although published stratified contexts are lacking for western Crete, the frequency of EM IIB footed goblets and bowls at Psathi¹¹⁶ may testify to similar trends closer to Kythera. At Kastri, although the EM IIB type pottery of this period comes from a deposit also containing later material, it clearly includes goblets, shallow bowls, jugs, and teapots, a consumption set closely mirroring that at Knossos¹¹⁷ and, possibly, Psathi. In short, the users of this pottery at Kastri chose to eat and drink in a predominantly Cretan fashion, albeit with some minor variations.¹¹⁸ Moreover, on the basis of the remainder of the pottery, they chose to perform other everyday practices,

including food preparation and storage, using Cretan-style vessels. Although the earlier deposit α pottery, too, displays some stylistic similarities with pottery at sites in western Crete, as well as the Peloponnese and Cyclades, these represent an eclectic selection of features incorporated and reproduced within local traditions, most plausibly the result of social interaction and trade across a wide southwest Aegean zone with no discrete cultural boundaries. By way of contrast, the deposit β pottery reflects an entire introduced suite of material practices—an assertively, exclusively Cretan way of thinking about, making, and using pottery that became gradually informed by a familiarization with and minor adaptation to the raw materials available in the natural landscape of the island.

Finally, concerning the possibility of a chronological overlap between indigenous and Minoanizing material at Kastri, if the identification of some initial imported EM IIA pottery in deposit β is sustained, an overlap with deposit α is assured. Even if it is not, a period of co-presence is likely in view of the later EB II date for some deposit α material, although a succession within the latter phase cannot be ruled out. Although the case falls short of decisive proof, the balance of the evidence therefore favors a chronological overlap at Kastri of some archaeologically appreciable duration within EB II. In contrast to the violence implicit in the replacement model, this suggests mutual accommodation between different communities resident at the site. As we shall see, further consideration of the spatial and chronological relationship between the indigenous tradition exemplified by deposit α and the Cretan one exemplified by deposits β and γ , both at Kastri and across Kythera as a whole, can shed additional light on this question.

THE SPATIAL DISTRIBUTION OF MATERIAL AT KASTRI

As argued in the previous section, a chronological overlap between the latest material in deposit α and the earliest in β is very likely. What of the case for a spatial overlap? And more generally, given that the

¹¹¹Day et al. 1997; Whitelaw et al. 1997; Wilson and Day 1994, 1999.

¹¹²Although any reconstruction of the linguistic geography of the third-millennium B.C.E. Aegean is, of course, speculative, most models for the colonizations of Crete and Kythera envisage an early entry from southern Anatolia via the southeast Aegean in the former case and a later Peloponnesian jump-off point in the latter. This would suggest ample time and space for differentiation from any common Early Neolithic language, although the growth of pidgins or even creole language once contact became established between the two islands is quite possible. See Broodbank (1999b, 21, 31–3) for Aegean island colonization.

¹¹³Wilson 1994; Wilson and Day 1994, 1999; Day and Wilson 2002, 148–52.

¹¹⁴French 1968; Renfrew 1972, 533–34; Rutter 1979; Sotirakopoulou 1993.

¹¹⁵Wilson and Day 1999; Day and Wilson 2002.

¹¹⁶These two shapes appear to be by far the most common ones in the Psathi assemblage (Mytilinaïou 1997–1998, 201, table 2).

¹¹⁷Wilson and Day 1999.

¹¹⁸E.g., the forms reminiscent of the central and eastern Aegean that were alluded to earlier and that are absent at Knossos (supra nn. 78, 79).

story so far has been based on small excavated windows into a large multiperiod site, how extensive is the distribution of material of different traditions and dates at Kastri?

To start with the deposits already discussed, information in the unpublished pottery-processing notebooks from the 1960s excavations suggests that deposits α and β may have, in fact, contained a certain amount of pottery belonging to the other tradition. For one unit of the levels containing deposit β (Akroterion trench VIIC, level 11), the description of the pottery includes, alongside standard Minoanizing types, an additional note mentioning the presence of "micaceous ware (50%) which has lost its colour coating." A micaceous fabric returned to favor at Kastri in the Second Palace period, but this unit is stated to include only one Late Minoan (LM) stray, which argues that the micaceous pottery noted could represent EB II Orange Micaceous fabric, the surface of which is indeed often abraded at Kastri. A few pieces of this still exist, together with a Chert fabric sherd, among the retained pottery from deposit β .¹¹⁹ On these grounds, it is likely that the early Minoanizing level either overlies a basal lens of Orange Micaceous material or that, given that no such lens was noted during excavation, it contained some admixture of the latter.

The opposite may also be true. Notes for the surface level (lot 1) of the Kastraki pit mention a possible goblet among later material, and at a depth of 1.7–2.0 m (lot 5), amidst deposit α material, ribbed pithoi (most likely to be deposit γ in date) and a Middle Minoan spout were found. Moreover, in a prototype of the published pit-section drawing (in the archive of the British School at Athens), one can see the indication "NEO/EH II/MM I" next to lot 5.¹²⁰ These hints indicate that some early Minoanizing material did move from the Akroterion. That these are not simply stray finds is assured by examination of the sections of several further large pits at the seaward end of Kastraki, analogous to the nearby now-destroyed example that contained deposit α and which were exposed by road building since the 1960s excavations. The function, contents, and dating of these pits are important questions for the history of Kastri but not ones to be pursued in detail in the present context.¹²¹ Two of these pits contain early Minoanizing pottery; in one, there are a few

sherds amidst much EB II Orange Micaceous material, in the other, a larger amount of Sand-tempered pottery, apparently mainly of deposit γ type, is visible and intermixed with Orange Micaceous sherds.

While the deposit β evidence may argue for chronological overlap, the evidence from the pits can only make the case for a spatial and potentially chronologically sequential overlap, given that these fills represent redeposited material. But more extensive spatial data are now available from KIP's intensive gridded surface collection of the 11 ha extent of the overall Kastri site, combined with the finds from a small excavation of destroyed Second Palace tombs at Tholos, the landward extension of the Kastraki ridge.¹²²

Some results from the full study of the prehistoric component of this surface material are presented in figure 7. The first crucial point to emerge is the extent of deposit α type pottery, a scatter of which was briefly noted by Coldstream.¹²³ Widely scattered finds indicate substantial occupation over the inland areas of Kastri already in FN–EB I, and tiny amounts near the tip of the Akroterion match the single piece from deposit β (see fig. 7a).¹²⁴ For EB II, enough feature sherds were found to permit a GIS-driven estimate of the size of the densest scatter as defined by surface finds (see fig. 7b): the inner line denotes where there is a 66% probability of an EB II feature sherd being located, the outer line is the area within which there is a 99% probability. The focal area described runs along the Kastraki-Tholos ridge,¹²⁵ with abundant off-ridge finds to the west, but excludes the seaward end of the site entirely (in contrast to the slight hints mentioned above of Orange Micaceous material in Akroterion trench VIIC). The minimum area for the EB II site as defined by the three adjacent zones of dense surface pottery is 2.3 ha or maybe as much as 3 ha, if these zones, now separated by low-visibility, built-over, or eroded areas, are taken to have been joined in the third millennium B.C.E.¹²⁶ Given the lack of scope for major displacement along the line of the ridge itself, much of this extent is likely to reflect approximately in situ material, although an alternative explanation for the smaller, low-lying western focus could be that it reflects erosion from above, an ancient midden zone, or even coastal debris or deposition on the fringe of a former inlet (see fig. 2 for the likelihood of a much more indented shoreline in

¹¹⁹ Cf. *supra* n. 84.

¹²⁰ Cf. Huxley and Coldstream 1972a, fig. 30.

¹²¹ A variety of arguments suggest their closure at some point between the end of the Prepalatial and start of the Second Palace period; their date of construction may have been in a similar time range, and their fill appears to comprise debris from the surrounding land surface.

¹²² Bevan et al. 2002.

¹²³ Coldstream 1972b, 272.

¹²⁴ Cf. *supra* n. 84.

¹²⁵ At the inland end of this scatter, the Tholos excavation also encountered EB II Orange Micaceous sherds (Bevan et al. 2002, 87).

¹²⁶ This is far larger than the 50 m diam. (with a consequent area of 0.2 ha) suggested by Hope Simpson and Dickinson 1979, 121.

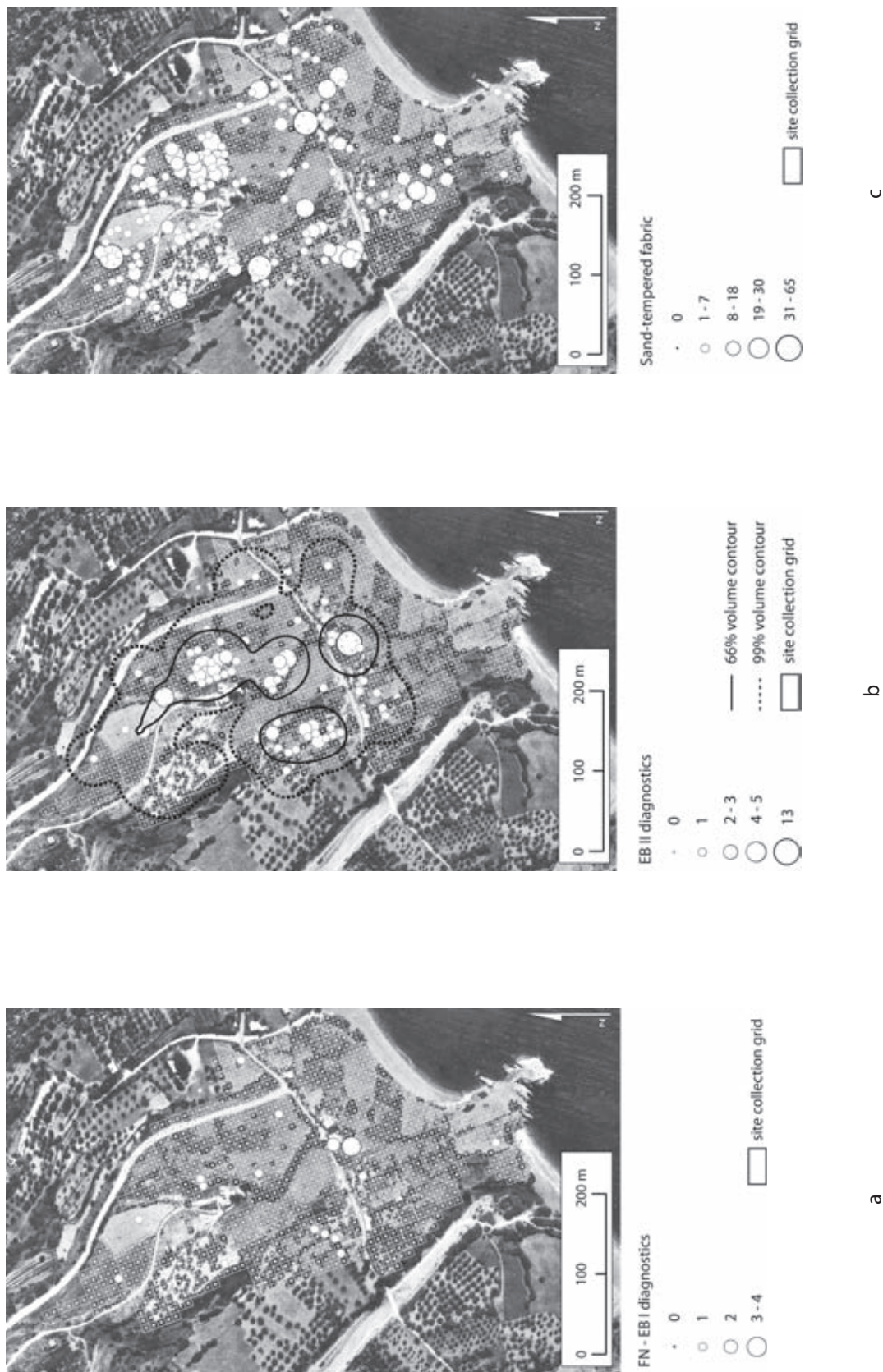


Fig. 7. The Kasti surface collection grid, showing the distribution of pottery: *a*, FN-EB I; *b*, EB II (inner lines define the highest density areas, outer line defines the approximate total distribution); *c*, Sand-tempered pottery (drawings *a*, *c* by V. Delrieu, drawing *b* by V. Delrieu and J. Conolly).

antiquity).¹²⁷ Regardless, it is clear that a substantial indigenous village, comparable in size to local regional centers on the southern Greek mainland and on Crete, did exist at Kastri well before the arrival of the first Cretans on the Akroterion.¹²⁸

The extent of the early Minoanizing material beyond its well-attested presence on the Akroterion is harder to establish at present. No definite EM II material has been found beyond the Akroterion, from which the tentative conclusion might be drawn that the initial Cretan enclave was much smaller than the indigenous settlement. The presence of subsequent early Minoanizing (EM III–MM IA) pottery in the area of the Kastraki pits has been established above. In addition, an EM III–MM IA goblet emerged from a recent bulldozer-cut in the same vicinity, and a few definite deposit γ type sherds were found in the Tholos excavation.¹²⁹ Turning to the results of the surface collection, the paucity of feature sherds of EM IIB, EM III, or MM IA type can be partially overcome if we use the distribution of Sand-tempered fabric as a reasonable if imperfect proxy (see fig. 7c), with the proviso that some of this material could date to the First Palace period, and that a variant continues at low frequency into the early (MM III–LM IA) Second Palace period.

The Sand-tempered fabric is found in some quantity over a large area of Kastri. Inland, there is a substantial overlap with the EB II distribution, notably around Tholos and on the western alluvium, although there is a markedly higher concentration in the far north. To seaward, there is now a definite surface presence, including on the Akroterion. At some point in the later third–early second millennium B.C.E., the Minoanizing pottery appears, therefore, to have spread extensively over Kastri, but both the nature and finer dating of this presence remain uncertain. Considering that the Tholos area was used for tombs in the Second Palace period, and given the case made in the following section for the presence of early Minoanizing jar burials

at some sites, it is not impossible that at least part of the scatter of Sand-tempered sherds at the landward end of Kastri reflects destroyed burials. To what extent the demonstrable spatial overlaps with material of the indigenous tradition provide further support for the already suggested chronological overlap at Kastri is a moot point, but at least the case for interchange of pottery seems a lot more plausible than before.

THE INDIGENOUS TRADITION AND MINOANIZATION IN THE EARLY KYTHERAN LANDSCAPE

Two of the principal aims of the KIP intensive surface survey with regard to prehistory were to provide a broader context for Kastri and a spatial perspective on Minoanization as a landscape-scale phenomenon. It is rather surprising, given Kythera's size (the 14th largest Aegean island, at 278 km²) and quite gentle relief, which invites widespread settlement, that archaeologists were content for so long to look simply through the lens of Kastri,¹³⁰ and even then only at the small excavated area of a much larger site. Having described the contribution of the surface data to establishing the size of the indigenous community at Kastri and the extent of the Sand-tempered material beyond the Akroterion, the scale of analysis can now be broadened to include an intensively investigated 43 km² (15.5% of the island) within a survey area of approximately 100 km² (see fig. 1). Information derived from this sample has greatly increased the handful of sites hitherto reported (fig. 8 shows current numbers as represented by raw counts and weighted for period length: FN 4500–2700 B.C.E., EB II 2700–2200 B.C.E., and EM III–MM IA 2200–1950 B.C.E.). Combined with the information from fieldwork by other teams on the island, this dramatically expands our knowledge and reveals Kastri to be only one, albeit highly important, focus within the broader history of indigenous people and Minoanization on Prepalatial Kythera (fig. 9 shows site distributions).¹³¹

¹²⁷ Just south of this surface concentration, a small rescue excavation, necessitated by roadwork, was undertaken in 1995 by the Greek Archaeological Service (B' Ephoreia of Prehistoric and Classical Antiquities) (A. Tsaravopoulos, pers. comm. 1999). Among the recovered pottery, there is only one sherd from a red-slipped and burnished pot in Chert fabric of FN–EB I date and a few abraded EB II Orange Micaceous ones, all found in the surface layer with pottery of Second Palace and historical periods, and on top of a pure Second Palace fill that lay on the natural soil. In this specific case, then, the third-millennium B.C.E. material probably erodes from above. We are grateful to Tsaravopoulos for inviting us to examine the finds from this excavation and allowing us to mention them here.

¹²⁸ Whitelaw 1983; 2000, 135–143; 2004, 234–42; Hägg and Konsola 1986; Wiencke 1989, 498–99; Broodbank 2000, 279–82.

¹²⁹ Bevan et al. 2002, 87.

¹³⁰ The excavation of the Agios Georgios peak sanctuary constitutes, of course, an exception (cf. supra n. 8).

¹³¹ Until recently, the only Prepalatial sites known beyond Kastri were two Early Helladic surface scatters in the north of the island: Pyreatides, 2 km north of Karavas, and Vythoulas, overlooking the Agia Pelagia harbor (Waterhouse and Hope Simpson 1961, 149; Hope Simpson and Dickinson 1979, 122–23). Excavations in and around Chousti Cave (KIP site 136), near Diakofti, are currently revealing a further example (Papatsaroucha 2000, 10–11; Tsaravopoulos 2005, 198–201). Other surface sites in northern Kythera have been discovered by the Australian Paliochora-Kythera Archaeological Survey (APKAS) project (Coroneos et al. 2002). We thank Timothy Gregory and Lita Diakopoulou of APKAS for the opportunity to see and provide preliminary dates for their prehistoric material.

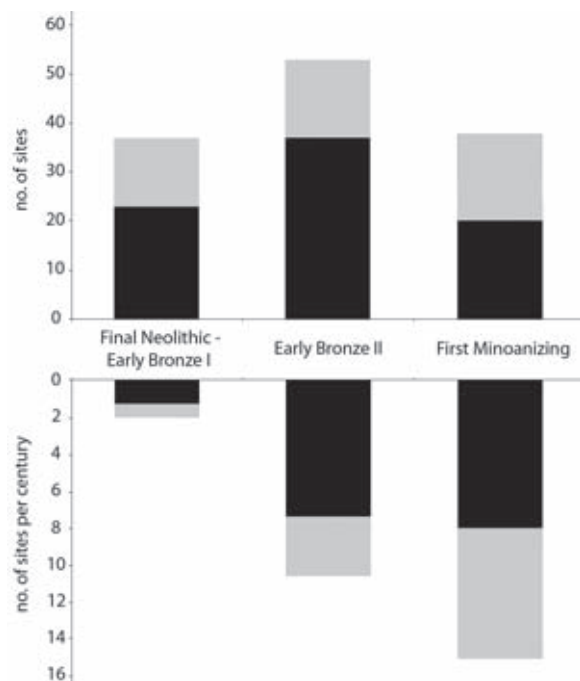


Fig. 8. Quantity of FN-EB I, EB II (indigenous tradition), and EM III-MM IA sites known within the area of the KIP field survey: *top*, raw counts; *bottom*, weighted for period length (black = major component, grey = minor component) (drawing by A. Bevan).

The earliest definite signs of a human presence on Kythera now date to the early fifth millennium B.C.E., as indicated by Late Neolithic (LN) white-on-dark painted pottery from the Agia Sophia Cave in the far south (outside KIP's survey area)¹³² and chipped stone tools (including obsidian projectile points) of equivalent date from the KIP survey area, including a dense lithic scatter at site 146 on the coast close to Kastri.¹³³ Definite pottery of this date has so far proved elusive on the surface within the KIP area, and the amount of permanent LN settlement that these patchy data indicate is uncertain.¹³⁴ More widespread are sites identi-

fied by the Chert fabric pottery seen in deposit α at Kastri and datable on stylistic grounds to FN and EB I (specific sherds can sometimes be allocated to a certain period, but the majority are too poorly preserved to be more precisely dated). So far, 24 definite FN-EB I sites have been identified in the survey area (see fig. 9a), with 14 more producing only tiny amounts of pottery (further uncertain identifications exist for this and all other periods under discussion). The inhabitants of these sites may have been the descendants of earlier islanders or could have originated more recently in the southern Peloponnese, which itself witnessed a settlement boom at this time.¹³⁵

In EB II, the number of definite sites identified by the Orange Micaceous fabric rises to 37 (see fig. 9b), with very small amounts of pottery on 16 additional sites. A marked degree of settlement continuity is demonstrated by the fact that more than half of the FN-EB I sites also provide significant signs of activity in EB II. However, the increased number of EB II sites, especially after adjusting for period length (see fig. 8), reflects major expansion, and the level of simultaneous occupation of sites within this period should be much higher than in the longer FN-EB I phase (although, conversely, poorer survival of the friable Chert fabric might be taken into account). The vast majority of these FN, EB I, and EB II scatters are 0.1–0.4 ha in size¹³⁶ and represent very small settlements (i.e., farmsteads or, at most, hamlets) distinct from the larger village-level community at Kastri. The assemblages at such settlements are also distinguished from deposit α by the rarity or absence of sauceboats and saucers, fine imports, and vessels with more “cosmopolitan” features such as scored surfaces, portable hearths with impressed decoration, and jars with slashed handles. Nevertheless, a few sites seem to be intermediate between the small settlements and Kastri in terms of size (0.5–1.0 ha) and/or variety of ceramic types. These last sites also share a long history, with evidence for habitation by at least FN-EB I. They include site 136 (Chousti Cave), located at another good point of ac-

¹³² Papatsaroucha 2000, 11–12; Tsaravopoulos 2005, 198–201. In the same cave, Benton (1931–32, 245) saw “polished” sherds that she (rightly or wrongly) ascribed to the Bronze Age. The painted Neolithic pottery now found also neatly fills a void in the distribution shown in Broodbank 2000, 162, fig. 47.

¹³³ KIP's chipped stone is being studied by Tristan Carter, to whom we are grateful for confirmation of these dates. He reports the possibility of slightly earlier tools from a few sites. Sakellarakis (1996, 91 n. 96) reports a further projectile point from the off-shore island of Antidragonera.

¹³⁴ An issue first raised by Cherry 1981, 61–2. See Broodbank (2000, 120–25) for discussion of analogous contempo-

rary data on several Cycladic islands.

¹³⁵ For references and parallels among other islands off the coastal fringe of the southern Greek mainland, see Broodbank 1999b, 33. See also Kiriati (forthcoming [b]) for discussion of the increased mobility and colonization of new landscapes in FN in relation to the wide distribution of a grog-tempered pottery tradition across the Peloponnese and adjacent islands, including Kythera.

¹³⁶ The size and location of the Early Bronze Age surface sites found by KIP has also been analyzed by Stellatou (2007) as part of her doctoral dissertation at the Institute of Archaeology, University College London.

cess to the sea; sites 004 and 085C, a few hundred meters apart on the Mitata plateau; site 164 in the Pourko Valley; and possibly site 156 on the fringes of the Livadi basin. Each of these intermediate sites lies within a discrete niche on the island, and although it would be premature to translate the above gradations of size into a three-tier island-wide settlement hierarchy, each intermediate site may have dominated its immediate surroundings, just as Kastri (site 064) commanded its own local hinterland of Paliopolis.

This information completely transforms the demographic and social contexts and conditions within which we need to envisage the appearance of Minoanizing material. People had lived on Kythera for a very long time before the appearance of deposit β . Moreover, by EB II, the indigenous population must have been substantial, perhaps 1,000–1,500 people,¹³⁷ an aggregate that is unlikely to have melted away at the first arrival of groups from Crete, especially in the case of the large, long-established community at Kastri.

The Kastri data, as we have seen, suggest a chronological overlap between deposits α and β , as well as a degree of spatial overlap between the two types of material. The survey data, too, argue for a gradual expansion of Cretan traditions and a longer survival of indigenous ones than has been hitherto realized. Figure 9c shows the distribution of survey sites with substantial amounts of Sand-tempered (or occasionally fine) pottery of deposits β and γ type. There are 20 definite sites; an additional 18 have very little material. In chronological terms, most sherds cannot be finely dated, but there are some suggestive facts. While no EM II diagnostics have been identified beyond Kastri, a few EM III–MM IA goblet sherds have been found at other sites (there are three examples from site 102 and a possible one from 164), and the most closely datable Sand-tempered sherds come from large ribbed jars (sites 004, 102, 121, 164), medium-sized jars or jugs with ribs on the shoulder, and pushed-through

handles from jars and jugs with parallels in deposit γ but not β , indicating a relatively late date, probably in MM IA. In short, most of the early Minoanizing sherds in the landscape appear to belong to the last centuries of the third millennium B.C.E. and the transition to the second. Kastri, therefore, does seem to be the earliest place to produce such material, at least among the sites around the great bay that it dominates, although differences in sample size between the excavated deposits at Kastri and the smaller numbers of survey diagnostics urge a degree of caution, and other relatively early Minoanizing material might well be present at Chousti or, indeed, at the few other easy-entry points to the island that lie outside the survey area.

What might this distribution of sites with Sand-tempered material represent? For a start, it attests to the wide dispersion, mainly along the coast but also inland, of pottery made in the Minoanizing tradition and probably produced in the former region.¹³⁸ This demonstrates the acceptability (albeit to varying degrees) of such pottery in the eyes of people living in different parts of the island. That, for inland communities, this meant the acquisition of vessels made some distance away should come as no surprise, given that the Orange Micaceous pottery that inland communities also used derived (by whatever means) from clay beds in northern Kythera.¹³⁹ One exception is the paucity of sites with early Minoanizing material in the southern half of the survey area, and notably the Livadi basin in the southwest, which contrasts with the larger number in the northwest, around Mitata and along an easy axis of communication between this part of the interior and the coast around Kastri. Such spatial differences raise the intriguing possibility of multiple trajectories of expansion and uptake that resulted, at least temporarily, in an internally variegated island culture.

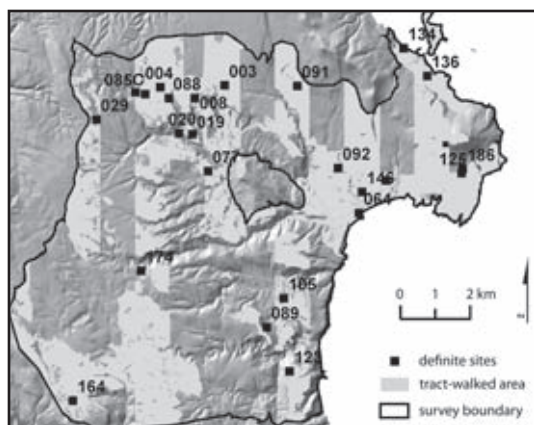
Further insights come from looking at the prior history of the 20 definite sites with quantities of the early Minoanizing Sand-tempered pottery (see fig. 9c) and

¹³⁷ This range is reached as follows: The 37 EB II sites within the intensively investigated 43 km² are taken to imply an island-wide total of ca. 240 sites (exclusive of probable loss of sites) of which, at a reasonable guess, perhaps half might be simultaneously occupied. Given the tiny size of these sites and their comparanda in the Cyclades (Broodbank 2000, 151–53, 176–78), it can be suggested that the typical residential unit was a nuclear family averaging five people and therefore indicating a standing island population of 600 people, to which must be added the inhabitants of the few intermediate settlements and those of the substantially larger settlement at Kastri. The conservative estimate of 2.3–3.0 ha for the size of the latter would suggest, at likely Early Bronze Age population densities (Renfrew 1972, 251; Whitelaw 1983, 339), a further 460–900 people, depending on the density and simultaneity

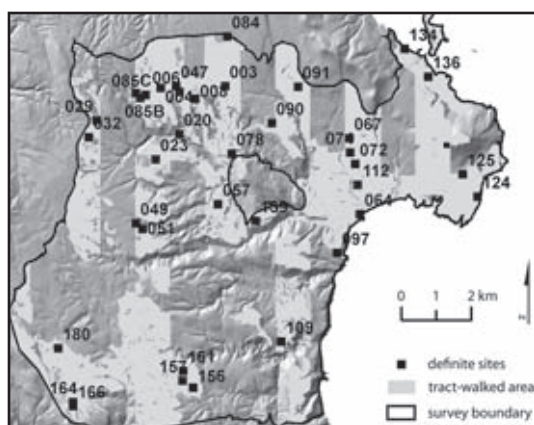
of occupation of all areas, making a total island population of 1,000–1,500 a reasonable working estimate. The resulting overall density for the island would be 3.6–5.4 people/km² (or 2.2 people/km² without Kastri and the middling-sized sites), a range slightly higher than estimates for the Early Bronze Age in the more rugged Cyclades, and very much in line with a sophisticated analysis of likely densities for early mixed farming communities in southern Italy (Robb and van Hove 2003, table 1, esp. their “mixed” models 8–11, which generate densities of 3.41–8.38 people per km²).

¹³⁸ This needs to be confirmed through further sampling and analysis of the survey pottery once its macroscopic examination is completed.

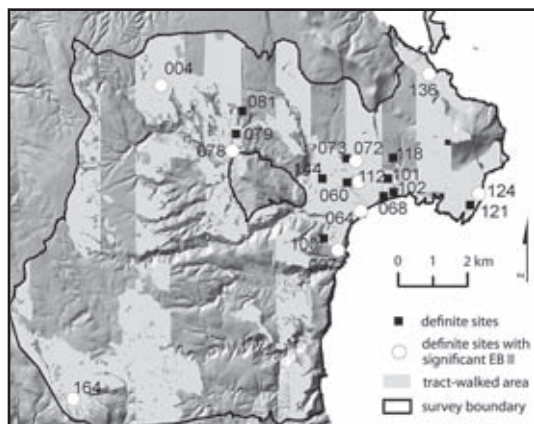
¹³⁹ Cf. Whitelaw et al. (1997) and Day et al. (1997) on the dispersion of pots in EM II Crete.



a



b



c

Fig. 9. The KIP survey area: *a*, FN–EB I; *b*, EB II (indigenous tradition); *c*, EM III–MM IA (showing sites also with prior EB II material of the indigenous tradition) (drawing by V. Delrieu).

¹⁴⁰ This core was drilled under the auspices of KIP by Charles Frederick, Nancy Krahtopoulou, and Maria Kousoulakou using University of Liverpool equipment kindly loaned by Peter James. Its analysis and preparation for publication is

the amount of this fabric at such sites. This argues for at least two distinctive processes at work in the landscape. In several instances, the site seems to be new at this stage. In three cases, this is definitely so, with Minoanizing pottery not preceded by EB II Orange Micaceous material (sites 073, 102, 144); this may be true of three other sites (079, 081, 100), and in another five cases, the Orange Micaceous is tiny in quantity and insufficient to affirm a definite prior occupation (060, 068, 101, 118, 121). Such sites are mainly located in two areas: (1) the coastal zone around Kastri and its bay, and (2) the eastern Mitata Valley at the end of the corridor of movement up from the coast. Based on an ongoing analysis of the pottery, it appears that, as at Kastri, the Minoanizing pottery at these sites shows a substantial range of vessel shapes, including cooking pots. Given the evidence already presented, and the fact that the new sites are not evenly distributed among preexisting EB II sites (as might be expected if they simply represented communities of indigenous people using different pottery), the most likely interpretation of these sites is that they indicate additional communities of Cretan origin, whether they be fresh incoming groups or people radiating out from an initial focus at Kastri.

Site 102 is of considerable interest in this respect (fig. 10). It is located at Skafidi, 2 km along the coast from Kastri, and consists of a scatter of pottery around a series of shallow sea caves in the cliffs that define an alluviated gully. Coring shows this gully to have been a wetland possibly close to an inlet.¹⁴⁰ Although the extent of the scatter is obscured by alluvium and vegetation, the amount of Minoanizing pottery is impressive, as is the range of shapes and the complete lack of Orange Micaceous pottery. Altogether, the combination of material and coastal location is reminiscent of the Kastri Akroterion. In other words, Kastri may have been the earliest and largest but was definitely not the only Minoanizing community forming around the bay by the end of the third millennium B.C.E. Other sites in similar topographic locations include 100, 121, and 144 (in the last case allowing for a deep inlet in place of the now agriculturally rich Paliopolis lowland alluvium; see fig. 2).

The remaining sites with early Minoanizing material also have appreciable quantities of Orange Micaceous pottery. In most instances, the sites are again near the coast (064 [Kastri],¹⁴¹ 072, 097, 112, 124, 136 [Chousti Cave]). But there are also three inland examples (004, 078, 164). Of these, sites 004 and 164 are of particular

being undertaken by Krahtopoulou, with palynological analysis by Margaret Atherden.

¹⁴¹ A slight inconsistency must be admitted here, as the treatment of Kastri as a single site blurs the fact that the early



Fig. 10. Site 102, showing its location relative to former coastal wetland (foreground) and Kastri (background) (C. Broodbank).

interest due to their position deep in the interior and to the fact that the amount of Orange Micaceous at both is greater than that of Sand-tempered, with the latter fabric also being somewhat more limited in its range of shapes. As already noted, these were two of the longest-lived sites on the island by this time. In addition, tiny amounts of Minoanizing pottery are found at another eight EB II sites, mainly, but not only, inland ones (008, 032, 047, 057, 074, 091, 109, 139).¹⁴² In all these last sites, too, the Minoanizing pottery is particularly limited in terms of shapes, which seem to consist of large ribbed jars and jugs with ribs on the shoulder, in both cases slipped or painted and with pushed-through handles.¹⁴³

Given that the Orange Micaceous pottery on Kythera has been dated to EB II, and the Sand-tempered material on the survey sites appears to be of EM III–MM IA date, the presence in varying proportions of

both on some survey sites presents a conundrum. Did Sand-tempered pottery simply succeed Orange Micaceous at such sites, perhaps along with the arrival of new inhabitants late in the third millennium B.C.E.? In some cases this may be so, but in others, such as at sites 004 and 164, it seems unlikely (unless the Minoanizing vessels were deposited for some reason after the abandonment of the indigenous settlement, which in explanatory terms would require considerable special pleading). This raises the intriguing question of how late some of the indigenous settlements actually survived in the Kytheran landscape outside of Kastri. Here, we encounter the problem created by the lack of a well-defined EH III material culture across much of the southern Peloponnese, let alone on Kythera.¹⁴⁴ But at several (mainly inland) sites where the early Minoanizing pottery is modest in quantity and limited in range, the most likely scenario is that it was acquired

Minoanizing focus on the Akroterion is spatially distinct from Kastraki and therefore more comparable in isolation to sites that evince limited or no sign of earlier material.

¹⁴² Other inland sites that appear to have pottery of both traditions have been found by APKAS north of KIP's survey area, a conclusion based on our preliminary dating of APKAS'

pottery (*supra* n. 131).

¹⁴³ Some of these finds may relate to burials.

¹⁴⁴ Rutter 1993a, 773; Spencer 2006, 28–9. See Stocker (2003) for progress in western Messenia, and Banou (1999, 71, 73, 79) for possible EH III finds from southern Laconia.

and used by an indigenous community, which must therefore have survived as late as the threshold of the second millennium B.C.E. (i.e., through EB III and into the start of the Middle Bronze Age), largely employing an Orange Micaceous ceramic repertoire that continued earlier traditions and with no relationship to the distinctive EH III of the northeast Peloponnese and central Greece. Indeed, close examination of Orange Micaceous pottery from such sites does reveal a few late traits, such as vessel forms or types of plastic decoration characteristic of the Minoanizing pottery but adopted in the indigenous fabric tradition.¹⁴⁵ This observation, and the fact that the 20 definite early Minoanizing sites that existed within a span of around 250 years are a good match for the 37 definite EB II ones over double that time span (see fig. 8), suggest that the level of settlement on Kythera may have remained fairly steady through the end of the third millennium B.C.E.¹⁴⁶ Such continuity is underscored by the fact that almost half of the 37 definite EB II sites do have some early Minoanizing pottery, whether in appreciable or tiny amounts.

One final observation deserves mention. As with the FN–EB I and EB II sites, there is little doubt that most definite early Minoanizing sites represent small settlements. But in a few cases, there are hints of burials in large ribbed jars of deposit γ type. Site 068 is located on the east slope of the Asprogas ridge, adjacent to a cemetery area for Kastri in Second Palace and post-prehistoric times. Road construction nearby exposed one such jar containing EM III–MM IA goblets, long obsidian blades, and human bones,¹⁴⁷ and another probable jar burial in the eastern cliff of Asprogas was noted by Waterhouse and Hope Simpson.¹⁴⁸ Site 068 may have functioned in EM III–MM IA as a cemetery for Kastri, possibly, as noted earlier, with another burial zone at

Tholos. The same may be true of site 101 relative to site 102, as the material at the former was clustered around a bedrock cutting that could represent the remains of a destroyed burial. At site 164, a large fragment of a ribbed jar was found in the section of a pit exposed in the face of a quarry, and at site 004, sherds from such jars are most common on the plowed-up fringe of the site. Hints of a practice analogous to that at Asprogas occur about 300 m west of site 004, in the form of a group of long obsidian blades found together during tract-walking. In the state that they were found, these must represent a modern cache but one surely made after the recent exposure of another burial. If correctly identified, this jar burial phenomenon suggests a further new form of behavior associated with Minoanizing pottery.¹⁴⁹

THE EARLY MINOANIZATION OF KYTHERA

Around the middle of EB II, when deposit β began to appear on the Akroterion, a long-established large settlement centered on the Kastraki-Tholos ridge at Kastri stood out against a background of many smaller and a few medium-sized settlements dispersed across the island. Although its material culture, and that of Kythera in general, has clear parallels with the Peloponnese, Kastri was also preferentially connected in other directions, most notably to western Crete. This Cretan connection seems to have been established some time around the Neolithic to Early Bronze Age transition¹⁵⁰ and became strongly focused on the west by early EB II, at which time Crete itself displayed several distinct internal cultural traditions, each with its own off-island networks. Thus, the EM IIA material at Nopigeia may have been at least as similar to the pottery of deposit α at Kastri as it was to that of Knossos, and it was through a corridor of contact running via

¹⁴⁵ The large ribbed jar (see fig. 6c) is one of the most typical Sand-tempered shapes in MM IA deposit γ ; it is extremely rare in Orange Micaceous fabric, and in this form has only been found at sites 008 and 085C, the former with tiny amounts of Minoanizing pottery, the latter with none.

¹⁴⁶ In supposed contrast to the situation on the southern Greek mainland and the Cyclades, although both Broodbank (2000, 320–49) and Forsén (1992, 176–96, 257–59) explore whether late Early Bronze Age settlement collapse in these regions has been exaggerated and is an artifact of archaeological prospection and recognition.

¹⁴⁷ Cited in Coldstream and Huxley (1984, 108) and Petrocheilos (1984, 84), the latter mentioning human bone. We would like to thank Tsaravopoulos for allowing us to examine the pottery, some of which is exhibited at the Chora Museum in Kythera, and Antonis Pissis, the former museum guard, for showing us the findspot.

¹⁴⁸ Waterhouse and Hope Simpson 1961, 152. Two intact

MM IA jugs found in a modern well at Vothonas, again very close to the Kastri site, probably come from another burial, though in this case the interment method is unknown (Coldstream 1972c, 258, pl. 82).

¹⁴⁹ Tempting as it is to identify pithos burials as a further Minoanizing trait, the matter is complicated. While EM III–MM IA does see an increase in the funerary use of pithoi in Crete (Christakis 2005, 55), the majority are found in built tombs or caves, although a hypothetical west Cretan tradition of pithos burial in pits is certainly not impossible, and there is one intriguing intramural example from Nopigeia (Karantzali 1996, 66–7). We thank Borja Legarra Herrero for discussion and advice concerning this question. Pithos burial is also attested on the contemporary Greek mainland, where it is associated with both intramural and tumulus burial.

¹⁵⁰ See also discussion in Vagnetti 1996. For a different approach, see Nowicki 2002.

Kythera that western Crete participated in external interaction, in a manner quite different from the center of the island.¹⁵¹ The result was a continuum of style and interaction that breaks down divisions between "Minoan" and "Helladic," especially at the coastal nodes that articulated such networks. Kastri was, in short, a participant in one regional variant of the EB II "international spirit," and this was surely one of the reasons for its growth at this time.¹⁵²

This background has implications for the social processes that lie behind the early Minoanizing pottery. Such pottery appears some time around the EM IIA–B transition, is Cretan in stylistic and technological characteristics, and is made locally using materials different from those of indigenous Kytheran potters. As Coldstream recognized, it surely reflects immigrants from Crete. The preexisting links imply that Kythera was not an unknown land and suggest that deposits β and γ are the signature of, in Anthony's terminology, a "stream migration" into a previously scouted environment.¹⁵³ If this Cretan influx was actually an incremental process, this might provide one explanation (another is suggested below) for the continuously reaffirmed fidelity to Cretan ways of doing things that is witnessed in vessel forms, decorative styles, and manufacturing techniques from EM IIB through to MM IA (and indeed far into the second millennium B.C.E.).¹⁵⁴ It might also be one reason for the diversity of the intra-Cretan affiliations of deposits β and γ , which display associations in style, technology, and imports with both the center and west of the island (perhaps thereby suggesting diverse origins for the immigrants). Lastly, it could provide one reason for the later appearance of other enclaves around the bay.

Estimates of Kythera's indigenous population, set against the small number and size of the intrusive sites, make it apparent that there can have been no initial intention, or prospect, of demographic replacement. This is consonant with the lengthy period of coexistence—over as much as half a millennium—that is suggested by the chronology of the Kastri deposits and the survey data, particularly from the island's interior. The lack of a visibly defensive posture at settlement

sites argues that interaction was essentially nonviolent, and furthermore, the unpublished reports of cattle and sheep or goat remains from early Minoanizing levels on the Akroterion¹⁵⁵ prompt the speculation that animals must have been obtained from the indigenous community as meat or, if separately owned, grazed on land that the latter had long staked out. Considerable exchange of pottery also seems to have taken place, both over a very short range and between coast and interior.

But equally apparent are certain limits to this interaction within Kythera. There is very little appreciable hybridization of pottery shapes or technology. The two examples mentioned in note 145 are rare exceptions; an even rarer reverse case, found in one of the Kastraki pits, appears to be a pedestaled bowl or sauceboat in Sand-tempered fabric. From the indigenous perspective, this implies that at least some potters and consumers felt no overwhelming incentive to take up Minoanizing traditions. Turning to the intrusive groups, the maintenance in small enclaves of Cretan traditions over such a duration is impressive and thought-provoking in terms of the reasons for doing so. In addition, the patterning in the pottery does not suggest an entirely reciprocal situation, for while many indigenous sites have some early Minoanizing material, several of the best-defined early Minoanizing survey sites (e.g., site 102) have no Orange Micaeous material.

Continuing immigration from Crete may, as suggested above, in part explain this cultural exclusivity. But the latter phenomenon may also indicate a conscious desire to maintain a separate in-group identity, even long after many of the producers and consumers are likely to have been locally born. The demographic and the cultural may not, in fact, be so separable, as marriage alliances back to Crete would have been the only means of long-term survival for a small enclave if it did not wish to form such links with the indigenous population. A certain preoccupation with the maintenance of material emblems of off-island descent can be reasonably inferred and, indeed, justifies the use of the terms "indigenous" and "intrusive" long after

¹⁵¹ See Tzedakis (1967, 505) for Cycladic and mainland types of material culture in Platylola Cave, indicating contacts with these areas.

¹⁵² Renfrew 1972, 451–55; see also Broodbank 2000, 276–91. In this context, it may be noted that an Egyptian Fifth-Dynasty bowl that is said to have come from Kythera (Coldstream 1972c, 266, pl. 86) cannot be used as a secure tool for either dating or reconstruction of external contacts in the mid third millennium B.C.E. due to its questionable provenance and the fact that many of the early Egyptian finds in the Aege-

an can be shown to have arrived much later as antiques in the Second Palace period (Bevan 2003, 2004).

¹⁵³ Anthony 1990.

¹⁵⁴ More information, esp. on parallel developments in technological practice, will be provided in Kiriati et al. (forthcoming).

¹⁵⁵ Mentioned in the unpublished pottery-processing notebooks for Akroterion trench VIIC level 11, one of the excavation units that would later constitute deposit β .

the realities of residence had surely become more complex.¹⁵⁶ It is striking that similar trends are seen on Crete itself in EM IIB, when an earlier enthusiasm for external goods and their imitations is reversed.¹⁵⁷ Most relevant to the present argument is the fact that in western Crete, the stylistic links to the mainland and Kythera that are seen at a series of sites in EM IIA are replaced in EM IIB–III by central Cretan-type assemblages (as exemplified by sites such as Psathi). In other words, at much the same time that Minoanizing assemblages appear in an intrusive context on Kythera, western Cretan communities were also becoming in this sense more “Minoan” and transforming their associations with off-island culture. Whatever the broader significance of this growing exclusivity within Crete, the very fact of this shift is relevant when we turn to the question of why Kythera should have become such an important place for Cretan groups at this time.

In the interests of investigating the nature and proximate explanation for the first Minoanizing material on Kythera, this analysis has so far skirted the issue of motives. As mentioned earlier, only Rutter and Zerner have underscored how unobvious it is why Prepalatial groups on Crete, who otherwise show slight interest in exporting their material culture until MM IA, should display a targeted interest in Kythera. Why have archaeologists not found this more of a puzzle? The answer seems to be the unconscious retrojection of what is considered to be typical Cretan behavior in the Palatial second millennium back onto the third. Such anachronism is problematic, however, given the widely differing circumstances within and beyond Crete and the consequent fact that the analysis of Minoanization before and after the emergence of the Cretan palace-states must operate within fundamentally different ground rules. The challenge is therefore to develop an explanation that is appropriate in the context and scale of the Aegean in the second half of the third millennium B.C.E.

Two basic explanations have been proposed to date. One suggests that Cretan interest was driven by desirable local resources on or around the island. The other is based on connectivity and argues that Kythera lay on a sea-route toward resources located elsewhere. Start-

ing with the former, and given the absence of nonferrous metal deposits or other mineral wealth, the local resources that have been put forward are arable land, murex shells for a purple dye industry, and seasonal fishing.¹⁵⁸ None is very compelling. The land hypothesis has been argued from the point of view of Crete, where EM II sees a rise in settlements, especially in the west,¹⁵⁹ and emphasizes the territory near Kastri as a prize worth seizing. However, quite apart from doubts as to whether Crete was yet so densely populated as to have encouraged out-migration,¹⁶⁰ coastal enclaves such as Kastri/Akroterion and sites 100, 102, 121, and 144 are not located primarily for access to arable land (less extensive in the third millennium B.C.E. on the coast, which was more indented than it is today), and expansion inland was slow and on a smaller scale. Moreover, the probable survival of indigenous communities argues against a rapid takeover of prime land, least of all around Kastri, the location of an exceptionally well-established indigenous settlement. The murex and fishing hypotheses are consonant with the coastal location of many Minoanizing sites but encounter other problems. As Rutter and Zerner point out, there is no substantial evidence for the former even in the second millennium B.C.E., when an elaborate textile and dyeing industry is more plausible. But, equally, their hypothesis that the Minoanizing pottery represented the remnants of a seasonal station for fishing groups from Crete now stumbles on the fact that most of it was locally made, to skilled standards, in the vicinity of Kastri.¹⁶¹

A connectivity-based explanation has the virtue of accounting for the maritime location of many early Minoanizing sites, and there are similarities between the topography of the Akroterion and those of EB II sea-trader communities such as Mochlos and Daskaleio-Kavos in the Cyclades (this quasi-insular topography is typical of specialized maritime centers and trade enclaves at a crosscultural level). There is a risk of anachronism, however, in some versions of the connectivity argument, for Prepalatial Crete was not a consumer on anything near the scale it was to become in the second millennium, while arguments that Kythera lay on a route to resources in the Peloponnese disre-

¹⁵⁶ The timespan over which this distinction was maintained far exceeds that of the probable Cycladic community of Agia Photia on Crete, which survived for a century or two at most, and admitted substantial numbers of culturally Cretan (e.g., Mesara-produced) objects (Day et al. 1998, 137–78; Davaras and Betancourt 2004, 4).

¹⁵⁷ For a summary, see Broodbank 2000, 317.

¹⁵⁸ Coldstream and Huxley 1972b, 309; 1984, esp. discussion; Coldstream 1973; Rutter and Zerner 1984, 75–6 (on fish-

ing); Watrous 1994, 711.

¹⁵⁹ See Moody (1987, 294–300) for the expansion of settlement in western Crete during EM II.

¹⁶⁰ Unlike the Neopalatial island (Warren 1984b).

¹⁶¹ If the fishing hypothesis does have validity in the case of Early Bronze Age Kythera, it might, in fact, apply better (as part of a range of activities) to the earlier contacts predating deposit β that are now identified.

gard the fact Peloponnesian stones were not used on Crete until well into the Palatial period, and the exploitation of Peloponnesian metal sources during the Early Bronze Age remains undemonstrated.¹⁶²

Yet, other forms of connectivity may prove to be more promising if we set aside the dendritic routes out of Crete that characterize models of second-millennium trade and replace them with the indirect cyclic routes that Agouridis¹⁶³ shows to be more compatible with third-millennium B.C.E. canoe voyaging, which could seldom make direct headway north from Crete toward resources in the Cyclades against prevailing winds. Agouridis reveals how the eastern coast of Kythera would form a crucial point for routes starting in western Crete and moving via Antikythera and Kythera to the mineral-rich western Cyclades before reversing direction or heading straight home with the wind behind them. Such a route, being shaped by meteorological conditions, should reflect a long-term tradition during the Early Bronze Age that in turn helps to explain the prior links between western Crete and Kythera well before the first Minoanizing material, as well as the Cycladic-type slashed jar handles found in both local and imported fabrics in deposit α and also disseminated into western Crete and Laconia, perhaps via routes passing through Kastri.

Seen in this light, the appearance of early Minoanizing settlements at and around Kastri could reflect the residential coalescing at a preexistent node of Cretans whose aim was to establish independent access to the Cycladic mineral resources. This would be another facet of the trend toward exclusivity on Crete from EM IIB.¹⁶⁴ This process may or may not have taken the form of an initial founding "event" (what Malkin nicely calls a "*Mayflower* moment")¹⁶⁵ on the Akroterion. But if the emerging settlement was indeed a voyaging-related enclave, it is more likely to have developed a fluid composition similar to that of many later "colonies" founded for similar reasons, with people drawn from a range of Cretan communities engaged in such

activities (which also would explain the complex intra-Cretan parallels in the pottery). It may even be that the late Prepalatial expansion of Minoanizing sites on Kythera in MM IA and the contemporary appearance of Minoanizing pottery, in most cases imported, at sites in the southern and eastern Peloponnese as well as those around the Saronic Gulf (i.e., Asine, Aspida [Argos], Agios Stephanos, Kolonna, Lerna, Nichoria),¹⁶⁶ are connected to this route's subsequent intensification, expansion, and gradual transformation into a dendritic phenomenon, reaching toward both the metals of Lavrion and, according to Maran, the metal-rich trading network of the late third-millennium B.C.E. Adriatic, Ionian, and Corinthian gulfs.¹⁶⁷ Such a shift could well have been enabled by the introduction of new sailing ships in place of canoe traffic.¹⁶⁸ The virtually complete absence of reciprocal ceramic imports from these destinations on Kythera or Crete reemphasizes the cultural exclusivity of the new system and possibly the largely metallic nature of the southward flow.

To what extent, if at all, such ventures and people were controlled at some time from EM II onward by emergent elites back on Crete (or indeed on Kythera itself) is unknown though important, and the answer depends in large part on the amount of political development on Crete that is envisaged during EM IIB, EM III, and MM IA. These are issues surrounded by considerable controversy over chronology and interpretation of the data, but there seems to be a broad consensus that major changes were underway by MM IA, if not by EM III.¹⁶⁹ In the Kavousi region of eastern Crete, a process of small-scale EM III–MM IA settlement expansion in the hinterland, again detected by intensive survey, provides an intriguing parallel for the situation on Kythera,¹⁷⁰ though of course without the complicating factor of preexistent indigenous communities and located, unfortunately, at the other end of a large island in the throes of clearly complex and regionally heavily nuanced transformations. Regard-

¹⁶² On metal sources in Laconia (gold, silver, lead, and copper) and the possibility of Bronze Age use, see Stos-Gale and Gale (1984, 61), a case taken up by Morris (1992, 101–2). Unfortunately, evidence for the exploitation of these sources (not least in the Early Bronze Age) has yet to be discovered.

¹⁶³ Agouridis 1997.

¹⁶⁴ No metal or metallurgical finds are associated with the limited exposures of early Minoanizing material at Kastri, but it can be noted that such might not be expected on the outward leg of cyclic voyages. For a broadly contemporary accumulation of metallurgical debris at Chrysokamino in eastern Crete, in a coastal location that is thoroughly indicative of maritime activity, see Betancourt et al. 1999.

¹⁶⁵ Malkin 2003, 62.

¹⁶⁶ Kiriati (forthcoming [a]) argues for mobile craftspeople from western Crete or Kythera moving along these routes and further considers the phenomenon from both the Cretan and mainland points of view (Rutter and Zerner 1984, 77–82; see also Broodbank 2000, 354–56).

¹⁶⁷ Maran 1998, 444–45. Further hints of such a connection may be manifested by the accumulation of metal finds in the early Middle Helladic tombs recently discovered at Ellinika in southeastern Messinia (Rambach [forthcoming]).

¹⁶⁸ Broodbank 2000, 341–47.

¹⁶⁹ Manning 1994, 245; Watrous 1994, 717–20; Driessen 2001, 53; Whitelaw 2004.

¹⁷⁰ Haggis 1999, 63–73; 2002, 125–29; 2005, 65–9.

less, it seems highly likely that the early Minoanizing settlements on Kythera fit into wider Cretan cultural, economic, and possibly political logics that themselves provided some of the structuring principles behind the rise of the palace-states.

Kythera's history in the age of the Aegean palace-states lies beyond the remit of this analysis,¹⁷¹ but it is instructive to trace a few of the developments explored during the Prepalatial period into later times. As far as can be assessed, the indigenous pottery tradition had more or less vanished by the First Palace period (beginning ca. 1950 B.C.E.), and henceforth, Kytheran site assemblages are exclusively based on Cretan models for some 500 years.¹⁷² Perhaps islanders finally adopted Minoanizing material wholesale, regardless of their cultural affiliation or ancestry (becoming "indigenous" and "Minoan"), once Palatial Crete's prestige had made it attractive to do so. Or perhaps centuries of control of the island's external contacts by Cretan-oriented groups led to a withering of the indigenous tradition. Illustrative of Rockman's concept of a cumulative process of landscape learning and enculturation,¹⁷³ a First Palace period fabric using siliceous mudstone temper from the interior rather than beach sand¹⁷⁴ and, slightly later, the first agricultural terracing¹⁷⁵ attest to new forms of engagement with the Kytheran landscape. Furthermore, the start of a peak sanctuary cult at Agios Georgios at some juncture around this time reflects a further, symbolic, Minoanization of space.¹⁷⁶ The dynamics of Minoanization on Kythera shifted through the second millennium B.C.E., as they had in the third, subject to external factors that could trigger drastic path deviations in the history of the island but also conditioned by the decisions of the islanders themselves. The later history of the "Minoans" of Kythera was in no sense determined by processes back in the third millennium B.C.E. But, equally, it is hard to explain the unique patterns and strategies seen on the island during the Palatial age, except in light of perceptions and memories of the ancestral events, real or fictive, that had preceded them on Kythera generations earlier, long before the palaces arose on Crete, and when the identities of certain newcomers to the island first became anchored to

the mountainous land that hovered, as much mirage as reality, along the southern horizon.

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¹⁷¹ For a summary, see Broodbank 2004, 76–81.

¹⁷² Reports of the death of this tradition may be in one sense exaggerated, as by the Second Palace period, the island's micaceous clays were used again, to an increasing degree, for the manufacture of Cretan shapes (Kiriati 2003), and it is possible that a thin thread of continuous usage between their peak periods will one day be detected. In terms of shapes, however, there is no sign of descendants of the EB II forms.

¹⁷³ Rockman 2003.

¹⁷⁴ Kiriati 2003 (forthcoming [a]); Kiriati et al. (forthcoming).

¹⁷⁵ As discovered and documented by Frederick and Krahtopoulou. These data are currently being analyzed for publication (Krahtopoulou and Frederick [forthcoming]).

¹⁷⁶ The exact start date will be revealed by the final publication of the excavation. Tournavitu (2000, 298–99) confirms that MM IB–II pottery is present as a minor component.

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