

# THE BEGINNINGS OF THE AEGEAN MIDDLE BRONZE AGE: A VIEW FROM EAST CRETE

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The construction of a chronological sequence in a given region, and of correlations and synchronisms between the sequences of different regions, are means to an end rather than goals in and of themselves. The objective is to set up spatio-temporal frameworks within which continuity and change in past human societies can be understood.<sup>1</sup> The beginning of the Middle Bronze Age (MBA) is of particular significance because of the apparent discrepancies in the nature of developments from region to region. This is the time when palatial societies are emergent on Crete, with a whole host of innovations from writing to monumental architecture. Elsewhere, however, on the mainland and in the Cyclades, few such innovations are witnessed. The handfuls of ceramic imports that allow us to establish some general synchronisms between these areas tell us that the different regions are in contact; and yet they are following quite different trajectories. It would seem that, despite contact, Crete is having little direct impact on its northern neighbors, and vice versa. This situation does of course change in the centuries that follow: it is not too long before Cretan contact does begin to have some very obvious effects on communities right across the southern Aegean. Charting the growth of this process is crucial to our fuller understanding of it, and we need to push our investigations of “Minoanization” right back to the beginning of the MBA.

However, judging by the lengthy debate surrounding the Early Bronze Age (EBA) to MBA transition in the Aegean, establishing synchronisms for the beginning of the MBA has been, and promises to continue being, particularly difficult. Problems arise in the EBA/MBA transition at a number of sites across the Aegean, particularly on the mainland and in the Cyclades (at, e.g., Lerna, Ayia Irini, Phylakopi, and Akrotiri). Further east in the Aegean, matters are not improved by the discrepancies between the Anatolian and Aegean sequences – at a time when

Aegeanists are talking in terms of the MBA, Anatolia is still in the EBA (Blum 2003). Although the Cretan sequence is not immune to such problems – with some difficulties at Knossos, for example, as reflected in the earlier use of the term EM III/MM IA<sup>2</sup> – the situation does seem less problematic than elsewhere in the Aegean. What I would like to show in this paper is the following:

- 1) The Cretan sequence is reasonably robust for the beginning of the MBA, established primarily at Knossos.
- 2) The sequence does not rely solely on Knossos; when we turn to the east of the island, and to Palaikastro in particular, there are grounds for defining the transition with some precision.
- 3) The definition of these phases can be useful for wider Aegean synchronisms (which need to take Cretan regionalism into account), not least because Minoan imports are quite readily recognizable, and some key types occurring as imports (e.g., Alternating Floral Style) may actually be diagnostic for particular periods.

## MM IA AND IB AT KNOSSOS

For these phases the contributions of Momigliano and MacGillivray in the forthcoming Knossos Pottery Handbook are fundamental.<sup>3</sup> The methodology employed seeks first to establish pottery groups based on suitable deposits, which are then placed into a series through both stratigraphic and stylistic analysis.<sup>4</sup> Comparisons are sought with deposits from other regions on and off Crete, before the groups are finally fitted to Evans’s ceramic phases, wherever possible. For example, the Upper East Well group, the House C/Royal Road South Fill group, and the Early Chamber Beneath the West Court group having been established as falling into a clear sequence, these groups are subsequently shown to correspond respectively to the EM III, MM IA and MM IB of

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<sup>1</sup> WARREN 1999, 893.

<sup>2</sup> MOMIGLIANO 1991, 268.

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<sup>3</sup> MOMIGLIANO forthcoming.

<sup>4</sup> See ANDREOU 1978; CADOGAN *et al.* 1993.

Evans. This hierarchical process of establishing local groups before proceeding to island-wide terminologies is shown in the Knossos Pottery Handbook to be an invaluable methodological procedure, albeit one that has been far too often overlooked both at Knossos and other sites.

The status of these phases has not always been quite so clear. Earlier work by MacGillivray cast doubt on the status of MM IB at Knossos, his conclusions being subsequently taken up by Momigliano.<sup>5</sup> A meeting of these and other scholars at Knossos in 1992 led to an important publication in the *Annual of the British School at Athens* in which some consensus was reached on the Knossos MM sequence, falling in line, as it happened, with Evans.<sup>6</sup> This contribution helped considerably in clearing up misunderstandings regarding the status of MM IB, a situation consolidated by subsequent work.<sup>7</sup> The continuing consensus is reflected in the Knossos Pottery Handbook, aided by the forthcoming publication of some major pottery deposits from the southwest area of the palace excavated by Colin Macdonald in the late 1980s and early 1990s.<sup>8</sup> These deposits, from D.VII 14 and 16 and S.VII 5, provide a fuller picture of MM IB in ceramic terms than do the palace deposits excavated by Evans, as they include a range of cooking pots and coarse wares. Study of the material has also allowed some reassessment of MM IB deposits from both palace and town, such as the West Magazines I and II, the Olive Press Room, the Vat Room Deposit, the Room of the Jars, Hogarth's Early Heap, the Royal Road South Middle Basement and the Early Paving on the South Front.<sup>9</sup>

Working backward in time, for MM IA there is not quite such a rich range of deposits as for MM IB. Momigliano initially expressed uncertainty and spoke of EM III/MM IA.<sup>10</sup> This position was revised at a subsequent pottery workshop, during which pottery groups representing EM III, early MM IA and late MM IA at Knossos were established.<sup>11</sup> Then MacGillivray, another attendee of the workshop, and hence part of the consensus at that time, chose to

refine his position somewhat, again describing deposits as early MM IA and late MM IA, but seemingly in a way different from that used in Cadogan *et al.* 1993.<sup>12</sup> In the forthcoming pottery handbook, Momigliano favors a division between EM III and MM IA, with no early or late MM IA; the deposits cited in Cadogan *et al.* 1993 as definitive of early and late MM IA – the Royal Road South Fill and Lower Basement, respectively – are both placed in MM IA. One of the key features previously thought to be late MM IA – Polychrome Geometric Style, as seen in the Monolithic Pillar Basement<sup>13</sup> – becomes assignable to an undivided MM IA.

Of course, the drawback of Cadogan *et al.* 1993, and indeed of much work since, is that the crucial deposits from Knossos – those from the Royal Road South – remain unpublished. In terms of actual publication of pottery groups, for MM IA we have the invaluable work of Momigliano (1991) but little else. This lack is partly compensated by the substantial deposits of MM IA from the nearby site of Archanes, and from the cemetery of Phourni in particular.<sup>14</sup> Other groups from north-central Crete assignable clearly to MM IA are lacking, although for MM IB there are now secure deposits from both Kastelli<sup>15</sup> and Galatas;<sup>16</sup> interactions between both of these sites and Knossos are discussed in a recent paper by Rethemiotakis and Christakis.<sup>17</sup>

Elsewhere on the island, identifying deposits of EM III, MM IA and MM IB is far from straightforward. Useful comparanda are drawn together in the Knossos Pottery Handbook,<sup>18</sup> which I do not wish to duplicate. However, in summary it is worth emphasizing here that in the Mesara, EM III continues to be difficult to recognize, with little having been identified at either Phaistos or Kommos.<sup>19</sup> MM IA in the Mesara has classically been represented by the material from Patrikies, which may not in fact be typical. However, recent work at Phaistos and Ayia Triada has identified MM IA deposits.<sup>20</sup> Quite what Mesara pottery styles are like during EM III and MM IA remains open to question pending fur-

<sup>5</sup> MACGILLIVRAY 1986; MOMIGLIANO 1991.

<sup>6</sup> CADOGAN *et al.* 1993.

<sup>7</sup> MACGILLIVRAY 1998; see also KNAPPETT 1999 for discussion of changing views.

<sup>8</sup> MACDONALD and KNAPPETT in press.

<sup>9</sup> MOMIGLIANO and WILSON 1996.

<sup>10</sup> MOMIGLIANO 1991.

<sup>11</sup> CADOGAN *et al.* 1993.

<sup>12</sup> MACGILLIVRAY 1998.

<sup>13</sup> MACGILLIVRAY 1998, 93–4.

<sup>14</sup> SAKELLARAKIS and SAKELLARAKIS 1997, 396; note also LACHANAS 1993.

<sup>15</sup> RETHEMIOTAKIS 1997a, 1997b.

<sup>16</sup> RETHEMIOTAKIS 2001.

<sup>17</sup> RETHEMIOTAKIS and CHRISTAKIS 2004.

<sup>18</sup> MOMIGLIANO forthcoming.

<sup>19</sup> WATROUS 2001, 179.

<sup>20</sup> See references in MOMIGLIANO forthcoming.



Fig. 1 Plan of Palaikastro

ther publication. In the east of the island, despite the plethora of sites with evidence of occupation during these periods, the ceramic phasing is not much clearer. The problem of the status of EM III in the east in relation to the center is well dealt with by Momigliano (MOMIGLIANO forthcoming). Further

to this, there are ongoing issues concerning the status of both MM IA and MM IB, as initially identified in detail by Andreou.<sup>21</sup> Andreou's Mochlos House D/Vasiliki House B group seems to span both phases, as does his South Houses group at Malia and Myrtyos Pyrgos period II. At Malia further confusion

<sup>21</sup> ANDREOU 1978.

has arisen with Stürmer's attempt to date some material from the Chrysolakkos cemetery to MM II, material which is clearly earlier and in all likelihood MM IB.<sup>22</sup> Moving further east, recent excavations at Petras have revealed a substantial dump of pottery (the so-called "Lakkos" context) which can be assigned to MM IB.<sup>23</sup>

### EM III, MM IA AND MM IB AT PALAIKASTRO (PK PERIODS V AND VI)

This brings us further east still, to the far east of the island and the site of Palaikastro (Fig. 1). Currently these periods are described in local terms as Palaikastro periods V and VI – the former encompassing EM III and MM IA, and the latter correlating with MM IB. In the course of this paper I shall propose dividing Palaikastro period V into Va and Vb, as there are good grounds for distinguishing two separate phases correlating with EM III and MM IA, respectively (Fig. 2). The earliest excavators of the site, from 1902 through 1906, did not use a local phasing but Evans's scheme based on central Crete; nonetheless, they felt able to differentiate EM III material at Palaikastro from both EM II on the one hand and MM IA on the other. Since then, EM III has been found in both subsequent excavation campaigns, that of 1962–1963 and that of 1986–2003. Stratified EM III comes from a building on top of Kastri,<sup>24</sup> from the Ellenika Ossuary<sup>25</sup> on the west slope of Kastri, from Block Delta room 32 and Block Chi rooms 39 and 59,<sup>26</sup> from a trial in ER 91 (building 5), revealing a burnt deposit

PK Va	EM III
PK Vb	MM IA
PK VI	MM IB

Fig. 2 Chronological chart – local Palaikastro phases



Fig. 3 Pl. IX from *PKU*

of the EM III/MM I period,<sup>27</sup> and from building 7 rooms 2 and 12.<sup>28</sup>

MM IA has also been identified in each phase of work over the past 100 years. Dawkins stated that much MM I had been found in the 1902–1906 campaign,<sup>29</sup> a point reiterated by Sackett and Popham: "Middle Minoan pottery was found in ossuaries and over much of the town site, being especially plentiful in the earlier phases MM IA and B due to a destruction at the end of this period".<sup>30</sup> In *PKU* Dawkins illustrates polychrome vases from both the ossuaries and the town: pl. IXa is a bridge-spouted jug from Block Chi room 18, where a rich deposit was found with many complete vases (Fig. 3).<sup>31</sup> However, its dating is somewhat ambiguous, given that Dawkins mentions that "this stratum brings us to the time of some great changes at Palaikastro, when the ossuaries went out of use, and the town was largely rebuilt"; that this refers to the transition between MM IIB and IIIA is confirmed by his subsequent reference in the same paragraph to "a general catastrophe at the end of Middle Minoan II".<sup>32</sup>

<sup>22</sup> STÜRMEYER 1993; POURSAT 1993.

<sup>23</sup> HAGGIS 2001; HAGGIS forthcoming; TSIPOPOULOU 1999; TSIPOPOULOU and WEDDE 2000.

<sup>24</sup> Kastri: *PK VI*, 250, 269–72, 277–78, pl. 72b–c (building destroyed by earthquake in EM III). No red paint occurs, suggesting a pre-MM IA date (BETANCOURT 1984, 16).

<sup>25</sup> Ellenika Ossuary: *PK IV*, DAWKINS 1904–5: with 41 vases, two shown in figure 5 on p. 271 (this figure is reproduced in *PKU*, fig. 5 p. 8).

<sup>26</sup> Delta 32: *PK III*; Chi 39 and 59: *PK IV*, p. 273, and see also *PKU* fig. 5 and pl. 2d.

<sup>27</sup> Building 5, ER 91: MACGILLIVRAY *et al.* 1989, 419, and fig.

2, showing an east Cretan white-on-dark bowl or cup.

<sup>28</sup> Building 7 room 12: MACGILLIVRAY *et al.* 1992, fig. 9 (sounding below floor producing EM III). Belonging to the middle phase of east Cretan white-on-dark (see BETANCOURT 1984). Building 7 room 2: excavated in 2003, unpublished.

<sup>29</sup> *PKU*, 9–10.

<sup>30</sup> *PK VI*, 249.

<sup>31</sup> See *PK IV*, 274.

<sup>32</sup> *PK IV*, 274.

<sup>33</sup> *PK II*, 304.

<sup>34</sup> DAWKINS *PK II*, 304.

Fig. 4 Pl. X from *PKU*

Another potential MM I context, described as a “floor deposit”, is from B40.<sup>33</sup> There is from these early publications little description of the context and its pottery: Dawkins illustrates a tumbler from B40 in *PKU* pl. X m (Fig. 4), which seems MM I. Dawkins<sup>34</sup> also notes contexts in Gamma 22 and outside the door of Delta 47, describing them as “filling” and “a good deal confused”; and the deposit from G3 presents the character of a regular undisturbed stratum of pottery that must have been formed continuously and have never been moved (see comments below in relation to trench H3). Basically Dawkins cannot clearly separate MM IA from IB – it seems he has a stratified deposit of what could be MM IB in G3, but is he lacking the equivalent for MM IA?

Although the actual quantities of MM IA and IB ceramic finds from the 1902–1906 seasons may be impressive, there appear to be very few truly sound contexts. This circumstance surely contributes to the difficulties in securely separating MM IA from IB, and is a situation in which it might have been helpful initially to look at individual deposits and establish their interrelationships rather than plunge straight into central Cretan terminology. It is, for example, not always clear whether the vases shown are considered representative of MM IA or IB – that of pl. IXa (Fig. 3), for example, could very well be MM IB.<sup>35</sup> MM I sherd material from the town is shown in *PKU* pl. X as “MM I”, but few if any of these are likely to be as early as MM IA, at least on stylistic grounds.

Indeed, separating MM IA from the subsequent MM IB phase, and MM IB from MM II for that matter, continues to be difficult. Problems encountered relate to both the lack of stratified deposits (particularly for MM IB), and to the overarching use of EM/MM phases defined in central Crete and at Knossos in particular (which the use of PK periods V and VI is designed to mitigate). The association of particular wares or styles with certain periods, such as white-on-dark with EM III, can also cause problems – when this ware is seen to continue in east Crete into the MM IA phase as defined at Knossos, it is attributed to “cultural lag” or “backwardness”, the east somehow failing to keep up with the center.<sup>36</sup>

This paper presents some evidence that goes some small way toward alleviating some of these chronological problems. First, two largely unpublished deposits from the 1962–1963 excavations by Popham and Sackett will be briefly described and discussed. These deposits come from Block Chi room 1 and trench H3 (see Fig. 1): the former is a floor deposit of whole vases, the latter is from an accumulated fill. Following the methodology adopted in the Knossos Pottery Handbook, these deposits are presented and placed in relation to one another in local terms, before questions of how they may fit into the island-wide chronological scheme are considered. Proceeding in this manner, it is argued that the deposits allow for a definition, admittedly imperfect, of Palaikastro periods Va, Vb and VI, associated with EM III, MM IA and MM IB, respectively, in central Cretan terms (Fig. 2). Secondly, this evidence will be considered in the light of supplementary evidence from the most recent season of excavation at the site, conducted in 2003. In the area of building 7, notably in rooms 1 and 2, 5 and 10, important Prepalatial and Protopalatial strata were uncovered. Although the study of this material is ongoing, preliminary indications are that the sequence in room 2 presents MM IA stratified over EM III (perhaps the only instance so far at the site).

### Block Chi Room 1

The floor deposit from Block Chi room 1, excavated in 1962 and 1963 by Sackett and Popham, is mentioned initially in the preliminary report, *PK VI*, p. 251. The deposit is described as having been found

<sup>35</sup> See FLOYD 1997.

<sup>36</sup> EVANS 1921, 108; *PKU*, 9. See also WARREN and HANKEY (1989, 20), who state that MM IA in east Crete is contem-

porary with later MM IA in the Knossos region, an argument that does not at present seem to be sustained by the available evidence.



Fig. 5 White-on-dark rounded bowl, Block Chi Room 1



Fig. 6 Polychrome tall tumbler, Block Chi Room 1



Fig. 7 'Eggcup', Block Chi Room 1



Fig. 8 Polychrome rounded cup, Block Chi Room 1

immediately beneath a paved Late Minoan (LM) floor; mention is made of an ivory cylinder seal, and two pots are shown (pl. 72d–e). That of pl. 72d is a rounded bowl in white-on-dark ware (not a Mirabello import), of the type associated with MM IA rather than EM III (Fig. 5).<sup>37</sup> Plate 72e shows a tall tumbler with typical MM IA polychrome decoration (Fig. 6). The other vases in this deposit, of which approximately 40 are catalogued, are not published: these will be presented soon in a publication dedicated to the unpublished MM material from the 1962 and 1963 seasons.<sup>38</sup> The vases from the X1 deposit, mostly tumblers, cups and bridge-spouted jars, constitute an excellent group for defining period Vb at Palaikastro; moreover, as is discussed below, there are both stylis-

tic and technological grounds for believing the deposit to fall in MM IA in central Cretan terms, and even quite late within that phase.

The deposit contains 12 catalogued tumblers, both tall and squat; one tall polychrome example mentioned above (P163, already illustrated in *PK VI*) has red and white bands and rows of discs and dots, with the discs alternating between red and white in sets of three and four. This alternating pattern may presage the fuller development of an alternating motive seen in PK period VI (MM IB) in the form of "Alternating Floral Style" (see below). Another tall tumbler (P147) has simple white-on-dark bands. Both seem handmade and yet have parallel striations under the base, which is left unslipped. Among the

<sup>37</sup> BETANCOURT 1984, 18–20 ("Late Phase").

<sup>38</sup> *PK VIII*, forthcoming.



Fig. 9 Fragment of a Chamaizi pot (bottom centre); capsules d'algues (bottom right); sherd with metallicising ribbing (centre top); all from Trench H3

squat tumblers, three stand out for their dark-on-light spatter decoration, a type of decoration seen at Petras in MM I<sup>39</sup> and further west at Malia and Myrtos Pyrgos. One other type of handleless cup that is popular at this time in central Crete, the footed goblet or “eggcup”, is very much less common in the east of the island; nonetheless there is a single example in this deposit (P148), handmade and with a white band below the rim, fitting very much what one would expect of MM IA at Knossos (Fig. 7).<sup>40</sup>

Among the handled cups there are three basic types – rounded, proto-carinated and straight-sided. Rounded cups have offset disc bases, are handmade and display polychrome or white-on-dark horizontal bands at the upper body (e.g., P154; Fig. 8). Proto-carinated cups have a very similar profile but do have a slight change in angle, akin to those of the later carinated cups albeit much less pronounced. These too are handmade and with polychrome or white-on-dark horizontal bands. Only two straight-sided cups exist in this deposit, a shape that is to become much more common in the Protopalatial period. One is monochrome and the other dark-on-light, and both are handmade (P171, P172).

The bridge-spouted jar is the most common type of pouring vessel in this group from X1. They occur in a



Fig. 10 Alternating Floral Style, from Trench H3

variety of wares – plain, monochrome, white-on-dark and polychrome – and are all handmade. One polychrome example (P158) has diagonal red and white lines either side of red and white rosettes, which may begin to hint of period VI (MM IB) (see below).

Taken as a whole, these features clearly put us later than the phase when east Cretan white-on-dark ware is common, namely PK period Va (EM III). We can safely assign Block Chi room 1 to PK period Vb, and link it to MM IA on the basis of the ample polychrome decoration. That there are already hints of the wheel, but nothing as yet really convincingly wheelmade, might suggest that period Vb falls late in the MM IA period,<sup>41</sup> but this proposal lacks further corroboration and so cannot be used to differentiate between early and late MM IA phases. There is no Alternating Floral Style in the polychrome, which we really should expect to see were we a little later (see below, trench H3).

### Trench H3

A trial trench in square H3 (and its extension, H3 Ext), just to the north of Block B (Fig. 1), was excavated in 1962 and 1963, revealing an accumulated fill almost 2 m deep of MM I to III pottery. The earliest material does seem clearly distinguishable from that of Block Chi room 1, to the extent that we can assign it to a subsequent phase, i.e., PK period VI. There is much polychrome present, in the Alternating Floral Style, and even a fragment of a Chamaizi vase, so far only rarely found at the site (Fig. 9).<sup>42</sup> There is also some use of the wheel for small vessels, and hence its

<sup>39</sup> HAGGIS 2001.

<sup>40</sup> See MOMIGLIANO 1991.

<sup>41</sup> This depends on the assumption, of course, that the wheel does only begin in MM IB and no earlier, which does seem

a largely robust assumption on the basis of the substantial Knossian deposits discussed above.

<sup>42</sup> See *PK II*, 323, fig. 22, 1.

association with MM IB in the original report seems fair.<sup>43</sup> Further study hopefully will confirm that these two deposits do indeed provide us with a relatively clear picture of MM IA and IB at Palaikastro.

Tall tumblers in the H3 deposit are still handmade and with parallel striations, but differ from those of XI in that their bases are invariably slipped. They continue in polychrome, but now we see more adventurous designs, notably in “Alternating Floral Style” (Fig. 10).<sup>44</sup> Other vases display this polychrome style too, including a kind of tall carinated cup (P371) and a cup with a very low, rather rounded carination (P372). Interestingly, both appear to be handmade.

Another characteristic polychrome style consists of a curving diagonal red band flanked by thinner white bands, dubbed “diagonal red and white style” at Knossos, where it is very much a feature of MM IB.<sup>45</sup> This style is observed particularly in the sherd material on cups (Fig. 11), some of which are carinated and some of which appear to be wheelmade. Note too that horizontal polychrome bands do continue from period Vb (MM IA).

While there are certainly still some handmade vases in this deposit, as already noted above, wheelmade vessels make their first appearance, exhibiting both parallel striations under the base and clear rilling at the inner body. There is very little sign yet of concentric striations. Preliminary study suggests that bevelled cups, carinated cups (some with offset bases) and squat tumblers are the forms that are being wheelmade at this time.

Other rarer features can be linked to MM IB through connections with sites in east-central Crete. There is one example of a kind of dark-on-light decoration (base fragment of a tumbler, handmade, quite possibly local; from level 15) (Fig. 9) that appears to mimic seaweed pods – a style dubbed “capsules d’algues” at Malia, where it appears to be quite common before the main MM II occupation of Quartier Mu.<sup>46</sup> One might also note its appearance in Pyrgos II c–d, again suggestive of a date prior to MM II.<sup>47</sup> Another type commonly seen at Malia and Myrtos Pyrgos is the Chamaizi pot, of which there is just one fragmentary example from H3, again from level 15. It is handmade, in a fine orange fabric that could be local and, strangely, has a slightly streaky dark brown slip (Fig. 9). As mentioned above, one other



Fig. 11 Diagonal red and white style, from Trench H3

Palaikastro example is described by Dawkins, and otherwise they do exist in east Crete, notably at the type site of Chamaizi (which is thought to be MM I). Finally, there are one or two sherds that are slipped and with metallicizing ribbing (Fig. 9), again a feature at Malia that appears to begin in MM IB.<sup>48</sup>

Although the H3 lower material is not a floor deposit, and merges into the MM II material in the levels above, it does provide a stark contrast with the material from Block Chi room 1. That these correspond to MM IA and IB seems relatively clear. Interestingly, there does appear to be some kind of support for this differentiation between MM IA and IB in the early publications, with Dawkins<sup>49</sup> notably referring to some MM IA material in the following way (on p. 10):

“... To this earliest class belong the vases on pls. IV and V and figs. 6 and 7. Here we have the characteristic cups, tumblers and hole-mouthed jugs, with white or sometimes simple polychrome ornament on a fine black lustrous ground. The workmanship is good: the wheel is in use, but the parallel striations left on the base by the string used to separate the finished vessel from the clay left on the wheel show that it was revolved only slowly; the curved and more or less concentric striations left by the rapidity of the wheel used in MM II times and later are not yet found, still less the ribbed appearance of the interior of the vase which results from the use of a rapid wheel.”

Initially one might imagine that Dawkins is mis-

<sup>43</sup> *PK VI*, p. 251.

<sup>44</sup> See FLOYD (1997), who notes four examples from Palaikastro, a figure that can certainly be increased.

<sup>45</sup> MACGILLIVRAY 1998, 59.

<sup>46</sup> POURSAT 1993, 605; contra STÜRMER 1993.

<sup>47</sup> Cadogan (pers. comm.).

<sup>48</sup> See also early examples in Myrtos Pyrgos phase II c–d.

<sup>49</sup> *PKU*, 10–12.





Fig. 12 Pl. IV from *PKU*

taking MM IA for MM IB, particularly when he talks of the use of the wheel and the existence of parallel striations; however, we have seen in the Block Chi room 1 deposit that some vases, tumblers in particular, do show parallel striations under the base, but without any convincing wheel rilling marks at the body. There is little reason to put this deposit in MM



Fig. 13 Pl. V from *PKU*

IB, especially given the contrasts with trench H3, and one might be inclined to wonder whether we are dealing here with late MM IA. Moreover, simple polychrome decoration fits well with what we see, especially compared to the later styles of MM IB. Plates IV and V in *PKU* (Figs. 12, 13) are, however, not all MM IA, containing bevelled cups and other forms which must be MM IB or IIA (*PKU* figs. 6, 7) (Figs. 14, 15). Also note that the goblet of *PKU* fig. 6 may appear to be later, and indeed it is from the Kamares cemetery so is hardly securely dated by context.<sup>50</sup> MM IA had to be defined on stylistic rather than stratigraphic grounds, a problem also apparent in Evans's discussion of MM IA and IB, in which he illustrates various east Cretan vases and assigns them to one or the other phase in terms of style and without reference to their context.<sup>51</sup>



Fig. 14 Fig. 6 from *PKU*



Fig. 15 Fig. 7 from *PKU*

<sup>50</sup> Also shown in *PK II*, 303, fig. 2.

<sup>51</sup> EVANS 1921, 182-5, figs 133-34.



Fig. 16 Pl. VIII from PKU

Nevertheless, despite these difficulties in pinning down MM IA and IB respectively, Dawkins continues:<sup>52</sup> “... Though the use of red in addition to the white inherited from the earlier style gives the polychrome Middle Minoan vases shown in Plates VII–XI a more advanced position in the ceramic development, there is no apparent reason for dating them later than the preceding series, that is, to the Middle Minoan, and perhaps in the main to the MM Ia period.”

Plate VIII, for example, shows four vases from the ossuaries, and hence hardly well stratified (Fig. 16). Yet there are two examples of Alternating Floral Style, which does seem to be a feature of period VI (MM IB) rather than period Vb (MM IA), and hence perhaps Dawkins’s sense of this material being “more advanced” is correct. Dawkins did not go so far as to assign this material to a separate phase (MM IB) but in hindsight he would have been justified in doing so, on stylistic grounds if not stratigraphic.

Although published some twenty years earlier than PKU, in PK II some of these ideas on phasing the early Middle Minoan (MM) are already apparent. Bosanquet and Dawkins discuss the pottery from a trench in square G3. This is highly relevant because test H3 was made just a little to the northeast of G3. On pp. 288–9, Bosanquet describes G3 as containing “a very compact bed of Kamares shards, of early types”, on virgin soil. The section is shown in fig. 6 on p. 289 (Fig. 17). They seem to represent about 30 cm of deposit beneath a later floor, which is in turn beneath a 2 m deposit of “Mycenaean” sherds.

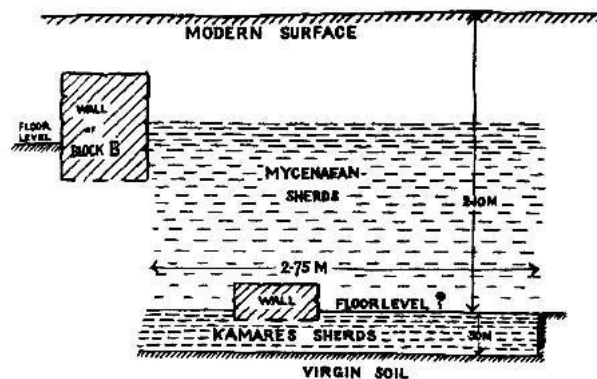


Fig. 17 Section of trench G3, from PK II, fig. 6

This “Kamares” pottery is further described by Dawkins in the pottery section on pp. 304–6. He suggests that the pottery from the lowest levels of G3 is so far the earliest deposit from the town site, and must be contemporary with the earliest burials.<sup>53</sup> He indicates that tumblers are typical, along with bev-

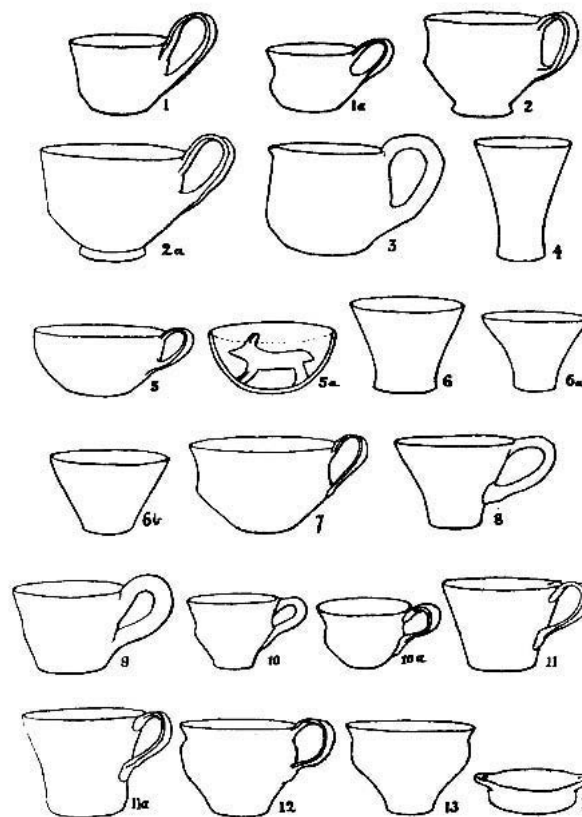


Fig. 18 Pottery types, from PK II, fig. 1

<sup>52</sup> PKU, 12.

<sup>53</sup> This is of course before the discovery of the EM III burials of Ellenika presented in PK IV.



Fig. 19 Pottery from fig. 4, PK II

elled cups and carinated cups with offset base (as far as can be discerned from the schematic drawings of fig. 1 on p. 302; see Fig. 18). He also notes the absence of types such as nos. 7–12 on fig. 1, which show carinated, straight-sided and hemispherical cups. Thus he distinguishes two kinds of Kamares, ultimately MM I and MM II. Further examples of MM I Kamares from cemetery contexts are shown in figs. 4 (Fig. 19) and 5. Here we see a tumbler with alternating style, a small bevelled (?) cup also with alternating style, and an early carinated cup with offset base and white-on-dark sweeping festoon with single coil spiral motives. Thus the earliest pottery from G3 seems to tally very well with that from the nearby square H3, “MM Lower”. Both can be described as MM IB (or PK period VI).

#### Building 7 (2003 excavations)

The Prepalatial sequence in room 2 emerged beneath MM IIIB/LM IA levels. The uppermost Prepalatial levels correlate with what is seen in Block Chi room 1, and so may be linked to PK period Vb; indeed, some of the pottery shows strong affinities with north-central Crete, such as the rim fragments of a handmade straight-sided cup with polychrome bands at the rim (no. 8336-7; Fig. 20). A handmade proto-carinated cup also suggests a date immediately prior to MM IB, as do various handmade tumblers, of which one squat example bears an incised cross at the exterior mid-body (SF37). That most of the above-mentioned material is clearly handmade indicates that we are still in the late Prepalatial period (i.e., MM IA in central Cretan terms). There is, however, a little ambiguity, with one tumbler fragment showing parallel striations under its base – this is also seen in the Block Chi room 1 deposit, and may be a sign that we are already late in the MM IA period. Nevertheless, Mirabello imports are also common in this level, for example the fragment of a pithos rim with dark-on-light band (no. 8338): this, as shall be seen below, is a feature that stretches back to period Va (EM III), if not before, when numerous imports from the northern Isthmus/Mirabello Bay area make their way in quite some quantities to



Fig. 20 Rim of straight-sided cup with polychrome bands (top right), from Building 7 Room 2



Fig. 21 East Cretan white-on-dark ware (upper, middle and lower right), from Building 7 Room 2

Palaikastro (and indeed to other sites, such as Malia and Myrtos Pyrgos).

It should be noted that some of these upper levels are slightly contaminated by a pit dug into the north-east corner of the room, apparently in late MM II or MM IIIA. However, it is apparent that only those *zembils* from close to the pit are compromised in this way. Pottery characteristic of period Vb continues to appear in lower strata, with the base of an eggcup, a rare type in east Crete, seemingly a north-central Cretan import of MM IA type. Also in no. 8344 is the rim of a goblet, also presumably footed, with rock-work barbotine at the exterior body. Together with these are examples of the distinctive east Cretan white-on-dark wares (Fig. 21), in a range of shapes (including fragments of a handmade jar with a proto-carination and white-on-dark bands), and almost invariably imports from the Mirabello area. There is a possibility that some of this material from lower levels might be earlier rather than later within period



Fig. 22 Tall flaring tumbler with Alternating Floral style, from Building 7 Room 1



Fig. 23 White-on-dark open-mouthed jug, from Building 7

Vb (MM IA), but there is at present insufficient evidence to lend firm support to this impression. What does need to be accepted is that east Cretan white-on-dark ware, while frequently associated with EM III, can also continue into MM IA.<sup>54</sup> The general absence of this ware as an import in north-central Crete (e.g., at Knossos) has made difficult the dating of late Prepalatial east Cretan pottery groups relative to the “defining” central Crete sequence.

The lowest levels of the sequence, just above virgin soil, contain relatively little pottery (no. 8347-8). However, the soil changes considerably from the strata above, becoming very red and with almost no charcoal or bone. Calcite-tempered ware, generally common in EM, is well represented, and there are a few signs of earlier material, such as EM IIB Vasiliki ware. There is no polychrome at all in these lowest levels, which may thus represent PK period Va, or EM III.

Further supporting evidence from building 7 for the definition of PK periods Vb/VI comes from another stratum close by in room 1. Here, test 1 revealed interesting MM layers (level 6, nos. 8160, 8162-3) in between walls 806, 812 and 815. No. 8160 contained a tall flaring tumbler (7835) with polychrome decoration in the Alternating Floral Style (Fig. 22), as found also in trench H3, and thus assignable to PK period VI (MM IB) (see also Floyd 1997). The fact that this piece is wheelmade certainly points to a date no earlier than MM IB. Another feature from no. 8160 useful for dating is a rim fragment of a straight-sided cup with polychrome diagonal lines,

present also in trench H3, and well paralleled in MM IB at Knossos.<sup>55</sup> Still in level 6, and with cross-joins to nos. 8160 and 8162, there is further pottery that seems contemporary, such as a broad tumbler that is plain and wheelmade, and another straight-sided cup rim fragment with polychrome bands. However, there is earlier pottery too, notably a small open-mouthed jug (7834) that is handmade, with extensive vertical paring at the lower body, and with white-on-dark decoration (Fig. 23). It is not exactly the east Cretan white-on-dark ware of EM III, but does seem to be a development thereof, and so this probably belongs more in MM IA.<sup>56</sup> So this evidence suggests that in building 7 there is material from PK period VI (MM IB) too, another phase to go with the late Prepalatial phases in room 2.

#### BEYOND CRETE – SYNCHRONISMS

Having discussed the status of MM IA and IB on Crete, and the regional differences that exist between the center and the east of the island, it is time now to look beyond Crete and assess the implications for the rest of the Aegean, with particular attention to the island of Aegina. The position of Aegina is such that we need to take into account both Middle Helladic (MH) and Middle Cycladic (MC) synchronisms. The nature of Cretan interaction with the mainland has long been considered of a character different from that with the Cyclades. On the one hand, mainland MH sites such as Lerna used Minoanizing pottery, perhaps manufactured on Kythera, as early as

<sup>54</sup> See BETANCOURT 1984.

<sup>55</sup> Cf. MACGILLIVRAY 1998.

<sup>56</sup> I.e., BETANCOURT 1984 (late phase of white-on-dark).

MM IA; Lerna also has some imported Minoan pottery at this time, seemingly in much smaller quantities than the Minoanizing, although the proportion of Minoan pottery to Minoanizing pottery remains unclear as the two categories can be hard to differentiate.<sup>57</sup> On the other hand, Cycladic sites show no signs of having used Minoanizing pottery in the early MBA, although they do import some Minoan pottery; Rutter argued that, importantly, such imports only arrived from MM IB onwards.<sup>58</sup> This distinction between the MM IA associations on the mainland and the MM IB associations in the Cyclades was argued by Rutter to signify two quite different processes of interaction: the former as a primarily Prepalatial west Cretan phenomenon (cultural rather than political, presumably), the latter as the result of political developments in central Crete, namely the rise of the first palaces.

Rutter's assertion concerning the absence of MM IA imports in the Cyclades was based largely on the pottery from Phylakopi on Melos, where a single MM IA sherd is known from the old excavations, from a context that is far from secure.<sup>59</sup> Rutter went on to note that the more recent excavations in the 1970s revealed a few more sherds of MM IA style, but found together with MM IB/IIA imports in Phylakopi II contexts: there is no definite Cretan import from a secure level of Phylakopi I-ii/iii, and come Phylakopi II the imports are MM IB/II and more numerous. Despite the paucity of evidence from Phylakopi, Rutter in his 1983 publication sought to link Phylakopi I-ii/iii with the beginning of the MC and MBA generally in the Aegean (hence if any Cretan imports were to exist in Phylakopi I-ii/iii, they ought to be MM IA). The lack of evidence, however, allowed that other interpretations were also sustainable; indeed, Rutter's line of argument ran counter to that proposed by MacGillivray and Barber in their distinction between Early Cycladic (EC) IIIA and IIIB.<sup>60</sup> It is their EC IIIB that Rutter associated with the beginning of MC rather than the end of EC. Given that EC IIIA was being linked by Rutter with

the Kastri group of EC IIB, this would result in the "emptying" of the Cyclades in the late EBA, creating an EC III gap.<sup>61</sup>

The picture in the Cyclades has since changed substantially with the recent discovery of well-stratified early MC material at Akrotiri on Thera. The pottery shows strong affinities with Phylakopi I-ii/iii, while also including some Cretan imports that can be linked to MM IA.<sup>62</sup> Among the imports in this MC phase A material is the rim of a goblet with reserved barbotine decoration, a type also found at Aegina, where it is the first MM import at the site of Kolonna.<sup>63</sup> This comes in pottery phase H. From the earlier excavations at Kolonna the first Minoan imports also are MM IA barbotine – admittedly just three fragments, of which two are eggcup rims.<sup>64</sup> This kind of MM IA barbotine is also found in MH I Lerna. There are further connections between Aegina pottery phase H and Akrotiri MC phase A, with some possible Aeginetan imports occurring in the latter.<sup>65</sup> In pottery phase I the Minoan imports at Aegina appear to be MM II (straight-sided cups, white-flecked ware).

Synchronisms with Kea are a little harder to establish – period IV is said in the main publication of the material to correspond to MM IIA in Crete, while probably extending somewhat earlier and later.<sup>66</sup> Interestingly, Overbeck observes that evidence for use of the wheel was not found at all in the earliest phase, IVa. We might then speculate that Kea IVa could be contemporary with MM I on Crete, and perhaps even MM IA; counter to this, however, are comments by Davis, who states that "the earliest period IV deposits at the site are appreciably later than the beginning of the MH period on the Greek mainland".<sup>67</sup>

There clearly are significant differences between the mainland and the Cyclades in the nature of their interactions with Crete, not least with the lack of Minoanizing pottery in the Cyclades in the early MBA. However, the neat distinction made by Rutter concerning the timing of these interactions, MM IA in the case of the former and MM IB for the latter, no

<sup>57</sup> ZERNER 1978; 1986; 1988; 1993; RUTTER and ZERNER 1984.

<sup>58</sup> RUTTER 1983.

<sup>59</sup> RUTTER 1983, 72–3; RENFREW 1972, 198 with pl. 13.4; PAPAGIANNOPOULOU 1991.

<sup>60</sup> See MACGILLIVRAY and BARBER 1984.

<sup>61</sup> RUTTER 1984. However, come 1987, BARBER appears to reach partial agreement with RUTTER when he says that EC IIIB is contemporary with MM IA, and that the MC early phase is contemporary with "MM IB–II (possibly

also late MM IA)" (BARBER 1987, 30–1). See also BROOD-BANK 2000, 331–335 for discussion of the EC III gap.

<sup>62</sup> NIKOLAKOPOULOU *et al.* in press.

<sup>63</sup> XXVIII–18: GAUSS and SMETANA, this volume.

<sup>64</sup> HILLER 1993.

<sup>65</sup> NIKOLAKOPOULOU, this volume.

<sup>66</sup> OVERBECK 1989.

<sup>67</sup> DAVIS 2001, 28.

longer looks quite so robust. There does appear to be Prepalatial contact in the Cyclades, at Akrotiri at least, during MM IA.<sup>68</sup> Moreover, the frequency of interaction does not increase noticeably in the MM IB or II periods; it is not until MM IIIA and the beginning of the Second Palace period on Crete that the number of Cretan imports to Thera increases dramatically.<sup>69</sup>

How does Aegina fit into this varied picture? It too seems to have a handful of Cretan imports in MM IA, barely increasing during the MM IB–II period. Moreover, the quantities do increase substantially thereafter, in MM IIB–IIIA (Gauß, pers. comm.). Yet at the same time it feels the impact of the mainland stream of Minoanizing influence, with distinctive Minoanizing polychrome present in pottery phase I.<sup>70</sup> As one might expect from an island in the position of Aegina, it is caught up in both the island and mainland streams of influence (which should be an advantage in terms of the analysis of synchronisms!), the former relatively direct from Crete and the latter very indirect, via Kythera and the Peloponnese.

As something of an aside, we may briefly turn our attention further east, and just consider a small amount of MM I material from Anatolia, Cyprus and Egypt. It is noteworthy that the earliest Cretan imports at the site of Miletus on the west Anatolian coast do appear to be MM IB, with distinctive small handmade straight-sided cups, one with horizontal white-on-dark decoration, and another with diagonal polychrome lines, well known from Knossos in MM IB.<sup>71</sup> On Cyprus, we find the Karmi cup, which can be assigned to MMIB too thanks to close decorative parallels from Knossos.<sup>72</sup> From Egypt the earliest Cretan imports also seem stylistically to be MM IB, including the famous vase from Qubbet el-Hawa and material from Lisht.<sup>73</sup> The former, discovered in an early XII Dynasty context, and showing stylistic parallels with examples from Palaikastro often assigned to MM IA,<sup>74</sup> can thanks to recent work on east Cretan Alternating Floral Style<sup>75</sup> be assigned to MM IB. Taking the evidence from Miletus, Cyprus and Egypt into consideration, it would seem that the idea of a horizon of MM IB interaction, corresponding with the rise of the first palaces, might still have some merit.<sup>76</sup>

## CONCLUSIONS

Crete displays regionalism, and the regional patterns in material culture change through time. In searching for synchronisms in the detailed Cretan sequence, regionalism needs to be taken into consideration. For example, MM IA at Knossos sees numerous “egg cups”, which are almost entirely absent at Palaikastro. Nevertheless, the polychrome bands seen on cups are very similar in central and eastern Crete. MM IB at Knossos does not have much (any?) Alternating Floral Style, no Chamaizi pots, no “capsules d’algues”; but there are diagonal red and white lines. It is a fascinating feature of Cretan ceramic regionalism that there are strong similarities (e.g., carinated cups, hemispherical cups and straight-sided cups are present everywhere in the Protopalatial, albeit in differing proportions), and yet at the same time distinctive differences. And this is not even to mention the question of wheel technology, which appears to find its way into the ceramic repertoire in much the same way simultaneously across the island. Although at times this regionalism can create problems (e.g., “cultural lag”), it might also provide checks and balances that should ultimately prove useful. What is of particular importance is the methodology of presenting pottery deposits in local regional terms in the first instance; if, for example, there were to be disagreement over the use of MM IA and IB at Palaikastro, one can at least fall back on the “Block Chi room 1” and “trench H3” as groups, or on Palaikastro periods Va, Vb and VI.

The usefulness of Cretan parallels in the early MBA of the mainland, the Cyclades and Aegina is limited, given the very small numbers of Cretan imports during this period. However, given what is happening on Crete at this time, it becomes doubly significant to be able to differentiate between MM IA and IB, between Prepalatial and Protopalatial. The political context of Cretan interactions and imports could hardly be more different from one period to the next. Although one might expect there to be a new horizon of regional interaction with the emergence of the palaces in MM IB, and perhaps the beginnings of some of the processes of “Minoanization” that emerge more fully in the later MBA, this does appear

<sup>68</sup> NIKOLAKOPOULOU *et al.* in press.

<sup>69</sup> KNAPPETT and NIKOLAKOPOULOU 2005.

<sup>70</sup> GAUSS and SMETANA, this volume.

<sup>71</sup> RAYMOND 2001, fig. 1b–c.

<sup>72</sup> STEWART 1962; MACDONALD and KNAPPETT 2005, pl. 14, n. 68.

<sup>73</sup> MACGILLIVRAY 1998, 103–4.

<sup>74</sup> WARREN and HANKEY 1989, 130.

<sup>75</sup> FLOYD 1997, and above.

<sup>76</sup> See RUTTER 1983.

to be preempted in MM IA. Taking a longer term perspective it is nevertheless of interest that the pattern set at this time seems to continue unbroken for at least two centuries, albeit at a relatively low level, until the next horizon of change in regional interactions that comes with the advent of the Second Palace period.

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### Abbreviations

- PK II* BOSANQUET, R.C. and DAWKINS, R.M. 1902–3, “Excavations at Palaikastro II.” *BSA* 9: 274–387.
- PK III* DAWKINS, R.M. 1903–4, “Excavations at Palaikastro III.” *BSA* 10: 192–231.
- PK IV* DAWKINS, R.M. 1904–5, “Excavations at Palaikastro IV.” *BSA* 11: 258–92.

- PK VI* POPHAM, M. and SACKETT, L.H. 1965, “Excavations at Palaikastro VI.” *BSA* 60: 248–315.
- PK VIII* KNAPPETT, C.J., SACKETT, L.H. and COLLAR, A.C.F., *forthc.*, “Excavations at Palaikastro VIII.” *BSA*.
- PKU* BOSANQUET, R.C. and DAWKINS, R.M. 1923. *The Unpublished Objects from the Palaikastro Excavations 1902–1906, Part I*. London. BSA Suppl. Paper 1.

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