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CRETAN HIEROGLYPHIC AT MYRTOS-PYRGOS

Silvia Ferrara, Judith Weingarten, Gerald Cadogan

Summary

Two Cretan Hieroglyphic seals and three Hieroglyphic seal impressions have been found at the Minoan settlement of Myrtos-Pyrgos on the south coast of Crete west of Ierapetra. The excavation has also produced a vase inscription that is more likely to be Hieroglyphic than Linear A. The seals are four-sided prisms; the impressions, which include one from a four-sided prism, are on the handles of oval-mouthed amphorae. The vessel with the inscription may be classed simply as a jar. The seals are significant as inscribed objects owned, and potentially to be used, by the higher echelons of the administrative pyramid, especially because one was not only of highly refined manufacture, but was also inscribed with sequences that are often repeated in the Hieroglyphic corpus; while the inscription emphasises the close connection of Cretan Hieroglyphic to Linear A. The seals and impressions add to the considerable evidence for cultural, and probably political, links between Myrtos-Pyrgos and Malia in MM IIB at the end of the Protopalatial.

At Myrtos-Pyrgos 14 km to the west of Ierapetra on the south coast of Crete the excavations of the British School at Athens have revealed a Minoan settlement that was used, albeit with intermittent abandonments, from the start of the Bronze Age at the turn of Final Neolithic IV to Early Minoan I down to Late Minoan IB (Cadogan 1978; 1992) (Fig. 1). The site, which is known for its long occupation and its monumental architecture, has also contributed greatly to current discussions of regional cultural differences in Minoan Crete and their possible political ramifications. Chief among these are the clear links between Pyrgos and Malia at the end of the Protopalatial era in Middle Minoan IIB, or the Pyrgos III period (Cadogan 2013, with references to earlier discussions; Cadogan, Knappett forthcoming). One of these connections may be the presence of the Cretan Hieroglyphic script, for which we shall now present the evidence from Pyrgos and compare it briefly with Malia and other sites in Crete.

Pyrgos has produced five, or possibly six, Hieroglyphic documents. This is a small number when compared to Malia and appears to underline its position as a second-order site (Cadogan 2013, 108). All the same, the Pyrgos inscriptions form a useful assemblage for helping to understand the workings of one of the regions, as culturally defined, of Protopalatial Crete. The documents consist of: two seals; three seal impressions on the handles of jars; and an inscription on a body fragment of a jar that may, or perhaps may not, be in the Hieroglyphic script. We shall consider them archaeologically, glyptically, and epigraphically, in a holistic approach that has still been little attempted in Minoan studies.

CATALOGUE AND CONTEXTS

The pieces are in the Stratigraphical Museum at Knossos, or the Herakleion Archaeological Museum (HM) if specified. In this catalogue, MP stands for Myrtos-Pyrgos as the prefix of the catalogue numbers of the excavation; # either gives the number of the sherd basket of the particular level in the excavation, or the catalogue number of a Hieroglyphic inscription as established in the corpus published in 1996 by Jean-Pierre Olivier and Louis Godart as *Corpus Hieroglyphicarum Inscriptionum Cretae* (CHIC). Measurements are in centimetres.

Seals

The Hieroglyphic four-sided prism seals **1** and **2** were found on the West Slope of the settlement, where a huge amount of Pyrgos III (MM IIB) broken pottery, together with stone vessels and other debris, had fallen, or been

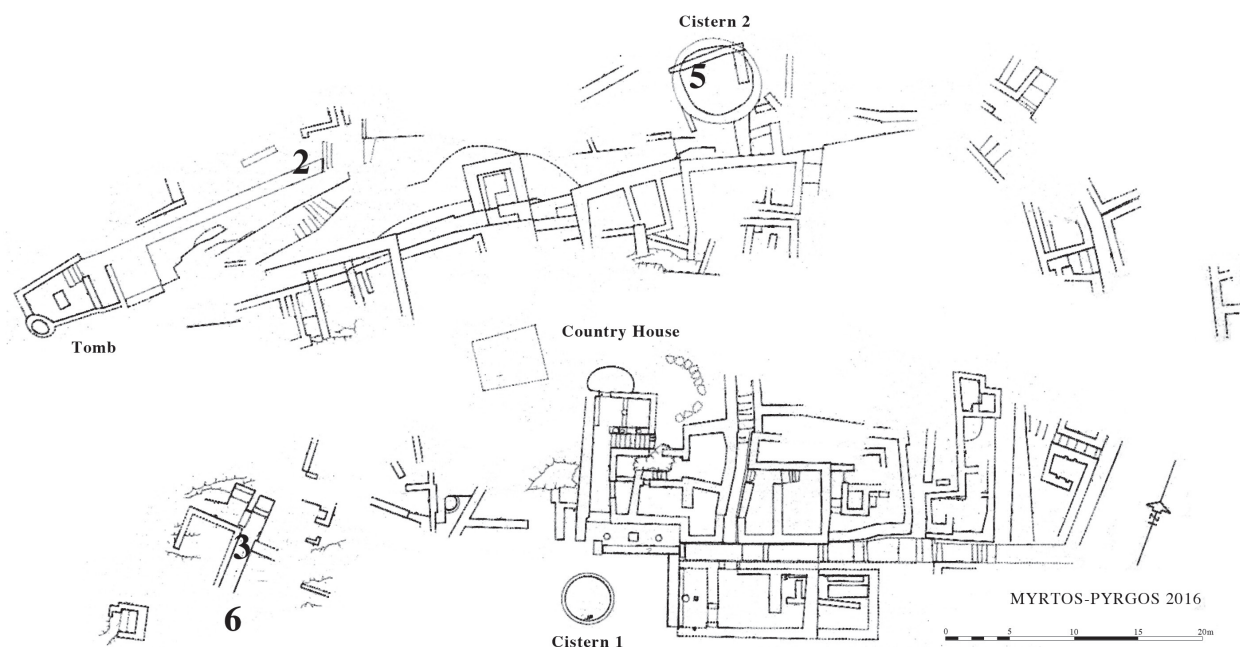


Fig. 1. Plan of Myrtos-Pyrgos, with find spots of 2, 3, 5 and 6. Drawing by David Smyth and Piraye Hacigüzeller.

thrown, down the hill. This debris came probably from a Protopalatial Central Building, which we believe stood on the top of the hill, functioning in some way as a predecessor of the LM I Country House (that was later built over and onto it; Cadogan 1997). The destruction by fire in MM IIB of the Central Building marks the end of the Pyrgos III period of occupation.

Seal 1 (*CHIC* #309) (Fig. 2) in dark green jasper is a surface find from the upper West Slope, on the edge of the top of the hill: it was found in the area of what would have been trench A6, had that trench been excavated. It may come from the Pyrgos III destruction, but there is no certainty.

Seal 2 (*CHIC* #282) (Figs. 1: 2; 3) in grey to green steatite was well stratified in the Pyrgos III destruction debris in a baulk between two trenches. Adjacent finds included carinated cups and stone querns, and other tools.

1. MP/75/3; HM Σ2595; *CHIC* #309; *CMS* II. 1 S (but not yet assigned). Fig. 2. Surface find in area of trench A6, found by Antonis Zidianakis. Dark green jasper. L. 1.7; w. 0.6; d. hole 0.25. Cadogan 1978, 83, fig. 40; Poursat 1980, 226; Krzyszkowska 2015, 102-105, fig. 4a. Although from a 'controlled' excavation (Krzyszkowska 2012, 156, n. 40), it is still a chance find without context.

2. MP/73/156; HM Σ2536; *CHIC* #282; *CMS* II. 1 S (but not yet assigned). Figs. 1: 2; 3. Area 98: baulk Z3/A3 level 2 #4302 find 4. Grey-green steatite. L. 2.1; w. 0.7; d. hole 0.2. Anastasiadou 2011, 104, 106 n. 549: Malia/Eastern Crete group.

Seal impressions

Impressions 3-5 were made before firing on jar handles, from seals with the Hieroglyphic script. They join several other jar handles with seal impressions from Pyrgos whose seals, however, had designs other than Hieroglyphic. These include *CMS* II. 6, 223-226 and 228, and one jug handle (*CMS* II. 6, 227) and establish that impressing seals on handles before firing was a regular, if occasional, practice at Protopalatial Pyrgos, and possibly before that in the late Prepalatial.

The attribution of impressions 3-5 to the Pyrgos III period rests more on the identification of the seals and the pottery vessels than on their contexts. Impression 3 (Figs. 1: 3; 4) is from a topsoil level at the southwest corner

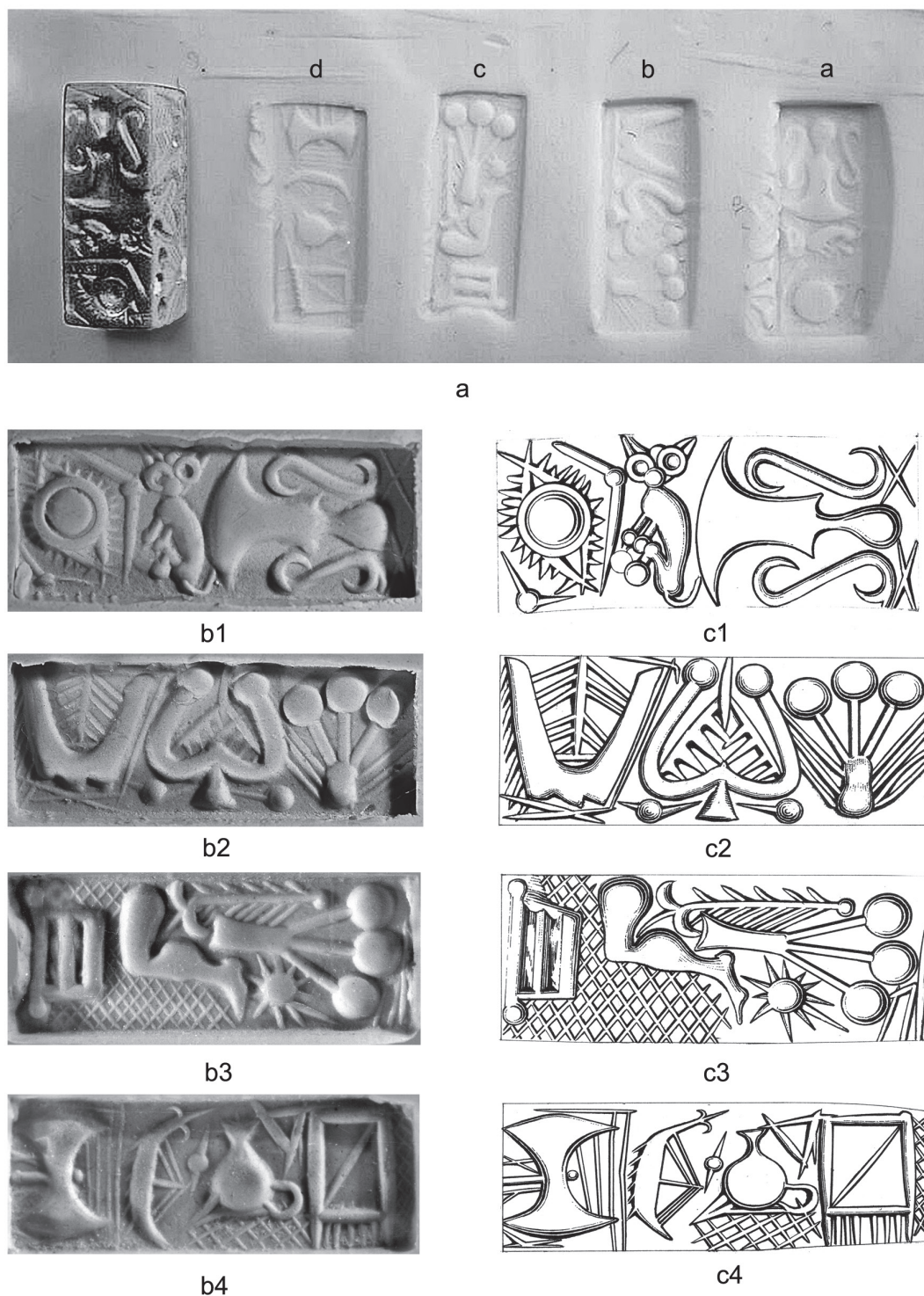


Fig. 2. a. Seal 1 (MP/75/3; HM Σ2595; CHIC #309). Photograph by Judith Weingarten; b. Seal 1 (MP/75/3; HM Σ2595; CHIC #309), 1-4 : sides a-d (modern impressions). Photographs courtesy of CMS; c. Seal 1 (MP/75/3; HM Σ2595; CHIC #309). 1-4: sides a-d, 4:1. Drawing by David Parfitt.

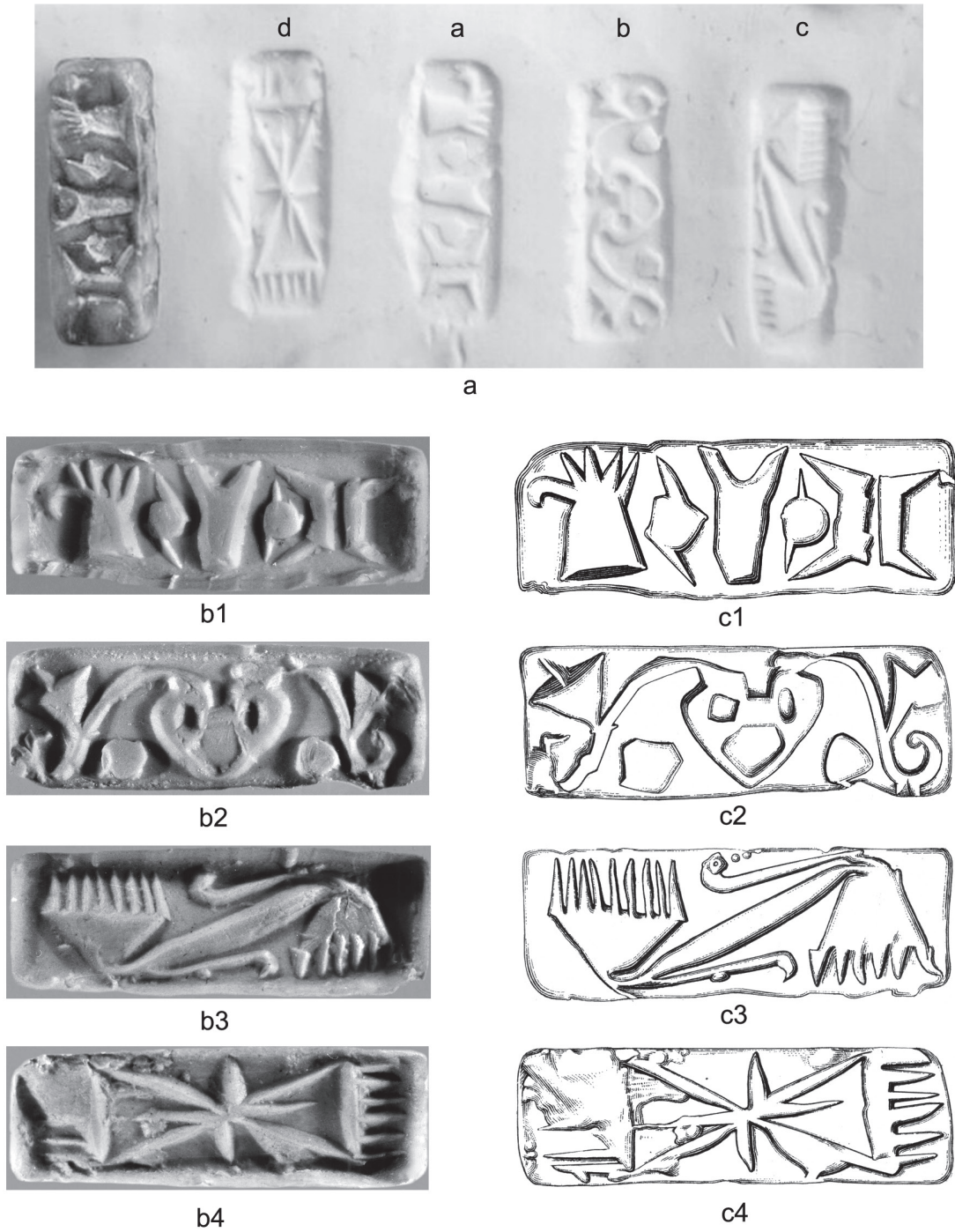


Fig. 3. a. Seal 2 (MP/73/156; HM Σ2536; CHIC #282). Photograph by Judith Weingarten; b. Seal 2 (MP/73/156; HM Σ2536; CHIC #282). 1-4: sides a-d (modern impressions). Photographs courtesy of CMS; c. Seal 2 (MP/73/156; HM Σ2536; CHIC #282). 1-4: sides a-d, 4:1. Drawing by David Parfitt.

of the hilltop that was lying mostly over Street VIII, which separates House X from House Y. These buildings may be the remains of what would have been an imposing entrance system, perhaps a defensive gateway. Unfortunately, it is still difficult to date them. Our provisional conclusion is that, if it is tempting to relate them to Steps 8 (the stepped way that was found on the lower West Slope and led to Steps 9 and Street VI, the processional way that in turn led to the Tomb constructed in EM III/MM IA Pyrgos II [Cadogan 2011]), they could have formed instead an outer entrance to the LM I Pyrgos IV Country House – or may date back to its predecessor, the Pyrgos III MM IIB Central Building. The small amount of pottery from the level is of little help. In basket #1380 a few Minoan sherds included one that was probably LM I, but there were also a glazed sherd of Pyrgos VI (Venetian-Ottoman) and two Pyrgos V (Hellenistic) sherds, while the succeeding basket #1381 in the level had LM I fragments, and also a piece of EM I-IIA light grey ware. This is not an assemblage of historical significance.

Impression 4 (Fig. 5) is a surface find from the West Slope of the Pyrgos hill, and could have been originally part of the Pyrgos III destruction debris described above.

Impression 5 (Figs. 1: 5; 6) was found in the large Cistern 2 on the North Slope in its lower fill, which has been provisionally called Deposit 2. Cistern 2 (Cadogan 2014; Oddo 2015) was built in or by Pyrgos III, and went out of use in or after that period. Deposit 2 seems to have been a layer of earth and stones that had been washed down the hill into the open Cistern after it was no longer in use for holding water. The deposit contained mainly Pyrgos III pottery, but there was some of LM I Pyrgos IV date. Subsequently, the still open Cistern was used in Pyrgos IV for dumping pottery and other items, in what we have called Deposit 3.

The three impressions were made before firing on the vertical handles of coarse ware oval-mouthed amphorae: amphorae of this sort were made at several different centres (Poursat, Knappett 2005, 39-43, 104-105; Pratt 2016, 29-36; Cadogan, Knappett forthcoming) and seem the most common type of jars used at the time for transport and storage, and likewise the most common type used for the infrequent practice of having their handles impressed with seals before firing. Impressions 4 and 5 were set at the base of the handle; but 3 is on the rim which has been folded over the handle where it joins the collar of the vessel. 3 and 5 are quite prominent on the vertical axis of their handles and easily visible, as was probably also the case for 4. 3 and 5 appear to be from vessels with dark-on-light decoration; for 4 we cannot say.

3. MP/71/268; HM Σ1096; *CHIC* #133; *CMS* II. 6, 229. Figs. 1: 3; 4. Area of Street VIII: baulk B8/B9 level 1 #1380. Impression made by round and flat hard stone seal face on rim, which had been folded over junction with handle. D. of seal impression 1.1. Thick oval handle. Younger 1988, 200, 399; Jasink 2009, 48, 74, 146; Weingarten 2015a, 73-74, fig. 6.

A thick dark band runs to the rim inside and on the rim, including over impression. Two thick bars of paint on top of handle; and smudge on each side, as if the potter/painter held it in fingers wet with paint.

4. MP/94/2; PYR I (1/1) 02; *CMS* II. 6, 230. Figs. 1: 5. Surface find on lower West Slope, found by Ingo Pini. Impression made by half-oval and flat hard stone seal face at base of handle. L. of seal impression 1.4; w. pres. of impression 0.85. Round handle. Anastasiadou (2011, 111, n. 158) suggests, from its iconography, that the impression was made by a hard stone intaglio; Weingarten agrees (2015a, 73-74, fig. 7). Del Frio 2012, 5-6; formerly *CHIC* #133bis (Del Frio 2008, 200); Jasink 2009, 71, 185, 195; Olivier 2010, 290 n. 13.

Sherd discoloured, perhaps burnt, in recent times.

5. MP/73/239; *CHIC* #175; *CMS* II. 6, 231. Figs. 1: 5; 6. Deposit 2 in Cistern 2: trench F02 level 6 #3172. Impression made by one face of four-sided hard stone (?) prism stamped near base of handle. L. of seal impression 1.4; w. of impression 0.5. Weingarten 2015a, 73-74, fig. 8.

Thick oval handle. Traces of red decoration.

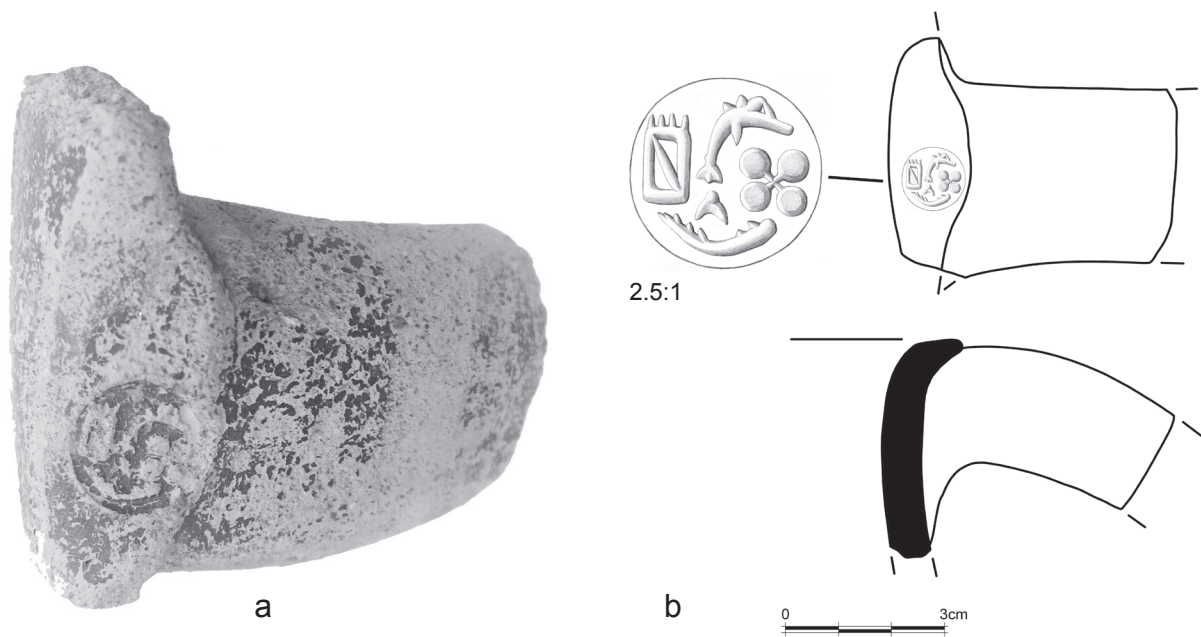


Fig. 4. a. Seal impression 3 (MP/71/268; HM Σ 1096; *CHIC* #133; *CMS* II. 6, 229). Photograph by Judith Weingarten; b. Seal impression 3 (MP/71/268; HM Σ 1096; *CHIC* #133; *CMS* II. 6, 229). Drawing by Doug Faulmann.

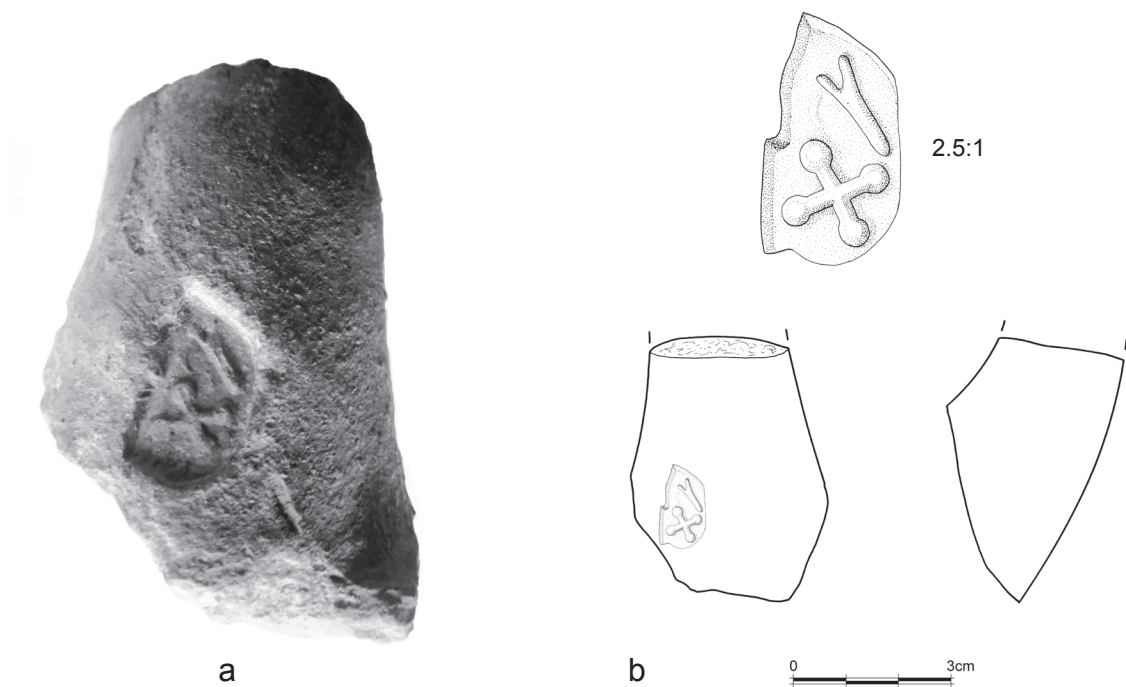


Fig. 5. a. Seal impression 4 (MP/94/2; PYR I (1/1) 02; *CMS* II. 6, 230). Photograph by Judith Weingarten; b. Seal impression 4 (MP/94/2; PYR I (1/1) 02; *CMS* II. 6, 230). Drawing by Doug Faulmann.

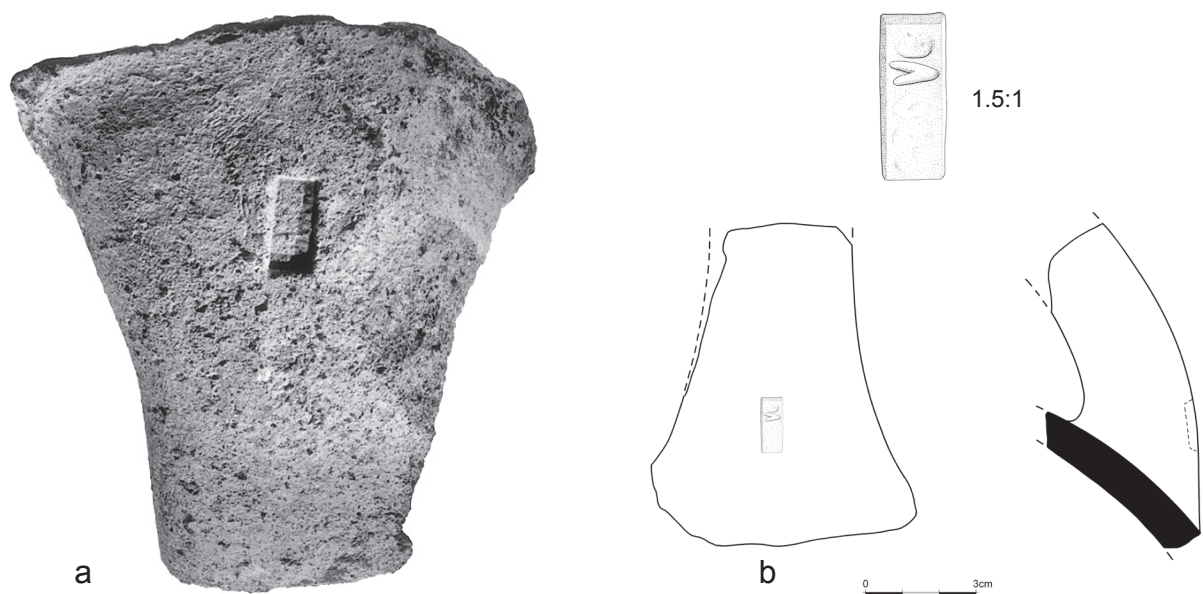


Fig. 6. a. Seal impression 5 (MP/73/239; *CHIC* #175; *CMS* II. 6, 231). Photograph courtesy of *CMS*; b. Seal impression 5 (MP/73/239; *CHIC* #175; *CMS* II. 6, 231). Drawing by Doug Faulmann.

Inscription

The two signs of inscription 6 (Figs. 1: 6; 7) were incised before firing on a fairly straight-sided coarse ware jar, of which only this sherd survives. It was found near where impression 3 had been, at the southwest corner of the top of the hill in a trench devoid of significant architecture (except for a possible wall). It was in the level of earth below the topsoil that had many stones, which either had fallen or could have been in a fill associated with the suggested wall. The pottery consisted of LM I (Pyrgos IV) detritus, which would favour a LM I date; but a likely MM cup was also noted. A Protopalatial date cannot be excluded for the sherd and its inscription.

6. MP/71/79; PYR Zb 5 south of House Y: trench B10 level 2 #1347. Figs. 1: 6; 7. Body fragment of jar or other vessel. L. of sign 1: main stem 2.1; tail 1.0; l. pres. of sign 2: 2.1. Olivier 1999, 428-429; Del Frio, Zurbach 2011, 92.

Faint red horizontal band below inscription.

ANALYSIS

Seals

In analysing the inscriptions on the seals, we shall consider the transcriptions and discussions presented in past publications, and propose an integrated and revised 'reading' of the inscriptions, introducing an examination of the sign-shapes together with all other elements engraved on each seal face. As this contribution is the primary publication of these seals, we aim to present the inscriptions from a polycentric perspective that considers all aspects that the engraver compressed onto the seals, be they part of the sign-repertoire or mere ornamental devices. The fonts used are courtesy of Jean-Pierre Olivier, who created the standardised signary, and Anna Margherita Jasink, who devised a series of supplemental signs not included or discussed in *CHIC*.

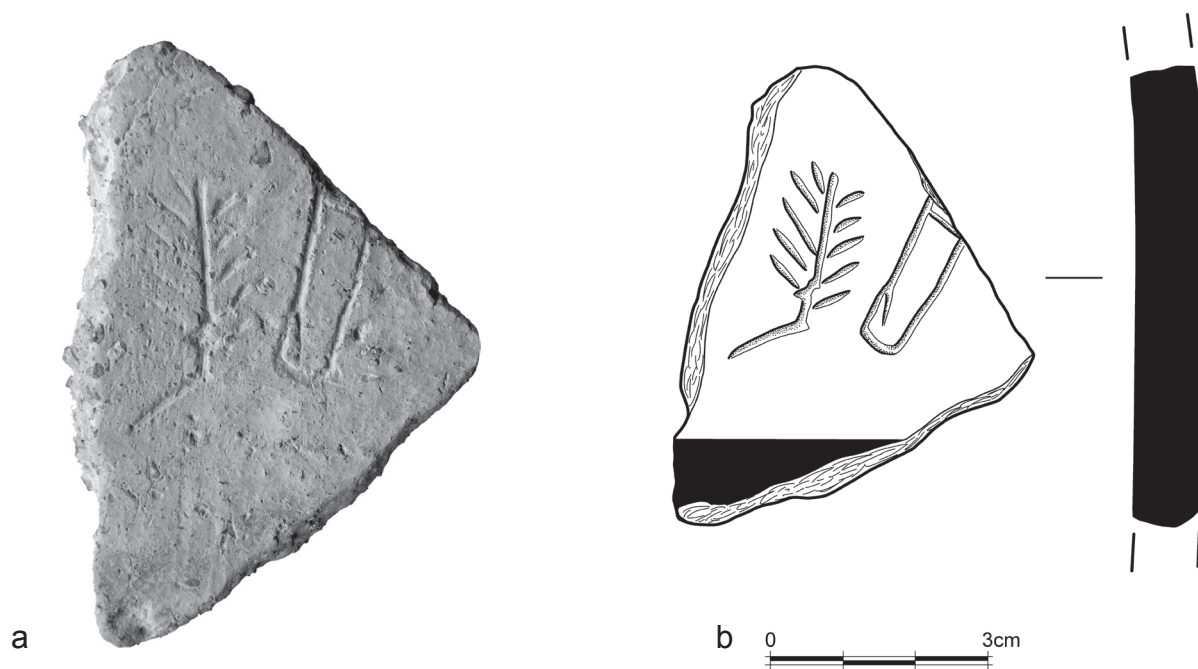


Fig. 7. a. Inscription 6 (MP/71/79; PYR Zb 5). Photograph by Judith Weingarten; b. Inscription 6 (MP/71/79; PYR Zb 5). 1:1.5. Drawing by Doug Faulmann.

The two seals were first transcribed in *CHIC*. Shortly afterwards, John Younger in his analytical review proposed a series of revisions of some transcriptions and inclusions of signs omitted by *CHIC* (Younger 1998, 399). Jasink added further commentary in her new classification of the Hieroglyphic seals, revising the principles underlying *CHIC* and proposing new readings of several inscriptions (Jasink 2009). One of the goals of her commentary was to reintegrate several signs originally present in *Scripta Minoa* (abbreviated here as *SM* numbers, after Evans 1909) and omitted by the authors of *CHIC*. From these starting points, and after autopsy of the Pyrgos material specifically, we should like to propose a new and integrated analysis of the inscriptions. Our aim is to reach a synoptic description of the seals designs, taking into consideration all features engraved on the stones, on the assumption that, whether significant as script-signs or as decoration, they should not be disregarded if a thorough understanding is to be achieved.

Seal 1

Just five images of full-bodied cats appear in Middle Minoan glyptic (and, indeed, in Minoan glyptic of any date: the few later felines [Krzyszkowska 2015, 105-106, fig. 5] appear to be wild cats rather than *felix catus*). Two full-length cats are on Hieroglyphic seals while another two perhaps hint at some associated Hieroglyphic meaning (see below for further details). The cat on 1, side a (Fig. 2.b1), is seated between the 'formula' composed of signs 044  and 005 . While *CHIC* reads the inscription as x-044-005, the seal face also includes the central cat as well as double x 'stiktograms' above sign 044 , two spirals flanking it, and two signs (possibly 063-063,  ) around sign 005  -- the longer of which visually separates sign 005  from all other signs. In other words, someone looking at this seal face (or its impression) would be more likely to 'read' the cat sign  as adjunct to the  rather than to associate it with sign 005 , or to see it as an intrusion into the well-known 'formula'.

The other Hieroglyphic seal depicting a full-length cat is *CMS* VI, 93 (*CHIC* #257), engraved on the exquisite (Evans 1928, 204, fig.115) red cornelian three-sided prism now in the Ashmolean Museum, whose visual reading is explained in Table 1.¹

Seal Face	<i>CHIC</i>	Visual reading
Side a	038 ² -010-031- 	-038-010-031-061
Side b	036-092-031 	036-92-031
Side c	x-046-044 	x-046-044-

Table 1. Visual ‘reading’ of *CMS* VI, 93 (*CHIC* #257).

Note that two faces of Hieroglyphic full-bodied cat seals (shown as)³ include the same signs, though quite differently disposed from a visual perspective, as it is shown in Table 2: the glyptic formulae 038-010-031 and 036-092-031 , the former occurring 26 times on Hieroglyphic seals, the latter ten times.⁴ It is difficult to say if this repetition is due in any way to their sharing a cat or is merely a statistical fluke as both formulae appear together elsewhere on four seals without felines.⁵ The formulae, however, underline the probable high rank of the seal owner (Poursat 2000) and the importance of the cat sign.

When we turn to the Hieroglyphic sequences, Seal 1 is inscribed on all four faces of the prism. Three sides have inscriptions that are frequently attested in the Hieroglyphic corpus. In the analysis that follows, each face will be treated separately, following the order set out by *CHIC*.

Face a. This side (Fig. 2.a, b1, c1) bears a formula that is attested more than 30 times in the whole Hieroglyphic seal repertoire. The formula carries signs 044-005 (trowel-eye) and is preceded by a double cross indicator (). The latter is understood to signpost the reading direction (see *CHIC* 13 n. 27). A full-bodied cat is inserted between the two signs, rendered as by Jasink in her supplemental font series. There are several peculiarities to this inscription that prompt further reflection. First, the double cross indicator needs to be explained, because it may serve a different function from the single cross indicator, used to indicate the reading direction. Second, the trowel sign 044 is flanked by two spirals on either side, and is rotated 90° from the orientation of the other signs. This may all be intended to give the trowel sign a specific emphasis. Third, the cat sign may be semantically significant, as it appears five times elsewhere in the corpus (isolated: *CMS* VI, 131 [which also bears the double cross indicator, , beside the cat], 138; *CMS* VII, 45c; and twice with Hieroglyphic formulae, one being our 1, the other the Ashmolean Museum specimen, *CHIC* #257a; see also Krzyszkowska 2015).

Also noteworthy is the fact that on two other seals (*CMS* II, 2, 316d = *CHIC* #295d; *CMS* IV, 156b = *CHIC* #247c), cat heads (which are attested at least seven times in the seal corpus as) accompany the trowel-eye formula, instead of full-bodied felines. Is there reason to believe that the cat, in either version, may have parallel roles?

1 Its reported provenance varies: Knossos, central Crete, or Lasithi district, *CMS* VI, p. 10. For photographs in colour of this seal, see Hughes-Brock 2013, 156, figs. 310-312.

2 Sign 038 is tipped over on its side, hardly an uncommon turn for a Hieroglyphic sign on seals. However, this gives it the appearance of a kind of ‘throne’ or ‘podium’ on which the cat is seated; for which compare the full-length cat on *CMS* VI, 138, where a short ‘ground line’ ends with a similar form beneath the cat. See also a similar ‘seat’ under the (full-bodied version of Hieroglyphic sign 018) dog with spiral tail, sign 049 a on P.TSK05/499a from Petras (Krzyszkowska 2012, 150, fig. 5).

3 ‘We may suppose that the cat is a functional and not only an ornamental element, with a precise meaning in reference to the ‘word’ composed of the other four symbols, either as a determinative or an ideogram connected to the seal’s owner/user’ (Jasink 2012, 31). See also Civitillo forthcoming.

4 With one exception (*CHIC* #109b), neither formula appears on scribal documents (Jasink 2012, 172-173).

5 Cf. the four-sided prism from Petras, P. TSK 05/259 (Krzyszkowska 2012, 151, fig. 6b-d) with the same signs on all three Hieroglyphic sides, but which are broken up by other motifs – perhaps sheer embellishment.

CHIC accepts both as decorative, with due caveats (*CHIC* 14 n. 37). Jasink devotes plentiful attention to this issue (2009, 31, 46, 140), concluding that cats and cat masks may represent determinatives or ideograms related to the owner/user of the seal. There is no reason to believe they should not be rightful syllabograms, however. Younger, indeed, proposed to assign the cat mask the syllabic value *ma*, by analogy with Linear AB 80, *ma* (Younger 1998, 387). Tantalising is the idea of an onomatopoeic principle being at work here, and perhaps also on other syllabograms, but this hypothesis requires further examination. Finally, the eye sign is ‘cartouched’ by filling elements (miniature dots with protruding ends) that seem to flag its self-standing, separate position.

Face b. This second side (Fig. 2.a, b2, c2) bears another well-attested sequence, signposted by a single stiktogram (X). The formula is attested ten times in this combination, 036-092-031    and six times as 036-092  . It is interesting to note that sign 031  completes either basic two-sign sequence, showing a neat (inflectional? agglutinative?) pattern. Turning to stylistic details that are worthy of discussion, it must be noted that initial sign 036  is not only inverted in respect to the other two signs, but is also surrounded by a line that functions as a formal separator from the rest of the inscription. The inversion of signs is a frequent feature of Hieroglyphic inscriptions, which may be less coincidental than has been hitherto assumed. In the case of this formula, it should certainly not be overlooked. The attestations of sign 036  elsewhere in the corpus show several cases in which the sign is emphatically separated from sign 092  which follows it in the so-called formula, or given particular weight by way of fillers placed beside it (see *CHIC* #263a, #265c, #267b, #288c, #299c, the latter with double x).

Also, each of the three signs on this face is embellished by what have been taken as fillers composed of multiple strokes, thinly engraved inside the sign as a tree or branch motif, or radiating outside of it. Incidentally, the tree and branch (or antlers?) motifs constitute, elsewhere, proper signs of the Hieroglyphic repertoire, respectively sign 025  and sign 28 . Whether these signs are purposefully represented on this seal remains to be proved (see for instance the similar use of cross-hatching and fillers for emphasis over the same signs on seal *CHIC* #299c and d), but a specific connection to the formal script as inspiration is not to be completely ruled out. The detailing and diagnostic rendering for either makes them very recognisable.

Face c. On side c (Fig. 2.b3), four small signs (whether meant to be read    or not; these signs are not included in *CHIC*) virtually surround sign 031 , while background cross-hatching acts as a unifying device around the other signs 010-038  , which seems visually to confirm a basic two-sign formula (Jasink 2012, 173) with, in many cases, sign 031  as an add-on of some sort. This formula appears frequently in the seal corpus, a dozen times carrying just the initial signs 038-010  , thus making it the third most recurrent, after the trowel-eye and trowel-arrow combinations.

Face d. This last side (fig. 2.a, b4, c4) is intriguing, as it shows a sequence that is not attested anywhere else in the repertoire. As in the previous, the reading direction is indicated by a triple stiktogram (X X X), which is followed by the double axe sign, 042 . It must be noted that this is rotated 90° from the alignment of the inscription, in a way similar to the trowel on side a. Moreover, the double axe sign is divided from the rest of the inscription by four very thinly incised vertical strokes, two of which run to the edges of the seal. The signs that follow are the ship (040 , note that the sequence 042-040   is attested also on *CHIC* #129, uninterrupted and orientated in a spiral), the amphora (053 ) and the textile (041 ). Turning back to the first sign, the double axe is found very frequently as a single motif on seals and sealings catalogued in the *CMS* series. Could it stand in isolation on this example, too? If this is correct, then it could represent a logogram/determinative rather than a syllabogram. Younger notices an alternating pattern marked by the ship sign at the end (*CHIC* #298, #192: Younger 1998, 400), but this does not in itself rule out that this sign can be found in initial position too.

Our transcription, in Table 2, follows by and large *CHIC*, with additions. Functional to a systematic appreciation of the seals is the notation of all engraved details on each face. We believe that a fundamental step towards gaining a fuller understanding of these inscriptions is to draw attention to aspects that the authors of the corpus elected to omit, which are engraved on these objects specifically, but also on Hieroglyphic seals in general, such as the multiple stiktograms and elements that appear to be separating markers and/or decorative fillers.

Side a	Side b	Side c	Side d
XX 044-cat-005	X 036-092-031	038-010-031	XXX 042 040-053-041
× × 𐀀 𐀁 𐀂	× 𐀃 𐀄 𐀅 𐀆	𐀇 𐀈 𐀉	× × × 𐀊 𐀋 𐀌 𐀍 𐀎

Table 2. Transcriptions of seal 1 (*CHIC* #309).

This seal is particularly interesting in terms of attested sequences, and also of manufacture. Several factors indicate that similar seals were reserved for the higher echelons in the administration. These seals are made of hard stones, measuring 5 or more on the Mohs scale, and the engraving is more refined when three or all four sides of the prism are engraved with frequently found formulae (Poursat 2000). This means that an administrative hierarchy can be established in light of the frequency of attestations on stylistically different prisms.

In terms of specific details that may have semantic value, we should like to propose a new reading of the double (or, for the case of face d, triple) stiktogram. Its reduplication (or triplication) seems to be significant in the presence of signs that are variably emphasised through fillers or rotation, and isolated or separated from the rest of the inscription: could the double **×** be a deictic marker of symbols that have so far been considered as embedded in a sign-sequence, or as decoration when found on one seal face (see the already mentioned full-bodied cat on *CMS* VI, 131, for instance), when perhaps they should be considered separately, as having a specific function on their own (perhaps to be read as logograms)? For the time being this remains a speculative proposition, that will need to be tested against a systematic statistical analysis of all attested instances, especially on single sign attestations, which are not collected in *CHIC*.

Seal 2

The poorly carved inscription on seal 2 (Fig. 3.a, b1, c1) may simply be the result of a mediocre craftsman's use of a knife to gouge signs into the soft steatite; it hints at his lack of literacy and perhaps his not understanding the signs as syllables to be read. Although a four-sided prism, Maria Anastasiadou (2011, 104, 106 n. 549) associates seal 2 with the three-sided prisms of her Malia/Eastern Crete group. The image on side b (Fig. 3.a, b2, c2), however, appears more closely related to the work of the 'Curlicue Monster Workshop', if only in the sense of 'cheap imitation'.⁶ The transformation of a decorative design into a humanoid or animal head seems characteristic of this Workshop (see P.TSK05/ME 322c and *CMS* VI, 101c). Although four of the five hard stone seals from Petras belong to this group (n. 6), it is at least as likely that the workshop was based at Malia where a vigorous seal cutting tradition continued into late MM IIB, when the horizontal bow drill was adopted with its concomitant start to engraving hard stones. It may have been at Malia that a certain interplay took place between this workshop and the engravers of the latest seals of the Malia/Eastern Crete Group.⁷

Seal 2 is inscribed only on one face out of the four forming the prism (Fig. 3.a, b1, c1). In *CHIC* (#282) the inscribed side is shown as first, #282a. While this is arbitrary, the orientation of the inscription in relation to the iconographical elements of the other faces may be significant (Younger 1990). As each of the sides of the seal was used for impressions, the direction of the other sides may not work symmetrically (as is the case for side b in this instance), but may face towards or away from the direction of the signs.

⁶ The Curlicue Monster Workshop produced hard-stone seals combining Hieroglyphic inscriptions with quasi-naturalistic and decorative motifs. The group dates to MM IIB and is based on the remarkable rectangular-bar agate seal from House Tomb 2 at Petras, P. TSK/05/ME 261, depicting a Beset-like figure (Krzyszkowska 2012, 154, fig. 8; Weingarten 2015b). Two groups of closely related seals may be assigned to this Workshop. The pivotal seal is ME 322, a carnelian four-sided prism from House Tomb 2, Petras. Group I (*CMS* VI, 101a; *CMS* III, 237b; 238a) for Beset-like heads with curlicue hairstyles and additional curlicue designs (also, the background design of *CMS* III, 238b echoes the pattern of the Beset seal reverse). The characteristic curlicue designs link them, in turn, to Group II, including four of the five hard stone seals from House Tomb 2 (two four-sided prisms, TSK05.ME 322 and TSK05.ME 259, and a three-sided prism TSK05.ME 499 [Krzyszkowska 2012, 150-151, figs. 5-6]). Since most identified seals are multifaceted, a sufficient number of designs exist to establish them as the output of a single workshop with a fair degree of confidence.

⁷ Two seals from the Curlicue Monster Workshop (*CMS* III, 237, 238), bought on the market, were said to have come from Malia.

The inscribed face of the seal consists of a total of six engraved motifs, some of which are assumed to be signs of the Hieroglyphic repertoire, and others ornamental fillers. We shall adopt the term ‘motif’ for each of them in the discussion that follows, regardless of their status as sign or decoration. Thus we shall discuss each engraved motif separately, and then propose a general discussion of the inscription, drawing parallels with other Hieroglyphic seals that show similarities.

Motif 1. Sign 008 . This sign is attested at least six times in the whole Hieroglyphic seal corpus (*CHIC* #128, #132, #187, #282, #297), comprising two isolated instances: one on a seal face of the Archanes 14-sided seal (*CHIC* #315 side J, see Sakellarakis, Sapouna-Sakellarakis 1997, 327, fig. 283; 328, fig. 284), and another instance (*CMS* II. 8, 15) with an ivy leaf decoration attached to its palm, intriguingly in a ligature-like way – which is completely omitted in the *CMS* drawing (see Weingarten 2007, 130–131, fig. 4.6: SF 67 [a very clear drawing]; 136–138). It appears also four times on the archival documents (*CHIC* #076a, #112d, #113d, #120). It is likely painted on a vase from Malia too (*CHIC* #322). It is significant that this sign is always represented in initial position, at the beginning of the inscription. This position is signposted by the engraver even when the signs of the inscription are arranged in a spiral, as shown on a one-sided seal impression from Malia (#132). Younger (1998, 393) claims that this sign was used to mark a beginning vowel or as a prefix.

Motif 2. This motif is a circular dot with protruding points at opposite ends. It is not present in the standardised sign repertoire, nor is it discussed in *SM*. It is perhaps to be considered as ornamental, as it is frequently attested, and smaller in size, on other inscribed seals. On this specimen, the motif is equal in size to the other signs of the inscription. This reason alone has led Jasink (2009, 189) to include it in the normalised signary.

Motif 3. This has been interpreted as sign 019  in all extant publications. *CHIC* notes that the second sign could also be interpreted as sign 011  (*CHIC* #269, #323), which could be very likely. The shape appears as a stylised, thickly engraved bucranium, more accurately exemplified by sign 011, rather than by the thin ‘cuttlefish’ shape of sign 019.

Motif 4. This is a variant of motif 2 discussed above, slotted between the preceding sign and the following, and may follow the same functional principle, although Jasink notes the slight difference in shape.

Motif 5 plus 6. Composed of a repeated identical design with two signs facing opposite directions, this element is rotated 90° from the alignment of the other signs. All extant discussions differ markedly on its reading. *CHIC* notes a duplicated ‘template’ sign, 068  , with the reduplication being potentially significant, possibly to be taken as a logogram (hence the {}). Jasink assumes the same stance regarding function, but recognises a ‘horns of consecration’ sign, designed as a supplemental sign  (Jasink 2009, 95). This sign was already classified by Evans as *SM* 37, but excised in *CHIC*. Younger assumes this to be a single, rather than a reduplicated sign, and identifies it as 068 . This is motivated by the fact that the painted vase mentioned above (*CHIC* #322) shows a very similar sign in final position. It must be noted that, incidentally, this sign is preceded by a possible variant of the ‘hand’ sign 008. In this way, the sequence on the vase bears two of the signs attested also on this seal, 008–068   (Younger 1998, 399). Table 3 presents a summary of the palaeographic analyses and transcriptions discussed so far.

<i>CHIC</i> transcriptions	Jasink transcription	Younger transcription
008-019-036 {036}    { 	008-019- <i>SM</i> 37 { <i>SM</i> 37}    { 	008-019-068   
008-011-036 {036}    { 		

Table 3. Transcriptions of seal 2 (*CHIC* #282a).

We should like to propose a new reading for this inscription, which takes into consideration the above, but adds further details on the manner of engraving and style. The rendering of the signs or *ductus* approximates details that one could deem diagnostic, smoothing out the minutiae of the sign-shapes. Particulars such as the fingers of the hand (sign 008) are less refined than in other attestations of the same sign on other seals. The roughness of the

engraving leads us to believe that the second sign may represent sign 011 ▼, rather than sign 019 𐀓 (but compare *CHIC* #120, which bears a 008-019-013 sequence). Also, while there is little reason to accept the reduplicated element composing the last motif as an added sign, this is a regular feature of Hieroglyphic inscriptions on seals, which sometimes show a preference for redundancy to possibly mark emphatic ornamentation. Younger's transcription with a last single sign, 068 𐀓 is ingenious, but unlikely, since the arrangement of the oblique strokes on *CHIC* #322 is very different, and we tend to favour a reading that emphasises an original intent to stress ornamental reduplication. We thus suggest a transcription as 008-011-*SM* 37, 𐀓 ▼ 𐀓{𐀓}.

Seal impressions

Through a thorough analysis of the impressed material, a regional pattern seems to emerge that links Pyrgos with a more frequent parallel habit of incising single pot marks on handles before firing: both practices are found concentrated in the Malia-Mirabello-Lasithi region (Cadogan 2013).⁸ Nine stamped amphora handles from Pyrgos (Weingarten 2015a) can be dated with a fair degree of certainty to Pyrgos III, equivalent to MM IIB.⁹ The practice of stamping the handles of, mostly, coarse ware amphorae is associated also, to a lesser extent, with the far east of Crete, and their contexts, when known, are almost entirely Middle Minoan II: Malia (11), Pyrgos (nine), Palaikastro (five), Petras (one), and now Gournia (one).¹⁰ Singletons have also turned up in the centre of the island with one each from Juktas, Archanes, Poros, Sabas Padiadas, Symi, as well as a possible Minoan import found on Samothrace.¹¹ While it is entirely possible that some stamped coarse ware handles were not noticed in early excavations, 33 seal-impressed handles is such a tiny percentage of excavated handles on any Middle Minoan site that it seems fair to say that the stamping of such handles, although widespread, was never a common act.

The group is nonetheless of interest, not least because seven handles were impressed by Hieroglyphic seals: Malia (two), Pyrgos (three), Petras (one), and Palaikastro (one?).¹² While this mirrors the eastern distribution of the Middle Minoan practice of handle stamping as well as that of Hieroglyphic seals, it is perhaps surprising that Malia – a town with an active Hieroglyphic administration plus a seal-engraving atelier – produced just two (17%) Hieroglyphic-stamped jar handles compared to the three (33%) from Pyrgos, a site with no known Hieroglyphic administration.

But Malia restores its pre-eminence when we compare the number of all types of Hieroglyphic seals: Malia (25), Pyrgos (two) and, of course, the palatial site boasts Hieroglyphic seal impressions on administrative nodules (12), whereas there are no Middle Minoan sealings at all from Pyrgos. Whether by choice or chance, the two Hieroglyphic seals 1 and 2 are *the only Middle Minoan seals* to have been found at Pyrgos, and both are Hieroglyphic four-sided prisms. Relatively few Hieroglyphic four-sided prisms and their impressions were found at Malia: only three of the 11 four-sided prisms with secure provenances (*CHIC* #286, 306, 307?).¹³ It is even more striking that just three of 21 impressions made by Hieroglyphic four-sided prisms are from Malia (*CHIC* #171-173), compared to 15 from Knossos (*CHIC* #156-170) – and even one (5) from Pyrgos.

8 Whether the shrine at Symi, where pot marks occur (Christakis 2014), counts as part of the Malia-Mirabello-Lasithi region or not is still under debate. The pot marks from Symi show strong differences from the MM IIB patterns of the Malia regions, notably in being concentrated in MM IB, and occurring on a more varied range of shapes.

9 A single example (Weingarten 2015a, 71-72, 74, fig. 1: MP/73/196) was found in a likely Pyrgos IIC level, which would be equivalent to Knossian MM IB; but its seal impression, which is almost entirely effaced, is useless for dating.

10 Judith Weingarten is grateful to J.G. Younger for permission to mention this find – a handle stamped by a metal ring (below, n. 15) – from the 2014 excavation season.

11 See *CMS* II. 6, 441-479, table 2 (removing MP/73/245 with intentional tool marks but no seal impression), to which add those listed in Weingarten 2015a, 75 n. 2; see also Cadogan 2011, 131 n. 8.

12 Malia: *CHIC* #150 = *CMS* II. 6, 189; and *CHIC* #132 (no *CMS* number), a stamped jar handle from the *atelier de sceaux* or the *atelier de potier*, which disappeared after 1970; Petras: *CMS* V S IB, 329, stamped on an intact oval-mouthed amphora (no *CHIC* number), now PETRAS I (1/3) 01; Palaikastro: *CMS* II. 6, 246 stamped by a flat, round metal seal with what we take as a Hieroglyphic or pseudo-Hieroglyphic inscription (no *CHIC* number).

13 With three more from Malia (?) in the Giamalakakis and Metaxas collections (*CHIC* #237, #282, #286).

Seal impression 3

Impression 3 (Fig. 4) is one of the few seal impressions on a jar that was carefully stamped on the rim immediately above the juncture with the handle; in other words, where it could best be seen by anyone catching sight of it or lifting the pot. Despite its prominence, it is nonetheless obscured by a black wash applied after the seal was impressed. See *CHIC* #132 for a similar Hieroglyphic seal impression, from a partially broken seal, on a jar handle from Malia (x-008-056-070, **X** **𐤀** **𐤁** **X**); an object now lost (*supra* n. 12).

This impression (*CHIC* #133) presents several problems of interpretation because the surface has suffered recent damage, which the photograph in *CMS* did not capture (*CMS* II. 6, 229). Also, the drawings published in *CMS* or *CHIC* are not reliable, as autopsy of this piece made clear. The round impression bears four motifs arranged in a circle. The order in the *CHIC* transcription is 070-028-041 **X** **𐤀** **𐤁** with the addition of a fourth sign, whose interpretation is uncertain. Younger offers a different reading, inverting the order of the first two signs, giving thus 028-070-041 **𐤀** **X** **𐤁**. This is based on other attestations, mainly on archival documents, of sequences that have 028-x-041 as the core structure (Younger 1998, 399, quoting *CHIC* #081a, #053aA, #060a, #102a, #160). However, sign 070 **X** can be found in the initial position. This sign is once followed by sign 028 **𐤀** on a seal from Malia, *CHIC* #307b, where the full sequence is 070-028-031, **X** **𐤀** **𐤁** (note that sign 031 **𐤁** recurs frequently at the end of sequences).

While the first three signs present little obstacle in terms of identification, the fourth is particularly challenging. The authors of *CHIC* marked it as potentially significant but untranscribed (!), referring the reader to the drawing or photograph for clarification. Jasink defines it as a possible fish (2009, 48, albeit with an alternative reading as sign 046 **𐤁**). Her interpretation is surely swayed by the *CMS* drawing, which reproduces what, to all intents and purposes, looks like a dolphin. Younger seems to suggest the presence of a water bird, but the question is left open (Younger 1988, 200). A close autopsy of this motif was inconclusive. The shape of the motif runs, almost uninterrupted, in a curvilinear fashion, quite clearly joined to an enlarged jagged dot facing sign 028 **𐤀**.

Seal impression 4

It is very likely that the irregular half-oval shaped impression 4 (Fig. 5) was stamped by a hard-stone theriomorphic seal, for which there is a close parallel from the region of Mirabello, *CHIC* #198 (070-073, **X** **𐤀**), a chalcedony theriomorph. This strongly suggests that our impression is complete. Impression 4 (#133bis) was not catalogued in *CHIC* but was supplied by Del Freo as an addendum (Del Freo 2008, 200 and n. 6). On the impression, two signs are discernible: 070-019 **X** **𐤁**, which do not correspond to any previously attested sequence.

Seal impression 5

The small (c. 1.4 x 0.5 cm) prism 5 (*CHIC* #175) (Fig. 6) was pressed very deeply into the clay of the handle so that, even had the seal itself not been very worn (as it was), visual identification of any 'script' would have been virtually impossible for the Bronze Age viewer. Only the closest examination of our modern plasticine mould allowed us to determine the presence of additional signs.

The original face of the seal probably bore four signs, only one of which is clearly identifiable as sign 019 **𐤁**. During autopsy, a further two signs were revealed, which may have preceded it, and a further one, which may have followed it (as seen in impression, rather than relief). However, no diagnostic shapes were discernible, with the exception of a very faint sign 005 **𐤁** slotted diagonally before sign 19 **𐤁**. This was visible only with a powerful magnifying glass and contrasting light.

Inscription 6

The criterion that underlies the definition of inscription *stricto sensu* is that *at least* two signs must be placed adjacent to one another in a coherent sequence where the signs are placed on the same level and are oriented in a consistent direction. In this light, the unassuming sherd found at Pyrgos bears a proper inscription, rather than a graffito.

Inscription 6 (Fig. 7), with two signs deeply incised in the clay, was classified as Linear A in 1999 by Jean-Pierre Olivier (1999, 428-429), catalogued accordingly as PYR Zb 5, and transcribed as AB 04-57 (see also Del Frio, Zurbach 2011, 92). This attribution is undoubtedly based on the chronology of the majority of the pottery in this context as well as the palaeography, considering the association of pottery in the same context, which point to a LM I date. This, however, does not rule out an earlier date for this piece, which could belong to Pyrgos III as much as Pyrgos IV.

From a palaeographical perspective we must note that the signs inscribed have possible, and perhaps more convincing, parallels in the Cretan Hieroglyphic repertoire. In the latter script, the inscription would be transcribed as 025-056  . There is a parallel for the two signs on a document from Petras (Hh 016d), where the sequence is 025-056-005.¹⁴ Regarding the first sign, it is interesting to note that in Hieroglyphic the lateral strokes on sign 025 are almost invariably oblique, whereas in Linear A they coexist with horizontal parallel ones, especially at Ayia Triada and Zakros.¹⁵ It should not be discounted that the oblique strokes may point to an earlier palaeography.

The identification of the second sign is not particularly problematic, despite the fact that the top section is broken off. A particular shape of sign 056  could be represented here, with the top inverted triangular section forming the sign having been severed. A possible parallel with sign AB 57 in Linear A is made less likely by the fact that its usual internal horizontal stroke is here missing (unless it is placed very high, where the sherd breaks). No further traces of diagnostic traits of this sign can be detected, even on close inspection.

In the Hieroglyphic corpus there is no other attestation of this sequence. In the whole Linear A and Hieroglyphic repertoires of inscriptions, cases of potential overlaps in sign-identification are well attested and should prompt to caution in determining attribution and in recognising the stages of transition from Hieroglyphic to Linear A. As new research shows, it is becoming increasingly evident that the boundaries separating the two scripts are thin and should be the topic of further discussion (Karnava 2007; Petrakis 2014; forthcoming).

CONCLUSIONS

The inscribed material from Myrtos-Pyrgos had not been analysed before from a polycentric perspective that considered matters of archaeological, glyptic and epigraphic importance. Through autopsy and study of the pieces several aspects emerge, which help to throw light on the cultural significance of the administrative and symbolic functions played by the seals, seal impressions and inscription that we examined. First, quantities. While the material is scanty, the attestations found at Pyrgos form a coherent pattern with other sites in the northeast part of the island. With the exception of Malia and Knossos, the average number of inscribed seals and sealstones is no more than a handful of attestations per site.

Then, it is interesting to note that the literate environment that made the use of Hieroglyphic possible also coexisted with practices linked to production and exchange: the Pyrgos III deposits, for instance, yielded a substantial number of pot marks. These, even if not closely related to a standardised sign repertoire or formal writing per se, show a variety of coherent patterns, some of which seem to differ markedly from habits observable in contemporary Malia.

From the perspective of literacy at large, the array of inscriptions at Pyrgos is particularly interesting because, despite the paucity of the material, there seems to be a hierarchy of sorts in the typologies and functions of the objects attested. One of the engraved seals, 1, must have been a treasured possession of a member of the Pyrgos elite, the formulae indicating high rank in the administration, and an otherwise unattested sequence, signposting a unique characteristic linked to the owner (a name perhaps?). The significance of this seal must have superseded the actual message engraved on it, or its practical use in the administration – few are the marks on it that may show wear and use – and was likely to have been displayed and have been recognised as a marker of status, aside of its functionality.

¹⁴ We are grateful to one of the anonymous reviewers for adding this important detail.

¹⁵ Silvia Ferrara would like to thank Vassilis Petrakis for his guidance in the analysis of the Linear A parallels.

Seal **2** made of steatite is much less precious and much less involved in status display, although it does not have any signs of wear, and so may not have been used sphragistically. The other inscriptions offer a window on administration in action, but the role and significance played by the script on seal impressions is problematic, as it appears to be subordinate to the act of stamping itself. This engenders a veritable contradiction: was the script meant to be read closely when stamped on pottery?

A Hieroglyphic paradox?

Despite three Hieroglyphic seals having been used to stamp handles at Pyrgos, there is good reason to think that they were not intended to be read (Weingarten 2015a, 73). The impression of **3** was covered by a black wash, which would have made it difficult, if not impossible, to read the inscription. The four-sided prism that impressed **5** was already very worn, having just a single clear sign, and pressed very deeply into the clay: although we have managed to tease out traces of three further signs, these would certainly not have been legible to any less determined viewers. The use of broken or worn seals, sometimes covered by dark wash as well, is part and parcel of the generally careless impression of seals on jar handles. Indeed, at Malia too, *CHIC* #132 was stamped by a broken Hieroglyphic *Petschaft* (?), while *CHIC* #150 = *CMS* II. 6, 189 left a very worn, shallow impression.

Surely, a seal performing an administrative task would have been more carefully impressed, particularly on coarse ware vessels, in order to leave a clearer imprint. It is hard to imagine that the seals were meant to indicate the craftsman, product, origin, or destination of the jars. Furthermore, the rarity of stamped handles argues against their use in household management: while the habit is widespread, it could never have been common. It seems more likely, therefore that the pots were in fact marked out by the pottery workshop, as has already been argued, to be offered in some very special, rarely-to-be-repeated circumstances (Weingarten 2015a, 75).¹⁶

Before turning to a more general conclusion, a final note on the inscription, **6**. The Hieroglyphic-Linear A grey area needs to be studied further. Even before Olivier and Godart's *CHIC*, others such as Meriggi, and Raison and Pope, had stressed that a number of inscriptions could be 'read' in either script (*CHIC*, 18). It is therefore not surprising that one such case of palaeographic ambiguity is found at Pyrgos too. We may compare the inscribed jar sherd from Tel Haror in Israel, on which Vassilis Petrakis (pers. comm.) is preparing a note. It is most likely an import from Crete, whose fabric (Day *et al.* 1999) seems to belong to what has been called the South Coast group (Whitelaw *et al.* 1997; also Cadogan, Knappett forthcoming). This group, first identified at EM II Myrtos-Fournou Koryfi, seems to have been produced in the Myrtos valley and the country immediately west of Myrtos. The sherd, which comes then from a vessel that was probably made at or near Myrtos-Pyrgos, had been previously considered a 'graffito of Aegean inspiration' by Olivier (in Oren 1996). It may not then be so coincidental that Pyrgos may be a site where Hieroglyphic and Linear A interplayed, producing inscriptions that override the neat script boundaries that Evans was drawn to use for his classification. Even more significant is the fact that this appears to be the case at Petras also. It may be even less coincidental that one of the signs on the Tel Haror sherd can be equated, even though it is encased inside a rectangle, to Hieroglyphic sign 025. Olivier himself postulates a possible Hieroglyphic/Linear A shadow line for the whole 'graffito' (Oren 1996, 109).

These six pieces form a minuscule proportion of the finds from Myrtos-Pyrgos, but they are of considerable importance in trying to estimate its role in the late Protopalatial (Pyrgos III) period. For a start, the quality of seal **1**, wherever it had been made, emphasises the importance of Pyrgos as a consumer of such valuable, finely made objects – as do many other objects that made up the Pyrgos III destruction debris. They had probably all come from the inferred Central Building that was a forebear of the later Country House at the top of the hill. In general, and

16 However, the metal ring that impressed the new stamped jar handle from Gournia certainly suggests a seal owner of much higher rank than a potter or even workshop manager. This seems confirmed by the very close 'look-alike' ring, *CMS* II. 5, 258, that stamped one box sealing (autopsy by Judith Weingarten) at MM IIB Phaistos. According to Weingarten, such early, excellent metal rings could only have originated in a palatial centre, quite possibly at Phaistos itself. How and under what circumstances the ring, ring-owner, or the stamped jar arrived at MM IIB Gournia might be clarified by clay analysis of the jar handle. See the recent discussion of *CMS* II. 5, 258 in Dionisio, Jasink, Weingarten 2014, 117-118, 125.

as by now often remarked, the finds from Pyrgos show an extraordinarily close cultural relationship between Malia on the other side of the Lasithi Mountains and Pyrgos; and there may well have been some sort of political relationship (Cadogan 2013). The two seals, and the seal impressions on the handles of amphorae used for transport and storage, form a significant part of the evidence; but other, probably yet more important, regional cultural markers include the millennium-old habit of burying in rectangular house-like tombs, while for the living there was a totally different suite of pottery to set on the table from what one would find in Phaistos or Knossos.

Finally, we note that the reception and exporting of pottery and other goods in the Malia-Mirabello-Lasithi region at the end of the Protopalatial period is perhaps the least explored aspect as yet of the culture of the region. There are, for instance, important differences in sourcing cooking vessels between Malia and Pyrgos (Knappett 1999, 630-631; 2015; Cadogan, Knappett forthcoming). This may also be the case (or may not) with the oval-mouthed amphorae and other vessels whose handles were impressed with seals before firing. Since this practice was an integral part of making the vessels, it would be most interesting to use ceramic petrography to try to determine where the vessels with seal impressions were made. A programme of analysing them all – and they are not that many compared to the mass of MM pottery – would, we believe, be a valuable source of new data for relationships both within, and beyond, the Malia-Mirabello-Lasithi region. It could also help towards learning what the oval-mouthed amphorae in particular could contain. And it might contribute to the interesting issue of why and where and how the practices of stamping or incising handles or other parts of the clay vessels before firing were in general discarded in the Neopalatial period. The short answer may be that a new Knossian hegemony over the central east Crete region had other ideas.

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Abbreviations

d. diameter

l. length

pres. preserved

w. width

CHIC *Corpus Hieroglyphicarum Inscriptionum Cretae*

SM *Scripta Minoa* (see Evans 1909 below)

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