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KEIAN, KEI-NOANISED, KEI-CENAEANISED? INTERREGIONAL CONTACT AND IDENTITY IN AYIA IRINI, KEA

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Introduction

Ayia Irini is one of the sites that has played a pivotal role in the discussion of the phenomena of material culture change during the MBA and LBA, phenomena often called *Minoanisation* and *Mycenaeanisation*. These phenomena had been discussed sporadically (Atkinson *et al.* 1904; Mackenzie 1904; Evans 1928, 229–252; Starr 1954; Buck 1962) prior to the exploration of the site by John L. Caskey of the University of Cincinnati from 1960 to 1976.[1] His excavations revealed a small (in terms of acreage) but long-lived site strategically located in a sheltered harbour and beside a freshwater spring that first attracted human activity during the Final Neolithic and with some interruptions endured as a settlement until the end of LH IIIA. The site seemed to be well connected, indicated by imports streaming in during every period of its history. Nevertheless, during the MBA and LBA periods, locally produced material culture seems to change, following trends current in the contemporary palatial communities on Crete and also in other island and coastal communities of the Aegean, even though it never lost its strong connection to the Mainland (Barber 1987, 161). Thus, right from the beginning of archaeological investigation, Ayia Irini's engagement with the 'outside world' and cultural change were central to the research agenda.

As early as 1967, scholars (Warren 1967; Caskey 1969; Hood 1971, 52, 118; Davis 1979; 1980; 1986; Cherry and Davis 1982; Schofield 1982; Wiener 1984; 1990) began speculating on the status of the site, its relationship to the political systems in Minoan Crete and Mycenaean Greece, and the mechanisms behind cultural change.[2] These processes and mechanisms were usually discussed as one overarching phenomenon, in terms that approximated anthropological definitions of unidirectional acculturation, a process through which one group (usually politically and perhaps culturally 'inferior') adopts the beliefs, practices and/or material culture predilections of the 'dominant' group, which is thought to have assumed political and/or economic control (albeit the degree and the physicality of this control is debatable). For Aegean sites in general, some scholars argued for acculturation through the presence of colonies and actual Minoan or Mycenaean immigrants (*e.g.*, Mackenzie 1904, 270–272; Furumark 1950, 200, 264; Scholes 1956, 38, 40; Immerwahr 1960; Branigan 1981, 1984; Wiener 1984; 1991; 2013; French 1986; Barber 1987, 51, 53, 194–200; see also Schofield 1983; 1984), while others rejected or avoided the subject with more benign but no less pervasive views of the cultural process that emphasised the active role of Aegean communities in adopting cultural traits and practices (Davis 1979; 1980; 1984a; Davis *et al.* 1983; Davis and Cherry 1984; Marthari 1990; more recently Knappett and Nikolakopoulou 2008).

Not unlike previous narratives about similar sites in the Aegean (Furumark 1950), the key element in these formulations was the introduction of foreign elements (artefacts or practices) into the cultural repertoire of one period, which altered the local idiom. Such perspectives were based on a binary perception of categories (such as local and foreign, and purity and hybridity) and cultural historical theoretical underpinnings that defined cultural entities based on the geographical and chronological spread of traits, which were considered markers of the spread of a particular cultural group (Jones 1997, 16–26; Lucy 2005, 87–91). Recently, a number of scholars have problematized these relationships (Sherratt 1999; Broodbank 2004; Davis and Gorogianni 2008; Knappett and Nikolakopoulou 2008; Panagiotopoulos 2012) following a growing number of voices in the wider discipline of archaeology that such binary categorisation is too simplistic (see Lucy 2005).

Despite the pivotal role of the site for the discussion of Minoanisation and Mycenaeanisation, it has been decades since these phenomena were discussed with Ayia Irini as the focus.[3] A reappraisal of the phenomena of cultural contact in the form of Minoanisation and Mycenaeanisation for Ayia Irini is therefore long overdue. This paper utilizes the major research efforts undertaken during the last decade at the site, particularly the completion of the Ayia Irini Northern Sector Archaeological Project (AINSAP) co-directed by R.D. Fitzsimons and the author, as well as the work by John Overbeck, Donna Crego, and Natalie Abell.

This paper approaches the topic of cultural change by examining locally produced pottery from Ayia Irini and comparing it, albeit briefly, to data from other artefactual categories, such as implements used in textile production, architecture, and wall-painting. The author also highlights the diachronic perspective and tracks the timing of these processes of change and emulation, as the timing and duration of the phenomena hold nuances that should definitely feature in any explanation of them. Minoanisation in the Aegean is considered to have started (with notable exceptions) in the MBA, peaked in LC I, and tapered off in LC II (Broodbank 2004, 49), a time span which, at least for the 'early adopters' (Rogers 1962, 283) such as Phylakopi, Akrotiri and Ayia Irini, amounts to a couple of centuries. During such a protracted period of time, it is highly unlikely that the same conditions or attitudes are represented (especially if Minoanisation was a directed process either by the Minoan palatial centres or by Aegean elites). The same applies to Mycenaeanisation, which began in LC II as Minoanisation declined, although the process may be suspected to have begun long before as the mainland Greek palatial polities and their associated elites dynamically entered the Aegean network as trading partners probably via proxies or independent entrepreneurs. The purpose of a diachronic perspective is to find differential rates or qualities in the process of cultural interaction between different parties and Ayia Irini, which will provide a better idea about how the processes worked.

This paper assumes that Aegean communities in different regions have been interconnected to different degrees or intensity. This contact was probably not between different 'cultural groups' with connotations of biological and ethnic distinctions, as is sometimes assumed by the use of the Helladic, Cycladic, and Minoan designations that ultimately characterise material culture groupings (for a summary of the intricacies in identifying ethnic groups in material culture groupings, see Lucy 2005, 91–94). Rather, it was among groups of people that probably shared a general ideology but who identified themselves as belonging to different modalities by doing things in similar but distinct ways (*e.g.,* Dietler and Herbich 1998). It was in the context of these contacts that communities in the Southern Aegean, from the western coast of Asia Minor to the coast of the Peloponnese, and from a notional northern boundary set between Keos and the Izmir region to Kythera and Karpathos (Broodbank 2004, 48; Davis and Gorogianni 2008, 343–345), seem to adopt non-local traits and emulate artefact styles and practices that were prevalent in communities on the island of Crete (Minoanisation) and, later, in palatial communities of the Greek Mainland (Mycenaeanisation). Even though physical forms of control or dominance cannot be wholly excluded as part of these processes, evidence is not adequate (nor, certainly, incontrovertible) to suppose that communities such as Ayia Irini were controlled in one way or another by the Cretan or Mainland palaces, nor that everything about the phenomena was elite driven. In fact, this paper accepts that these phenomena are quite complex, and that archaeological signatures on the ground cannot be satisfactorily explained by single explanations, such as a physical colonial presence, the Versailles effect, colonialism or even indigenous elite emulation (Branigan 1981; 1984; Wiener 1984; 1991; 2013; Barber 1987, 194–200; Knappett and Nikolakopoulou 2008). Rather, the archaeological record seems to have been the product of a number of processes and actions; a deconstruction of the phenomenon into separate contributing processes is therefore in order. This paper attempts explore that deconstruction for Ayia Irini in order to begin moving away from treating the cultural processes as monolithic, and to start not only acknowledging the macro-level processes that were surely in operation but also discerning the aspects of the identities and motivations of the agents (both individual and group) responsible for affecting change in the local cultural idiom.

In this paper, after a discussion that establishes the general timeline as well as a profile (demographic and other) for the settlement of Ayia Irini, a diachronic examination of pottery shapes produced by local potters acts as a point of departure for a discussion of changes ushered in by cultural contact. The focus on shapes is justified since dining practices, eating and cooking habits are often considered good indicators of cultural change, changing socio-political environments, and migration (Branigan 1984, 50; Schofield 1983; 1984; Dietler and Herbich 1998; Hamilakis 1999; 2008; Broodbank 2004, 59–60; Joyner 2007; Ben-Shlomo *et al.* 2008; Karageorghis and Kouka 2011). The discussion of the pottery is then supplemented and at times contrasted to changes in other media, such as architecture and textile production. The overall discussion is influenced by discussions of materiality (Miller 1987; 2005; 2010; Maran and Stockhammer 2012), the power of objects in the context of intercultural contact (Gosden 2004; Knappett and Nikolakopoulou 2008; Knappett 2011; van Pelt 2013), and theories of small-scale migration (Anthony 1990; 1992; Burmeister 2000).

Table 8.1 Chronological concordances in the Aegean. Absolute dates after Manning (2010, 23, tab. 2.2). Even though length of a generation is variable depending on the average age of parents at time of reproduction, for the purposes of this chart generational length is 20 years.

Aegean	*Relative chronology*	*Approximate absolute dates BC*	*Ayia Irini Period*	*Generations*
Final Neolithic	FN	3500–3000	I	
Early Bronze Age	EB I	3000–2650	Hiatus	
	EB II	2650–2200	II	
	EB III	2200–2000	III	
			Hiatus	
Middle Bronze Age	MB I	2000–1900		
	MB II	1900–1800	IV	5
	MB III	1800–1700	V	5
Late Bronze Age	LB I	1700–1600	VI	5
	LB II	1600–1400	VII	12
	LB III/LH IIIA	1400–1300	VIII	3
	LB III/LH IIIB	1300–1200		
	LB III/LH IIIC	1200–1100		

Ayia Irini Definitions: Establishing the Timeline and Parties Involved in Episodes of Cultural Contact

Before delving into the specifics of the local ceramic assemblage, it is useful to provide context for the site, not only in terms of its habitational history but also in terms of its scale, character, and internal social structure. The latter is particularly germane for understanding the interaction between polities and/or agents (both formal and informal) originating from the Aegean communities as well as from the palatial sites of Crete and the Mainland. Since there is a fair amount of literature that expounds on the latter external parties to these interactions, this section aims to clarify the profile of the parties (two or more) within the Ayia Irini community who were involved in this contact.

Caskey's excavations revealed a long habitational history at Ayia Irini (Table 8.1) with the first signs of human presence dating to the very end of the Neolithic period or the beginning of the EBA (Period I). Non-seasonal habitation probably started in EB II (Wilson 1999, 1; 2013) and after a very prosperous period (Periods II–III), unlike Phylakopi and perhaps Akrotiri, Ayia Irini seems to have been abandoned during the EC III and the beginning of the MBA. It was then re-inhabited during the MH II/ MM IB–II (Period IV) (Overbeck 1984b, 109; 1989b, 1; Wilson 1999; 2013), enjoying immediate prosperity. The site continued to prosper during the remainder of the MBA and the beginning phase of the LBA (Davis 1979; 1986; Cummer and Schofield 1984; Schofield 1998; 2011), a period that has traditionally been connected to the phenomenon of Minoanisation (Periods V and VI). The site then suffered a massive destruction during LB II (LH IIA–B/LM IB) (Caskey 1972, 393–397, 1979, 412; Cummer and Schofield 1984, 45–46; Schofield 1984; 1985). The generation that immediately rebuilt or reoccupied the edifices (LH IIB in ceramic terms; for LH IIB late, see Schofield 1984, 155; Hershenson 1998) did not seem to be economically prosperous, especially in comparison with the previous phase (Caskey 1962, 273), while the distribution of deposits belonging to this period may indicate that the settlement shrank in size (Hershenson 1998, 162; Gorogianni 2008, 131–132). Nevertheless, a moderate revival seems to have occurred during LH IIIA (Period VIII); the site grew (although it never regained its pre-LB II destruction prosperity) and it seems to have been connected with the outside world (Gorogianni and Abell forthcoming). Moreover, during this phase the material culture provides evidence for a reorientation of the site's cultural references from Crete to the Mainland (Caskey 1972, 397–398; Morris and Jones 1998). The end of Period VIII is marked by yet another destruction, which also brought the end of the site as a place of habitation, even though it continued until the early Hellenistic period as a site for ritual (Caskey 1964, 323; Butt 1977; Caskey 2009).

The character of the site seems to be peculiar in a number of ways. Unlike the other Minoanised sites in the Cyclades (*e.g.*, Akrotiri and Phylakopi), Ayia Irini was re-established anew in MM/MC II, an event that entailed colonists from other parts of the Aegean coming to the island with the express purpose of establishing a community that would exploit the perceived advantages of a well-protected harbour, its geographical location along major maritime routes, and a short distance from the Lavrion mines that enabled participation in the increasing demand for metals by the state-level societies of Crete and presumably Aegina (Overbeck 1982; Overbeck and Crego 2008; Crego 2010; Abell 2014b).[4] The intentional character of this colonizing expedition is underscored by a recent discovery of another, probably contemporaneous, site in the eastern part of the

island, found beneath the theatre of the Classical/Hellenistic city of Karthaia (Panagou 2012).[5] The discovery of a second site on the island, contemporaneous to and with a similar (but not identical) range of imports as Ayia Irini (which does not seem to have survived into the later MBA), should probably be interpreted as the result of a diffuse, yet intense, interest in establishing outposts on the island.

Thus it seems that Ayia Irini began anew in Period IV as a village-sized community no bigger than its EBA predecessor. The resident population in the Period IV community probably counted no more than 150–200 people, which was also the size of the early Cycladic centre (Davis 1984b, 20, n. 17; Broodbank 2000, 218, n.2). The MBA population grew over time and the fortification wall was expanded in Period V to include an area that was one third larger than the fortifications of the previous period (Davis 1986, 102), a project that was likely spurred on by a rise in population growth, both as a result of normal population rates and also perhaps from a migration stream (or perhaps trickle) most likely originating from the places where the original migrants had come from (Anthony 1990; 1992).

In its present state, the site (within the confines of the Period V wall, including its unexcavated areas) is approximately one hectare (0.75 hectare according to Renfrew 1972, 237, table 14 V; see also Davis 1984b, 20, n.17; Cherry *et al.* 1991, 219), which makes Ayia Irini the smallest of the Neopalatial Minoan or Minoanised 'urban' sites (Whitelaw 2001, 29, fig. 2.10; 2004; see also Wiener 1990, 129). Even if we allow for a larger site-size based on the estimate that 40% of it is underwater (Caskey 1978, 760; Davis 1984b, 20, n.17; Mourtzas and Kolaiti 1998, 680–681; Gorogianni 2008, 117–118), Ayia Irini still would not exceed 1.2 hectares; it would be a very small harbour site, about half the size of Phylakopi (Schofield 1998, 119; Broodbank 2004, 71).

During the following Periods VI and VII, which are considered the main phases of the site, the population was confined within the boundaries of the fortification wall since surface surveys have revealed a nucleated settlement pattern for the MBA and LBA periods, similar to Melos, with very few loci of probably seasonal occupation beyond the confines of the wall (Davis and Cherry 1990, 187–188; Cherry *et al.* 1991, 229–230). The population which gradually filled the enclosed area with buildings probably numbered approximately 280–335 residents, or the equivalent of 30 to 60 families or residential groups.[6] Therefore, even when the site attained its largest population in early LBA, it never became large enough to inhibit face-to-face interaction among its residents.[7]

Despite its compact size, Ayia Irini is considered an urban site. As Schofield emphasized, it was 'no village' (Schofield 1998, 119–120) since it was the only known site of considerable size on the island during its main period of occupation (Cherry *et al.* 1991, 219) and it displays functional diversity and involvement in regional and interregional networks coupled with evidence for carefully planned quarters (especially the south-eastern and western sectors), paved streets, and a drainage system (Schofield 1998, 119–120). Moreover, Ayia Irini exhibited features expected in much larger Minoan urban communities, such as Minoan imports, Minoanised local vessels, and Minoan-inspired wall-paintings, architectural features, technologies (weaving, pottery making, writing, and mensuration), and cultural practices (religion, cooking, and dining).

Thus, Ayia Irini's situation presents an apparent paradox. It is a community that hardly qualifies as a town (let alone a city) in terms of its population size, yet it preserves all the trappings of much larger urban communities. Moreover, its size enforced face to face interaction, so the internal social structure may have been non-hierarchical (although ranking is most definitely evident) with access to decision-making perhaps being open to a large proportion of its residents and leadership decided on an *ad hoc* basis (at least prior to Period VII when House A seems to dominate the architectural and perhaps political landscape of the town), though the community never lacked traces of inequality (Gorogianni and Fitzsimons forthcoming). The most likely interpretation for the makeup of Ayia Irini is that it was a haven filled with independent entrepreneurs or middlemen (Cherry and Davis 1982; Schofield 1982; Knapp and Cherry 1994, 142–146), who were either actively involved in trading or acted as middlemen and organised transhipment (and possibly extraction) of the mineral resources as well as other products in demand by Aegean elites. Agents from the site would have come into contact with agents, formal or informal, from the palatial communities of Crete and later those from the Mainland, as well as agents originating from other nodes of the Aegean exchange network. These activities and the connections, life-histories, and aspirations of these agents and their families (Helms 1988), as well as the overarching historical circumstances, are expressed in the material culture of Ayia Irini as people outfitted themselves and their abodes, albeit to different degrees, with all the latest fashions prevalent in the Aegean at a time.

Ceramic Shape Repertoires and Technologies and Consumption Practices

Pottery is prominent in the discussion of Minoanisation and Mycenaeanisation. Archaeologists often consider pottery an ideal barometer of cultural change and contact (Rice 1987, 25) because of its ephemerality (breakage and required replacement) and durability in the archaeological record. Indeed, the first discussions about Aegean interconnections beginning at the end of the nineteenth century centred on remarks about pottery (Dumont and Chaplain 1888, 39–40; Fouqué 1998, 127–128). This focus continued

more intensely after the excavations of Phylakopi (Edgar 1904; Mackenzie 1904, 264, 271–272) and Knossos (Evans 1928, 229–252). Key to this discussion was the change in the decorative motifs and shapes from a local selection to one that imitated motifs and shapes present in the Cretan repertoire, and also the pace of this change, as exemplified in Furumark's mid-century publication. According to his interpretation, cultural change was massive and rapid during LB I, suggesting a Minoan takeover, at least of Melos (Furumark 1950, 192–200). In the subsequent period, LB II, he suggested that Minoan and Mycenaean pottery might be present in equal quantities in Phylakopi (Furumark 1950, 198–199), signalling that during this period the Aegean trade balance started shifting towards the Mycenaeans.

More recent publications on pottery have disputed the main claims of these earlier works. For pottery from Phylakopi in particular, Davis and Cherry demonstrated that the Cretan-inspired shapes and decorative motifs were integrated gradually into the ceramic repertoire of the site (Davis and Cherry 1984; 1990; 2007), while Berg showed that Cretan influence over the technology of production was gradual, since she demonstrated that the Cretan technology of the potter's wheel was adopted slowly and gradually, more closely approximating a generational apprenticeship model (Berg 2007a; 2007b, 82–86, 138–140; see also Earle, this volume). Similar conclusions were reached about other sites, such as Akrotiri (Knappett and Nikolakopoulou 2005; 2008) and Miletus (Raymond *et al*., this volume), among others, necessitating more sophisticated explanatory models both for the adoption of the technologies of pottery manufacture and for the emulation of decorative motifs and shapes.

Understanding of the ceramic change attributable to Mycenaeanisation has also shifted; Mountjoy and Ponting showed that the Mycenaean imports from greater Athens ('Athens super-group') were present in substantial quantities already during the LH II period at both Phylakopi and Ayia Irini (Mountjoy and Ponting 2000, 172–173), suggesting that perhaps the processes of Minoan import substitution on behalf of Mycenaean production centres had already started in the previous period, which had generally been hailed as the apex of Minoanisation.

Publications of the pottery from Ayia Irini have shown that the emulation of Cretan prototypes started in a limited fashion in Period IV (Abell 2014a, nos. 651–653, 668; 2014b), was more decisive in Period V (Davis 1986, 1, 85), and continued into the following periods until the site started changing its focus of imports from Crete to the Mainland sometime during Period VII, if not earlier (see Mountjoy and Ponting 2000, 173). The pace of the introduction of new elements into the local ceramic repertoire cannot be ascertained because the stratigraphic sequence produced by the archaeological practices used at the time of excavation does not allow finer chronological distinctions; nevertheless, it is possible to exploit more fully the incredible store of information provided by the excavated deposits than has been done to date.

The data from the Ayia Irini deposits, however, cannot be used in the same ways as data from excavations of the modern era. The site, like many other excavations of the same time and earlier, was excavated with specific methodologies and archaeological practices (Gorogianni 2008, 88–115; 2013) that have impacted the ceramic material available for study. Since the primary goal in the original research agenda of Ayia Irini was the refinement of the stratigraphy (*i.e.,* ceramic sequence) in the Cyclades, the ceramic assemblage was processed with this primary goal in mind, and with procedures that prioritised the recording and preservation of only the chronologically informative parts of the assemblage; perceived provenance was a secondary interest. Therefore, locally produced, undecorated ceramics and coarse wares were greatly impacted by these procedures, as shown in Table 8.2, which summarises the information on discarded materials (Gorogianni in progress). However, a fair number of locally produced ceramics preserving features pertaining to shape and decoration were retained, especially if the features unambiguously identify the shape of the vessel, and hence carried the potential for chronological or typological development.

The discussion that follows focuses mostly on locally produced pottery from Ayia Irini from the Northern Sector (unless otherwise stated), since imported pottery has been summarily treated elsewhere (Gorogianni and Abell forthcoming). This focus seeks also to undo an injustice, since far less attention has been paid to the locally produced assemblage, with a few notable exceptions such as the vessels of special use (Georgiou 1986) and the conical cups, the overwhelming majority of which were produced locally (Davis and Lewis 1985; Wiener 1984; Berg 2004; Hilditch 2014; Knappett and Hilditch 2015). This relative lack of interest has been partly attributed to the unattractive appearance of the local raw materials, a red brown clay matrix with chloritic schist inclusions (Davis and Williams 1981; Hilditch in progress) used by local craftspeople to produce medium to very coarse red brown vessels that occasionally were covered in an off-white or yellow slip

Table 8.2 Summary data based on Ayia Irini excavations discarding practices.

Period	*% assemblage extant after discard*	*% imports in extant material*	*Calculated % imports in original assemblage*
V	41	46	18
VI	12	73	9
VII	17	47	8

in order to reproduce the dark-on-light aesthetic popular in the late MBA and LBA Aegean.

This relatively understudied category was one of the main foci of the Ayia Irini Northern Sector Archaeological Project, since locally produced vessels provide particularly acute insights into the processes of cultural transmission and migration. Therefore, this section focuses on the preliminary results of two distinct strands of research pertaining to the local ceramic production: 1) the adoption and use of the potter's wheel, summarised briefly here but discussed in detail elsewhere (Abell and Hilditch, this volume; Gorogianni *et al.* 2016); 2) the choices of vessel shapes and their correlations with imports present at the site.

Information about the Period IV ceramic repertoire is derived from other parts of the settlement, since that material is not well represented in the Northern Sector. Traces of Minoan traits in local ceramic production are present almost from the reestablishment of the site in Period IV. The potter's wheel was first introduced in this period, although local potters did not show particular interest in using it (Abell and Hilditch, this volume; Gorogianni *et al.* 2016), rather following (for the most part) practices that were a locally idiosyncratic medley of Cycladic, Aeginetan, and Mainland traditions. The Period IV assemblage seems to conform to the Helladic/Cycladic aesthetic, preferring vessels with metallicising profiles.

Period V is well represented in the Northern Sector with five deposits; during this period the influence of Cretan culture on the Cyclado-Helladic cultural idiom becomes more pronounced at the site. The local burnished ware seems to wane in popularity, Cretan shapes are adopted, and a purely local ware known as Yellow-Slipped developed to conform to the matt-painted MC aesthetic is now reoriented to match the new standards.

The change is not only aesthetic but also technological. The aggressive adoption of the wheel during this period for small shapes both open and closed (Abell and Hilditch, this volume; Gorogianni *et al.* 2016; see also Davis and Lewis 1985) mainly of Cretan inspiration certainly contributed to the transformation of local production and tastes. The use of the wheel in local vessels increases from 2% of the assemblage in Period IV to 58% in Period V (Gorogianni *et al.* 2016). This widespread and enthusiastic adoption of this technology, which requires active participation and apprenticeship in a community of practice to become proficient, can probably be connected to a trickle of migration from Crete but also to the appeal of Cretan-like material culture on the consumer side, which signals the reorientation of the community's cultural focus towards Crete.

Nevertheless, this was not a process of cultural substitution, in which the residents, newcomers and not, said 'out with old in with the new.' Preferences at the dinner table, as Table 8.3 shows, were almost equally divided between open shapes of Minoan inspiration, such as conical, Keftiu, and semiglobular cups, and those of the Cyclado-Aeginetan tradition, mostly burnished or plain wares and shapes such as Cycladic cups, goblets, pedestaled bowls, panelled cups,[8] as well as plates, saucers, and bowls (Table 8.3a). Cretan-inspired shapes, such as bridge-spouted or hole-mouthed jars, and rhyta, seem to dominate the category of closed shapes for pouring, whenever shape recognition is secure. Similarly, shapes of more mundane quality, such as baking sheets or trays (either flat or with tripod legs), lamps of different types (with a pedestal or with a stick handle) and pithoi, also betray the influence or even presence of groups from Crete. These shapes, especially, indicate the introduction of another 'new technology' in everyday domestic life that further supports the introduction of immigrants from Crete and especially women within the community of existing residents at Ayia Irini. And yet not all Cretan shapes were adopted in the Minoanised repertoire of the local ceramic production. The Minoan imports of the same period show that there were at least four shapes that do not have a local equivalent, the carinated one-handled cup, and a number of pouring vessels, such as the ewer, lentoid jug, the oval mouthed amphora, and the truncated jug (Table 8.3).[9]

The following period, Period VI, continues uninterrupted from Period V, with the persistence of the same trends; all of the same styles are in evidence in terms of decorative motifs and shapes as well as manufacturing techniques. The emphasis on the Minoan aesthetic, however, intensifies after the destruction at the end of the previous period, a destruction that provides the opportunity not only for rapid rebuilding, but also for the manifestation of the new aesthetic in the built environment with the first construction of units integrating 'Minoan' features and proportions (Gorogianni and Fitzsimons forthcoming).

Indeed, in many respects, the ceramic assemblage changes steadily. Local potters continue the practices of the previous period. After the overwhelming intensification of use of the potter's wheel during Period V, artisans in Period VI steadily increase the use of technology of rotative kinetic energy in the local ceramic production (Gorogianni *et al.* 2016, fig. 8a; see also Abell and Hilditch, this volume). Non-Minoanising shapes of the Cyclado-Aeginetan tradition, such as the Cycladic cup and goblet, are underrepresented, although they continue to be present in the assemblage (Table 8.3). Minoanising shapes dominate in the preferences of producers and consumers. Wherever shape identification is secure in the sherd material, conical and semiglobular cups (in the open shape category) predominate in the Northern Sector, as do hole-mouth jars (in the medium-large closed category), and lamps, pithoi, trays or baking dishes (among the 'other shapes') in the plain or tripod variety.

The locally produced assemblage in Period VII presents an almost identical picture. The use of rotative kinetic energy

Table 8.3a Summary data based on occurrence of locally produced open shapes in the assemblage of the Northern Sector of Ayia Irini (Non-Minoan inspired shapes are in italics; shapes of indeterminable inspiration are underlined).

a. Open shapes	*V*	*Shape in V Imports*	*VI*	*Shape in VI imports*	*VII*	*Shape in VII imports*
Bell cup or bowl					0	yes
Bowl	3	yes			0	yes
Bowl (flaring)	0	no			1	no
Carinated one-handled cup	0	yes				
Conical cup	12	yes	7	yes	93	yes
Cup	0	yes	2	yes	1	yes
Cup with flaring rim	5	yes				
Cycladic bowl	3	no	0	yes	2	yes
Cycladic cup	29	yes	2	yes		
Goblet	12	yes	1	yes	2	yes
Globular one-handled cup			1	no		
Kantharos	2	yes				
Keftiu cup	9	yes	0	yes	0	yes
Panelled cup	0	yes			0	yes
Rounded cup	1	no				
Salt disc	1	no			0	yes
Saucer or ledge rim bowl	0	yes				
Semiglobular (rounded) cup	10	yes	1	yes	1	yes
Spouted bowl	0	yes			2	no
Open vessel	14	yes	8		1	yes
Total open shapes	101		22		103	
Total open shapes (%)	62		48		92	

Table 8.3b Summary data based on occurrence of locally medium-large closed shapes in the assemblage of the Northern Sector of Ayia Irini (Non-Minoan inspired shapes are in italics; shapes of indeterminable inspiration are underlined).

b. Medium–large, closed shapes	*V*	*Shape in V imports*	*VI*	*Shape in VI imports*	*VII*	*Shape in VII imports*
Alabastron					0	yes
Amphora or hydria	0	yes	0	yes		
Beaked jug	1	yes				
Bridge-spouted jar	4	yes	0	yes	0	yes
Closed vessel	6	yes	10	yes	0	yes
Colar-necked jar					0	yes
Ewer	0	yes	0	yes		
Hole-mouthed jar	1	yes	2	no		
Jar	0	yes	0	yes	0	yes
Jug	0	yes	1	yes	0	yes
Large closed vessel	9	yes	1	no	0	yes
Lentoid jug	0	yes			1	no
Oval-mouthed amphora	0	yes				
Piriform jar	0	no			0	yes
Rhyton	1	yes			0	yes
Spouted jar	0	yes	0	yes		
Spouted jar					0	yes
Truncated jug	0	yes				
Total medium–large, closed shapes	22		14		1	
Total medium–large, closed shapes (%)	13		30		1	

Table 8.3c–d Summary data based on occurrence of small closed and other shapes in the assemblage of the Northern Sector of Ayia Irini (Non-Minoan inspired shapes in italics; shapes of indeterminable inspiration are underlined).

c. Small, closed shapes	*V*	*Shape in V imports*	*VI*	*Shape in VI imports*	*VII*	*Shape in VII imports*
Feeding bottle			2	no		
Small, closed	0	yes	0	yes	0	yes
Total small, closed shapes	0		2		0	
Total small, closed shapes (%)	0		4		0	
d. Other shapes						
Basin	3	yes				
Blossom bowl					1	no
Button			0	yes		
Cooking pot	1	no			1	no
Crucible	0	no	0	no	0	no
Firebox					1	no
Flower pot			1	no		
Lamp			3	no	1	no
Lamp with stick handle	5	yes				
Large open vessel	0	yes				
Lid	3	no			1	no
Marked sherd					1	no
Pedestaled lamp	1	no				
Pithos	2	no	1	yes		
Plaque	1	no				
Strainer					1	no
Table (pierced)	1	no				
Tray (baking dish)	14	no	2	no		
Trefoil-mouthed strainer jug (double vase)					0	yes
Tripod tray (baking dish)	9	no	1	no		
Tripod spouted cup					1	no
Total other shapes	40	0	8	0	8	
Total other shapes (%)	25		17		7	
Total	163	0	46	0	112	

increases very moderately proportionately to the previous period (Gorogianni *et al.* 2016, fig. 8a; see also Abell and Hilditch, this volume). Moreover, Minoan shapes (Table 8.3) again seem to be present in the assemblage, such as semiglobular and conical cups (in the open shape category), lentoid jugs (in the medium-large closed), blossom bowls, fireboxes, and lamps (in other shapes), while shapes of the Cycladic and Helladic tradition are also present, such as the goblet and the Cycladic bowl.

Finally, the sole Period VIII single deposit from within the Northern Sector contains only one locally produced cup or tumbler out of 63 specimens (all the rest are imported mostly open shapes) that were preserved for study and publication; therefore not much can be said about local production during this period. Morris, who has studied the deposits of this period extensively, maintains that the greatest proportion of the deposits are made up of domestic wares which were probably local, since she describes them as having a "smoothed, dark red surface" (Morris and Jones 1998, 191). Among the domestic wares, the typical shapes are tripod cooking pots, jars and conical cups (Morris and Jones 1998, 191), and there is also a local coarse carinated kylix that imitates Mycenaean fine ware prototypes (Morris and Hershenson n.d.). Although full publication of the deposits of this period must be awaited, based on Morris and Hershenson's preliminary observations and on the meagre evidence from the lone Period VIII deposit in the Northern Sector, a drastic change appears to have occurred in the ceramic landscape of the site with the local pottery being produced only in the plain ware category.

Discussion

To summarise the trends represented in the data from the Northern Sector (Table 8.3), the assemblage of Period IV

is characterised by choices of shapes that bear affinities to contemporary Cycladic and Aeginetan traditions with continuity from the shape-ranges of earlier periods elsewhere in the region. The first physical manifestations of the beginning of cultural change towards the Minoan tradition are only present in 2% of the assemblage, mostly small open shapes, that had been produced on the potter's wheel. In the next period, Period V, some of the shapes, mainly open ones for the consumption of drink and food, continue to bear affinities to the Cyclado-Aeginetan-Helladic tradition, but the assemblage also includes a substantial portion of Minoan-inspired shapes in all categories, such as open for serving, closed for pouring, and special shapes, such as lamps and baking dishes. The range of shapes that are imitated during Period VI and VII is narrower in all categories (except perhaps the specialty shapes of Minoan-inspiration).[10] It is also clear that the multivalent nature of the reference networks is maintained with affinities to Crete, the Mainland, and the Cyclades, although the absence of popular drinking shapes on Crete (*e.g.*, the ogival cup) in Period VII may indicate that the dining table fashions of the Mainland, rather than that of Crete, were influential at Ayia Irini. This trend which is otherwise obscured by the general preference for Minoan shapes both at Ayia Irini and the Mainland palatial centres, is consonant with Mountjoy and Ponting's findings that indicated that almost all tested imported vessels of Period VII belonged to the so-called 'Athens super-group' rather than having been imported from Crete (Mountjoy and Ponting 2000). Although the data from the Northern Sector is limited for Period VIII, Morris and Hershenson's work seems to imply that the local ceramic production changes character and is altered to produce predominantly domestic wares.

At first glance, the data appear to substantiate the obvious, underlying proclamations that were made decades ago: Ayia Irini was Minoanised but at the same time maintained a strong connection to the Mainland, especially during Periods V to VI, and later the cultural focus shifts towards the Mainland palatial centres (Barber 1987, 161; see also Cummer and Schofield 1984, 144–146). Nevertheless, putting this data into perspective and in context with data from other artefactual categories allows a much more complex picture to be drawn for the site, one that overcomes binary oppositions between local and non-local, Minoanised and non-Minoanised.

As stated above, Ayia Irini was re-established anew in Period IV over the remains of the EBA settlement. Recent interpretations of the material assemblage have suggested that the original population was composed of settlers from Central Greece, Aegina, and Crete (Overbeck and Crego 2008; Crego 2010; Abell 2014b); these settlers were probably a mixed population of men and women, since material culture that is customarily linked with female productive activities, such as textile work and food production, is attested even in the earlier phases of Period IV (Cutler 2012; Abell 2014b). Thus, although the ceramic assemblage betrays affinities predominantly to the Aeginetan-Helladic groups of the community, the presence of technologies, such as the first signs for the potter's wheel, the upright loom, and the tripod cooking pot, attest to the presence of a group originating from Crete, a group that included women and was probably intermarried within the community.[11]

This original population of 'apex families' (Anthony 1990, 904) seems to have grown over time and reached a population requiring a larger area for the activities of the resident groups, which is the justification usually given for extending the boundary of the site and for the construction of a new fortification wall to the north of the previous line of fortification. If this hypothesis is correct, then the population growth at the end of Period IV should probably be attributed both to the growth of the original settling families and also to a contributing migration stream, or trickle in the case of Ayia Irini, probably originating from the places of origin of the original settlers (Anthony 1990; 1992). Indeed, the assemblage of Period V preserves strong affinities both to Crete and also to the Cyclades and the Mainland in terms of style. Nevertheless, whatever potter(s) were responsible for the production of both the Minoan and non-Minoan shapes seem to have been well-versed in the use of the local raw materials and recipes because there is essentially no difference macroscopically in the recipes used for either category (Hilditch in progress), which perhaps indicates the 'naturalisation' of distinct migrant communities to form a unified local one whose ways of doing things preserve elements of the 'old countries' reinforced by continued network contact with places where those shapes were dominant in local production and use. Indeed, although the archaeological record for this period is patchy because of the LBA overburden, deposits do not seem to be characterised by concentrations that could amount to distinct cultural groups. This cultural mix is also understandable in view of the small size of a community that promoted face-to-face interaction and mutual dependence for survival.

This formulation, if valid, calls into question the meaning of the terms 'local' or 'non-local' in discussions of material culture. In a recent paper by Abell and the author, it was suggested that "the regular and intimate interaction among people, techniques, and things aided […] in the forging of a new local identity, one that involved an element of cosmopolitanism that linked the community with different parts of the Aegean," a process that the authors called 'material naturalisation' (Abell and Gorogianni 2014; see also van Dommelen 2006, 137). Studies on modern immigrants show that integration or assimilation is usually achieved within three to four generations, whereas factors such as choice of residence (in a homogeneous ethnic enclave or in a culturally mixed neighbourhood) and degree

Table 8.4 First appearance of elements in the 'Minoan cultural package'.

Minoan cultural package	*IV*	*V*	*VI*
Pottery (imports)	X		
(emulation of shapes)	X	X	
(emulation of decoration)		X	
(use of potter's wheel)	X		
Cooking technology (tripod cooking pots)	X		
Textile production (upright loom)	X		
Administrative technologies		X	X
(metrology)			
(writing)		X	
Wall paintings			X
Architecture			X
Religious practices [after Caskey 1971, 394]			X

of interaction with the host community, among others, speed or slow down the process (Rumbaut *et al.* 2006; Jiménez 2011; Kandler and Caccioli 2015). In the case of a small community like Ayia Irini, it is safe to assume that interaction between distinct cultural communities was intense and that people could not avoid being exposed to each other and their material culture. Thus, within the span of five generations (Table 8.1), the perception of 'local' is certain to have changed, and perhaps it may not be justified to evoke 'emulation' of foreign prototypes past perhaps the middle or end of Period V, at least in terms of pottery usage and production.

If the population of Ayia Irini was Minoanised (as well as Aeginetinised and Helladicised), does this mean that they were so in every element of the whole so-called Minoan package? Table 8.4 summarises the data for the first appearance of different elements of the Minoan package and suggests an answer to this question. If the archaeological record is not skewing our picture of the earlier periods, the table shows a scaled introduction of different elements and media. Some of these elements made their first appearance in early deposits of Period IV (technologies of the potter's wheel, upright loom, and Cretan cuisine or at least Cretan cooking equipment, some pottery shapes) and Period V (additional pottery shapes and decoration, administrative practices), and others were made manifest in later phases, such as Period VI (architecture, wall paintings, and religious practices). Therefore, is it still justifiable to call them a package (apart from their shared inspiration from Minoan cultural practices) if they were introduced at different times (probably as a result of different processes) and were most likely products of different historical and socio-political circumstances? Probably not.

If cultural change, such as the local production of material culture based on Minoan prototypes, at Ayia Irini in Period IV and V can be connected to small scale population movements,[12] specifically the migration of a small number of families bringing technological and cultural knowledge, slightly different processes must be hypothesised for other media in Periods VI and VII, especially since this cultural mix did not produce an entirely distinctive cultural idiom but continued to operate within the confines of a Minoan inspired koine in the Aegean. Implements for textile production, as well as architecture and wall painting, reveal the variability of processes that contributed to the change of material culture locally, which occurred over a long period of time.

After the initial introduction of the vertical loom with its discoid loom weights in Period IV, local craftswomen continue to use it for their creations well into Mycenaean times. Excavations of the site yielded locally manufactured loomweights of the discoid variety (Cutler 2011; 2012; Gorogianni *et al.* 2015) showing the total and exclusive appropriation of this technology locally. Nevertheless the recovery of discoid loomweights in non-local fabrics from the same deposits (Gorogianni *et al.* 2015) indicates that this process of appropriation was not an exclusively local phenomenon, and highlights the operation of a network of associations between the site and other Aegean locales from which these loomweights came along with their associated weavers. The inference is that this technology was not only introduced by the first Cretan immigrants, but its continued use was supported and perhaps reproduced through a network of associations with sites/nodes beyond Ayia Irini that were also using this same technology. Thus, it is justifiable to suggest that these technologies, as well as their associated aesthetic ideals, over time became part of the Aegean cultural mainstream especially by LM IA (Davis and Gorogianni 2008).

The building of architectural spaces with wall paintings in emulation of Minoan prototypes similarly supports the participation of the site in a new environment, in which a Minoan inspired cultural idiom is the language of power. Yet it also provides great insight into additional processes and agents' actions during Periods VI and VII. The building of such edifices and their decoration surely presumes the presence of a commissioner, an overseer/architect/master painter and a building/painting crew with each one of these roles implying different transmission processes. From the point of view of the commissioner(s), this person or group was surely part of the aspiring elite at Ayia Irini who wanted to assert their position within the community (Gorogianni and Fitzsimons forthcoming) by using the vocabulary of power in the region that referenced the palatial culture of Minoan Crete, which had entered the cultural mainstream of the Aegean and been brokered by a number of Aegean agents from several Aegean sites. If the desire for such a space implies the emulation of practices of predominant fashions for political reasons, the actual concept and execution of the commissioned space presupposes an experienced master/

overseer and crew who were well versed in the local building techniques with the materials (and their idiosyncrasies) locally available, as well as in the predominant fashions.

Lyvia Morgan, in her forthcoming book about the wall paintings of the Northeast Bastion, argues convincingly that the crew responsible for the miniature frescoes of the Northeast Bastion was composed of an itinerant master painter and "a combined workforce of local craftsmen alongside experienced painters from Crete and/or Thera (and perhaps Melos)" (Morgan forthcoming a, 732). This suggestion strives to explain the truly entangled nature of the wall paintings, which, although they are clearly embedded in the Minoan rules for the medium (which in turn implies experienced craftspeople belonging to a wider community of practice) and innovative, nevertheless preserve evidence of less experienced hands (*e.g.,* the ones responsible for the "delightfully quirky" male figures) that should be attributed to a local craftsman (Morgan forthcoming a, 726–732).

Morgan also problematises the issue of whether the wall painters should be considered distinct from the masons that were responsible for the structure. Although she does not provide a definitive answer, she notes that there may have been no such distinction because the Linear B texts preserve references to masons and carpenters but not to wall plasterers or painters (Morgan forthcoming a, 730–731). Therefore, wall paintings and the architectural spaces in which they were executed were probably the products of the same diverse 'workshop' responsible for both the edifice and its decoration.

The introduction of Minoan style architectural elements as seen in the Northeast Bastion, in House A (the eastern part of it), and in other buildings of the settlement, seems to reflect the same entanglement (see Gorogianni and Fitzsimons forthcoming). On the one hand, the design of spaces in terms of the organisation of rooms, their functions, dimensions, and general layout, betray affinities to Minoan style banquet halls on Crete (Graham 1961; Driessen 1982; Letesson 2013), and concomitantly should be attributed to masons or architects that belonged to communities of practice that built spaces in this particular idiom. On the other hand, the walls themselves were built out of the same schist and marble slabs that were locally available and had been used in the traditionally local axial houses that are widespread across the entire site.

One question at this point is whether or not the experienced master/overseer was dispatched from the palaces of Minoan Crete, which in turn raises the question about the degree of active palatial participation in driving the trends of cultural change in the Aegean. There is no doubt that the palaces, especially Knossos, during Period VI or LM IA, were at the height of their power and perhaps more actively involved in the trade of added value commodities, such as pottery, alongside metals (Sherratt 1999, 176–177) than in the previous period. The data from imports to the Northern Sector preserve a glimpse of this process (Gorogianni in progress). Cretan imports continue to comprise the predominant type of import. Nevertheless, although the proportion of Cretan imports from all of Crete remains the same as during the previous period, the analyses from the Northern Sector show that imports from a North-central Cretan origin increased dramatically over the previous period to the detriment of imports from other Cretan locales. Similarly, in contrast to the previous period in which trade was split between the trade of commodities in storage containers and trade of open shapes, in Period VI imported open shapes markedly increased in comparison to closed ones, further substantiating a change in the character of trade between the two locales.

Therefore, it is quite possible that groups associated with the palace of Knossos were promoting the intensification of ties with Ayia Irini at this time by sending out a master painter or architect to assist with the building of the Northeast Bastion. The Northeast Bastion, though, was hardly the only building with Minoan-style features built during this period (in fact, the first phase of House A and House C were also built during Period VI), which suggests on the one hand that prosperity was widespread among the groups of the site and allowed for greater investment in the architectural landscape of the town, and on the other hand that perhaps this building activity reveals competition among family groups (Gorogianni and Fitzsimons forthcoming). However, the exact involvement of palatial agents in this general competitive climate is unknown, but perhaps the expansion of House A and its dominance in Period VII might perhaps be indicative of which family group ended up winning the support of the palace agents and the control of the site.

As stated above, although Cretan palace societies were certainly at the height of their power, they may not have been driving the Aegean trends toward emulation deliberately. By Period VI, the Aegean world had already incorporated the Minoan aesthetic into the idiom of the major production centres. This trend is not observed only in the production of local products that conform to the Minoan aesthetic but also in the importation of Minoanising products from non-Cretan production centres, places like Aegina, Melos, and the Mainland. A survey of the motifs that appear on the local and imported pottery of Period VI in the Northern Sector shows that motifs such as ripple, spirals and floral designs are found on all of the predominant fabric categories; similarly, shapes like the Keftiu, straight-sided and semi-globular cups, and bridge-spouted jars are also present in almost all the major fabric categories, local or imported (Gorogianni in progress). Therefore, appearing Minoan may not have been a conscious consideration any more than appearing fashionable and *en par* with the Aegean neighbours, an objective that perhaps took comparatively little effort for 'early adopters' such as Ayia Irini, even though the site was not a major production centre, at least in terms of exports.

Appearing fashionable, or more Minoan, was indeed the goal in Period VI, but the question that arises is who was the target group that the residents of Ayia Irini sought to convince by putting on Minoan airs? The answer inevitably involves the regional context, since it is unlikely that any Cretan, at least of the palatial kind, would have been impressed by these efforts. If the relationship of Ayia Irini to Attica, at least the southern tip of it, was initially one of exploitation of the latter (especially considering that Ayia Irini was established as an off-shore settlement for the exploitation of the metal resources of the Lavrion region), it is during this period that the balance seems to shift. Even though the interrelations between Attica and Kea are too complex to be treated here, it suffices to say that signs for increasing socio-political complexity in Attica, and especially in Thorikos (Papadimitriou 2010; see also Servais and Servais-Soyez 1984), support the emergence of a group that perhaps sought to control closely the coveted metals, a group with which Keian entrepreneurs had to negotiate a little more intensely (or more competitively) than before, leading to a tightening of sorts in the relationship between the two regions.

This cultural rapprochement is rather difficult to detect in the local ceramic assemblage because of its multicultural character with Cycladic, Cretan, and Helladic shapes being used at the same time, and the general Minoanisation of the early Late Helladic repertoire (Table 8.5). Yet, one aspect of the shape repertoire perhaps indicates most clearly that the cultural focus for Ayia Irini producers and consumers shifts away from Crete: notably absent from Period VII assemblages (LM IB/LH IIA) of the Northern Sector (and probably the rest of the site for that matter), is the ogival or S-profile cup, which seems to be ubiquitous in LM IB assemblages on Crete at this time (Brogan and Hallager 2011). The absence of this vessel type signifies that Ayia Irini drinking and dining fashions do not follow Cretan ones, even though the predilection for conical cup use does not cease and continues to be produced well into period VIII. At the same time, no clearly Mycenaean shapes, such as the rounded goblet, or the alabastron are introduced in the local production either. Yet, the growing importance of Mainland production centres, to the detriment of the close link between Crete and Ayia Irini, is also reflected in the imported wares (Gorogianni and Abell forthcoming; see also Mountjoy and Ponting 2000), as well as the first appearance of elite artefacts that bear strong associations with Mycenaean culture, such as the boars' tusks from a helmet (Cummer and Schofield 1984, 95, no. 1083; see also 134, no. 1689; Schofield 2011, 65, no.700; also 74–75, nos. 880, 881, 897; also 176, no. 2110) and a proto-Phi figurine (Cummer and Schofield 1984, 59, no. 241) (see Table 8.5).

The following period, Period VIII, sees these trends exaggerated. Imports from Crete are substantially reduced (Gorogianni and Abell forthcoming) and local production seems to undergo a change of character. On the one hand, local ceramic production seems to have been reduced, if not in production volume then definitely in the variety of wares produced. Even though the raw materials of the island were never conducive to fine wares or tablewares per se (*e.g.*, see Schofield's comment in Cummer and Schofield 1984, 145), in the previous periods the local workshop(s) did produce painted tablewares that were used (or at least found) in the same contexts as their imported counterparts. Nevertheless, in Period VIII Mycenaean fine wares of different types and provenance seem to eclipse almost totally the need or desire for such vessels in the local fabric, leaving to the local workshops mostly utilitarian or otherwise domestic wares. Moreover, this substitution should also be interpreted as evidence for a change in the economic realities of the site as well as in the Aegean as a whole. Conversely, the persistence of shapes that are considered 'Minoan' in the local ceramic production, whose origins had been 'Minoan,' such as the tripod cooking pots as well as the conical cups, perhaps indicates a continuation of the local population element which did not change their cooking habits and continued 'traditional' practices in the face of increasing Mycenaean influences (even though there are occasional specimens of Mycenaean style cooking wares at the site).

Table 8.5 First appearance of elements in the 'Mycenaean cultural package'. The elements of the package or else cultural diacritics are compiled based on the lists provided in Feuer 2011 (512–514).

Mycenaean cultural package	*VI*	*VII*	*VIII*
Pottery (imports)		X	
(emulation of shapes)			
(emulation of decoration)			
Cooking technologies			X
Textile production			
Administrative technologies			
(writing)			
Wall paintings			
Architecture (secular)			
Architecture (mortuary)			
Religious practices (figurines)		X	
Mortuary practices			
Personal adornment (boar's tusk helmet)		X	
Wanax ideology			

Conclusions

This volume focuses on whether processes of acculturation often called Minoanisation and Mycenaeanisation are similar to or different from each other. In an effort to evaluate this hypothesis considering the site of Ayia Irini, an important site for intercultural contact, this paper examined locally

produced pottery from the Northern Sector of Ayia Irini and considered it in conjunction with inferences gauged by other categories of craft production, such as textile production, wall painting and architecture. This investigation has shown, at the very least, that the processes of Minoanisation and Mycenaeanisation, even though reified for research purposes, are in fact not uniform nor can they be explained by a single phenomenon or process. The diachronic analysis and the tracking of the timing of first appearance of cultural diacritics that have often been considered to compose a cultural package shows clearly that these elements were introduced into the Keian cultural idiom over the course of several centuries, defying their attribution to a single explanation or to a singular cultural package. Indeed the archaeological assemblage seems to have been produced by a number of processes and agentic responses that range from small scale migrations, to the Versailles effect, eclectic emulation of culturally powerful prototypes, to name a few.

Moreover, the paper also aims to problematise the meaning of local culture as it is implied in the unpronounceable title, especially in the case of Ayia Irini, a settlement that seems to have been founded by a multicultural population in Period IV and preserved its multicultural flair throughout until its partial abandonment at the end of Period VIII or LH IIIA. At least in the case of Minoanisation, Minoan fashions and technologies (especially those that have to do with pottery and textile production) seem to be fully incorporated in the local idiom and, dare I say, identity just as much as Mainland and Cycladic ones. If Minoanising trends get to stand out more prominently, this is owed to the fact that Minoan fashions seem to be the visual language of power, one that could have been perhaps promoted by the Cretan palaces deliberately, especially in Period VI or LM IA. Nevertheless, what is becoming increasingly clear is that the establishment of Minoan fashions and their incorporation into the idioms of the Aegean sites is amplified by the Aegean network in the fact that the trade and exchange partners of Ayia Irini had also selectively adopted Minoan elements, albeit to differing degrees and by different social groups.

As for Mycenaeanisation, the paper suggests that perhaps the processes had already started earlier than LC II, the period usually hailed as the start of the phenomenon. The general Minoanisation of the Aegean, including that of the early Mycenaean elites, definitely obscures to an extend the processes at work, and so does the fact that Ayia Irini was abandoned as a residential site at the end of Period VIII, not allowing us to witness the transformations at their most diagnostic in LH IIIB and LH IIIC, just as we do on Naxos or Kos (see Vitale this volume; Vlachopoulos this volume). Nevertheless, it is clear that the influence of Mycenaean palatial society did not have the same impact on local material culture as Minoan had done in the past. In fact, Mycenaean adoptions seem to be rather superficial additions rather than truly incorporated in the local idiom, of which pottery is a supreme example; even though imports seem to substitute almost completely local production of fine wares, local craftspeople do not imitate Mycenaean wares or insert technological markers used in the production of Mycenaean pots (Abell and Hilditch, this volume). Nor was architecture or other categories of material culture affected apart from the importation of Mycenaean style figurines or the boar's tusk helmet retrieved from House A.

All in all, Mycenaeanisation appears to be an elite strategy which attempted to preserve the importance and function of the site as a transhipment centre for the metals trade, a strategy that did not seem to bear fruit as Ayia Irini was ultimately abandoned as a residential site at the end of Period VIII and continued only as a focus for ritual activity (Caskey *et al.* 1986; Caskey 2009; Gorogianni 2011). This abandonment should be considered and explained in the context of altered corridors of maritime traffic that focused on east to west passages, rather than north to south ones, considering the flourishing of islands, such as Naxos, and the islands of the Dodecanese, premier stopping points on the journey to the eastern Mediterranean, as well as altered routes for accessing the ores of Lavrion overland.

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Notes

1 A selection of publications include: Abell 2014b; Bikaki 1984; Caskey 1962; 1964; 1966; 1971; 1972; 2009; Caskey *et al*. 1986; Crego 2010; Cummer and Schofield 1984; Davis and Lewis 1985; Davis 1979; 1980; 1984; 1986; Davis *et al*. 1983; Gale *et al*. 1984; Georgiou 1986; Gorogianni 2008; 2011a; 2013; Hershenson 1998; Morris and Jones 1998; G. F. Overbeck 1984; Overbeck and Crego 2008; J. C. Overbeck 1984; 1989; Petruso 1992; Schofield 1982; 1990; 1998; 2011; Wilson 1987; 1999; 2013.

2 Caskey was rather cautious on the subject, limiting himself to statements that harbored no uncertainty or speculation, and

viewing the site as a trading post of sorts. He used the term 'Cretan' when absolutely sure of the provenance of an artifact, especially ceramics, and allowed for the use of 'Minoan' as a general stylistic term.

3 With the exception of Abell 2014a and Gorogianni *et al*. 2016.

4 The new establishment at Ayia Irini was started by a diverse group of settlers that probably originated from Central Greece (Overbeck 1982; Overbeck and Crego 2008), Aegina (Crego 2010), and Crete (Abell 2014b).

5 The evidence comes from the excavations of the theatre conducted by Dr. Tania Panagou, under the auspices of an EU funded project that targets the conservation and restoration of the monuments at Karthaia, directed by Prof. Eva Simantoni-Bournia of the University of Athens (Bournia *et al*. forthcoming; Panagou 2012). The theatre is located in the south slope of the acropolis of Karthaia and dates to the 4th c. BCE. Excavations revealed that the theatre's *koilon* was built on top of a layer of deliberate fill, under which topical excavations uncovered prehistoric deposits (Panagou 2012). A preliminary inspection by Ayia Irini researchers, including Gorogianni, verified that the ceramic assemblage dates to early Period IV and contains almost the entire range of imports found at the contemporary settlement of Ayia Irini.

6 The population estimates for Ayia Irini vary widely. Originally, the population of Ayia Irini during the main phases of the settlement was estimated between 780–1250 people based on equivalencies with Phylakopi (Davis 1984b, 18), a population size that was broadly comparable to the one residing in the *polis* of Koressos (Cherry *et al*. 1991, 229–230; Whitelaw and Davis 1991, 280). Most scholars (Schofield 1998, 119; see also Wiener 2013, 154), find this estimate to be unlikely and lower the population estimate. Recently, Whitelaw has suggested a global density of 200–225 persons/ hectare for Neopalatial towns (Whitelaw 2001, 27), which would make Ayia Irini, at 1.2 ha, a town of 260 people. Even though, as Whitelaw himself cautions, Aegean urbanism is not a unitary phenomenon, his estimates approximate urban densities on the island in modern times (pre-WW II), which are reported to be as high as 280 persons/hectare (Whitelaw and Davis 1991, 281, n.7). Therefore, 280–335 residents is a more plausible population estimate for the early LBA habitation.

7 A population of 500±100 residents is the suggested demographic threshold beyond which face to face interaction is discouraged and more complex structures start to emerge (Johnson 1982; Upham 1990; Feinman *et al*. 2000).

8 The paneled cup should also be added to this list. Even though there are no extant specimens from the Northern Sector, it is one of the most common cup shapes of Period V, even though it is not as common in the local fabric (see Davis 1986, 85–86).

9 The absence of at least locally produced ewers and oval mouthed amphorae might be attributed to an accident of preservation rather than a conscious choice on the part of the consumers at Ayia Irini, since the shapes occur in other periods of the settlement.

10 This phenomenon might very well be attributed to an accident of preservation, even though a cursory look at the deposits from House A from this same period reveals a few more shapes (bowl, footed saucer, saucer, and loop-handled bowl).

11 These Cretan technologies appear in archaeological deposits of Ayia Irini in Period IV and almost contemporaneously at Kolonna (Cutler this volume; Gauss and Smentana 2007; Abell 2014a), with the exception of the potter's wheel which shows up earlier (Gorogianni *et al*. 2016; Gauss 2007; Abell 2014a). Compared to the other Cycladic Minoanised settlements, Ayia Irini was an early adopter, therefore it is fair to hypothesize that Cretan groups came to the island directly from Crete or via Aegina.

The funerary evidence from Period IV (see G. F. Overbeck 1984; 1989; Gorogianni and Fitzsimons forthcoming) is also suggestive of this mélange of traditions, as the architecture of the graves is consistent with the Helladic and Cycladic traditions.

12 The earthquake that ravaged Crete at the end of MM IIB might have also been extra impetus for migration.

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